

The theory of the managed firm (TMF)

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Abstract. The economics literature on the ‘theory of the firm’ is extensive. But it fails to address Coase’s 1937 ‘killer questions’, his pointing out that we have no rigorous theory of the firm that can explain or justify their existence. In particular we have no theory of how real people, as opposed to computational devices, fit into notions of the firm that can address Coase’s critique. This is surely a problem for those teaching firm management in business schools and elsewhere - albeit an elephant that has been swept under the carpet. This paper sketches a theory of the firm that stands on the managers’ creative judgments that their reasoning supports but does not dominate; hence the ‘theory of the managed firm’ (TMF) rather than merely the ‘theory of the firm’ (ToF). Along with Adam Smith, I presume human judgment is the source of all new economic value and so see the managed firm as democratic capitalism’s principal apparatus for channeling creative inputs into the socio-economy. Thus managers have both economic and political functions. Firms generate value as managers contribute their judgment in the course of shaping their firm’s responses to the Knightian uncertainties (KUs) and bounded rationalities (BRs) met with as the firm’s freely chosen goals are pursued. Under KU/BR, an analysis of managers’ agentic activity and rhetorical practice complements their rational decision-making and helps us see more of the nature of the managed firm. The TMF provides a post-positivist basis for re-theorizing entrepreneurship, business leadership, strategizing, and innovation management. Practice rather than theory is its basis. It also rejects the ‘separation thesis’ of the business ethics literature, and so provides a theoretical basis for an ethics of managing.

Keywords: Theory of Firm, judgment, uncertainty, managed firm

1. Section 1.0: Theorizing the managed firm

The ‘theory of the firm’ – as in my title but without the ‘managed’ – is an established project in several disciplines. In addition to the history of democratic capitalism, corporate law, accounting, public policy, taxation, or even post-secondary vocational education, we find the principal ‘theory of the firm’ researchers in microeconomics and ‘organization theory’ (OT). Here the firm is seen defined by its price-able resources, owned, bundled, and controlled – and exposed to the market’s forces. Others see the firm as made up of trickier goal-oriented productive relationships between individuals; owners and managers, managers and workers, workers and workers, workers and customers, etc. Thus some emphasize tangible resources while others personal relationships and power. But none are entirely clear what the firms envisioned are supposed to be doing, where their boundaries lie, what goals they

pursue, or how they might be analyzed or evaluated – against maximizing profit, serving the community, optimizing cost and benefit allocation between stockholders, seeking sustained competitive advantage, or simply surviving? These are Coase’s questions, of course, and he also questioned why the firm’s internal structure was as it was [1–3]. That his questions - first posed in 1937 - have yet to be answered, or even clarified, seems a sad commentary on the state of microeconomics and/or organization theory - and no doubt we shall have to address them again if we are to get a better handle on managing value-creation or innovation, especially if we think to teach it [4].

First, we might wonder whether what we mean by firms should provide answers to these questions *ex definitio*, ‘built in’, as tautologies given by the very ‘nature of the firm’ - or not. For instance, if we presume firms are our socio-economy’s chosen mechanisms for generating economic value in a democratic market context, and presume this as an axiom of ‘firm-ness’, then there is no need for the firm’s managers to do more than operationalize this goal within their context [5]. They

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merely compute. No 'strategic' or consequential managerial judgments are required of them - even though there are unresolved questions about where value-addition or profit might come from. Is it 'extracted' from labor or from the market? Likewise, if firms are self-organizing socio-economic entities, autopoietic perhaps, then the manager's main role is to be an efficient part of the system- and boundary-sustaining communication between the firm's components [6-8].

My 'theory of the managed firm' (TMF) sets out by assuming firms are neither self-organizing, nor need they conform to any prescribed 'theory' or architectural template. To the contrary, I presume they have no fundamental discoverable nature that can be surfaced as a generic theory of the firm. I reject the presupposition of an *ex-ante* theory of the firm that would presume firms have a generic nature. Nor are firms unstructured socio-technical 'blobs' whose nature is fully determined by identifiable external events, markets, structures, technologies or institutions. I presume, along with Giambattista Vico - and Mats Alvesson - that private-sector firms are labels of convenience for some of the many persisting socio-economic patterns we humans create as we constitute our lived world [9]. In this sense my view is constructionist along the lines of Douglass North's thinking of social institutions as context-contingent constructed responses to the uncertainties that cause social anxiety.

Theorists of the firm must see firms as problematic, not taken-for-granted or already constructed, and might presume their nature is a consequence of what human beings put into them as they construct them. On their causal or 'independent variable' side, beyond the individual managers and their choosing, firms may well reflect aspects of contemporary society, its power relations, technologies, legal apparatus and, especially, its modes of capital, production and property. But these cannot determine them. First and foremost the firm is a human entrepreneurial or artistic artifact, an unnatural, historically and culturally contextualized socio-economic phenomenon that it is our task to puzzle about, not presume [10, 11]. While my discussion might seem to prioritize office-holding managers over the rest of the firm's people, this is not what I intend. Indeed I attach no theoretical significance to the label 'manager'. In the end, every person is the final manager of her/his own activity and - most importantly - the manager of the way her/his imagination is brought into play during the execution of any task, especially as an instruction becomes practice. It follows that we are irrevocably responsible ethically and morally for our

business activities because we are all managers of our own.

As implied already, the managerial role turns on imagination and judgment rather than on rational decision-making [12]. So as far as this paper goes, 'manager' is an analytic term rather than a description. Managing refers to a mode of choosing that manifests the manager's judgment, albeit supported by her/his analyses. Such choosing is (a) not the exclusive purview of those holding managerial office, and (b) is widely practiced by all involved in generating value. Most employees, of course, are in some middle ground between those issuing instructions and those executing in the context of their own task and practice. In this sense we are always our own 'manager of last resort' even as we are also instruction-following operatives - for it is we, not those issuing the instructions, who must contend with the specifics and particularities of the context. Likewise the most senior of managers is also an operative. Their work is not outside the firm's value chain even when it is in the administrative milieu or the network of external relations that exist between the firm and those able to issue 'the firm' with 'instructions', such as Board decisions, regulatory rules and contractual arrangements. Towards the end of this paper I clarify that the demarcating characteristic of the managerial role is not merely managing one's own strategic inputs, but also those of subordinates.

My initial presumption is that firms exist and persist only because their managers provide their crucial initiating strategic inputs in entrepreneurial acts that bring them into existence. Note that Jean-Baptiste Say's notion of entrepreneurship was the creation of firms, so differing from Richard Cantillon's notion of engaging in arbitrage. The resulting firms comprise more than a bundle of tangible, costly and scarce resources. They are also more than persisting inter-personal relations. The specificity and contextuality of the managerial inputs involved in creating the firm renders every firm 'path dependent'. Firms reflect their history and as the managerial inputs differ, so the resulting firms differ. Context, time and history all matter [13]. Some of the managers' formative inputs are 'intendedly rational' choices, as logical as possible and open to being computed mechanically. In contrast, my focus is on those strategic judgments, non-computable, that stand outside the realm of the logical but in a historical context. These are the focus of the theory of the managed firm (TMF).

The TMF assumes managers are capable of judging as well as rational decision-making. So it follows that we cannot understand the firm until we go beyond the

mass of computable facts to embrace humans' capabilities to make other kinds of choices. For instance, an entrepreneur setting up a firm might deploy a 'culture' that becomes manifest in the aesthetics of its products - Apple-like - reflecting our conclusion that aesthetics cannot be reduced to profit maximization and computed because there is, as far as we know, no fixed or overarching aesthetic metric. Plus advertising can change peoples' aesthetic reactions - some loved the Edsel. Likewise an entrepreneur might guess at local geo-social change and build a suburban residential estate in anticipation of a transportation system not yet built. Or a firm might offer a service - Facebook as Zuckerberg first conceived it - for which no real demand existed at the time.

The key notion here is 'knowledge absence' - uncertainty about what lies in our future, as well as what we do not know about our present or past. Human knowledge is limited in many ways; knowledge-absences clarify as we discover this, normally as they interfere in our attempts to pursue our goals. I see experience as the principal source of the knowledge-absences we desire to engage; though you can read about them in the newspapers or, indeed, in scholarly journals. My thesis is that value is created as a manager - an entrepreneur, business leader or strategist - uses their imagination to reach into a confronted knowledge-absence, thereby projecting their judgment into the lived world and agentially transforming it. At first sight developing a TMF revolves around identifying the inputs managers *qua* strategic entrepreneurs make as they engage selected knowledge-absences. This turns out to be something of a contradiction or methodological error, for the imagination (more correctly human agency) cannot be theorized in the sense of being causally modeled. By definition, it is the cause without a cause. An alternative way to proceed is to see how the knowledge-absences discovered through experience might be framed against what is known - as the context-specific constraints to our agentic activity. We can refer to our own experience, and that of others, to identify and analyze the knowledge-absences that obstruct our agency; for instance that prevent a real firm from being more competitive. My argument is tied to Adam Smith's third explanation of the benefits of the division of labor: "Men are much more likely to discover easier and readier methods of attaining any object when the whole attention of their minds is focused towards that single object" and as real managers focus on the particular constraints they are able to engage them agentially.

The various forms of our 'not knowing' - whether labeled Knightian uncertainty (KU) or bounded ratio-

nality (BR) - are as various as our ways of knowing. Since complete or perfect knowledge is not available to us we tend to define knowledge-absences ($\sim K$) in terms of what we presume knowable but not yet known, an effect of our positivist inclinations. But once we reject the positivist presumption of a completely knowable world our modes of not knowing become more complicated and demand attention to our epistemology. Ignorance of something others know, of what we could know but do not, is clearly one type of $\sim K$. But there are other types of not-known-ness - such as indeterminacy and incommensurability [14:43]. The indeterminacy class of knowledge-absences arises because our lived/social world arises from our interactions with others and as soon as we admit those others' agentic capacity, our world becomes indeterminate, as in a many-person non-zero-sum game. Another class arises as a result of the incommensurability and fragmentary nature of our knowledge. Barnard put resolving this kind of $\sim K$ at the center of his analysis of the executive function [15]. Following similar epistemological inclinations, Simon explored this approach in his 1964 paper on organizational goals, arguing management must resolve a plurality of incommensurate goals and thereby create the firm as an act of synthesis [16]. Note his 1967 paper on the design of the business school turned on his belief that a school should equip its students for such synthesizing practice [17-19].

1.1. Section 1.1: Microeconomic approaches

The micro-economic theory of the firm begins with firms as 'black box' production functions within a wider theory of market-driven resource allocation. Microeconomics' problematic is whether the resource allocation mechanisms are efficient or have been distorted by non-market forces. We are so given to presuming firms are trying to maximize their profit that we overlook that their neoclassical role holds no real message for its managers, managers are not there to help the efficient economy equilibrate - as suggested in the case of Kirzner's entrepreneurs. But if the real economy is not moving towards equilibrium and its markets are not efficient, firms' roles and opportunities become (a) various and pluralistic, and (b) entirely different. Maximizing profit is no longer an aspect of market equilibration but becomes an objective in itself; for instance, the firm in Porter's 5-forces analysis is trying to protect its rent-streams against the competitive forces that are moving the economy towards equilibrium [20]. The existence of the rent stream shows that the markets are not

efficient and that firms have a role that derives from market imperfections and not merely to perfect markets.

Several decades ago a group of slightly dissident micro-economists began to theorize firms as definable purposive entities pursuing their own ends in situations marked by market failure - a form of $\sim K$. Their project flourished and their answers to Coase's questions have given us an increasingly familiar handful of micro-economic theories of the firm - transaction cost analysis, principal-agent theory, team production, nexus of contracts, property rights approaches, etc. [e.g. 4]. TCE presumes market imperfections lead to an economy of heterogeneous resources heterogeneously distributed, with managers minimizing the costs of coordinating these into profit-seeking production processes. Shifting the focus from resources to people, principal-agent theory (PAT) sees managers as minimizing the costs of controlling employees with diverse capabilities and divergent interests that lead to the uncertainties that expose the firm's production processes, and owners' profits, to their opportunism [21]. Team production manages the allocation of the indivisibilities of real production processes. The nexus of contracts approach deals with managing agents via incomplete contracts. The property rights approach explores how legal structures and residual rights manage the allocation of the firm's resources and opportunities. This handful of post-neoclassical notions has not yet been brought into a rigorous harmonious relationship, though we shall have a coherent post-neoclassical theory of the firm if and when that happens. Of course the possibility is contingent on developing (a) a coherent theory of market imperfections and (b) a coherent theory of personal valuation - an unlikely outcome that points towards some profound methodological problems.

OT does not begin in failure but by considering private-sector firms as the democratic capitalist economy's most fundamental value-adding mechanisms. Firms transform inputs into outputs via people who have choices, the academic emphasis being on the people-based activities that integrate a goal-oriented and technology-driven division of labor with administrative coordination of the resulting work roles. While some micro economists opened the neoclassical 'black box' to explore how economic value gets added, OT and strategy theorists explored how external institutional and market forces influence the firm's design, administration and process. The project to bring these diverse bodies of micro economic and OT theory together and create a comprehensive theory of democratic private-sector capitalist practice, has been almost forgotten,

though it was alive and well at GSIA in the 1950s as Simon, Cyert, March, Kalman Cohen, and others sought to bring new concepts and tools to theorizing the firm [19, 22:16]. That dream was behind the 'behavioral theory of the firm' and, feeling its faint vibrations today, some see new promise in 'behavioral economics' - perhaps mistakenly [23].

Meanwhile, OT theorists seem neither puzzled nor anxious that micro economists have seized the intellectual initiative in the 'theory of the private-sector firm project'. Some argue that the move to 'colonize' this territory - previously 'owned' by the organizational and management theorists - was triggered by a crisis within economics during the 1940s and 1950s as that profession turned away from theorizing efficient markets and towards theorizing market failures [24]. It was also the time when the pre-WW2 micro economists' project to theorize the size and boundary of the firm was put aside. After OT's successes with bureaucratic theory, and the ideas about structure and function they led to, including the 'proverbs of administration', OT was soon overshadowed by the development of OB, impelled by Harvard's Wallace Donham, Elton Mayo, and the Hawthorne studies in the 1920s. Couched in widespread political concerns about union power, the Wobblies, and labor unrest, there was an explosion of interest in industrial and marketing psychology [25]. A liberal or left-leaning commonplace was the still unproven intuition that 'happy' workers would be more productive. Later, confronting the disciplinary upheaval in psychology, post-WW2 OT scholars found refuge in the rationalist theorizing concocted at RAND and the Cowles Commission. This had the effect of squeezing the behavioral problematics out of OT, generating a new 'silo-gulf' between OT as systems theorizing and OB as individual and team theorizing [26, 27].

More significantly, OT or OB theorists no longer puzzled over the 'nature of the firm' - it was presumed to be 'a system', with a nod to Talcott Parsons's towering legacy. At the same time sociologists seeking BSchool benefits became 'organizational sociologists' and researched how firms (now taken for granted as researchable systems) adapted to different social and institutional contexts. But the outcome added little to our understanding of management's role [26, 28, 29]. OT faded into semi-obscurity [30]. Few MBA programs treat it as a core topic and few doctoral students think it an attractive arena for a scholarly career.

But clearly the theory of the firm is far too important in the 'real world' of jobs, taxes, politics, and macroeconomics to be simply allowed to languish, discreetly

out of fashion. It is at the very core of our discourse about the private sector and management. Possibly. Even though our discipline has not yet made much, theory-wise, of the fact that (a) we remain in a devastating global financial upheaval associated, at least in part, with our not understanding enough about how firms work, and (b) governments in Europe and the US are taking huge gambles that the private-sector will pull their economies (and labor- and tax-bases) back to life. Our dirty little secret is that we still do not really know what private-sector firms are, nor why they exist, nor with what consequences for society, nor how they work - even as our political and economic future pivots on what we think we know about how to form, promote, and regulate them. On the other hand, we do know the private sector played a major part in getting the world economy into its present difficulties [31, 32].

Ironically, micro economists such as Demsetz or Foss & Klein are more honest about this knowledge-absence than are OT and OB specialists or those strategy theorists, entrepreneurship boosters, innovation management mavens, etc. whose academic place and livelihood hangs on their presuming to know 'the firm' [33]. Economists can always go back to macroeconomics or theorizing efficient markets or the 'representative firm'. Management theorists have nowhere to hide. Absent a viable theory of the real-world situated managed firm - leaving the neoclassical model aside as an interesting intellectual game but irrelevant to our understanding of managements' practical contributions - what do we think real-world managers do? Are they more than enslaved rational decision-makers, perhaps biased, sometimes unknowing, but essentially replaceable by smart computers? Simon posed this question forcibly in the 1950s and created a storm of debate. While the relationship between managing and computer using has shifted greatly in the decades since, especially with the continuing development of AI, expert systems, Deep Blue and Watson, 'big data' and 'analytics', we have not yet arrived at any conclusion [34]. So I presume we understand as much, or as little, about managing as we do about the firms being managed.

Meanwhile the BSchool community is the happy beneficiary of a huge bubble of demand in the management education industry, with its proliferating outlets (including MOOCs, simplex mega-streaming, for-profit and on-line) offering doubtful products and services at ever-rising prices. Given these riches we may not really care what managers do, or what we know about it, or what our students might learn about it. But

a day of reckoning will surely come, even if Peter Thiel has agreed to lecture part-time at Stanford.

2. Section 2: Some major methodological issues

The initial questions are methodological, before we ever get to consider 'the firm'. What kind of questions can we ask that have some prospect of being answered? If we look to our A-journals the contributors seem generally united on this. Leveraging the systems metaphor in particular, the vast majority of researchers presume our discipline is probing a vast but rationally constructed complex of resources and relationships - between individuals, between firms, between social institutions and firms, and so on. Researchers assume this complex is knowable and discoverable. Their project is to uncover its essential truths and characteristics, much as those following in Newton's footsteps uncovered many of our Universe's truths; the characteristics of the atom, astrophysics, metallurgy, and so on. Our task is likewise to bring the economic universe 'ready-to-hand' so that we can pursue our chosen goals more efficiently - more resources, more control, more production, more consumption, more relationships, more choices, more 'round-about-ness' and so on. Then we can either be logical and work with these discovered truths - with good knowledge of the system's fundamentals - or be illogical and ignore them, without good knowledge of what is potentially knowable - or, even stupider, work against them with bad knowledge, ignoring both what is known and our own best interests.

Comte's positivist project - and Bentham's too - was to transport natural science's methodology, rigor, and objectivity from the natural realm to the social, political, economic and psychological realms of human activity. Without considering the social construction of the natural sciences and whether they reveal anything real, we might wonder whether such a 'physics envying' social science project was ever viable. We have not learned much. Around 200 years of intellectual labor failed to prepare us for the financial collapse of 2008 or the 20th century's wars, events of some theoretical as well as historical importance. The social sciences have certainly borne fruit in many areas, but when it comes to our discipline's defining problematics - organizing firms, managing, and the socio-political significance of depending on the private-sector to create economic value - we have scarcely begun. We are so conceptually needy that even mentioning endogenous growth seemed to set Paul Romer up for a Nobel (which should have been awarded to Edith Penrose, of course).

If, temporarily, we suspend our institutionalized search for the positivistic ‘real socio-economy’ and the ‘positive’ management-oriented knowledge that might result, what sorts of question can be usefully asked? This pushes us to think less about the ‘thing-ness’ of firms, their boundaries and so on, and about the puzzles around human knowing, especially around collaboration. It also pushes our choices of research method. There is some irony in dubbing our age the knowledge or information age when we are not at all clear about what these terms mean - indeed when we seem to be less clear than we were two centuries ago when most scholars had read Hume, Locke, and Kant on these topics.

Neither the methodological entailments of causal explanation, nor the idea that knowledge is comprised of nothing but cause-effect relations, successfully limit our notions of human knowing. Our disciplinary mythology may pretend this but we all know otherwise from even the most casual observation of our daily lives. Simon’s notion of ‘bounded rationality’ (BR) has been widely accepted, though perhaps not clearly understood [35, 36]. Other rhetorical devices highlight more realistic modes of human knowing, pushing ‘rational man’ to one side. We point to our ubiquitous experience with ‘unk-unks’ or the Knightian uncertainties that clearly inhibit if not collapse the analytic image of positivist knowledge and the researchers’ pursuit of certainty. We might equally point to any good library and the many non-positivist epistemologies to be found there; or to the flood of human creative practice in the arts; or to the mundane cyclist’s skilled performance. Others mention the bi-cameral brain [37], muscle memory, gut thinking, aesthetics, sympathy (Adam Smith), emotional intelligence, faith, and so on. It is important to see that there is no single coherent argument that embraces these modes of human knowing; indeed this accentuates the need for non-positivist methods.

Generally speaking we have two ways to proceed; (a) ‘repair’ the damage KU and/or BR causes to the positivistic method of K-production, so salvaging it [38], or (b) dismiss the search for the ‘real’ that positivism presumes and base our notions of human knowledge on quite different principles (notably without presuming either the presence or know-ability of a ‘naturally given real’). Instead of looking to the ‘real’ as if it was beyond us epistemologically, structured according to some logically-prior but non-human logic, we might look to a more accessible and workable real as something either experienced or found within us, created agentically via the exercise of our imagination. Existentialism and the theories of the Self, the work of Freud,

Lacan and others, are examples of (b). Dealing with KU/BR via problemistic search routines is an example of (a) [39]. While (b) being interested in a ‘theory of the managed firm’ as an agentically created social ‘thing’ seems more promising. But the impact the managed firm must make is not merely in the Vichian world of our own construing¹. What we can imagine differs from what we can make happen in the world. The Second Law of Thermodynamics declares our imaginings of perpetual motion machines cannot be realized. Our lived world is obviously deeply penetrated technologically and physically. But it is also socio-physical and economic, populated by other human agents who have their own ideas, interests, and powers. In general our agency is limited and constrained by what others find and likewise make of the world. It is not clear that presuming the resulting complex is logically structured and thus ‘positivistically’ knowable is a good research strategy. If we were fully rational everything we make would be logically structured. But we know we are not. So what we make unavoidably reflects our own ways of being and understanding, as Simon’s tale of Horus and Tempus illustrated [40]. Note this puts pressure on our concept of explanation based only on a rigorous causal modeling, questioning what theorizing is, what it might or might not produce or be of value to whom.

The theory of the managed firm (TMF) synthesizes the given-ness of the world as the application or enactment of human agency, embracing both the managers’ and the employees’ and others’ - a broad claim that cannot stand without considerable elaboration. Part of it is about the dynamic. Why do firms exist, Coase asked? If they are not ‘facts of Nature’ how and why do they come about? Is there an Invisible Hand at work, creating firms to feed our axiomatically defined socioeconomic needs, much as natural species are ‘created’ randomly in the ongoing Darwinian struggle for survival in Nature? Economists have often taken greed, or our desire to ‘better ourselves’, or our ‘propensity to truck and barter’, or our natural inquisitiveness, as axiomatic and the basis for explaining our actions. Schumpeter suggested thus-driven entrepreneurial activity as the force behind our knowledge synthesizing and therefore behind both our firms and the economy. The implication is that we cannot understand firms until we understand the synthesizing force or drive that emerges from within ourselves, or what it is in our situation that compels us to create them.

¹ See the work of Giambattista Vico: <http://en.wikipedia.org/wiki/Giambattista.Vico>

A different issue is that the entrepreneur has the possibility to be agentic only because the given-ness of the world is not complete - as far as we know and experience it. Our world is neither finished nor in equilibrium. Indeed our interest in 'knowledge' presupposes our recognition of what is 'not known' or 'has not been made yet'. Knowledge hinges on ignorance, more specifically on some way of 'knowing' our 'not knowing' ($\sim K$) that stands outside our notion of knowledge. The experience of failure is one. Both KU and BR - which may have a common heritage for Simon did his undergrad degree at Chicago while Knight was the economics department's very dominating department head - are commonly understood in terms of our limited capabilities to know for certain. Their focus is on our limited ability to know, the defect/s in our knowing rather than on the knowledge-absences our experience has alerted us to. Our imaginative response to a confrontation with $\sim K$ is typically glossed over without comment, a consequence of our positivistic habits and training. But finding ourselves daily in this situation we are made aware of the opportunity to project our judgment into the $\sim K$ 'space' and thus change or make anew the world we inhabit.

Foss & Klein's recent analysis argued entrepreneurial judgment as the product of the individual's experience of using and owning assets (as the defining components of the economic world) [4]. The entrepreneurial search is for better combinations of these assets and they argued that creating contexts for in-house experimental combination is part of why entrepreneurs put firms together and animate them. Foss & Klein's concept of judgment re-articulated some of John Locke's notion - especially the idea that judgment's opportunity is defined by engaging $\sim K$. OT's knowledge-absences offer a parallel opportunity to exercise entrepreneurial judgment and combine human capabilities and interests in the service of a higher goal, the firm's. Indeed a deeper reading of principal-agent theory (PAT) shows that creative agency is crucial for all engaged if they are to generate the stability and continuity we associate with the firm [21].

The implication is that as soon as we move the KU/BR connection with entrepreneurial agency to the center of the analysis we see the possibility of an entrepreneurial synthesis that generates and sustains real firms. But we cannot theorize or even see this synthesis if we continue to imprison ourselves within the positivist concept of knowledge and thus of learning. The point here is that analyzing synthesizing means positivist methods need to be complemented by some

alternative methodologies [41, 42]. Unfortunately the current coupling of quantitative and qualitative methods misses the point for both are typically framed within positivist axioms. Instead, the complementarity must be epistemological, confronting and dealing imaginatively with the limitations (and attributes) of positivist methods, illustrating how other methodologies complement the positivist mode of knowledge production. KU/BR exposes the positivistic methods' limitations without resolving them. Our agency is our quintessentially way to deal with our knowledge's limits - and we must puzzle out how to research that. Abandoning causality and the scientific method we might turn to something like 'art' - and on this it is a pity few have paid attention to Frank Knight's assessment of business as capitalism's own art-form [43].

The sociological discussion of agency and structure is ultimately descriptive rather than explanatory [44, 45]. Clearly structure constrains agency - but then what? How does the structure get to be the way it is? This is also a problem for institutional theorists. There is no end to this search for causes - an infinite regression until we abandon the hunt and presume, instead, a cause that is axiomatic, that lies beyond explanation. Agency theorists sometimes take the plunge and describe (but do not explain) human agency as 'the cause that has no cause'. They presume it is axiomatic to human understanding, that without agency knowledge cannot mean anything. Knowledge is about our intentional exploration of our lived context. It is not the impress of reality on our minds. In which case the origin of human knowledge does not lie in greed, advantage, or inquisitiveness, but in our native agentic desire to manipulate the world and/or ourselves in order to experience it in novel ways. LSD tells us more about this than microscopes or telescopes. Knowing is then no longer merely representational, an attempt to capture the essence of a non-human universe, but a clumsy and untidy record of our experience of manipulating the world. We know the world by what we discover we cannot do, through acquaintance with our limits and presently unmanageable knowledge-absences.

The idea that we know the world by being able to predict the results of our actions or hypothecations obscures the presumption that causal explanations of real-world events can be complete without the *ceteris paribus* clauses that reveal we do not know the world entirely or for certain [46]. Of course, given human capacity and history are limited, our knowing is necessarily partial and fragmented - as is our power to intervene in the world, though we know enough to

appreciate many things lie beyond our power. We cannot see the edge of the Universe nor accelerate particles to the speed of light nor ever find our own true natures. Plus whatever we know of the world is assembled by us - in the manner of *bricolage* - from a rag-bag of reflections on experiences both personal and shared through language and observation. Given the disciplinary impact of the 'cognitive turn' there is strong temptation to characterize our knowledge-assemblies as 'systems of meaning', 'cognitions', 'mental maps' and so on [47, 48]. This is too bad since - again - these can never capture our lived situation's entirety. Every cognition steps back from the instancial nature of our experience into generalizations of thinking, simplifying and leaving much behind [49]. Plus observation of daily life suggests much about how we reason as we make our way through the world is 'habituated' in the sense Simon explored and declared 'economizing of our limited intellectual faculties'. As a result our habitual modes of knowing are sometimes embedded in provisional heuristics, routines and practical capabilities.

The point here being that any non-positivist research into human knowing demands we specify what we mean by 'knowledge' in order to axiomatize and structure the discussion [9, 50]. KU/BR breaks up the presumption of coherence and logicity implied in the positivist notion of knowledge and, given that we no longer pay attention to transcendental religious warrants, plunges us into a plurality of modes of human knowing [19, 51]. Polanyi's distinction between explicit and tacit modes of knowing has familiarized us with epistemological pluralism, expressing the axiom that while much human knowledge can be symbolized, some cannot. Yet we cannot really define either tacit or explicit or understand how and when these different modes of knowing 'come together' and synthesize into comprehended action. Without any unambiguous empirical testing or 'proving' of our knowledge, the key to the knowledge-content or practical utility of Polanyi's distinction is its contrast between modes of human knowing. Likewise the Greeks' epistemology focused on the distinctions between, among others, *episteme*, *techne*, *metis*, *phronesis*, and *sophia*, and so implies the positivist project to define 'knowledge' is a profound methodological error. But adopting a pluralistic epistemology also demands we specify the research methods we believe are relevant to these alternative modes of human knowing and discovery.

From a philosophical and methodological point of view there is more to be said about pluralist epistemologies and how they might be harnessed to analyzing the

synthesis that allows us to theorize the managed firm [51]. But the key is to understand the consequences of moving the concept of complete knowing - as the 'anvil of certainty' against which we test the quality of our knowing - from the external reality positivists presume to the Self or 'other real' within us. Here the first responses of those trained into positivist methods will be 'horror' - that we have let go the anchor of objectivist science and are now adrift on the wine-dark seas of subjectivity. But social constructionists and institutional theorists - and pragmatists too - look to a 'social real' for their anchorage. Their 'truth' is then communal, what is commonly believed, there being no sure objective test. There is also the more extreme independent belief, that what is right is right because it feels right - not too far a step from 'might is right'. I would argue the alternative 'subjective' ways of grounding our knowing are irrevocably intertwined and there is no basis for even trying to separate them. In which case all human knowing must arise at the interfaces between the Self, experiencing, remembering, and the social, giving all modes of human knowing a fundamental interiority that is denied in the positivist researcher's frame. But if the firm-creating synthesis is grounded in such interiority, how can it be researched if we set out with the idea that the product of research is some 'objectified' truth? That is the fundamental methodological question for the TMF; and labeling the synthesis an act of 'judgment' may simply mystify and obscure.

Fortunately some useful answers have been around for decades, in part growing from critiques of positivism, in part from the disciplinary turn to accepting the interiority of human life as a valid research topic [52, 53]. *Ex definitio* ethno methodologists and cultural anthropologists seek the natives' view of their lived world as the basis for understanding their actions [54-56]. Story telling often conveys the interiority of a strange world, opening up quite different explanations for what others have experienced. Likewise listening to how entrepreneurs and innovators see, feel and 'narrate' their world helps clarify the background to their world-changing practice. The methodological 'pivot' rests on the discontinuity between (a) causal reasoning and (b) the agentic imagination that KU/BR opens up. Ethnomethodologists refer to this pivot by distinguishing the 'etic' and 'emic' approaches [e.g. 57, 58]. Realizing we cannot know the world for certain also means it could always seem otherwise, and in some cases we might even have been able to make it so. Positivism stresses the etic, presuming the ongoing permanence of the natural world (e.g. conservation of energy), the

Invisible Hand, etc. But the emic places us, or rather our agency, at the center of the analysis. Thus the TMF presumes the firm is a highly subjective instrument or modality via which entrepreneurs change the world.

Aside from the considerable literature on ethno methodological methods we can see the exterior/interior etic/emic methodological 'pivot' much closer to our topic area in the work of Edith Penrose. With her famous sentences on p.25 and p.75 of her 1959 book, she cut the ground from under any exterior, market, or 'etic' definition of 'resources' [59]. Her move opened up space for the constructive or emic agency of the 'management team'. The resulting 'Penrose effect' shows the rate of growth of the firm is limited not by the rate at which it acquires new resources such as retained profit but by the rate at which the team's knowledge increases. But her conclusion did not constitute a research method or project. Penrose waved vaguely in the direction of a Polanyi-like epistemology (p.53) but not enough to show how managers could or should deal with her two kinds of knowing, and thus two kinds of $\sim K$ and two kinds of agentic input (judgment). The knowing discussed was economic and implied her 'real' was the economy, not society, the Self, or the Natural universe. Penrose's concept of the firm was more or less coterminous with the management team's emic knowledge - though she is widely cited today, incorrectly, as describing the firm as a bundle of etic resources. What most cannot swallow is that she explicitly rejected the neoclassical (commonplace etic) notion of economic resources, problematizing them out of her analysis. First, she conceived the firm as a bundle of resource deploying 'knowledge tools' whose value might go well beyond their cost and that the value of the team's knowledge of how to use the resources was more theoretically significant than any value outsiders might place on them.

While the upside here is exciting and opens up the possibility of a coherent - though emic - theory of entrepreneurship, managing and the firm, the downside is that we are left without any means of characterizing, classifying, measuring or evaluating the 'team knowledge' that Penrose made central to her analysis. Plus, without this it is easy to overlook the time-dependency or periodicity of her analysis. The management team's learning cannot explain either the possibility of, or limits to, economic growth - it might have proved horrendously expensive and loss making. Penrose's analysis depended on human learning, of course, but only when the outcome made it possible to exploit and profit from the non-rivalrous nature of the knowledge

developed. The etic/emic pivot pushes us to see that 'knowing' differs from 'asset' by denying the fundamental notion of scarcity, so opening up a new kind of microeconomics altogether.

'Penrosian knowing' is an emic concept quite different from the etic notion of 'having some knowledge'. Knowing is about our being able to negotiate our world as we see and construct it, and being confident - but never certain - that we can achieve our objectives. Like driving to the office, we can negotiate the world many times without either being certain of arriving or of consuming our knowing - on the contrary, it might well grow. In Penrose's analysis the knowing developed in time period 1 can then be applied a second time in time period 2 - to good effect because the costs of generating the knowing needed in period 2 were met in period 1. The cost of transporting the team's non-rivalrous knowing from period 1 and into period 2 is marginal. This pivot takes Penrose's analysis out of neoclassical microeconomics and makes hers a true emic or knowledge-based theory of the firm - because the concept of knowledge is post-positivistic, nothing to do with the positivist reality, be that of the market or of Nature [60]. Neoclassical assets are totally cut from the Penrosian picture. But her approach is of little use so long as we accept neither the subjective nature of the team's knowing nor the contingency and periodicity of its application. As she wrote, it is not so much the degree of abstraction that matters to the analyst as its kind [59:15].

While Penrose showed where the researcher might 'pivot' from an exterior analysis to an interior one, we were left without much sense of where to go next. The move to think of the team's knowledge as a 'mental map' cannot work until we have a method of mapping. Plenty of methods have emerged from cognitive psychology and I have written about these elsewhere [61]. But, given our positivist background, we are in danger of forgetting there is no 'real' to be mapped as if we were mapping Madrid, no objective reality against which our mental map can be tested or warranted, nothing against which we can measure management's - or our own - ignorance [62]. All the entrepreneur can know is the messy hodgepodge of incommensurate and fragmented items of constructed knowledge available to her/his agentic synthesizing *bricolage*. The outcome of the agentic process is the entrepreneur's own home-made tool for successfully negotiating her/his economic world - what I shall label her/his 'business model', a label that risks dragging in a lot of unwanted baggage that I shall have to dispose of later. The TMF

researcher is looking for the entrepreneur's sense of what has been created, which would be no more than a mental map if the knowing/s it encapsulated were entirely of symbolize-able types. In practice much of our confidence about negotiating the real reflects our tacit knowing and experience. But the cognitive paradigm dismisses what cannot be symbolized. We see the 'mental map' is more of an analyst's artifact than the entrepreneur's who, so to speak, invariably leaves out much of the cognitive detail because s/he knows (feels confident) that it will all work out fine 'on the night'.

Elsewhere I have suggested a pluralist D-M-P epistemology with three modes of human knowing (a) Data, (b) Meaning and (c) agentic Practice [50]. By agentic practice I mean practice that is not prescribed but is responsive to the circumstances discovered as it arises, much as a downhill skier must respond to unanticipated hazards and possibilities. Agentic practice was a matter that exercised Simon greatly and can be contrasted with habitual practice - such as ballet dancing or driving. Both agentic and habitual practice can be contrasted against 'directed' and 'structured' practice. Unfortunately for many in our discipline practice means little more than the execution of a plan - the cognition during whose construction all the problems that could be anticipated were resolved [63]. Given the DMP epistemology, data implies a sense of objectivity, and our hunger for metrics is to construct our picture of the world as something objective, not contingent on us, or our interests, views or capabilities. We know about 'meaning' from the concepts of *Verstehen* and Gestalt. Meaning is what we put into the world as we 'connect the dots'; data being 'the dots'.

The interplay of data and meaning is familiar to us from the sociological debates about interpretive methods and both are now tied into our notions of cognition. We can have no 'raw' data, for collecting data requires us to have a data-frame as well as a 'observation theory' that provides data with a preliminary level of meaning as an element of a sample [64, 65]. Neither can we have 'raw' meaning - though 'being dogmatic' may imply this condition. In our current research paradigm we explore meaning - believing it is at the core of scientific knowledge - by conjuring up hypotheses and exposing them to data. We ignore the complexities of the Duhem-Quine thesis as it surfaces and problematizes the relationship between meaning and data [66-70]. *Inter alia* their thesis blows away empirical falsification and much else, and transforms science into an art form. Polanyi was sensitive to this and his epistemology emerged from his own physical chemistry research

practice to remind us of the non-symbolize-able modes of human knowing. Among the many forms of human practice, agentic practice is especially pertinent to the TMF - whose its target is puzzling out the generation of economic value.

I position DMP against, for instance, Polanyi's tacit/explicit modes of human knowing, and Ackoff's DIKW, but also my own 1993 two-by-two (objectified, collective, conscious, automatic) typology [9:1644, 71]. I also position it against the Greeks' epistemological pluralism - and this is obviously risky! Clearly an appropriate typology is related to the forms of knowing that best informs the practice of living, directed, structured, habitual and agentic. Our economic and/or organizational life is very different from that of the Greeks - even as their pluralism was taken as universal by all serious scholars while we hanker after rationalist uni-dimensionality. Thus efforts by scholars such as Nonaka to resuscitate *phronesis* as the core epistemology for a contemporary theory of the firm seem doomed [72-74]. I defend the adoption of DMP for our purposes on the grounds that it is simpler than the Greeks' approach, easily operationalized and related to business today. The world of the private-sector firm is far from the totality of contemporary life, of course, but the commercial world has become so legitimated and pervasive that its differences from non-firm life have become matters of considerable political and social concern. Is life to become wholly corporatized?

Today the main battles are over meaning rather than about data or practice, especially in the age of 'big data' - as Orwell's *1984* or Koestler's *Darkness at Noon* told us. The Enlightenment precipitated the modernist stress on rationality against, for instance, honor, duty and aesthetics - all absolutely central to Greek life - or faith - central to the Church-oriented forms of life the Enlightenment philosophers were contesting. Unyoking us from religion, they offered an alternative that was also a creature of its times. We are now in the evening of rationalism. While it still dominates the management discipline's research methods, supported by the politics of rational choice liberalism, it seems we have reached a historical and methodological tipping point and different modes of thought are on their way. Much social science has moved on, sometimes leveraging 'Continental philosophy' [75], leaving the bulk of management education stranded on a methodological beach of its own imagining, seeking a path back to practical relevance. The rising interest in, for instance, business ethics and sustainability are tentative indications of these hopes if not of actual movement

towards forms of knowing that would reconcile the objectives we label 'rigor' and 'relevance'. The TMF is a modest move in this direction towards a different platform, to indicate some possible changes to our thinking about firms and managing them – and to management education.

The point here is to switch the research focus away from what the entrepreneur might know about the positivist real, albeit imperfectly, and onto her/his selection and treatment of the knowledge absences to be engaged in the pursuit of her/his goals, knowing that one fundamental of economic life is that the very possibility of profit arises only from effective engagement with discovered knowledge-absences - no action, no knowledge-absences; no risk, no gain [76]. Though against this we should set Veblen's belief that profit depended on knowledge-asymmetries - specifically on what neither owners nor customers knew about how the firm's managers actually went about their business [77]. Transparency expunges profit as well as corruption, maybe not as far apart as we hope. Alternatively the Kirznerian notion of profit opportunities pre-existing the act of $\sim K$ engagement, and of entrepreneurship as mere awareness of these $\sim K$ opportunities, cuts the heart out of entrepreneurial practice as I see it.

Richardson (1960) provided a more useful analysis focused on the emergence of indeterminacy. Profit opportunities result from others' investment decisions made under KU/BR. His analysis suggested ways in which profit opportunities might be characterized and, therefore, ways in which Penrosian knowing might be investigated - note that Richardson was much influenced by Penrose's work [78]. Perhaps even more useful is von Clausewitz's methodology [79]. His 'real' was not the economy, of course, but the political context in which he was serving - hence "war is the extension of politics by other means". His epistemology was profoundly pluralist and can be best understood from the inside out, from the emic point of view. He advocated deep study of military history to grasp the nature of military thought, personal participation in military action to comprehend the 'fog of war' and its effects, careful study of the terrain to maximize the strategic initiative by choosing the time and place of engagement (one of the reasons why we see maps so frequently in war movies), and so on. This pre-synthesis preparation would help the strategist (military-speak for entrepreneur) know best what to pay attention to, which is to say which $\sim K$ s to engage and which to stay away from. The most strategic aspects of knowledge are 'knowing what to pay attention to'.

At this point it is easy to take the final methodological step and show the entrepreneur's task is not to try and assemble as complete a representation of some economic reality as possible and then act rationally towards that. Indeed that is the positivist folly. Rather it is to build a terrain-negotiating vehicle for her/his own goal-seeking by making a selection of the plurality of $\sim K$ s to be engaged that, on the one hand, offer some prospect of profit, but on the other, do not overwhelm the entrepreneur's synthesizing capabilities - even after her/his thorough Clausewitzian preparations. The entrepreneur builds a personal moon-buggy to deal with a selection of discovered economic terrain-defining but profit-yielding obstacles. In practical terms this means re-conceptualizing the entrepreneurial analysis away from the etic goal to establish all necessary and relevant causes that might be associated with some chosen goal, and towards the emic selection and engagements that allow the entrepreneur to actualize her/his limited agentic capacity. It means transposing bounded rationality from the merely cognitive sense in which it is normally understood and into the realm of exploratory human practice as practical probing of the limits to what we can do. It pulls the notion of working out what might be made to happen in the entrepreneur's economic world together with the personal emotion, drive and commitment necessary to make anything worthwhile come to pass under KU/BR.

3. Section 3: Constructing business models

One way to think of the TMF approach is as pursuing a type of constrained maximization of the economic impact of the entrepreneur's agency. We frequently discover what we cannot do, but we are more likely to succeed if we have explored the action opportunity space before plunging in, especially with our own limitations in mind. Instead of adopting some etic 'objective' metric we look at the situation through the knowledge derived from our lived experience. We define the situation in terms of our own abilities, limits and capacity. The practical constraints to a firm's agency arise from many sources; regulations, social norms, competition, collaboration, technological change, esprit de corps, investors' demands, even management's ethics. First, there are only useful checklists here. There is no complete list, no way of summing the contingently historical and social. Every business is unique and its entrepreneurs must nonetheless address the classic question 'What does it (some event) mean

for us?’ Second, the metaphor of rigorously constrained maximization actually breaks down because the constraints are pluralistic and incommensurate, arising in the many different dimensions of life and economic activity - technological, competitive, social, psychological, ethical, etc. A computable solution demands these constraints be related rigorously and unambiguously to each other [80]. Under KU/BR there can be no hope of this. The most fundamental characteristic of the entrepreneur’s task is to relate the ~Ks grasped as practice to the constraints to her/his agentic capabilities with respect to those constraints. Regulations are no problem if you have gold-plated connections to the levers of regulatory decision-making. Competition is no problem if collusion is easy. Likewise collaboration is no asset if your partners welch on their agreement.

The constraints selected characterize the knowledge absences the entrepreneur intends the firm to engage and resolve individually and collectively into the tentatively coherent logicity of its operations - what we might properly call the firm’s business model. This term has come into popular usage not simply because it is a handy way of defining the firm in classical OT etic terms - as Osterwalder does, for instance - but because it is an lively and evocative journalistic way of embracing the synthesis of the firm’s many different aspects and characteristics - Magretta gets closer to this [81–83]. Business model is truly an emic term that serves practitioners, investment analysts, journalists and commentators better than it serves academics of a positivist/etic disposition - which makes academics’ attempts to formulate a positivist theory of the firm via teasing out the universal characteristics of all business models merely laughable [84].

At this point the way to research the managed firm as an emic business model concept seems reasonably clear - so long as we bear in mind the inevitable methodological and professional consequences of the emic methodology adopted. We abandon the pursuit of causal etic models that present managers with an imperious ‘do this or else’ and so upend the normal researcher-practitioner relationship. Instead we address ‘What academics, on the basis of their very different methodological tool-kit, might be able to say useful to enterprising managers?’ As von Clausewitz argued, the analyst’s objective is not to mistake himself for the actor and say ‘this is how a general can maximize his chances of winning’ - which is to presume the context of strategic choice is known better to the researcher than to the general. Instead of such hubris, the researcher’s opportunity it is to develop his/her spe-

cialized methodological toolkit to guide and advise the responsible person on the spot (the strategist) about how they might best prepare for the existential moment at which they - not the researcher - must finally throw their agency into the remaining knowledge absence and commit to action. Unfortunately our field is marked by a different aesthetic, one that prioritizes thought over action and leads us to speak of manager’s ‘mistakes’ and ‘ignorance’ and denies the respect we might better show to those who actually make our economy happen [62, 85]. As Schumpeter noted, the entrepreneur puts the economy ‘into motion’. We might do better to look to our own activity and appreciate how problematic is the growth of our discipline’s knowledge.

The business model is Vichian, the living product of the entrepreneurial synthesis of the selected constraints to the entrepreneur’s and the firm’s agency. Entrepreneurship/strategizing is (a) selecting constraints and (b) synthesizing action within the opportunity space they outline. Of course enactment, implementation, and so on must follow if profit is to be realized, but we want to probe how we might ‘analyze’ (a) and (b) using emic methods. Von Clausewitz is useful. He urged aspiring strategists to read the history and see what turned out to be critical constraints to agentic activity in the past. Perhaps they will matter in this situation. Unfortunately the historical method has been driven out of our community almost completely and today’s case writing is less about good business history than creating pedagogical tools to illustrate the writer/s’ favored theoretical (etic) models. But history normally shines plenty of light onto how what people thought facilitated or hindered their agency.

History, in Collingwood’s sense, is not about ‘historical facts’ and dates but is about how the actors in the past viewed their world [86]. Even though von Clausewitz’s efforts were intended to balance the positivism of the French military thinkers such as Guibert and Jomini, by deploying a more Hegelian epistemology he appreciated that positivist theory was both valuable and deserved a place in his method [87, 88]. Clausewitz bridged the rigor-relevance gap with his answer - which is to understand theory’s contribution as a generalization about certain types of constraint that must, in the act of commitment (which he called the *coup d’oeil*), be comprehended in the context of the particular [89]. The switch here is captured in the oft-quoted but perhaps not well understood Jamesian/Rylian distinction between ‘knowing about’ and ‘knowing how’ - the first being generalization, the second about bringing that knowing ‘ready-to-hand’ and available for agentic action in the

particular instance. Thus theories about, say, logistics, might have a very significant bearing on the opportunity space for a military engagement, but are unlikely to entirely determine the strategy. Likewise heuristics, inductions as ways of recording experience, are proto-theories about constraints, generalizations that might be of use in a specific situation. These can be supplemented by constraints associated with technology, regulations, moral concerns, the functioning of the capital and labor markets, and so on.

There are interesting puzzles here. First, since there is no inherent form or nature to the BM the entrepreneur must struggle with the existential question "How many constraints should be considered before proceeding to the synthesis that determines action?" As many have noted, the economic milieu is not the same as the military one, so von Clausewitz may be of little help here. But there is evidence to hand. The Balanced Scorecard suggests four constraints - associated with funding, organization, market engagement and the Penrosian capacity to learn and so sustain the firm's existence through time. The SWOT matrix suggests four. Porter suggested five - his forces being the differently dimensioned constraints to the focal firm's agency as it combats attempts to erode its rent-stream. My own empirical research suggested a larger number - somewhere around 12-15 - based on the work of George Kelly, the clinical psychologist who developed the 'repertory grid' [14, 90]. But the number is also a reflection of the complexity of the socio-economic-legal context of the firm. If a firm has a State-protected monopoly its BM may be much less complex than that of a small firm in a highly competitive situation, especially if the latter's technological dimensions are changing rapidly. But I suspect entrepreneurial judgment about 'how many constraints is enough' is just another dimension of the judgment calls that must be made along with constraint selection and synthesis.

Second, there is the possibility the firm may be 'somewhat' self-organizing. The entrepreneur is then able to call on such self-organizing capability, just as individuals inevitably group when put into shared situations, such as the military, to assist in the synthesis. Likewise the entrepreneur needs to pay attention to this and avoid pushing against it. Institutional and systems theorists probably have much to say along these lines but I am less interested in such 'external causes' than in the evolving science of emergence - related to complexity theory, small world phenomena and so on. Some recent work by DeLanda is especially relevant [91]. He argued an entity's constituent components have two

types of property that can lead to self-organizing, where 'the designer' or entrepreneur plays no more than a facilitating role. First, they may have 'capacities', a term that refers to the unanticipated result of their interacting with other components. Thus Penrose's management team's knowledge draws unexpected capacities from the firm's resources. Second, the components have 'tendencies' that are the consequence of their limitations. Penrose's team members are boundedly rational and cannot increase their knowledge at more than a certain empirically observable rate. DeLanda adds to the growing body of work on self-regulating and self-organizing by Kauffman, Wolfram, Langton, Prigogine and others. These ideas suggest the entrepreneurial opportunity space is contoured and heterogeneous with a nature of its own and that not all the possibilities are equally viable.

When the constraints that outline the opportunity space have been selected then comes the moment of commitment to a specific choice. But again the entrepreneur may not be alone at this point. My early research explored the extent to which entrepreneurs imitated each other, so sharing the benefits and burdens of others' prior strategic choices [14]. Institutional theorists pursue the same line but seem to think in terms of eliminating the entrepreneur's choice rather than shaping it, seeing structure as a means of avoiding the risks and uncertainties of acting alone rather than as a means of shaping the entrepreneur's options. There may be a fine line here but I would hang onto the shaping of the entrepreneur's agentic choice and action rather than on eliminating it. This is partly because entrepreneurship is about more than exploiting economic opportunities that arise solely through the actions of others. As Marx wrote, the challenge is not to understand the world but to change it.

Most important, the majority of the BM's constraints are malleable and can be acted on agentially by a wide variety of means - money, class membership, R&D, negotiation, 'business intelligence', espionage, denial of service attacks, etc. Rather than take the constraints for granted, entrepreneurship is about exploring and exploiting them, especially by changing them by acting on them directly. Agency is about changing as well as occupying the opportunity space. The brilliant strategist is one who manages to re-conceptualize or re-construct a constraint from being something that is inhibiting their agency and into a fresh and unanticipated means to leverage its possibilities. The range of 'capacities' or external entities that might be brought ready-to-hand in this way is immense, the more so as the

socio-economy becomes more complex and susceptible to Böhm-Bawerk's notion of 'roundabout-ness'. The point is illustrated by Alvensson's discussion of 'institutionalized myth' and how that might be projected into the space of organizational knowledge-absence or ambiguity (to use his term) [9, 92].

There is a parallel question in biology about the difference between animate and inanimate forms, about what level of complexity or minimal number of constituents provide the potential for life - entropy-reduction or value-creation. The organic analogy may be a diversion because I do not see organic notions of firms as informing and, as Penrose argued, there seems to be no great benefit in economics' borrowing from biology; and I defer to her conclusions [93]. But the notion of 'minimal' is interesting. The widespread interest in principal-agent theory is that it captures the minimal 'relationship dimension' of the firm with its principal-agent dyad. Coase regarded the employee's subordination to management 'within certain bounds' as more fundamental than its assets. The implication is that there is no way to comprehend the TMF as a sole proprietorship, a thought that reminds us of the difference between Cantillon's notion of entrepreneurship and that of Say. The distinction lives on between entrepreneurs who seize a market (arbitrage) opportunity (Cantillon) versus those who set up firms (Say).

It seems clear there can be no Clausewitzian general or any strategizing without some forces to deploy. Likewise, along these lines, Foss & Klein argued entrepreneurship entails ownership, implying it is not a purely cognitive matter that can omit engagement with the world of agentic practice - real entropy-raising practice in a KU/BR world. Thus entrepreneurship is not a loose synonym for 'creative', as in "she is very entrepreneurial". To the contrary, entrepreneurship refers specifically to the creation of economic value and therefore presupposes active engagement with a market economy. Creativity research has little to say about entrepreneurship [94]. Thus the BM is not a *mélange* of thoughts. It is contingent on and a product of the practical engagement with economic particulars that Richardson saw as the necessary prerequisite to good estimates (judgment) about competitors' and collaborators' responses to strategic action. There can be no strategizing without a practical appreciation of the terrain and the forces' capacity to move around in it. Note the practice of engagement with $\sim K$ transforms what are uncertainties in the Knightian sense into risks as viewed from the actor's position. Her/his project is inevitably threatened by chance and others' actions.

While the precursor to value creating synthesis is $\sim K$ - uncertainty about the context and consequences - the synthesis is exposed only to risks, for there can be no action without risks. Post-synthesis it may be difficult to estimate these actions' risks in terms of probabilities, but being engaged and embraced and brought into the actor's world, they become part of the actor's constructed knowing and so no longer uncertainties. Again, risks are post-synthesis; Knightian uncertainties are pre-synthesis.

4. Section 4: Rhetoric and the practice of strategic leadership

A business model (BM) is a particular way of looking at the world; but it must also convey its practical nature as a way of being in that world - one that embraces the three dominant modes of human knowing - data, meaning and agentic practice (DMP)[50]. It is also the temporary result of the Vichian practice of creating the actor's world in the constructivist sense [95]. Certainly a BM is an idea, but it is also an identity, infused with moral and ethical content, a matter of aesthetics and recognition of business and the construction of BMs as an art form. If, following JB Say, we focus on multi-person firms, there is the question of how to engage others in the BM that has been synthesized, how to ensure they share the BM as their own work identity. If the process of synthesis is collaborative then that process invites the participants' engagement. But if we think that the firm is construed via subordination, as Coase suggested, that separates managers from their subordinates. So the gap will have to be crossed or repaired if the subordinates are to be brought into the synthesizing process and take up the firm's identity. At the same time the firm's activities are always exposed to the uncertainties that have not been anticipated (Murphy's Law) and, being unanticipated, have not been brought into the firm's identity and transformed into risks. The division of labor implies an equally granular division of the burden of uncertainty-resolution. How can distributing the process of identity formation be brought under the entrepreneur's control? What modes of governance are implied by this reconstitution of our discipline's problematics and the shift from *etic* to *emic*?

Managers delegate to subordinates - but what precisely is being delegated? Foss & Klein distinguished 'derived' judgment from 'original' judgment, the former being the judgment calls made by subordinates,

the latter those of the entrepreneur/owner's [4:191]. On p.202 they explored how the manager - the one who generates the original judgment - might constrain the practice of the subordinated 'agent' who is charged with executing the plan and, in so doing meets unanticipated uncertainties and must apply or project some judgment into the situation. To a great extent their treatment draws on a conventional microeconomic reading of the principal-agent literature. This deals with rational responses to instructions, incentives, and monitoring, enriched by Frey's distinction between extrinsic and intrinsic benefits. My reading of the principal-agent literature is rather different and spins around the exercise of agency by both principal and agent [21]. Both must exercise their agency if the relationship is to stabilize and prosper - which leads many to use the term 'trust'. I see trust as an aspect of the extra-rational or extra-informational quality of the relationship between actors. It typically, but not always, develops over time via mutually confirming experience of the exercise of both agents' judgment. Trust is a term for the alignment generated over time by the effective management of 'derived' or delegated judgment.

Principal-agent theory (PAT) arises because (a) the actors' interests diverge, and (b) each has limited 'knowledge' of the other's interests, intentions and knowledge of the situation. The conditions under which this very ordinary real-life situation can be brought within a formal analysis are more or less contradicted by the problem's preconditions, most evidently so in the Jensen & Meckling (1976) treatment. Their 'solution' depends on prices established in efficient markets [96:345]. Yet in such markets all economic actors are principals, there are no agents - so there can be no principal-agent relationship, nor a principal-agent problem to be solved. Effectively the assumptions to Jensen & Meckling's solution deny the possibility of the problem they claim to be solving. In contrast, Fama's 1980 analysis does not offer a 'solution' but is more of a guide to the principal's thinking [97]. He illustrates that (a) time must pass as the principal and agent learn about each other, reshape their knowledge asymmetries, inform each other about the nature and boundaries to their divergent interests, and develop 'trust', and (b) there can no 'equilibrium', for the principal-agent relationship must remain responsive to the unanticipated changes in the parties' interests and context as their interactions and times unfold [98]. While Foss & Klein do not distinguish 'final' or 'equilibrium' solutions from 'dynamic' solutions to the principal-agent 'problem', there is no question their treatment has value

for managers who find themselves depending on their subordinates when 'derived' judgment is crucial to the firm. But ultimately managers unable to do everything for themselves (as in a sole proprietorship) cannot avoid putting themselves at risk to the actions of subordinates whose activity cannot be directed or controlled using the instrumentarium offered by the micro economic PAT literature.

Simon also explored this situation, following in Barnard's footsteps [36]. Curiously neither Barnard nor Simon mentioned rhetoric. This is sometimes known as the 'art of persuasion' and goes back to the early days of the Greek Empire, more than two millennia ago [99]. It has accumulated a huge literature. Notably it pre-dates the modernist tendency to try and do everything by the numbers, to measure everything, and use that to present the conclusion as objectively 'driven by the numbers' [65]. We can suspect there is much morally wanting about this notion of managing [100]. But aside from the moralizing, it is also ineffective in KU/BR situations where the necessary numbers are not available and/or we lack the ability to compute those we have - which is more or less always. When KU/BR is really biting, the rigorous governance challenge becomes overwhelming. Yet this characterizes everyday democratic capitalism wherein individuals differ in their human capital, property and legal rights, and have considerable freedom to pursue their own interests.

Rhetoric's target has always been persuading others to act in ways the leader or 'rhetor' desires, eliminating divergent interests enough to produce what we might now label 'alignment'. If there were no uncertainty then the leader's directive instructions or logical explanation of her/his plan would be sufficient. But it cannot work under KU/BR. Subordinates misread the plan, misunderstand what is signaled, do not know what meaning to attach to the data they get, cannot forecast the results of their own practice, and so on. Rhetoric is 'propaganda' in the sense of persuading others to view the world differently, perhaps in ways they had never imagined previously. Of course, when Simon was writing about docility in 1947 there were widespread American fears about propaganda, Communist especially, but also about 'subliminal' messages embedded in movies and TV programs. Simon was already in some difficulty with the anti-Communists, the House Un-American Activities Committee and McCarthy's separate hearings [36]. Yet the employees' docility and preparedness to accept senior management's goals as their own was central to *Administrative Behavior*. Management's

ultimate tools for creating and shaping the TMF are rhetorical, supplementing their rationality-based tools like planning, direction, incentives, punishments, etc. with the adept use of non-formal language to move others' views until they 'align' with the firm's (management's). The main point is that rhetoric is able to reach beyond the listeners' rationalizations and into their other modes of understanding. Rhetoric is communication, of course, but this is not adequately theorized by modern communication theory based, for instance, on Shannon & Weaver's notions [101–103]. Rhetoric cannot be fitted into a positivist epistemology that presumes knowledge is of a single 'objective' or 'universal' type. The contrasting knowledge types within my DMP typology match the distinctions between *logos*, *ethos* and *pathos* that structure Aristotelian rhetoric and help us see how it is that rhetorical practice might be able to embrace both formal and informal language, and agentic practice. As the 'art of persuasion', of affecting others in ways the rhetor intends, there is a relationship between rhetoric and DeLanda's capacities to self-organization by affecting the entity's other constituent parts - and then, through the affective interaction of the entrepreneur's 'vision', create new economic value [91].

Language is always important, and the BM is enacted in the inter-individual relationships as a contextualized or 'local' language (jargon) that reflects the entrepreneur's selection of $\sim K$ s - capturing what is important and cutting out what the entrepreneur judges unimportant. Every discourse excludes; the focus of 'deconstruction' to reveal what is 'silenced'. Our positivist background and stress on quantitative data and reasoning leads us to underplay the significance of natural language. I make it the very core of the TMF on the grounds that under KU/BR facts cannot speak for themselves and if people are to make sense of them judgment is always required [104]. Language is how we engage our minds in our projects; how we draw what knowledge we have into relationship with our resources and problems. If we cannot describe a problem we cannot begin the process of addressing it. By language I do not suggest a 'formal' language like mathematics or C++. Within formal languages meaning is given and unchangeable - logically. Natural language is different. First, it is inconclusive; always ambiguous. An entrepreneur grasps the incompletely known world in an ambiguous and uncertain way and the language with which s/he does this must be ambiguous if s/he is to 'know' how the firm's engagements with $\sim K$ are to create value, albeit with risks attached. A theory is a log-

ical and formal language, grounded on its axioms and the statements they make possible. Social science, in contrast, is the search for language with which to grasp the dynamic phenomena that are of human and social interest [105]. In this sense the TMF is a search for a natural language with which to grasp the value-creating aspects of managed collaboration.

Rhetoric's distinctions between *logos*, *ethos* and *pathos* - which are incommensurable modes of human knowing - likewise presume or call into being a natural language. The rhetor's task is to synthesize a coherent basis for action that establishes and communicates the firm's meaning (its core being the entrepreneur's vision). Both formal and natural language can convey various types of information, but meaning can only be shaped by natural language's ambiguities and lacunae. Changes of meaning give people different insight into their circumstances. We can only 'hear' alternative meanings when our 'docility' allows to be changed by what we hear. The Sapir-Whorf thesis that our language constructs us, rather than the other way around - we create language - fell out of fashion in the face of positivist attacks, but is, like the interest in rhetoric, rising again from the ashes [106]. Curiously, over the long history of rhetoric it seems that interest has waxed and waned in synch with the degree of social upheaval and anxiety; interest increasing as things get bad - as they are now [107]. So now is an excellent time for us to take part in resuscitating rhetoric and developing new language with which to engage problems that have been recognized throughout history but are new in their severity. Simon borrowed the term 'docility' from Edward Tolman, the American psychologist who anticipated behavioral economics, and he discussed how, under BR, the firm's goals or local rationality - determined by top management - might be impressed on the agentic practice of subordinates just as derived judgment is to be 'controlled'. Rhetoric likewise springs from the axiom of human docility. Isocrates, an early rhetorician and teacher of rhetoric argued, the human being is one who can 'both persuade and be persuaded'. Parenthetically DeLanda argued that constituents that affect and can be affected by others can give rise to self-organization [108].

Rhetoric suggests a constructive practice with which individual entrepreneurs and strategists address the challenges presented by their agentic subordinates and the divergences between their 'original' judgments and those of their subordinates. Rhetoric is not at all like dialectics, logical debate. Rhetoric's end point is not proof but '*pisteis*' or reasonable conviction; the notion

that lives on in legal trials as the jury seeks a conclusion 'beyond reasonable doubt'. When it comes to BMs and the shaping of the subordinates' derived judgments, the target is not conclusion, it is action, for the BM is a complex of knowing, not merely an idea or cognition, but as a practice. In the legal context the jury concludes and so guides but does not determine the judge's action. In the TMF context the rhetor's objective is value adding collaborative action, for the firm is an activity system not merely an apparatus of shaped cognitions [109]. There is an ancient debate among rhetoricians about the rhetor's proper objective, comparing *pisteis* as a mental conclusion or cognition against something meatier, leader-inspired agentic action, springing to the barricades, pitchfork in hand [107].

Rhetoric focuses on the various modes of speech that natural language makes available for the social practice of persuasion - *logos*, *ethos* and *pathos*. *Logos* describes the appeal to the listener's reason. *Ethos* is the appeal to the social relationship between the rhetor and the listener. *Pathos* is the appeal to the listeners' emotions. The modernist tendency is to try and write emotion out of the analysis on the grounds that it 'interferes' with objective logical thought. This is an unfortunate misreading of the Stoics' legacy [110]. The Greeks actually saw emotion as the font of all human action - the assumption that we never act on the basis of reason alone. Indeed, it seems clear that effective rhetoric is so precisely because it engages (inflames) our emotions - think of any great orator whose words have moved us - Martin Luther King's 'I have a dream' speech, for instance. A handy definition of rhetoric is 'the art of finding the most appropriate means of persuasion in a particular situation'. Given our positivist background it is easy to miss the last bit about 'particular'. Rhetoric is an art precisely because it is a synthesis focused on the particular. It is not, as many contemporary writers assume, an under-methodologized search for general speech-determining principles or a science of persuasion, or an under-quantified communication theory. Rhetoric is an emic concept, a subjective construction of a particular persuasion process - for a particular audience in a particular context. The result of effective rhetoric is that the listener arrives at a new way of seeing and being, and so in a new knowledge-world, presupposing (a) there is no definitive objective view of any world - given KU/BR - and (b) the listener remains open to being persuaded into another's 'bounded' view.

This is all very interesting, I hope, but of what relevance to managing? First and most importantly it points

back to the professional implications of switching from the etic viewpoint to the emic. Instead of prescribing, the emic analyst is seeking to aid the responsible actor - manager, entrepreneur, leader, or strategist - who remains 'in charge' and liable by clarifying how the tasks might be performed and responsibility borne. It is helpful to remind managers that under KU/BR conditions the TMF sees them as having a variety of incommensurate tasks broadly separated into (a) strategizing and (b) persuading those others on whom the strategy's success depends to contribute, project or 'throw' their agentic capabilities into the knowledge-absences uncovered by the firm's practice. The differences are mirrored in Mintzberg's classic analysis of managerial work [111]. Specifically the management plan's success depends on their managing the 'derived judgments' of their subordinates, on effectively shaping how individual employees deal with the uncertainties they have been delegated.

Of course these days the authority and communication relations within firms are not what they were two centuries ago when owner-managers ruled like despotic tyrants. The contemporary TMF situation is marked by respectful responses and dialog between senior management and the employees, as they engage in what we label 'strategic conversations' or 'SCons', dialogs that impact the development, execution and evaluation of the firm's strategy [112]. Part of contemporary managerial rhetoric involves serious listening. Note that this has become more important as senior management's ignorance has increased. Even a century ago managers would not take up senior positions until after working their way through the firm - rising through the ranks - to the point where they knew what was going on and who was doing it. Today this is not the case, especially as newly minted MBAs or hedge-fund managers vault into positions of wealth and authority in firms whose practices are unknown to them, out of sight, merely represented by figures on computer screens. We see handsomely paid senior executives telling congressional committees 'they had no idea what was happening' - yeah, right. But as the management-employee knowledge asymmetries increase, so (a) principal-agent issues arise and (b) SCon dialog becomes the essence of mutual engagement in agency and learning processes. In part management education's impulse is a response to a new way of inhabiting firms that allows people to gain authority over people and processes of which they are ignorant, when they know neither what to pay attention to nor how to process the information they have

gathered. Thereby organizational rhetoric becomes even more important, just as propaganda flourishes when people are ignorant.

The literature on rhetoric deals with many aspects of language's impact on our knowing and being [106]. The distinction between *logos*, *ethos* and *pathos* focuses on our alternative modes of discourse, but tells us little about the discourse's content. What exactly should strategic conversations be about? Here we can turn to that part of rhetoric known as *stasis* or 'question theory'. Classical *stasis* analysis focuses on conjecture, definition, quality and procedure. In the contemporary business situation these questions can be asked 'emically' - by the actors themselves - rather than 'etically' by analysts acting outside the opportunity space or context of practice:

1. Do we really have a BM with value-adding potential?
2. Do we have a metric or means of measuring its viability other than trying it out?
3. What threatens our BM's viability - competition, technology change, labor turnover, etc.?
4. What do we think malleable about our BM?
5. How robust do we think it against unanticipated shocks?
6. How long do we expect it to remain viable?

Those asking these questions do so through the world or 'lens' created by synthesizing the BM. This gives management has a litmus test for shaping SCon content - the BM's invention, articulation, enactment, distribution, practice and evaluation "What does it mean to us?"

5. Section 5: BSchools and some history

My switch from etic to emic is not a frontal attack on our discipline's mainstream methods. Rather it is a plea for methodological humility and complementarity. Positivism's methods are secure and highly developed. To suggest - as some do today - that they should be trashed on political, scientific or moral grounds is to miss the whole point of doing sociological or economic research and of getting clear about how we generate, police, distribute and apply our socio-economic knowledge. The Duhem-Quine thesis, among others, demonstrates how positivism itself is contingent on crucial assumptions that it cannot examine until we step out of positivist thinking and into some alternatively axiomatized epistemology. Our discipline's problem

with positivism is that it has morphed from a handy and productive method of enquiry and into an institutionalized dogma that neither respects nor admits alternatives. This is unfortunate for management education in general; it runs against any reasonable notion of what education is about. But it is doubly distressing if, as the TMF asserts, the kernel of management practice is synthesis [42]. Simon's analysis of BSchools rests precisely on this point, that we should be training our students to synthesize as well as analyze [19].

Of course, BSchool faculty cannot teach a positivist theory of synthesis. We have to appreciate the difference between the general rules or theories that underpin so much of our educational practice and the discrete experiential learning that can come from projecting one's agency into a knowledge-absence - trying out our knowledge in a specific context. Teachers know there is something special about letting the conversation flow in the classroom once students are engaged. As Melvin Copeland quipped, there is great merit in 'keeping the boys talking'. We know students learn something profound from the practice of projecting their words into an active classroom or case discussion, something they cannot learn from reading or lectures. Likewise law schools try to teach their students to argue and defend both sides of a case, prosecution and defense in moot court. The point here is that not only is the TMF about conversation, so is education for the humanly constructed Vichian social and economic world. But, as von Clausewitz argued, this is not free-form conversation. On the contrary, it is highly shaped and contextualized by the rules, governance, theories, heuristics, and history of the social and economic situation. The result is inevitably penetrated by the aesthetic, moral, ethical, and emotional choices of the actors engaged, and their intentions.

The TMF implies that the BSchools should be places to learn about rhetorical practice as well as quantitative analysis - but most of all how to synthesize leadership and entrepreneurship as a directive practice [92, 113, 114]. The process begins with what rhetoricians call 'invention', the discovery of the appropriate notions to bring to the process of persuasion or, more precisely, discovering the language appropriate to drawing the strategist's selected constraints into the conversation. Entrepreneurship is the process of (a) selection, (b) synthesis, but then (c) inventing the language or dialog of persuading and being persuaded by those others' whose agency is crucial for successful enactment. The essence of the BM is this language, managing is using it. Question theory helps evaluate the situation that, like PAT,

can never arrive at a definitive conclusion but must be as ongoing as life itself. My plea, then, is for a mode of BSchool education that complements our theorizing and analysis, so enabling our students to discover for themselves the limitations to the differing etic and emic methodologies, and that it is their role to synthesize them into effective practice as logically reasoned and collectively convincing as possible.

My assumption at the outset of this paper, that there is no enduring or universal central principle on which to build a theory of the firm, might also be explored by looking at business history. Do see we historians telling us that the nature of the private-sector firm has changed substantially over a historically useful period? The short answer is ‘yes’. There is a huge and often neglected literature here. But Khurana [19]’s recent analysis of the history of US BSchools was couched in the presumption of no less than three distinct notions of what private-sector business was about [115]. The historians’ emic approach highlights these; also presuming each firm is unique. In contrast the positivist theorists’ etic approach suppresses differences, presuming most if not all firms are of the same genus and can be researched by sampling. Likewise each phase of business history is unique. Focusing on the US, Khurana argued for (a) a late 19th- early 20th century period of entrepreneurship dominated by a ‘sense of social duty’ reflecting Donham’s thinking, (b) a post-Taylorist period dominated by the pursuit of corporate efficiency, now called ‘managerial capitalism’, and (c) a post WW2 deregulation period dominated by the drive to maximize shareholder wealth (Fig. 1). The implication is that the managers’ ‘objective function’ changed substantially - as did the BMs they developed.

In Fig. 2 I finesse Khurana’s scheme by splitting his post WW2 typology into two distinct phases into (i) a conglomerate period and (ii) a period when strategic activity shifted from growing the firm as a long-lived entity to growing a portfolio of investments [115, 116].

Social duty
Managerial Capitalism
Investor Capitalism

Fig. 1. Phases of US Private-Sector Business Models (Khurana, 2007).

Archaic - Owner/Manager
Managerial Capitalism
Conglomerate / M&A
Investor Capitalism
Casino Capitalism

Fig. 2. Phases of US Private-Sector Business Models.

The difference being that in (i) firms were grown by M&As intended to buttress the core firm, such as GE, LTV or ABB, while in (ii) the emphasis is on the investors’ portfolio, to the point that any firm in the portfolio can be sacrificed or ‘exited’ if that makes ‘financial sense’. Hirschman’s notions of ‘exit, voice and loyalty’ bear on investor-oriented BMs [117]. It is also clear that these phases are not disjunctive like Kuhnian ‘paradigms’. Rather, earlier BMs hang around; they just no longer dominate the economy. Many SMEs and family firms hewing to mode (a) continue, but do not dominate the US economy. Spain, for instance, is different, for that economy is dominated by SMEs in the (a) and (b) modes.

Finally it is clear that post-(ii) a new phase of BM construction has come to dominate the US economy, what might be called ‘casino capitalism’ to use Keynes’s term [118, 119]. This phase is marked by a focus on manipulating and trading debt rather, as with previous BMs’, a focus on managing and trading investment. The emerging BM typology is then (a) owner/manager, (b) managerial capitalism, (c) conglomerate - M&A, (d) investor capitalism, and (e) casino capitalism. We see that not only is the implicit model of the firm quite different in each phase, it is also obvious that the place of the firm in the economic scheme differs strategically, most obviously in (e). While earlier BMs were socially oriented as they added value, later ones are less so. Casino capitalism (e), in particular, is inherently parasitic.

Aside from the impact of (e) on global history, what are the management education implications? Unfortunately the institutionalization that shapes our research and tenure has almost wiped out the historical method and the business history project (Madansky 2008,

Wright 2010). Surely BSchools should be the places for highly focused business history research that N.S.B. Gras imagined? It would surely make sense for us to familiarize our students with the historical methods they can deploy to complement the analytic methods that now dominate the curriculum. Note Von Clausewitz paid great attention to military history and it is clear that most great military leaders - from Montgomery to Petraeus - were diligent students of history [120, 121]. We can note many business people read history for relaxation.

Digging deeper into economic history and looking for the origin of the private sector firm might shed even more light on the TMF and the managerial task. In Europe, as the legal form of the firm evolved during the 18th century, it was as a variant on the body of citizen's rights law then available. In the *Dartmouth College v Woodward* case (1819) Chief Justice Marshall defined the firm (at law) as an 'artificial' or 'unnatural person' with which the state should not interfere, and the 2010 *Citizens United* decision was one eventual result of this [10]. The drive to legitimate the firm in US corporate law was less a matter of articulating individual freedoms into the economic sphere than the post-Revolutionary imperative to police the increasingly corrupt public sector operations which marked the immediate post-1776 American economy [122]. Similarly important were developments in the concept and application of title and property, eminent domain, patents and so on [123, 124].

With at least equal impact on the detail of viable BMs were labor legislation and the 'invention' of the modern employee [125]. In short, history can help illuminate the changing legal constraints to entrepreneurial agency and, most pertinently, how BMs change. Our discipline's attempts to characterize change - blur, hype-competition, and so on - are often laughably ignorant of private sector management's past legal problems. For instance the history of Philadelphia, America's most economically important city in the post revolutionary era (and Frederick Taylor's hometown) was changing at an astounding rate in late 19th century as new production technology, modes of organization, transportation and electricity transformed every aspect of its economy [126].

6. Section 6: Concluding comments

This paper sketches an approach to analyzing the managed firm - specifically the private-sector firm - that complements the huge amount of not very informa-

tive positivist theorizing to be found in microeconomics and organization theory. My critique is primarily methodological, leading to an exploration of the differences between etic and emic methods and of the entrepreneurial or strategic task of synthesizing across them when bounded by a specific context. The idea is not to meld the theories and produce some 'theory of everything socio-economic'. Rather it is to leverage theories - as generalizations - into an indexical analysis that might guide the thinking and action of those responsible for acting in a specific unique situation. The key to the analysis is the actor's experience of engaging and coping with Knightian uncertainty and bounded rationality, how that opens up a 'space' into which the entrepreneur/strategist's agency can be 'thrown'. As the entrepreneur engages the uncertainties that lie beyond her/his project, they are transformed into risks to her/his project's viability, measurable against the goals set in the micro-world the entrepreneur has constructed.

The TMF begins as the entrepreneur instantiates a desire (economic) and 'discovers' the constraints to the agency required to realize it, then moves on to synthesizing and 'language' the business model. This language is employed to communicate her/his 'vision' to those others whose agentic capabilities must be harnessed to the firm's objectives if the BM is to be viable. The resulting BM is a local 'natural' language that encompasses the explicit and tacit forms of knowing in that context. Newcomers must be acclimated, socialized, and acculturated into it if their agentic capabilities are to be harnessed to the firm's goals. The language provides all those involved - as participants contributing their agency - with identity and a sense of purpose. It provides the entrepreneur with a means to convey the BM to others, and the means for them to grasp the world chosen on the basis of the entrepreneur's vision. This is the ultimate nature of leadership in the business context. The analogy between rhetoric as the language-based means of persuasion and DeLanda's examination of self-organization emerging from constituents that affect and are affected by each other is promising. It follows that entrepreneurs would benefit considerably from some knowledge of the ancient art of rhetoric, suitably updated to the contemporary social, political and economic context. Persuasion complements the familiar apparatus of instruction, measurement, rewards, punishments, incentives and so on and addresses those moments when the directions are insufficient to the execution of the task. The firm's vitality is dependent on the employees' contributing their agency. Given a substantial degree of delegation, strategic conversations

or SCons become central to the process of managing 'directed agency'. *Stasis* theory helps focus attention on the content of these conversations, and on creating and monitoring them. The TMF helps managers develop metrics for these processes.

There are significant implications for BSchools, beginning with rehabilitating rhetoric which, for so many centuries comprised the core of university education for those marked to be leaders in the Church, law, military and political fields - but later expunged in the universities' slavish rush to positivist science in the 19th century [127]. Reviving the teaching of rhetoric would complement our heavy focus on analysis - presuming we think management effectiveness our principal objective. Such teaching would present managing as a 'talking game' under KU/BR rather than mere 'number crunching' under the presumption that everything strategically significant can be enumerated. The new generation of 'rocket scientists' dealing with 'big data' and 'high-speed trading' has other fish to fry, of course, because what they are able to find is concealed and inaccessible to those who lack the computing skills, an attractive monopoly situation. But the future is not just about data for entrepreneurs always work with and through others. There is the resulting need to 'feed' and 'pollinate' the creative processes of rhetorical 'invention'. Von Clausewitz explored these and regarded history as a vital ingredient, coupled with careful personal preparation. It follows that if, in the interests of taking a more productive approach to the teaching of entrepreneurship, leadership, innovation management and strategy, the TMF is to become part of the BSchool curriculum, then we should return to a broader battery of research methods, complementing today's analytics and modeling with ethnomethodology and history. We should also re-conceptualize casework and experiential learning as modes of preparing students for the practice of strategic synthesis.

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