

Towards a Multi-modal Causation Framework of Entrepreneurship

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ABSTRACT

Recent surveys on the state of the art in entrepreneurial research, fail to draw a coherent “big picture” out of the vast array of contributions to the field. Neither the competence nor the knowledgability of the authors can be questioned as they are among the best specialists of the field. The roots of the problem are concealed in the unreliable epistemic and philosophical foundations of many of these contributions. This explains the resulting cacophony of fragmented approaches and unrelated empirical findings that instead of adding precision to the overall picture contributes to an ever increasing level of noise.

The paper uses the Swiss data on enterprise demographics to show that the statistically recorded number of enterprises depends heavily on the definition used. The differences among definitions and their plurality suggest that the reality of the “enterprise” is a diverse one. As the enterprise is the normal outcome of an entrepreneurial process, there are good reasons to believe that the latter is as least as multi-dimensional as the former. The paper attempts at using the Aristotelian multi-causal explanatory pattern to provide the basis of a conceptual framework for the study of entrepreneurship. Even if the empirical base is not explicitly acknowledged here, the framework has been validated by in-depth interviews conducted with 37 young (younger than 5 years) enterprises between 2003-2005 in the region of Fribourg (Switzerland).

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1. INTRODUCTION

Entrepreneurship is today an acknowledged field of study and research, with its own journals, chairs and distinctions. The revival of political interest in the entrepreneurial phenomena is recent and related to the emergence of the “supply-side” paradigm in the 1980s. However, even before entering academia, and policy agendas, entrepreneurship used to be a fact of everyday life at least in market economies. The interest in entrepreneurship stands in sharp contrast with the general understanding of the phenomenon. Despite the rich harvest of studies and policy papers, Schumpeter and von Hayek are still considered as the primary experts in entrepreneurship. Recent surveys of the state of the art present a very fragmented and barely coherent picture of our knowledge of entrepreneurship (Acs, 2005, Audretsch 2002; Fueglistaller, Müller & Volery 2005). The feeling of discomfort with this situation grows even higher when one attempts at using the accumulated knowledge to better understand specific cases of entrepreneurial process. In consequence, the field appears as over-researched but is still poorly understood.

The present paper sets out to use an alternative approach to entrepreneurship. It is based on the assumption that the process is multi-dimensional and that all its main dimensions have to be identified and addressed before a comprehensive explanation pattern may emerge. To this end, the paper uses the Aristotelian multi-modal causation explanatory pattern to identify the basic dimensions of the entrepreneurial process. It is structured in three parts. The first uses Swiss statistical sources to illustrate the multiple dimensions of the concept of “enterprise” and shows that the polysemy of this term extends to “entrepreneurship”. The multi-modal causation Aristotelian pattern is introduced and applied to find some order and meaning despite the polysemy.

The second part, the core of the paper, is an attempt to use Aristotle pattern to investigate contemporary entrepreneurship: material, formal, efficient and final causation modes being outlined and tentatively identified. The third part discusses first the meaning the outcomes of the entrepreneurial process may have for the economy, and, subsequently, draws some general conclusions for policy makers.

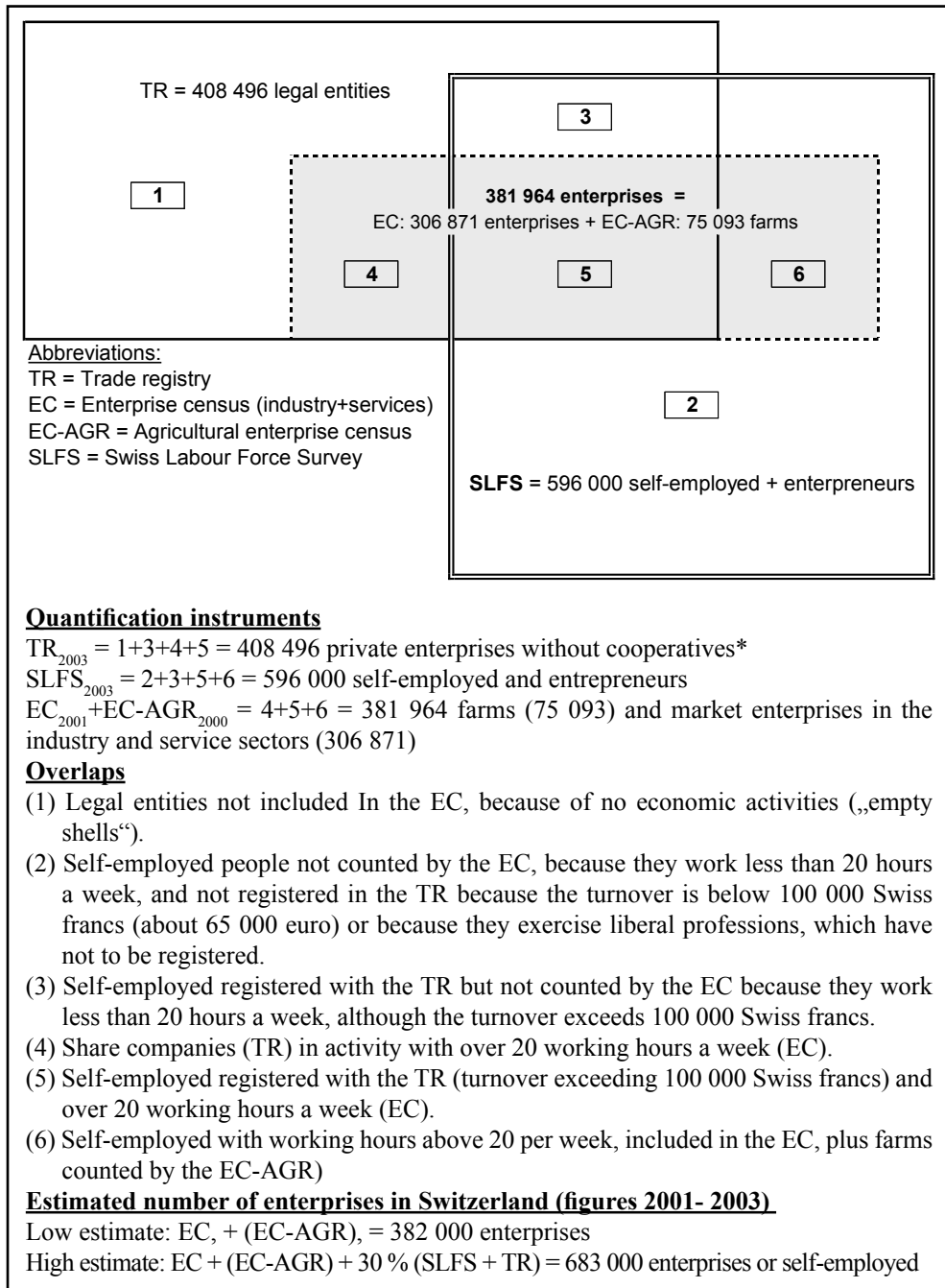
2. FROM ENTERPRISE TO ENTREPRENEURSHIP

How many enterprises do exist in a given country at a given moment? At first sight the question seems to be purely technical. A normal reaction would be “Have them counted and you will know the answer”. Unlike in a standard demographic headcount, in any enterprise counting, the problem of defining what an enterprise is, and what it is not, comes immediately to the fore. The answer is not unique, it depends on the perspective.

According to the Swiss Federal Statistical Office, at the time of the last enterprise census, i.e. in 2001, Switzerland had slightly over 300'000 private enterprises, and 11'000 public. When confronting these results with other Swiss statistical sources, three important limitative aspects become obvious:

- The “official” figure covers only manufacturing and service sectors, leaving agriculture and its 70'000 independent farms outside (covered by an ad hoc survey) as if the notion of “enterprise” did not apply to farms;
- The “official” figure does only partially overlap with those of the Swiss Company (Trade) Register encompassing about 400 000 companies altogether. The enterprise census leaves aside about 100 000 of them for not meeting the minimal employment threshold. For the rest the precise overlap is unknown;
- According to the Survey on Active Population, about 600 000 Swiss residents are self-employed.

The Figure 1 gives an idea of the possible overlaps of the three existing sources of information. In consequence, and using a broad notion of enterprise, the results range between 380 000 (enterprise census) and 680 000 entities. The wide spread of the results shows clearly that there is a long way between an abstract concept of “the enterprise” and the unambiguous identification of its actual embodiment. The Swiss situation is no exception however, France, other EU countries and the US facing similar counting and definition problems. The above example simply shows that the enterprise is a complex reality with a variety of possibly dominant characteristics. Statisticians are not to blame: all the dimensions of the enterprise simply can not be comprehended within a single definition.

Figure 1: Enterprise statistics in Switzerland compared

Source: Dembinski, 2004

** The following legal forms of TR are considered here: private own firms, mixed liability companies (Kommanditgesellschaften), collective companies, limited share companies and limited liability companies (GmbH). Not included are “simple” companies (association of two companies), which have not to be registered, cooperatives, affiliates, as well as associations and foundations. In principle, the enterprise census (EC) considers only a fraction of the registered “enterprises”, with the exception of private own firms, simple companies and associations. For instance, of the 13 221 registered cooperatives in 2001 (TR), only 2 329 are enterprises in the sense of the EC. On the other hand, 164 203 private own firms are counted by the EC, of which only 142 579 are registered in the TR. Another source of difference is the definition of a market based legal entities retained in the EC (above 50% of the income are realised through market activities).*

The example above may wrongly suggest that the definition problem is the most acute for micro-enterprises. Depending on the purpose of the analysis, the methodological approach will emphasise one of the enterprise’s dimensions, leaving the others aside. At least four such approaches are in current use:

- The technical or technological perspective where the “enterprise” is seen as a factory, a locus for material transformation, in a metaphorical sense – including also the service activities - where something is created out of something else. This approach concentrates on the “establishment” dimension of the enterprise, and gives pre-eminence to the proximity of activities and capacity to transform matter. It is close to the German term “Betrieb” that traditionally draws on an industrial and engineering tradition. Considered in this sense, factories like establishments also existed in planned economies. Despite the fact that many enterprises have multiple establishments, most contemporary censuses count establishments and recombine them into enterprises only if corresponding data are available. This leaves unanswered the question as how to treat the establishments belonging to foreign firms, which locally are not more than establishments, but can not be merged with any other national firm.
- The formal or legal perspective where the enterprise is seen as an agent, a “moral person” or “legal entity” acting on its own and distinct from the parties or persons that may be involved in its operation. This approach emphasises the legal form an activity has taken. The counting will consider every “moral person” as a separate entity, even if it is linked or controlled by another one. A classical shortcoming of this approach is the treatment of affiliates, which legally appear as distinct moral persons, but are to a large extent dependent on their parents. In most administrative data about enterprises’ demographics, the formal perspective prevails.
- The psychological and social perspective where the enterprises is looked at as a person or a group. In this approach, the intensity of interaction and the thickness of the human fabric is the key element. Formal or technological borders of an enterprises are, for this approach, rather accidental if not purely irrelevant. This

approach is specially important on one side to understand properly the micro-enterprises, where economic activity and family life are interdependent, and on the other the cooperative and competitive behaviours that may develop within any enterprise. Income statistics analyses that focus on the sources of subsistence of populations – including the grey and black economy - discard the technological or legal dimensions concentrating on the social and psychological perspective, and so does most of the managerial literature.

- In an economic perspective, the enterprises are seen as a locus where allocation decisions are taken – or expected to be taken - on the basis of a specific rationality, namely that of optimisation and of efficiency. This approach refers more to the leveraging capacity of the “spirit” that commands the deeds of the enterprise, rather than to its scope of operation. This perspective brings to the fore an almost teleological dimension of the enterprise by asking the question, the efficiency for whose sake? The present stakeholder vs. shareholder ethics of the enterprise find here a resounding echo.

Each of these perspectives captures a portion of reality, but none encompasses the whole phenomenon. The question remains as to which of these characteristics belong to the “nature” of the enterprise and which are simply accidental. The list of possible approaches of the enterprise extends beyond the four perspectives mentioned above, but adding further insights to the list does not solve the problem of integrating them into a coherent – and comprehensive - picture. Here clearly we are at the limits of what economists, or social scientists can achieve within their own epistemic realm. It is time to call on philosophers for rescue.

Up to the 18th century, the enterprise was not perceived as an autonomous social body. Two “social institutions” given by nature had been identified by classical social philosophers: the “city” on the one hand and the “family” or household on the other (Booth, 1993). The enterprise emerged as a “new” social institution in the course of the 17th and 18th centuries. Late 19th and 20th centuries were to be those of the triumph of the enterprise as dominant social institution. Today, at least in OECD countries, it still plays a dominant role in all dimensions of social life and its logic and rationality permeates outside of the narrow economic sphere. An enterprise can thus be seen as an “artefact”, an instrument, a system brought into being by humans in order to achieve a set of specific goals. These goals set the “enterprise” apart from other “social action systems” (Cuendet, 1981). Bochenski, the prominent logician, when speaking about the industrial enterprise, also uses the notion of “system” but goes further and identifies the economic rationality as being the “organizing principle” giving it coherence and flesh (Bochenski, 1988).

The unsettled questions still at issue concerning the nature or the essence of the enterprise impede most of the present day discussions about entrepreneurship. What it is and what is its contribution to growth, how – and why - it might or should be promoted through adequate policy measures.

The contemporary research interest in entrepreneurship evidences two different but somewhat complementary strands: one is concerned with pure economic theory and builds mostly on the Austrian school as opposed to general equilibrium school (Kirzner, 1997), while the second strand is more pragmatic and empirical. It uses econometric as well as socio-psycho-economic tools to describe and explain “entrepreneurship” as a phenomenon, and possibly provide guidelines for policy measures. The first is theory related and looks at the place and role of the entrepreneur (and by extension of entrepreneurship) as a “dynamiser” who brings life into the market economy, seen as a system, while the second is above all empirical and aims at identifying, if any, a “cocktail of entrepreneurial success”. Entrepreneurship is today of interest to scholars and to policy makers because of its expected positive macro-economic effects such as increased production and overall efficiency of the economy.

Despite differing agendas, the two lines of research agree on a broad definition of entrepreneurship seen as a process concerned with: “... discovery and exploitation of profitable opportunities” (Shane & Venkataraman, 2000 p.217).

Each of the four words in the above definition is essential. Thus, this definition designates the entrepreneurship as a comprehensive process, extending from the “discovery of opportunities” to “profitable exploitation” of activities, which - on the macro level – has to be seen as increased production or increased efficiency. The same definition carries implicitly at least four additional insights into the intricacies of the entrepreneurial process:

- it implies that opportunities exist on their own and may be discovered and exploited;
- it implies that discovery and exploitation are two distinct steps, not linked necessarily and of different duration. In other words, entrepreneurship is not only about screening and searching for opportunities, but also about making use of these once they have been identified;
- it implies the presence of agents who discover and exploit the opportunities;
- it suggests also a motivation for these agents, namely the quest for profit.

The point here is not to discuss the implicit assumptions of each of the above, but only to stress that the four dimensions of the definition of entrepreneurship correspond to the four dimensions of the enterprise identified above. The four dimensions are (a) the material out of which it is made – opportunities in the case of entrepreneurship, and physical assets in the case of the enterprise; (b) the legal incorporation as the shell in which the profitable activity (enterprise) is carried out; (c) acting agents; (d) the motivation that commends the decision making and action of the agent.

In both the enterprise and entrepreneurship this four dimensions are inextricably interwoven, their joint presence being required. They are not independent traits that

in some cases appear while in others are absent. All four are necessary and sufficient conditions for the emergence of an enterprise, i.e. for the successful completion of the entrepreneurial process that transforms potential into reality.

A transformation from potential into real is not easy to explain unless its “cause” has been clearly identified. The notion of causality stands at the centre of a debate that has occupied philosophers at least until the 18th century, when it was silenced by convincing demonstrations, especially in physical sciences, of the explanatory power of mechanistic causality. Three centuries later, the quest for explanations based on simple causality relationships still is the “noble way” and dominates in all fields of contemporary science. The victory of the mechanical causality approach can be explained not only by the aesthetics of the simple argument, but also by its efficiency, as it paves the way for the technical mastery and instrumentalization of the explained phenomena. The extension of the realm of the so-called scientific rationality to social sciences coincided with the development of the corresponding, and presently still dominant materialistic epistemology. In consequence most of non strictly materialistic lines of thought simply lost credibility.

Despite the fact that libraries have been written in the last 20 years about entrepreneurship (one of the recent reviews of this corpus are provided by Acs, 2002, and 2005; Fueglistaller, Müller & Volery 2005), our understanding of it is far from satisfactory. The reasons for this are many, one of them being the highly scattered nature of research from both methodological and epistemic points of view. In consequence, such efforts rather than helping a coherent picture to emerge, add to the present quandary in the debate about entrepreneurship. This situation may be an opportunity to revisit the so-called multi-modal causation perspective inherited from Aristotle. Indeed, seen as actuation of a potential, entrepreneurship fits perfectly into the type of problems, the multi-modal causation approach may be supposed if not to solve, at least to clarify. Thus, in spite of a limited risk of losing focus, the more general debate about causality has to be brought into the present discussion of entrepreneurship.

Since Hume, modern science is based on a rather mechanical notion of causality still at the core of much of present econometric and statistical efforts in hard as well as in social sciences including economics¹. However, history of philosophy provides alternative methods to address the question of causation. Known to a limited circle, the broader approach to causality initiated by Aristotle and later developed by the scholastic tradition (above all Aquinas) may prove useful when tackling problems that mechanistic approach can not properly handle. Indeed, success of such notions

¹ See SIMON, Herbert article “Causality in economic models” in *The New Palgrave Dictionary of Economics*, London, MacMillan, 1987, vol 1 pp 328-383, also HICKS, John, *Causality in Economics*, Basic New York, Books, 1979; also SHACKLE, George “*Epistemics and Economics*”, Cambridge University Press, 1972.

as “system” or “complexity” which are more and more often called upon even by the most sophisticated quantitative techniques shows the limits of the dominant paradigm. All this may well indicate that the explanatory power of the Cartesian mechanical causality rooted in a purely material philosophy is being exhausted. Possibly, the Greek philosophers of more than two thousand years ago, in their search for understanding, have encountered barriers of the same kind, as those we experience today. In consequence, their responses and suggestions may prove of interest to us. Indeed, in the last 20 centuries the experimental method has enlarged very significantly the limits of our knowledge, but not suppressed those very barriers, especially not in the social sciences.

The basic element both in the Aristotelian analysis of change and in entrepreneurship process as mentioned above is the point of clean break: the moment when a potentiality is actualized, when a “profitable” activity takes shape and emerges from the scratch. Contrary to the presently dominant perception of causality, for Aristotle, a cause is not what transforms A into B, but the transformation, the process itself. In an Aristotelian perspective, there is no antecedence between A (that we use to call cause) and B (what we use to call effect); they are both part of the same transformation. This fundamental difference in perspective between Aristotle and us, makes the very use of the term “cause” or “causality” misleading. “Aristotle did identify the *why* with an object’s nature or form. This will seem surprising only to those having heard that Aristotle isolated four distinct causes: material, formal, efficient and final. What he actually referred to were not four causes but four *fashions* in which we cite the cause.” (Lear, p.27).²

According to this philosophical approach, there is only one answer to the question “why”, but in order to help us grasp it different modes or fashions of its actions can be identified. Thus in order to keep in mind the ontological unicity of the cause and the multiplicity of its facets, we speak here of the “multi-modal causation model”. The modes, fashions or dimensions of change, according to the Aristotelian, and later scholastic tradition are:

- the material cause, “that out of which the thing comes to be”;
- the formal cause, the form that the previously form-less “matter” has taken due to the change;
- the efficient cause refers to the agent of change, the “changer”;

² LEAR, Jonathan, Aristotle: the desire to understand, Cambridge University Press, 1988, p 27, see also REALE, Giovanni, Storia della filosofia antica; Bompiani, Roma, 2004; see also TAYLOR, Richard Causation, in EDWARDS, Paul, The Encyclopedia of Philosophy, MacMillan and Free Press, London and New York, 1967, vol II, pp 57-66; and ROSS, David, Aristotle, Gordon & Breach, 1971, 102-105.

- the final cause concerns the “telos” (that for the sake of which something is done), pursued by the changer. The scholastic tradition added later the “exemplary cause” which is an extension of the final cause referring to the ideal that the agent had in mind when acting.

3. ENTREPRENEURSHIP AND THE MULTI-MODAL CAUSATION

The Aristotelian causality pattern is not a ready made kit with clear instructions that can be mechanically applied on the object of study, but rather a set of indications drawing the attention of the observer to all the different layers of reality. By contrast, what is striking in the flow of contemporary contributions to the literature on entrepreneurship is the lack of articulated epistemical, not to speak about philosophical concern.

Indeed, when the Aristotelian pattern of analysis is used for the study of entrepreneurship, the scope of investigation is extended beyond the fields usually covered by the research in the subject. The resulting broader framework combines often unrelated contributions and sheds light on existing gaps in the present understanding of the entrepreneurial phenomenon. This section sets out to use the Aristotelian explanatory pattern to classify different conditions – objective and subjective – that are sufficient and necessary to the discovery and profitable exploitation of opportunities. By no means does it pretend to offer a state of the art review of the question, but only an attempt at drawing a more or less comprehensive and structured list of relevant issues.

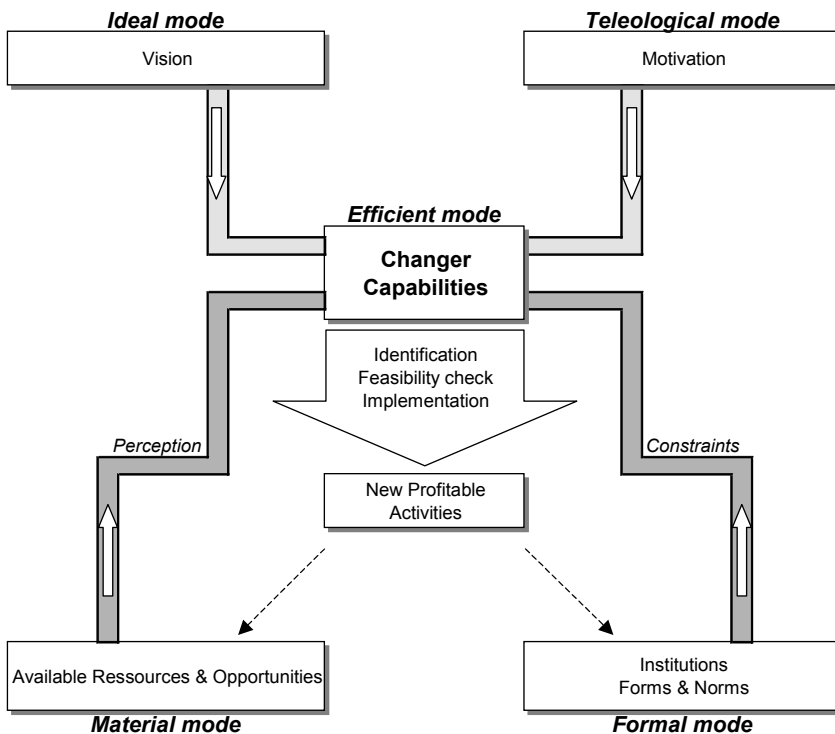
At the centre of the pattern discussed here lies the “changer”, i.e. a specific actor which effectively actualizes the potential and attempts at turning it into a profitable new activity. This agent-centered approach is quite different from, but not incompatible with, the depersonalised view dominant today in the literature which considers entrepreneurship as an anonymous and faceless “process”, taking place in an equally disincarnate socio-economic context.

At this stage, a preliminary definition of entrepreneurship can be proposed as the dynamic interaction between opportunities and resources available in a given place at a given moment (material mode); the persons or groups able to seize the opportunities and use the resources in a profitable way (efficient mode); willing and motivated to do so (final mode), and the prevalent institutional and cultural structures in which the activity takes shape (formal mode). The threefold outcome of this interaction is an integral part of the entrepreneurship process, namely: (a) new profitable activities emerge while others fail to do so; (b) they increase the overall volume of production and/or the overall efficiency; (c) the interaction changes in turn the existing opportunities and structures through technical and

institutional innovation. Under certain qualifications, it can be said that successful new profitable activities move the whole system to a higher level of organization and economic efficiency.

The Figure 2 helps understanding the structure of the argument that will follow. According to what is said above, entrepreneurship is shown here as the interplay between the vertices of “Opportunities” (material mode), of “Structures and Norms” (formal mode) and “Changers” (efficient mode). These play a dual role firstly to ultimately enact the potentialities and secondly, through this, impact on opportunities, structures and norms. “Vision” and “Motivation” are the other components of the model, as they are related to the “Changer” and specific to him.

Figure 2: Multi-modal causation grid applied to entrepreneurship



3.1. Opportunities – the material mode of causation

The capacity of identifying and taking advantage of opportunities is the core of entrepreneurship. However, until the opportunity has been identified and evaluated, it is hardly an objective fact. This brings us to the widely debated question: what is an opportunity? For the neo-classical economic theory of perfectly competitive markets

in steady equilibrium, there is logically no room for any opportunity, all the potential having been exhausted. Things are different in a Schumpeterian framework where “creative destruction” indicates that opportunities are meant to be alternative but more efficient uses of available and ineffectively used resources. In a broader Austrian view, opportunities are the outcomes of the entrepreneurial discovery process. Hence the question present in many Austrian contributions: are opportunities an objective fact, or a matter of subjective perception?

In the Aristotelian tradition, the material mode of causation is an objective fact, a kind of raw material, out of which the new reality takes shape. Thus, in the case of entrepreneurship, the best way to describe existing opportunities is to look at available resources usually critical for a profitable activity: the availability and characteristics of labour force, broadly available financial means, level of technology, the technical and organisational knowledge and competencies, level and quality of demand and possible sources of supply of intermediate products or components. These are the “raw materials” out of which new “profitable activities” can take shape.

The amount of resources and number of opportunities is secondary when access to them is difficult or even impossible for certain strata of the population. In other terms, the material mode of causation addresses not only the overall availability of resources and hence of opportunities, but also their accessibility. Indeed the opportunities are different in a prosperous market democracy, in a developing country or in a centrally planned economy, not to speak about the Roman or Aztec empire. Indeed, the major difference between the above situations concerns the space open – in legal and moral sense – to competitive economic processes. The bigger the role open markets play in a socio-economic environment, the broader would be the spectrum of entrepreneurial opportunities. The story of “entrepreneurs” as told by historians is about the conquest of additional portions of social life and their surrender to the economic rationality and market game (Vérin, 1982; Favier, 1995).

Another aspect of the accessibility problem are the “barriers” that may prevent specific social groups from reaching them. The most commonly identified hindrances pertain to ethnicity, race, religion, or gender; other may apply to location, level of income or education.

The resources and opportunities as identified above are embedded in a given socio-economic reality which can be described either in terms of level of economic development or intellectual sophistication or technological advancement. The quest for access to so defined opportunities and resources has been one of the major drivers of immigration flows in the last two centuries. Today the symmetric concern is at the core of the Lisbon Agenda (2004-2009) aiming at compensating the European opportunity deficit and, by doing so, at preventing the talent and brain drain to countries with wider opportunities.

3.2. Institutional constraints – the formal mode of causation

The actualization of a potential and, in the entrepreneurship context, taking advantage of an opportunity implies the setting up of a “form” – an organisational shell - in which the new activity will take place. The formal mode of causation is about the institutional – in the broad sense – constraints that the environment imposes on any opportunity before it can be made good of.

North (1990) defines institutions as accepted patterns of collective behaviour at a certain time in a certain place. By doing so he encompasses two important dimensions: the explicit or legal one and the less explicit one as determined by custom and by the prevailing culture. Within each society, specific activities are carried out within more or less dedicated organisations. Enterprise is the generic modern name for a whole spectrum of types of standard organisational settings designed to shelter profitable activities. In contemporary societies, they range from typically capitalistic joint-stock companies to partnerships (in common law tradition), to cooperatives and to limited liability, family enterprises or activities such as farms.

The corresponding legal canons as well as the regulatory regime change slowly in response to evolutions of the political and social context. These rules and canons are constraints every opportunity which might evolve into a self-standing legal “profitable activity” has to comply with (Finance & the Common Good/Bien Commun – no 23 (2006), “Enterprise : Matter and Form(s)”). As to the form of the new activities, two other possibilities exist: either within the informal sphere where forms are fuzzy and unstable and where economic activities are integrated to other dimensions of social and family life, or alternatively within the framework of an enterprise already existing. Much of the present discussion about the virtues of intra-entrepreneurship and intra-enterprise innovation concerns this component of the entrepreneurial process.

The second type of constraints, beside the legal ones, i.e. the formal dimension, are cultural norms and rules of social behaviour valid at the moment and place where the study of entrepreneurship is conducted. This dimension of the prevalent institutional setting is more difficult to capture than the legal one. Sombart’s work on the “spirit of the enterprise” as a characteristic of social mentality in the age of industrial capitalism or Weber’s argument about the impact of religion on modes of economic activity belong to the best known examples of studies on the formal mode of entrepreneurship causation.

The enthusiasm for the search of efficiency may be seen as a dominant trait of contemporary mentality. This “ethos of efficiency” deeply rooted in values globally shared, is less a constraint on the entrepreneurial process than an incentive (Guzman, 1994). Thus the formal dimension can play either a role of constraint or of incentive for the overall entrepreneurial process. It depends on the position economic efficiency has in the cultural setting. Even today, in many regions of the world, social acceptance of the sheer search for efficiency is much more limited than in the OECD countries as suggested by the tensions perceptible in the globalisation debate.

3.3. The “changer” - the efficient mode of causation

The enterprising entrepreneur is the key element of any entrepreneurial process or experience. He is the ultimate agent that transforms the potentiality into reality. Traditionally his role in the process is decomposed into three successive steps:

- Identification of the opportunity is derived from perception on one side of the available resources and opportunities (discovery and alertness), and on the other of the institutional and social rules and constraints that he will ultimately have to respect or to breach;
- Evaluation of the feasibility of the possible project in respect both to its motivations and to the resources and means that he can ultimately command;
- Eventually, implementation of the project and ultimate risk taking.

The proper understanding of the efficient cause requires three points to be discussed here: who is or can be the agent, what is meant by the resources he can command, and finally, his motivation. This last point will be discussed in the next paragraph devoted to the teleological mode of causation.

Entrepreneurship is a process that can be carried out by many different agents: individuals, small groups such as partners or associates, or – in theory – larger groups such as cooperatives or even “moral persons” such as existing enterprises. In the last two cases however the meaning of the entrepreneurial activity will be very different because it loses its spontaneous discovery character and becomes an activity carried out according to a more or less explicit procedure within a larger organisation. However, even within a larger organisation, the initial discovery of a potentiality will always remain the act of one or a few identifiable persons. In such organisations, established procedures may take on the steps of feasibility assessment and eventual implementation, but these functions are being discharged only after the initial discovery and identification have been performed.

The Austrian school in general and Kirzner in particular have put emphasis on alertness and openness to surprise as indispensable components of any discovery of opportunities. The actual level of perspicacity, the eagerness to discover, depend on many factors that can be grouped in three categories: (a) those that relate to the individual character, personality and mental set-up. The traditional research into the entrepreneurial character has lost momentum in the last decade, but this does not mean that it has lost all of its meaning. The second set of factors (b) concern the level of knowledge and competence and also the point of observation that the agent occupies in the socio-economic fabric. An engineer in chemistry is better suited than a lay person to identify the industrial or market potential of a molecule. The same is true of a specialist in finance who knows much better than a layman how to market a new financial product he has just designed in response to clients needs. Privileged

information – not to say insider information – obtained through informed and trusted network means more than the same information discovered in the media. These three examples suggest that some persons are better equipped – socially and professionally - than others to identify new opportunities not only because of their character and training, but also because of their experience and the position they occupy. Finally, (c) the third group of factors has to do with the forcefulness of entrepreneurial motivation. This last issue will be addressed in the context of the discussion of the teleological mode of causation.

The second step in the textbook entrepreneurial process, once a specific opportunity has been spotted, is the feasibility check. Between these two – analytically separate but often interwoven - steps an explicit or implicit selection process takes place. The outcome of this process depends not only on the perceived quality of the opportunity, but also on factors that relate to alternatives the person has, its ultimate motives such as the forcefulness of the entrepreneurial motivation, and the degree of attractiveness that the opportunity represents for the person concerned. Some of these factors are purely rational such as the potentially expected level of remuneration while others are not, or not fully rational. In consequence, the feasibility assessment will – in most cases – be a highly personalized process. The feasibility question is not posed in abstraction but concerns persons – and less often organisations - who may ultimately decide to implement the project, and thus may be exposed to its precise consequences.

In the feasibility analysis, agents confront the potential of identified opportunities with the resources that have to be mobilised in order to take advantage of it. The required resources have two components; on the one hand those that are generally available as described in the section about material mode of causation, and those to which the agent has either a direct or easy access or those that he commands personally. In consequence, the general picture derived from an overview of available resources has to be substantiated with information about agents capacity and conditions to access them. This dimension of the feasibility assessment explains why the same opportunity may be found of interest by some while not by others. In order to take full account of the agent's leverage possibilities, the notion of “capabilities” developed by Sen is extremely illuminating (Bonvin, 2005). Indeed the question is not about abstract availability of resources but about the actual capacity to access them. In any society, the capacities to command resources are unevenly spread: the extension and quality of private and professional networks, the level of empowerment, the level of professional competences, access to advice and experience belong to the socially differentiating factors. The same differentiating factors apply to enterprises that spot an opportunity and consider taking advantage of it. In terms of access to credit, access to markets, to the necessary know-how or the capacity of achieving, synergies differ if the enterprise is a local SME or if it is a transnational corporation. A complementary line of research is known as “resource based”, using the concept of social capital to study entrepreneurship.

It is often suggested that discovery and feasibility assessment are analytical processes. The empirical evidence shows that discovery, feasibility check and implementation decision may involve more than only intellectual cogitation (see Global Entrepreneurship Monitor project methodology). Indeed many real life entrepreneurs have started by a pragmatic iterative process of the trail-and-error kind in which deeds and analysis proved to be dialectically linked to one another. The pragmatic approach is usual in very small ventures, where the resources, time and competences at hand are limited. In such situations then real size trail-and-error process is another form of learning and knowledge acquisition.

In theory, implementation follows feasibility assessment. Here comes into play the final cause, the motivation but also the existing alternatives which will influence the readiness to take on the risk associated with the new activity.

3.4. The motivation – the teleological mode of causation

For Aristotle, the final goal, the so-called “telos”, is one of the most important elements for answering the “why” question. Leaving aside the metaphysical consequences of such a position, let us consider briefly the finality issue in entrepreneurship.

According to the well established tradition of economic theory, homo oeconomicus is the only actor of the economic reality. Assuming a satisfaction maximising hypothesis, the only possible reason for which he may engage into a new activity is the expected reward. Despite deeply rooted belief that greed for money is the most important motivation of entrepreneurial activity, interviews and surveys show that the motives effectively at work are more complex. They run through all the levels of the famous Maslow’s hierarchy or pyramid of needs and the corresponding drives. In many cases, especially among the poor and excluded, the underlying motives behind self-employment and micro family enterprises are basic human physiological needs such as shelter and food. Then come other motives related to self-accomplishment and social status, and a drive for esteem may subsequently be at work. According to Sombart, in early times of capitalism, an additional motive emerged – enrichment seen in abstraction of any reality, seen as straightforward multiplication of financial assets per se. These motives are put forward in a growing number of contributions concerning contemporary financial markets, however they seldom appear as the driving mobile in entrepreneurship activity (Augar, 2005; Partnoy, 2003).

Although selfishness – in its different expressions - is often seen today as the only credible motive of economic activity (Finance & the Common Good/Bien Commun – no 22 (2005), “Homo oeconomicus – le mal-compris et le mal-aimé”). Field research suggest clearly that altruistic objectives such as job creation, feeling of responsibility for a family or a region have always been very important for the entrepreneurs. Today, this strand of motivations comes to the fore of what is called more and more often “social entrepreneurs”, such as NGOs having non profit activities. The same kind of

motives may be at work in the blossoming initiatives of the “solidarity economy” (Finance & the Common Good/Bien Commun – no 20 (2003), “Solidarity-based Economy”).

As mentioned above, Aristotle’s commentators in the Middle Ages have expanded the list of “causes” to include the exemplary cause. It encompasses the ideal that the agent has in mind when acting. In the case of entrepreneurship, this corresponds to what is usually understood under the term of “vision”, when used as “visionary entrepreneur”. The ideal mode of causation takes into account what the vision was, the picture the entrepreneur had in mind when embarking upon his new venture.

4. THE OUTCOMES: GROWTH AND POLICY SCOREBOARD

The tentative framework presented above will emerge as a coherent pattern of explanation only if its basic characteristic of multi-modal causation is kept in mind: the cause is unique but has many facets that are NOT autonomous with respect to each other. This implies that none of the four modes of causation analysed above should be considered in abstraction. The strength of this framework comes from the fact that it can serve as a preliminary tool of analysis as it guides the researcher to review all the dimensions of the problem before going any further.

The entrepreneurship process as defined above has tangible outcomes, i.e. “profitable activities”. Depending on who is the agent and where he is anchored, the entrepreneurial process may have a whole spectrum of outcomes: new enterprises (formal or not); extension of existing enterprises; or radically innovative products or services. All these activities, insofar as they generate profit, contribute to growth either through increased production or increased efficiency. When assessing the outcomes of the entrepreneurial process, the statistical apparatus concentrates on new enterprises. The other forms that the entrepreneurial activity may take will not be accounted for statistically while their economic impact may be considerable. The multi-modal causation framework at least accounts for this effect.

Empirical work on survival rate of young enterprises suggest high mortality rates. This means that about one out of two opportunities identified and implemented in the entrepreneurship process, did not correspond to a real potentiality. In consequence, when assessing and analysing the process, outcome should also be taken into account: macro-economic outcomes, but also the consequences for unsuccessful entrepreneurs. In this respect a more general question comes to mind: what is the actual level of entrepreneurial activity, and what tools should be used to foster it?

Each of these fruits of entrepreneurship has two effects. On one side it modifies the resources available in society, and its level of knowledge and expertise. By doing so, it has an impact on what has been called above the material cause. On the other side, each new enterprise or innovation affects the formal cause by, for instance, demons-

trating to the other agents in the economy, a new way of organizing the activity, or contributing directly or indirectly to the emergence or new legal or customary norms and patterns of behaviour.

In terms of policy measures, the multi-causation pattern suggests that before putting in place policies or institutions aiming at fostering entrepreneurship in a given place and time, a careful assessment of the bottlenecks and shortcomings along the whole process should take place. Support for young enterprises facing problems may well prove to be a substitute, in terms of overall efficiency, for increased efforts in education and promotion of the entrepreneurial spirit. Extension of micro-finance institutions (material cause) could prove socially and personally counter-productive if not linked with coaching measures (efficient cause). The discussion about painless registration procedures (formal cause) may prove counter-productive if it appears that the number of non performing new enterprises grows in consequence.

The use of the Aristotelian grid for the analysis of the entrepreneurial process in a given region and country may facilitate the development of a comprehensive set of meaningful indicators that could then be used in a scoreboard to monitor and foster policies in this field. But much work remains to be done before this tentative pattern turns into an effective policy instrument.

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