

Educational credentials: "intangible" and functional

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Abstract: According to a Von Hayek's thesis, the function of educational credentials is fully focused on entrepreneurial perspective, beyond the traditional distinction between the educational credential obtained at school or university (diffused public entitlements) and the certification of subsequent lifelong learning experiences. This point of view reduces the definition of an educational credential to a certificate of competence in the technical and scientific treatment of situations that may arise at different stages of entrepreneurial planning and production. On the other hand, this conceptual reduction is a kind of test of socio-cultural substance and consistence of the current neo-liberalist theories, which link the value of techno-scientific learning to derived entrepreneurial applications.

Keywords: competency; educational credential (s); entrepreneurial strategy; intangible asset; return on investment (ROI).

The weight of the intangible

«In a knowledge-based society, [...] codified and fluid knowledge are ultimately two faces of the same coin» (Rullani, 2007, p. 162).

When, as has been happening recently, such neologisms as "intangible" and "immaterial" enter the vocabulary of economists (Rullani 2004), this is seen in some quarters as welcome evidence that Economics is becoming

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less dry and more "human" as the field becomes increasingly informed by cultural dispositions and *knowledge attitudes*. If, however, in a "post-industrial" era of globalised markets (Catarsi, 2005) advertising is increasingly focused on "design" and the socio-cultural values associated with products themselves – while production is increasingly managed by lean organisations and computers -, it is nevertheless quite improper to imagine economic processes that are less cumbersome, tiring and conflict-ridden than those of the recent past. Using the terms "intangible" and "immaterial" metaphorically to convey the idea of an emerging "spiritualisation" of the economy is a little like believing (as many indeed did at the time of their introduction) that artillery techniques make war less savage because they "intellectualise" it (Anders, 1985), or – as the tragic figure of the Italian fascist Galeazzo Ciano self-mockingly confided – like imagining that airborne combat is "cleaner" than fighting on the ground in infantry or artillery corps.

When a brand, an industrial design or an advertising campaign are said to be "immaterial" or "intangibile" factors in entrepreneurship, these are patent examples of the metaphoric sublimation of reality. Unfortunately, we know the *material* costs of conflicts over "intellectual property" rights and advertising space, especially in "cyberspace" (Castells, 1996), just as we know that *knowledge-based work* and competence innovation (processes currently described by the metaphor "intangibile" but nevertheless aimed both at the continuous reactivation of market cycles and at reducing production costs) result in novel forms of overwork, precarious employment conditions and intensive exploitation of human resources (Cohen, 2001; 2006; Sennett, 1998; Sennett, 2006).

If, therefore, flights of metaphorical fancy aside, we wish to find consistent and realistic meanings for terms such as "intangible" and "immaterial", we need to focus on the concepts of "insubstantial" and "indefinite" that these terms signify in English: where an "intangible asset" is ultimately a thing of *indisputable efficacy*, yet, at the same time, *defies accurate measurement*.

For example, company accountants are well aware of the difficulty of assessing the profitability of an advertising campaign or a training scheme: the costs of these "items of expenditure" cannot be correlated with "benefits" in a continuous incremental manner and "return on investment" (ROI) is "disturbed" by the heterogeneous qualitative factors that intervene in the time that elapses between one measurement and the next. Experts in

management engineering would invoke the scholarly-sounding principle of "ceteris paribus" here; in operational terms, this translates into the design and handling of a structure whose underlying functional connections are kept *sufficiently under control*.

Rather elegantly, this type of "domesticated" (and domesticating) structure is also described as a "model". But in concrete historical processes, as indeed in Economics, the function of models is "exemplificative" (or, in Weberian terms, "ideal-typical"): if they are able, albeit with difficulty and fleeting success, to "domesticate" documents from the past, it is with even greater difficulty and uncertainty that they are able to regulate and govern contemporary social dynamics. Moreover, the constant (but it would not be improper here to use the term "law", in view of its denotation of imperativity) of the "free market" generated by competition between "capital enterprises" is that the current winning organisational-strategic model *survives* (it is therefore more a Lamarckian than a Darwinian constant¹): and those who understand and appreciate their

¹ In the definition of an underlying alienating tendency in emerging neo-liberalism, the following two passages from a recent essay by Bauman are punctual and icastic, and should be read in conjunction:

1) "A society can be said to be liquid-modern if the situations in which men operate change before their modes of operation become consolidated habits and procedures" (Bauman 2005; It. trans. 2006, p. VII);

2) "Subordinating cultural creativity to the criteria of the consumer market means asking cultural creations to respect the prerequisite of what were once honest consumer goods: that is to say, to justify themselves in terms of market value (*current* market value, to be precise) or perish" (Bauman, cit., p. 58). The two passages were brought to my attention by Paladini (2008).

The perspective of "liquefaction" can more optimistically be exchanged for that of "fluidification": "[...] the knowledge needed to deal with complexity is not *codified* knowledge, which relates to consolidated and repetitive phenomena; but *fluid* knowledge, arising from events or reflection on events [...] In reality there is a subtle link, which has been established by modernity, between codified, replicative knowledge and fluid knowledge, which operates in the differentiated and unpredictable contexts of action (Cowan, David, Foray, 2000). The link is basically this: fluid knowledge is necessary for *exploration* of the new, codified knowledge for *exploitation* of what is already known (March, 1991). But the two things cannot be separated: there would be no *exploration* without the benefits derived from *exploitation*, and it would not be possible to progress very far with *exploitation* without investment in the exploration of the new" (Rullani, 2007, pp. 161-162). It must be stressed, however, that a "codified" and "fluid" constructive knowledge connection has value where policies of profit investment are concerned: i.e. in relation to the business organisation competing for survival on the market.

current, and/or likely future, positions as "winners" are generally inclined to stabilise and *rationalise* their success, whose uncertain foundations they well know, *through survival pacts shrewdly negotiated with their competitors*. Thus, a practice that may be defined as "contractual objectivisation", is generally, and epistemically, validated: when a given model of socio-economic equilibrium is agreed upon by the "winners" and suits their respective strategic purposes, this model is able to establish the contextual *frames* needed to calculate intertemporal utility functions and "domesticate" the conundrums that any budget presents. Moreover, for a business to be able to reproduce successfully, it is necessary for it to show that its "accounts tally": a reputation for accurate and consistent *budgeting* is fundamental to a company's image of credibility and success in the "capitals market". It is necessary to avoid the "intangibility" of uncertain measurements and promote models of organisational rationality that are plausible and stand up to public scrutiny: the buyer, be he a shareholder or a simple consumer, must be made faithful to a product or company by means of consistently persuasive representations of the entire process of production and supply of goods (Boltanski, 2005). The buying public is attracted by models described as being of future benefit and not by prospects of infinitesimal flows of *insufficiently* certain "returns on investment". In addition to all that has been said about the "eclipse of subject" and the "liquefaction" of social ties in the post-modern era, it is also undeniable that within current global economic processes *actors and agents of sufficient social substance* (if we do not wish to use the term "subject", deemed to have been compromised by metaphysical thought, we must nevertheless find a term that is similar in meaning to the italicised expression above) *are continually emerging and reappearing in such a way as to create politically significant entrepreneurial roles and responsibilities* (Cobalti, 2006). It is these entrepreneur-subjects who, by their commercial exposure strategies, must present the public (of users and customers) with budgets in which *intangible assets* "materialise" as items of expenditure that can be measured with *sufficient certainty*. (And while budgets can be dressed up, they must nonetheless remain publicly credible: the need for deliberate recourse to communicative deceit implicitly confirms the importance of the rules of veritative-contractual communication).

According to the view expressed here, educational credentials, in addition to other assets and resources, are factors that contribute to make an

investment "sufficiently certain", which confers credibility and social legitimation on the entrepreneurial subject.

The function of educational credentials

«[...] as Hayek energetically maintains (1960, 1976), in a market economy it is for the employer, and for him alone, to decide what the merits, or at least the productive potentials of his employees are. Secondly, in contemporary economies employers often have good reasons for *not* attributing a decisive role to qualifications and to public entitlements in selection procedures» (Goldthorpe, Jackson, 2005; It trans. 2008, p.52) ²

Broadly defined, an educational credential is a *certificate of competence in the technical and scientific treatment of situations that may arise at different stages of entrepreneurial planning and production*. This definition, from the perspective of functional outcomes, goes beyond the traditional distinction between the educational credential obtained at school or university (diffused public *entitlement*) and the certification of subsequent *lifelong learning* experiences, to fully centre focus on entrepreneurial action, as evidenced by the above quotation from Goldthorpe and Jackson. It is from this comprehensive perspective that the following theory, to be elaborated on subsequently, derives:

The educational credential is an active resource in the realisation of a sufficiently substantial and consistent entrepreneurial model and its

² The journal 'Stato e Mercato' (Il Mulino, Bologna), which published an Italian translation of the Goldthorpe and Jackson essay from which this quote is taken, points out that: 'This article will be published care of the Russell Sage Foundation in the volume *Social Class: How does it work?*, edited by Annette Lareau and Dalton Conley. We thank the publisher for permission granted to translate ('Stato e Mercato', n. 82, 2008, p. 31, note 1)'. While awaiting the publication of the original work in English, we have taken the liberty of providing our own translation from the Italian text in order to satisfy the immediate requirements of the English-speaking reader.

profitability, like that of a brand or advertising campaign, is relative to its overall strategic value within a given commercial investment plan.

Workers with high-school certificates and degrees or those who have variously re-qualified through *lifelong learning* practices are, in the emerging market of "relational goods" (Sacco, Zamagni, 2002; Livraghi, 2003), key players in the promotion of products and retention of customer loyalty (Fournié, Guitton, 2008). The most concrete and accurate measure of the remuneration of their work is ultimately the *success fee*: this is an agreed quota of the overall entrepreneurial gain obtained from the use of such an *asset*.

A similar remunerative criterion ultimately applies for other *intangible assets*, such as a product *brand* or an advertising campaign. In all of these cases we can variously discern the attraction function of symbol identification promoted in the consumer and the economic significance of the latter's mental involvement. The profitability of these types of *asset* is therefore essentially *qualitative* and *discreet* : with the right brand, an effective advertising campaign and strategic use of suitably qualified workers, an entrepreneurial plan will be successful; without the above, it will fail. It is for these reasons that many procedures for calculating profitability and ROI which are based on continuous incremental parameters or are rigidly pegged to intertemporal measurements that are extraneous to the model of organisational plan under implementation seem abstract or contrived³.

Once a distinctly entrepreneurial stance, such as the one outlined above, has been taken up, the value of any kind of educational credential is established according to logic that is typical of "industrial relations" and which derives from an epochal condition that is increasingly characterised by the exchange of "relational goods" and by reticularly organised systems of production. Those who would jump to define this epochal condition in post-fordist terms must, however, also give careful consideration to aspects of continuity with the past.

«Even in the field of managerial competence, there is a renewed appreciation of the value of *humanistic* and *generalist* knowledge, which in

³ As regards the difficulty of calculating the productiveness of investments in training for scholastic qualifications, see Checchi, 1999 and Checchi, 2004 for an initial introduction to the problem. As regards the peculiarities of this type of calculation in the field of vocational training, see the issue of "Osservatorio Isfol" dedicated to the evaluation of the efficacy of such programmes (Isfol, 2001).

the past was passed over in favour of technical specialisations. Not that these are unimportant, but they risk becoming rapidly obsolete and incompatible with external realities if they are not combined with a solid set of general skills: serving to promote understanding before execution; evaluation before calculation; communication before decision-making. *It would be wrong, however, to predict the decline of specialisation and the return of the humanism of general knowledge for its own sake.* In reality the world of global economic networks is the world of a *thousand future specialisations*. The average degree of specialisation of companies and individuals is set to increase, not to decrease: but it is for precisely this reason that specialists must be equipped with the means to constantly, and sometimes radically, review, modify and build on the core set of skills associated with their profession of choice» (Rullani, 2007, pp. 168-169).

In this context, educational credentials could guarantee the entrepreneur-subject that their possessor has successfully completed a course of *linguistic-cognitive translation* in some field. The course would have built on a consolidated core of scientifically acquired and propagated knowledge and competences (the "standard" or "general" knowledge that is ordinarily present in scholastic and university education and, to a certain extent, also in *lifelong learning*) and would then have been oriented, in the critical-reconstructive style of secular-modern technical and scientific knowledge, towards the linguistic and cognitive variations generated by the management of unforeseen events, by discovery and by innovation. Thanks to his certification as a "translator", the credential holder is therefore equipped to handle the infra-organisational social and technical "incapacitations" generated by the cognitive and skills innovations required by market competition; similarly, his certification also makes him competent to manage any cognitive deficiencies that are generated by productive and commercial innovations in the vast pool of potential buyers/users ⁴. He has therefore mastered the practices and methods he

⁴ In a market that emphasises the identitary and relational aspect of goods, marketing strategies applied to the broad public increasingly exploit the potential buyer's immediate identification of a symbol with the product on sale, thus offering the guarantee necessary to induce the consumer to make an intelligent purchase. Thus, for example, in the field of computer *software*, the last decade saw the release of certain Microsoft products (such as the popular word-processing programme "Word") that displayed the twin advantages of innovative design and user-friendliness. Many of the operational deficiencies of this software, of which its creators and marketers were well aware, were corrected after consumers, seduced by the advertising and marketing campaigns, began, to their own cost,

needs to perform his role as a creative and productive commercial translator-communicator. Whether he is a high school or university graduate or someone who has re-qualified through *lifelong learning* practices, the educational credential holder has been trained to arrange in linear communicative mode knowledge and skills that might appear dissonant and discontinuous when first popularised. And he is able to carry out this process of cognitive harmonisation (or, as it might be put in epistemological terms, "normalisation of knowledge") both within a specific business community and, by extension, for the public lying outside the "black box" of the business organisation: a public whose loyalty is retained if it can identify with a product and therefore feel partially involved in and concerned about the producer's fate.

The prospect of applying "normal" demonstrative procedures to the solution of communicative and organisational problems of unprecedented uncertainty is emerging in two current processes of global significance:

- the measurement, using the "PISA" programme (*Programme for International Students Assessment*), of learning outcomes achieved during primary and secondary education by a significant sample of adolescents on an international level;
- the spread of the category of "transversal competencies" in the literature focusing on the theme of competent action and *lifelong learning* (Catarsi, 2003; 2005; 2007).

In the "PISA" programme, the evaluation of alphabetic-literary, mathematical and technical-scientific skills is, at a certain point during the evolutionary progress of the learning experience under consideration, combined with observation of extra-scholastic operational skills and "problem-solving" aptitudes (Checchi, 2004). On the other hand, in the literature on competencies, we also find the category of "transversal competence", denoting an essentially communicative-relational disposition of mind that operates in the interface between different areas of "technical and professional competencies". Now it has been demonstrated that conceptual categories such as "problem-solving skills" and "transversal

and with some bewilderment, to notice the glitches and report them to the retail outlets at which they had purchased their products. It is at such moments of entrepreneurial experience - which, by analogy, we may easily imagine in other spheres of productive specialisation (from pharmacology to clothing; from mechanics to entertainment; etcetera) - that educationally obtained capacities for linguistic-cognitive translation find their most pertinent and constructive uses.

competence" indicate moments of *strategic realignment of consolidated knowledge and competencies*; and that they cannot refer to any other operationally verifiable phenomenon (Rey, 1996; Catarsi, 2005; 2007). But the strategic realignment of consolidated knowledge and competencies is the typical bio-rhythm of entrepreneurial *exploration*. If what is currently referred to as "business culture" has, then, become widespread ideology, its bio-rhythms are processes worthy of more than superficial examination.

Strategic realignment

To be protagonists in a strategic business realignment produced by a major knowledge and applied skills "crisis", it is necessary to have the *sufficient entrepreneurial substance* mentioned previously, in the first paragraph. *This substance must be such as to allow the individual or collective business owner/manager to invest capital in the exploration of innovative strategies*. The term "innovation" should not necessarily be understood here to mean absolute creative novelty, but simply to indicate an adaptive variation in company policy and organisation, pursued – as we were saying – by exploratory behaviour. Many business organisations happily survive on returns deriving from the innovations of others. When the figure of the entrepreneur has been identified with that of a perennial innovational avant-guardist, a myth is born (Berta, 2004). In the ideal-typical category of modern entrepreneurial action we can nevertheless indisputably discern that essential feature of innovative exploration that Marx had highlighted even before Weber, Schumpeter and more recent figures (Kirzner, 2000). And where there is real exploratory innovation, there will inevitably be moments of fracture between the "old" and the "new" that will often generate critical processes of "creative destruction", as Schumpeter effectively defined them. Strategic realignment is indeed an aspect of "creative destruction" and involves suitable phases of "shock" and evolutionary re-composition, of cognitive-relational trauma and methodical reconstruction. In the management of these kinds of processes it would truly be both inappropriate and anachronistic to "predict the decline of specialisation and the return of the humanism of general knowledge for its own sake" (Rullani, 2007). Let us take a quick look at entrepreneurial sectors on the global scene that are currently capable of performing innovative exploration and therefore strategic realignment.

«This is the case, for example, in the social and medical professions or, in the apparently more frivolous but no less noble system of professions that exist in the worlds of fashion and show-business. These very different examples are instantly suggestive of many other specialised systems that are structured in an analogous manner within the broad range of classically 'liberal professions' and emerging professions in every area of production of socially appreciated and legitimised goods and services» (Catarsi, 2007, p. 106).

When processes of strategic realignment emerge in one of these areas, what is required is not an inclination to adopt generic educational and training programmes but, rather, a will to provide *training of a social-technical nature*⁵: this mental disposition is only partly describable from the point of view of a "pure phenomenology", which fully resolves the educational objective in the individual consciousness; the inclination is also partly described from the point of view of didactic engineering based on the total reduction of learning to technical-cybernetic sequences produced by factors outside the individual mind. In such situations of strategic realignment, human minds, which are orientated to learning, have bio-social characteristics (therefore, to respond to the "pure cybernetists", they cannot be reduced to the linearity of artificial intelligence); and, at the same time, their holistic orientations are heavily fused with a desire for sectorial specialisation (to respond to the the "pure phenomenologists" of educational intentionality⁶).

⁵ "The case of the system of socio-sanitary professions is in this sense emblematic and transparent. While scientific research in this sector is almost entirely concentrated in laboratories and clinics where human and material resources are supported by investments motivated by expectations of success (according to the well-known entrepreneurial circularity that connects expectations of success with investment), an active, up-to-date and unified 'transmission network' must be maintained between centres of advanced specialisation and terminals of public exploitation of the products of medical research: media channels for specialised publicity (conferences, scientific publications, specialist journals), schools for the specialised training of operators within the profession at the different levels of organisation of services (for example, degree courses and post-graduate specialisations for doctors, nurses and other professional figures), media channels for mass advertising. The transmission between 'centres' and 'suburbs' in this system generally follows the rules of *hierarchichally graduated communication of specialist competences*" (Catarsi, 2007, p. 107).

⁶ See, in this regard, Bodei, 1990; Voza, 1990.

There is therefore a need for specialists in *sectorial* (or "*regional*") *problem-setting*, once the expression in italics has been understood according to the definition below.

«By the notion of problem-setting [...] we mean the process of restructuring social significances, identifying new areas of difficulty and formulating schemes of intervention that cannot be appreciated by the subjects operating within a [consolidated] organisation, who are each involved in areas the social aspects of which are not so much unknown as taken for granted. It is not a process of supervision or bureaucratic monitoring of the efficacy-efficiency of the policies introduced by the [specialised] system (which, in the case described by the author of the passage quoted, is also the health system), but is a wholesale reworking of social policies for prevention, programming and increased participation. No new *facilitator* figure is introduced into the organisation to manage internal [already codified] communication, as happens in some American *corporations*, and whose function would in practice be reduced to that of a mediator in negotiations between actors operating in the so-called *situation room*. Instead we have a genuine director figure whose task is [...] precisely to deal with social issues and their relationship with the health system» (Pardi, 1997, pp. 149-150).

Beyond the hierarchical distinction between *single loop learning* and *double loop learning* (Argiris, Schön, 1978), and in line with a traditionally Tayloristic view of business management, Pardi stresses the relatively independent propulsive role of the *problem-setting* specialist, again in organisationally traditional terms ("we have a genuine director figure"). In reality, the *problem-setter* is a specialist in the application of learning methods to socio-cultural mediation in certain productive areas: in an age of *total quality management*, his activity, considering his broad autonomy, is organisationally multifarious.

But what are the scientific qualifications and competencies that constitute this figure's "credentials"? Are there specific training courses for this particular kind of specialist? When criticisms and complaints about the obsolescence of public institutions designed to foster technical and scientific open-mindedness (schools, universities, colleges of further education) are becoming the favourite sport of so-called supporters of business culture, we must remember that, because of their inherently progressive nature, those very institutions were originally promoted by productive classes that were socially able to equip themselves for

innovative exploration and strategic realignment. If we wish to find an answer to questions about educational credentials that is in tune with the Schumpeterian spirit of "creative destruction" it is with the strategic realignment of those institutions and their culture that entrepreneurial *élites* are challenged to engage.

We still owe a brief response, however, to those in the business world who fear the total absorption of individual minds by the logic of private profit. The response is suggested by a recent statement by Bauman, which efficiently summarises a well-known Batesonian perspective.

«Bateson would define *deuterolearning* as learning to learn, presenting it as the indispensable correction of 'first-degree learning' which, alone, would create a fossilised mentality, incapable of changing direction when the situation required it. Much later, Bateson would feel the need to superimpose 'third-degree' learning, consisting of the acquisition of the ability to modify the set of alternatives a person is exposed to during the learning process, on second-degree education [...] While the first two degrees of the teaching process are, in a sense, consistent with human nature and accompany every recognised type of knowledge, the *situation that demands third-degree learning* may and, according to Bateson, often does have *pathogenic* consequences, which produce schizophrenic personality traits» (Bauman, 2002, p. 158).

To illustrate the Bateson-Bauman perspective, let us imagine a person who has acquired considerable second-degree knowledge of pharmacological chemistry or banking science. What can happen to him if he discovers, thanks to his educational background, that certain drugs strategically placed and kept on the market by his company, produce "perverse" dysfunctional effects on their users? Or, in the case of the expert in banking science, how much autonomy will he have to act if he realises that his bank's apparent success in the sale of shares and bonds is in reality predisposing its customers to future financial ruin? As for strategies of individual adaptation to similar situations of conflict, the potential pathogenic consequences are not only of the schizophrenic kind (as Bateson suggests). The emerging dissonances can also be resolved individually by theories of "double truth", forms of "Nicodemism", temporary subordinations of the "ethic of conviction" to the "ethic of responsibility". In any case, the third degree of learning involves these *objective characteristics, which are socially and technically significant for all parties in a conflict*:

a) as regards the *environment* in which the action takes place, it is generated by the emergence of eco-political "externalities" and disharmonies of general interest;

b) as regards the individual mind, it derives from the systematic application of second-degree learning in the typical style of modern scientific thought, transmitted through "normal knowledge" and publicly managed training activities.

In conclusion, the producers of good educational credentials come to inhabit the same world as *well-established* entrepreneurs.

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