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Relational Capital and Appropriate Incentives: A Recipe for Human Resource Sustainability?¹

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Abstract

This paper attempts to give some hints for human resources management that are founded on a motivation-based economic analysis of incentives and the idea of relational capital. It is argued that cross-fertilization between traditional economic literature on incentives, experimental economics and research in cognitive psychology can provide useful insights on how best to design incentives schemes in firms. This analysis promotes a diffused style of leadership which could render human resources development more sustainable while the traditional hierarchical one is losing grasp with reality.

Keywords: motivation, incentives, relational capital, sustainability.

1. Introduction

Increasing the value and developing the social capital, meant as a source of magnitude of intangible assets for firms, has represented one of the most efficient anti-crisis remedies for companies all over the world that have demonstrated their capacity of reacting during seriously difficult moments. Even though several contributions on the possible valuation of such assets has been available for years, finding evidence permit us to declare with reasonable credibility which are the “qualitative” dimensions in which the companies can invest. In other words: What they should aim for while in difficulty and what they should strengthen once the most critical phase is over. Within this scenario, this contribution aims to put in evidence how even the simple idea of leadership can be further developed by connecting it with the dynamics of development and sustainability of the human capital.

The focus on human capital arises from the consideration that, among the various dimensions of the social capital, the human capital has been distinguished as a fundamental component, not only in the firms operating in labor-intensive contexts or in the services. Also typically manufacturing enterprises have distinguished themselves for having been able to develop their business or for not being sucked down by spirals of involution. Such firms are the ones that have majorly increased the business asset value of human resources.

Frequently managerial literature and practice focus on the importance of the external relational capital, while scarce attention has been dedicated to the internal relational capital, which is the value of the relations present inside the firm’s organizational contexts, although there is some relevant literature which has focused on internal climate analysis. Moreover, successful firms have shown good performance through the combination of general governance systems, a solid value model and a human resources management policy based on a motivation-incentive system (compensation, rewarding, and career development) where the relational leadership represents the final unifying element.

This observation, although under a slightly different prospective, has been recently confirmed by Pfeffer (2010) that, broadening the topic of human capital to comprehend the internal relational capital, introduces the concept of “human sustainability” as being the reason for sustainability of the firms competitive advantage.

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2. Competences, Human Capital, Relational Capital, and Sustainable Competitive Advantage

The idea of human capital encloses all the knowledge, experience, capacity and competences that an individual acquires and puts at the disposal of firms (and labour markets) in exchange for compensation. This definition matches the perspective of a “psychological contract”. Matter-of-factly the individual offers his human capital stock in exchange for all those factors that weigh positively on the “psychological balance” (career, training on-the-job, experience, organizational culture, etc). The recent managerial literature grants the human capital even a characteristic of the physical capital that is its liquidity, maintaining that in order to increase the corporate productivity it is necessary to fuel the process of accumulation of human capital and knowledge creation. In particular, the concept of strategic readiness - as the employability/expandability of the individual competences compared with corporate strategies - enables us to extend the idea of “liquidity” (Kaplan & Norton, 1992) to the human resources. In case of human capital, the liquidity is represented by the owning of proper competences in order to implement internal business processes which are considered critical for the strategy implementation whereas the liquidity of the organizational capital relies on the capability of changing the organizational setting (structure, processes, etc.) in order to implement the strategy as well as the capability of metabolizing culture, values, vision and mission of the firm. Among the various interpretations of the concept of human capital, the one that puts in evidence the relationship with management and with the competitive advantage can be particularly significant. The idea of capabilities developed by Sen (2000) is compatible with the concept of liquidity since capabilities are the competences that can be the first step towards “having skills”; such skills can be either technical (technical and professional competences) or organizational (organizational skills, knowing how to “live” in organizations). This transition from the fordist setting to the holistic one enables the identification of specific competences connected with:

- decentralization and de-verticalization of the hierarchy in favor of giving more responsibility and autonomy to the workers (Greenan & Mairesse, 1999);
- performance measurement and incentives/awards for teamworking (team-working);
- flexibility and multifunction of the single worker that is requested to frequently change duty in the same job or to change frequently occupation (Greenan & Mairesse, 1999; Ichniowski & Shaw, 2003).

Other potential benefits may be added to these elements, as for example the “super-additive effects” (or the “edgeworth complementarities”), as defined and discussed by Holmström and Milgrom (1994) and Milgrom and Roberts (1990a and 1990b) and the synergies in terms of competitive advantage that can deviate from the joint adoption of investment strategies that can operate in prospect of alignment between competitive strategies and organizational change. Moreover, recent contributions from evolutionary theory define the firm as an organization for problem solving, which possesses specific competences (Dosi & Coriat, 1998; Dosi, Levinthal & Marengo, 2003).

For the aims of this paper, two concepts of competency are crucial: the core competencies and the individual competencies. The idea of “core competencies” implies that the firms identify fundamental strategic competencies for the achievement of medium to long term goals. When such competencies are lacking firms should recover the conditions necessary for the implementation (top-down approach). The individual competencies instead are seen as characteristics that are incorporated in the individual, with a strong emphasis on talent (ex ante competencies) instead of on education and training (development of competences in itinere, bottom-up approach).

Starting from concepts of competence and capability as key points for the firm’s success, the process of management and development of human capital in successful firms has shown a shift of focus from a centered leadership (hierarchical structure) to wide-spread leadership that usually develops spontaneously and independently from the formal ascriptions (Vecchio, 2006). Coherently with this goal and with the perspective of diversity management, firms recur to the mechanisms of generational integration. The relations between senior and junior employees could be inspired by a “tutoring” logic where senior members tutor younger ones, in order to activate mechanisms of development of technical and organizational competences of the newcomers. Such corporate solutions enable the leadership to disengage from purely contractual relationships in favor of an individual and organizational credibility that would privilege individual charismatic features and favor in the meantime individual motivation and the endurance in times of crisis of the entire human resource management system (Field & Spence, 2000). In such a context, the leadership processes usually based on competences, capability and experience can leverage on internal networking, or in other words on the internal relational capital present in the firm. On the other hand, the concrete achievement of such a managerial policy (horizontal vision, alternative to the typically “vertical” one of hierarchic-organizational approach) requires great empathy on part of: the firm, the shareholders, the managers, in order for them to understand how incentives and disincentives cannot be dropped in an aseptic and uncritical way in any organizational context but should, on the contrary, be nurtured by a proper leadership style. The idea of relational leadership we propose in this paper should be pervasive and diffused within the organizational environment, open to the empowerment and participation in decision making, in order to shorten the distance between individual and corporate goals. The understanding of these new perspectives requires to explore how incentives and motivation are traditionally treated by the economic literature.
3. The Traditional Economic Literature on Incentives

Economic theories of incentives and particularly agency theory traditionally assume that the more an individual is paid the higher his effort, even if there is decreasing returns. It is therefore possible for a principal to define his/her policy in terms of the relation he/she establishes between the wage or bonus given to the agent and the corresponding level of effort. It is also assumed that punishment (e.g. a fine) or threat of wage cuts or dismissal permits to avoid some deviant behaviors such as free-riding. Finally, even if it is costly, monitoring is considered as an efficient means to control agents’ behavior and address it in the desired direction. When asymmetry of information is assumed, it is possible to build and an optimal (if not first-best) contract between the parties despite the fact that the interests of the agent (the worker) and the principal (the employer) are not aligned. But even in this case, the basic assumption is not removed. This assumption also applies if one extends the analytical framework in order to deal with teams instead of a single agent (Holmström, 1982), with complementary incentives or with multi-tasked agents (Holmström & Milgrom, 1991, Bai & Xu, 2001). In the case of teams, two novel features have to be introduced in the usual principal-agent setting. The first one refers to the free-rider problem, since agents may have some interest not to participate to the contribution of the group as much as he/she would do if he/she were alone. The second one is competition among agents. In broad outline, the multi-agent setting implies new roles for the principal, in particular to administer incentive schemes that do not balance the budget since it is the only way to achieve efficiency in the presence of externalities (Holmström, 1982). In the case of complementary incentives, for instance, a combination of asset ownership (profit sharing), contingent rewards (pay for performance) and job design, the problem that arises is that exogenous variables can modify the co-movements of the incentives that are endogenous to the model. In their seminal paper, Holmström & Milgrom (1994) provide a way, by using the properties of supermodular functions, to appraise the efficiency of the combination of those incentives. This theoretical framework is completely in lines with empirical results coming mainly from management sciences. Furthermore, it is an appropriate approach because it stresses first the fact that an organization is based on a bundle of incentives and second, that this bundle is efficient depending on the kind of combinations it supports. A similar kind of conception is applied by the Federal Acquisition Institute, which states that “the system of incentives shall include provisions that:

(A) relate pay to performance (including the extent to which the performance of personnel in such workforce contributes to achieving the cost goals, schedule goals, and performance), and

(B) provide for consideration, in personnel evaluations and promotion decisions, of the extent to which the performance of personnel in such workforce contributes to achieving such cost goals, schedule goals, and performance goals.”

Direct incentives (payment) and indirect ones (promotion) are here seen as complementary.

Concerning the problem of multi-tasked agents, Bai and Xu (2001) use Holmström and Milgrom’s framework in order to analyze the incentives system that need to be applied to CEOs in a multitask context. According to Holmström and Milgrom (1991) introducing the assumption of multi-task contexts in a principal-agent problem permits to explain why generally employment contracts do involve mute incentives and favors fixed wages even when “good, objective output measures are available and agents are highly responsive to incentive pay” and loose ownership patterns even when contracts are complete (full account of all observable variables is taken, court enforcement is perfect). The intuition is that in multi-tasks contexts, if contingent task incentives are implemented, agents might concentrate their efforts on those specific tasks at the detriment of other complementary tasks.

In sum, these more sophisticated versions of the principal-agent approach do not challenge the idea that *ceteris paribus* direct incentives are efficient in terms of the effort they induce. This proposition is however a two strong assumption and has been challenged by psychologists and more recently by economists.

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3 Supermodular functions are such that “if the variables of a supermodular function are increased simultaneously, the function value increases by more than if we were to sum up the value changes from increasing the variables one at the time.” (Milgrom and Roberts 1994, p. 978). This can be interpreted as some kind of positive externalities between variables and is equivalent to positive cross derivatives. In other words, if a function $f$ is smooth, then it is supermodular if $\frac{\partial^2 f}{\partial x_i \partial x_j} \geq 0$, when $x_i$ et $x_j$ are two arguments of $f$. Accordingly, they define the conditions for incentives to be positively related and to induce a reinforcement effect.

4 http://www.washingtonwatchdog.org/documents/usc/ttl41/ch7/sec433.html

5 In health care systems, there are similar approaches. For instance, members of “Partners for Health Reform plus” considers that: “Incentives are rewards made to an individual or group that lead to specific behaviors. They can be positive or negative, tangible or intangible. They may be financial, although research indicates that financial incentives alone are not necessarily sufficient, and may not always be the most appropriate way to improve performance. Indeed, multiple types of incentives influence the behavior of workers and organizations in a health care system. Understanding incentives in the existing system as well as those underlying proposed changes is key to achieving the desired outcomes of reforms”. (http://www.phrplus.org/Pubs/IR8.pdf).
4. Insights from the Psychological Literature

There is a long tradition in cognitive and social psychology to deal with the topic of motivation, highlighting the possible detrimental effects of some forms of incentives on motivation. The theoretical frameworks dealing with this issue range from Expectancy-Valence Theory (Vroom, 1964) to Attribution and Self-Perception Theory, to Self-Efficacy Theory, to Cognitive Evaluation Theory and to Self-Determination Theory. Contrary to the traditional economic theory of incentives, those frameworks explicitly endorse the view that individuals’ motivations are heterogeneous: some people are participating more out of interest in the task than others (what is defined in the literature as intrinsic motivation), while others gain their satisfaction principally out the way in which their performance on the task leads to rewards like pay or status or good grades in a course (extrinsic motivation). But typically there is a mixture of motives for which a range of different incentives is relevant. Therefore, the question of how managers generally, or anyone formally responsible for oversight of others who are engaged in work or learning tasks (e.g. nurses, teachers etc.) use financial incentives, sanctions, or monitoring is not just a matter of degree (meaning to manipulate either the level or the composition of incentives) but requires a deeper understanding of the process of motivation and its interaction with incentives.

Since the 60s, cognitive and social psychology have taught us that divergences in individual motivations can be attributable to different ‘perceived locus of causality’ (PLOC, deCharms 1968) or ‘locus of control’ (Rotter 1966) between perceived motivation and action that permit to distinguish between two polar cases: pure intrinsic motivation where the locus of causality is *internal*, i.e. where the performance is attributed to the individual himself/herself and extrinsic motivation where it is *external*, i.e., when the performance is ascribed by individuals to the environment, in particular to the material (pay, bonus, etc.) or immaterial (prize, regard of others, etc.) rewards. In a similar vein, according to the Cognitive Evaluation Theory (CET), individuals evaluate tasks to be accomplished according to how well they meet their needs to feel *competent* and *in control*, i.e. autonomous. This implies in particular that extrinsic rewards may not match or match incompletely those needs and, therefore, detrimentally interfere with motivation. According to Lepper and Greene (1978), the interference of incentives on motivation may be due to what they call the overjustification effect. This effect refers to situations where individuals who perform activities that are rewarding in themselves may wrongly attribute their performance to the extrinsic rewards they are subsequently offered in order to perform those activities. As a consequence, if these rewards are withdrawn, performance can decrease to a level that is lower than the original level, before rewards were administered. In economic parlance, this effect can be analyzed either as a crowding out effect of incentives on motivation (see below), or as a hysteresis effect due to some resistant behavioral mechanisms which cause a lag in response in one direction (when incentives are removed) greater from that in the other direction (when incentives are implemented).

Self-Determination Theory (henceforth, SDT) extends the CET framework to allow for the role of social influence on individual behavior. To be specific, SDT analyze how three main innate psychological needs: competence, autonomy and relatedness (i.e., a need that expresses the fundamental social dimension of individual behavior, for instance, the fact that people are sensitive to the fact that they belong to a group or share some common values or tastes, etc.) can be fostered or undermined by the environment or social context. One of its main focus is on the process of internalization of extrinsic motivation, which refers to ‘taking in’ a behavioral regulation and *the value that underlies it*. This means that extrinsically motivated behavior can to a certain extent become autonomous. As compared with CET, SDT smoothes the dichotomy between external and internal motivation and seems more suitable for analyzing the link between incentives and intrinsic motivation. SDT assumptions are also consistent with experiments showing that extrinsically motivated behavior can be efficient as far as the more fully an external regulation has been internalized, the more autonomous the subsequent extrinsically motivated behavior will be. As a consequence, control ‘through regulation’ rather than through external influence by a principal may be efficient because there is a cognitive feedback effect from the agent. According to SDT, there are three main ways of ‘regulation’, defining different ‘degrees’ of extrinsic motivation (see Figure 1 below):

- **Introjection**, i.e., ‘taken in’ by the agent but not been accepted as his or her own (e.g. acting in order to feel worthy or to avoid guilt);
- **Identification** that makes an individual feels greater freedom and volition because his behavior is more congruent with his personal goals or identity;
- **Integration** that involves the identification with other aspects of oneself (other identifications, interests, and values). The activity is instrumentally important for personal goals, while still being considered as extrinsic motivation.

Figure 1 summarizes the main features of SDT. In particular, it shows the existence of a continuum between amotivation and intrinsic motivation. It also identifies a continuum of regulatory processes that are activated depending on the different kinds of motivation. These different regulatory styles are in their turn consistent with a gradation of incentives.

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6 See Festré and Garrouste (2007) for a survey.
perceived loci of causality from impersonal and external to internal PLOC. For instance, the internal PLOC is linked with integrated and intrinsic regulation on one hand, and with quasi-intrinsic but still extrinsic motivation and purely intrinsic motivation, on the other hand.

![Diagram of the Self Determinacy Continuum (Gagné & Deci, 2005)](image)

**Figure 1 – The Self Determinacy Continuum (Gagné & Deci, 2005)**

CET and SDT have important implications for management practices. For instance, external factors such as tangible extrinsic rewards, deadlines or surveillance tend to diminish feelings of autonomy or competence and prompt a change in the PLOC from internal to external that undermine intrinsic motivation. From a general perspective, incentives or rewards may either undermine or raise intrinsic motivation and impact differently on people depending on how they are implemented or whether they are dependent or not on task and/or its quality.

Managers are usually aware to some extent of the ways in which both intrinsic and extrinsic types of motivation affect performance and work satisfaction, but there are many complexities in how these different types of motivations and their relevant rewards affect behaviour. As we have noted, one of the most subtle and demanding complexities has been found to occur when extrinsic rewards are given for performance in a task which would otherwise have been undertaken purely out of interest (i.e., when over-justification occurs). But effects of the interaction are not simple and have been a subject of debate in recent years involving both psychologists as Cameron and Pierce (Cameron & Pierce 1994) and Eisenberg and Cameron (Eisenberger & Cameron 1996) and economists as the emblematic example of Lazear (2000). This debate mainly regards the generality of the crowding out effect of extrinsic rewards on intrinsic motivation. The original report of an experiment which led to many others showing that extrinsic rewards, like pay and status, when associated with outcomes of interesting tasks tend to suppress the operation of intrinsic motivation, was published by Deci in 1971 (Deci 1971, 1975). The report underlines that if people are paid to do something they would otherwise have done purely out of interest they will be less likely to do it in future without being paid. Evidence of reduced motivation is found in their being less likely to return to the task when free to do so. By contrast, Cameron and Pierce (1994) and Eisenberger and Cameron (1996) approach the subject from a ‘behaviorist’ perspective and find from their meta-analysis that tangible rewards like

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7 “Claims by sociologists and others that monetizing incentives may actually reduce output are unambiguously refuted by data.” (Lazear, 2000, p. 1347).
money tend to undermine intrinsic motivation if measured in subsequent time spent on the task, but not when it is measured by verbal expressions of attitude. Similarly to CET and SDT, they find that the decremental effect on performance tend to occur when the reward is expected and independent of performance even if in the latter case they provide a different interpretation. On the contrary, they show that extrinsic rewards have a positive effect on attitude to the task if the reward is quality dependent. Finally, they question the claimed inhibiting reinforcing effect on creativity and find evidence for the positive reinforcement of divergent thinking by extrinsic rewards and arguing for the generalization of such effects: “The research on creativity shows, as with intrinsic task interest, that the decremental effects of reward occur under limited conditions that are easily avoidable. Rewards can be used to either enhance or diminish creative performance depending on the way they are administered.” (Eisenberger & Selbst 1994, Eisenberger, Armeli & Pretz 1998). Deci and colleagues (Deci, Koestner & Ryan 1999) publish a later review contradicting the conclusions by Eisenberger and Cameron (1996) that the undermining effect of tangible rewards on performance is limited to conditions in which rewards were independent of performance. Regarding the specific type of external rewards, they conclude that “all expected tangible made contingent on task performance do reliably undermine intrinsic motivation” (Ryan & Deci 2000, p. 70). If, on the contrary, rewards are given independently of specific task engagement (e.g. a salary independent from performance) or if they are not anticipated (e.g. an unanticipated bonus), tangible extrinsic rewards do not undermine intrinsic motivation. Now, if rewards are contingent on high-quality performance and the interpersonal context is supportive rather than pressuring, tangible rewards enhance intrinsic motivation to comparison condition with no rewards and no feedback (see Ryan, Mims & Koestner, 1983). But contingent, tangible rewards and other extrinsic factors such as competition and evaluations can be detrimental to outcomes such as creativity (Amabile 1983, Amabile 1996, Amabile 1998, Amabile, Hennessey et al. 1986, Ferry & Amabile 1999), cognitive flexibility and problem solving (Amabile, Goldfarb & Brackfield, 1990).

Finally, Ryan and Deci (2000) reaffirm the importance of the fundamental needs for competence and autonomy, but focus on their differentiated but complementary roles in the motivation process. They consider that feelings of competence would not enhance intrinsic motivation unless accompanied by a sense of autonomy, or could be experienced as internal locus of causality. They also underline, in addition to the needs for competence and for autonomy, the importance of the need for relatedness in the personal causation of intrinsic motivation, since relatedness provides social support or long term personal development that favors the maintenance of intrinsic motivation.

This very lively and passionate debate is still open and show how important it is for the management of incentives for work to understand how extrinsic rewards affect intrinsic motivation, especially for tasks where both extrinsic rewards and intrinsic motivation are found together. From this perspective, the literature in cognitive and social psychology that we have reviewed is illuminating. We may draw some main implications for incentive management.

i) There is no such a thing as a free lunch concerning the effect of incentives on motivation

Extrinsic rewards have been found to reduce intrinsic motivation, but not in all circumstances. The majority of published research in psychology has focused on their effects on motivation rather than performance, even if consequent effects can be evident in performance, as supported by empirical findings. When people are intrinsically motivated they tend to be more aware of a wide range of phenomena, while giving careful attention to complexities, inconsistencies, novel events and unexpected possibilities findings. They need time and freedom to make choices, to gather and process information, and have an appreciation of well finished and integrated products, all of which may lead to a greater depth of learning and more creative output (Amabile, Goldfarb & Brackfield, 1990). In such contexts, extrinsic rewards are likely to narrow focus of attention and shorten time horizons. Job satisfaction and long term commitment to a task may also be affected negatively but as we have seen there is no obvious link between incentives, motivation and creativity. In particular, Eisenberger and Cameron (1996) show that “the effects of reward on creativity may result from the combined action of learned industriousness [rewarding high effort produce an increase in industriousness, Festré & Giustiniano, 2010] and the attention-eliciting properties of the reward [the reinforcement contingency may signal that novelty is desirable, Festré & Giustiniano, 2010].” (Eisenberger & Cameron 1996, p. 1161).

ii) The importance of the way incentives are implemented

The importance of how incentives are implemented is a recurrent conclusion of the psychological literature. From an economic perspective, Frey (1997) points out that agents’ perceptions of the incentives scheme that are implemented in firms or organizations may be either controlling or informing, depending on the extent of differentiation made between agents. When differentiation is low, i.e. when all agents are treated the same, those who have above-average work morale feel that their competence is not recognized and therefore adjust their intrinsic motivation downwards. At the opposite,

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8 They stress that the “the decremental effect of performance-independent reward, but not of completion-contingent reward, on task duration is more consistent with a learned helplessness explanation than with a decline in intrinsic motivation. Reward presented independently of performance may cause individuals to learn they have no control over the reward and thus to lessen their performance.” (Eisenberger & Cameron, 1996: 1158-59).
when differentiation is high, i.e., when the principal makes explicit effort to adjust rewards according to the agents’ presumed level of work ethics, intrinsic motivation is enhanced (Frey, 1997, p. 433). In the same vein, Frey, Benz and Stutzer (2004) underline the importance of how rewards are implemented, by advocating for the consideration of an additional source of utility (different from the usual outcome-oriented instrumental economic notion of utility), which they call procedural utility which refers to the “noninstrumental pleasures and displeasures of processes” (Frey, Benz & Stutzer 2004, p. 378). In everyday parlance, this expresses the idea that people attaches importance not only to the result of their actions (material rewards) but also to the processes by which it is obtained. In particular, there are two sources of procedural utility that are relevant for our discussion on incentives and motivation. The first one derives from institutions and concerns the distribution of political rights (e.g., the presence of trade unions, upward mobility) and how allocative and redistributive decisions are taken in organizations (profit-sharing devices, remuneration schemes, unemployment benefits, health care) (Ibid. pp. 382-383). The second one is involved in the interaction between agents and refers to different kinds of pro-social behavior (norm sharing, preference for fairness or even self-reputational motives)9. Note that there is no obvious link between pro-social behavior and intrinsic motivation. One might work hard at a task in order to gain social approval. Such work, undertaken as a means to an end, is typically deficit motivated behavior, in which there is a reward as a consequence of effort to reach a goal where the deficit is reduced. For Deci and his co-authors, this would correspond to situations where substitute needs such as the desire for social recognition emerge as a consequence of unsatisfied basic psychological needs. By contrast, intrinsic motivation tends more to be appetitive, new information arousing a slight interest leading to an appetite for more.

iii) The crucial role of the social context/environment for intrinsic motivation to be maintained

The question of the personal causation of intrinsic motivation that characterizes the processes of integration in SDT raises questions concerning the exact meaning of the term “intrinsic motivation”. As mentioned above, intrinsic motivation in its primary and restricted sense means interest in the task. But the term sometimes also occurs with a different connotation in reference to incentives which are consistent with personal qualities, intentions and values. Satisfaction gained from such incentives may be seen as intrinsic to the person rather than to the task. It can be the case that behavior such as undertaking a scientific research project can assist in the satisfaction of personal development goals while it is also intrinsically rewarding in itself. This second meaning is especially relevant in regard to the processes of integration that characterize SDT since those processes imply that people have a sense of self or of being the origin of one’s action and that they struggle in order to make their actions or efforts in congruence with their personal values or identity. However, while the two kinds of motivation can work together, intrinsic motivation in the primary sense is vulnerable to being inhibited by the use of extrinsic rewards in ways which do not give the secondary type of intrinsic satisfaction but are experienced as alien to the person. The work of several investigators in recent years points to the importance of the secondary type of intrinsic satisfaction from extrinsic rewards as the clue to managing the effects of extrinsic rewards in ways which do not inhibit the operation of intrinsic motivation for engagement in the task. In the tradition of McClelland and Atkinson’s studies of individual differences in personality dimensions such as need for achievement (McClelland et al. in Atkinson 1958, McClelland 1976), need for affiliation (Heyns, Veroff & Atkinson in Atkinson 1958) and need for power (Veroff in Atkinson 1958), Winter developed the idea that responsibility (and not only the will of power) plays a major role in the personal causation of intrinsic motivation (Winter 1973, Winter 1992). The point of theoretical interest is that intrinsic motivation is expected to remain effective, not simply when a person is able to exercise personal power, but rather when power is exerted within a social and personal context that is controlled and powerful.

5. More recent experimental and theoretical contributions in economics

From an experimental perspective (field experiment), Titmuss has shown in 1972 that it may be counter-productive to pay for blood gift. In a similar way, Kreps (1997) as well as Frey and Oberholzer-Gee (1997) show that the existence of a crowding out effect of extrinsic rewards on intrinsic motivation is not necessarily an exception in economics. Later Frey and Oberholzer-Gee (1997) have analyzed the acceptation level of households in Switzerland of the set up in their neighborhood of a plant that recycles nuclear waste. They showed that when monetary compensations are proposed to households their level of acceptation is decreasing. Gneezy and Rustichini (2000) show that the introduction of small rewards in a real-life experiment (Israeli high school children doing volunteer work) reduces performance (the amount of money collected for each child). Their explanation is that introducing financial motives may crowd out intrinsic motivation of individuals (children are motivated for the voluntary activity in itself or need social approval) compared to the same experiment without financial incentives. However, a sufficiently high fixed remuneration permits to restore the initial level of effort. The explanation lies in the fact that when intrinsic motivation has been undermined, further

9 On the interaction between incentives and social norms, see Festré (2010).
increases in financial incentives, even if they has no further detrimental effect on it, must be high enough in order to compensate for the loss in the purely intrinsic or socially induced intrinsic motivation effect and, therefore, to restore the initial level of effort.

In laboratory experimental economics, a number of recent works have analyzed the so-called crowding out effect. They almost all confirm the existence of this effect, even if they interpret it in different ways. Fehr and Gächter (1997) and Fehr and Kirchsteiger (1997) explain what can be seen as a crowding out effect (even if they are reluctant to use this assumption) by the reciprocity assumption. People are working hard because they reciprocate for high rewards but they reduce their efforts when incentives contracts are proposed to them. Frey and Jegen (2001) explain the crowding out effect by the possibility for self-determination or self-esteem of agents to be negatively affected by incentives. Self-determination may be undermined because agents experience financial rewards as a means to control their behavior, while self-esteem is more related to the need for competence, as external rewards may be experienced as a non acknowledgment of their competences. Irlenbusch and Sliwka (2005) test if the introduction of incentive schemes is likely to raise the probability that an agent adopts an individual maximization frame rather than a cooperative frame, taking for granted that externally motivated agents would focus more on the individual short-term returns of their actions. However, in a pure fixed wage setting, agents’ attention is guided away from short-term returns since the agent receives no share of the surplus generated by their effort. Naturally their “attention should rather be focused on a more cooperative or reciprocal behaviour which may even lead to higher surpluses.” (Irlenbusch and Sliwka 2005, pp. 1–2). Moreover, the basic principal-agent model they test permits them to identify an experience effect: when people are first confronted to variable pay and if they are offered to switch to fixed wage payment contracts, their level of effort is reduced as compared to a situation where they were initially offered a fixed pay contract.

Sanctions are usually considered as improving agents’ effort. Punishment is indeed supposed to have the same effect as positive incentives. If an agent expects a sanction when the level of his effort is low, he will increase it in order not to be punished. The efficiency wage theory is based on this kind of assumption. Because he or her has a higher wage than the market one, an employee works harder, since if he or she does not, he or she is dismissed and hence, gets a lower wage, namely, the market one. This assumption is the correlate of the positive incentive hypothesis, i.e., higher (positive) incentives give rise to a higher level of effort. Some experiments show however that such an assumption is also falsified. According to Fehr and Schmidt (2000), agents’ efforts are lower when principals condition a fine on the deviation from a desired effort level. Fehr and Gächter (2002) Fehr and List (2002) not only show that positive incentives can crowd out motivations but also that sanctions are not efficient and undermine agents’ motivations. Their interpretation of this phenomenon rests on the idea of reciprocity.

Monitoring, which is another way to improve agents’ efforts, is seen by incentive theory as implying for the principal a trade-off between the increase of the agent’s effort and the cost of monitoring. However, this possibility is based on an assumed positive relation between monitoring and effort. Here also, experimental economics shows that this positive relation is not always corroborated. Dickinson and Villeval (2008) show that crowding out effect and agency theory are complementary and not substitutes. Their experiments indeed show that “principals monitor less intensely when agents gave high effort in the previous period and monitoring trends up over time while agents’ output trends down” and that “agents react to the disciplining power of the monitoring intensity by decreasing shirking when the perceived cost of such behavior is increased” (p. 35). Those results are in line with agency theory. However, they remark that agents are also guided by intrinsic motivation: “when the employment relationship is based on interpersonal links, increasing the monitoring intensity beyond its equilibrium level tends to undermine intrinsic motivation. It shows that the disciplining effect and the crowding out effect of monitoring may coexist in interpersonal relationships and that the crowding out effect is probably associated with concerns for the distribution of payoffs between the principal and the agent.” (p. 35).

Experimental economics almost always always, depending on the institutional set up, confirms the existence of the crowding out effect. The rationales that are given are however very different and less systematized than in cognitive psychology.

Those experimental results were extended in two ways. First, the idea was to explore the reasons why individuals can be de-motivated by incentives and second to derive the conditions that would prevent individuals for being so.

We have already pointed out that Lazear (2000) is strongly opposed to the idea that reward could have a detrimental effect on effort10. Staw and al. (1983) show that intrinsic motivation is crowded out only for the tasks for which the payment is inappropriate. More recently, experimental economists like Fehr and Falk (2002) have pointed out some limits of the approach in terms of crowding out effect. They consider that “even if crowding out effect is operative it may be efficient to use material incentives. This is so because, from an economic point of view, it is the total sum of incentives that matters.” (Fehr & Falk, 2002, p. 717). Defending the idea that reciprocity, social approval propensity and other-regarding preferences are more likely to explain individual’s behavior, they write that “to our knowledge, the studies on intrinsic motivation have only examined the interaction between different forms of explicit (engagement contingent,

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10 Lazear found a natural experiment in Safelite, a windshield manufacturing company that had just switched from paying hourly wages to piece rates. Under the new system, a worker would still earn $88 a day by producing up to 4.4 windshields. But if the employee could produce six windshields a day, he or she could earn $120. Productivity leaped 44 percent in six months. Half of the increase was in turnover. Unmotivated people tended to be replaced with people who wanted to earn more.
completion contingent and performance contingent) rewards and intrinsic motivation.” (Fehr & Falk, ibid). Accordingly it is needed to look at the relationships between implicit rewards and intrinsic motivation. This is the theoretical perspective followed for instance by Bénabou and Tirole (2006) when they explore the cross-relations between intrinsic motivation, extrinsic motivation and self-reputation, which may be conceived as a form of implicit reward.

Kreps (1997) gives two kinds of rationale to crowding out, depending on the context. In a multitask situation, using Holmström and Milgrom (1991) results, he states that “an obvious rationale, (…) is that the extrinsic incentives that are imposed – which almost necessarily will be relatively objective and formulaic – may be suboptimal, taking into account the full range of desired tasks.” (1997, p. 361). In a single-task context, he considers that “(…) if ‘intrinsic motivation’ is the response of workers to fuzzy, but nonetheless extrinsic incentives, explicit extrinsic incentives that are imposed may fight rather than complement preexisting incentives.” (1997, p. 362). This last interpretation is based on the idea that individuals are norms followers and that incentives can possibly disrupt those norms. Bénabou and Tirole (2003), using a principal-agent model, show that the explanation of the first problem can be found in some asymmetry of information phenomenon. They assume that the agent does not know precisely how difficult is the task he or she has to perform, his or her ability of doing this task, or the cost of the effort he or her has to make in order to perform this task. However, the agent tries to infer information from the reward policy of the principal by means of a looking-glass self effect. Bénabou and Tirole then identify two effects: a profitability effect and a trust effect. On this basis they are able to differentiate cases when the principal’s incentive policy can crowd out the motivation of the agent and where they crowd in.

6. Leadership, incentives and motivation: some conclusions on managerial implications for value creation sustainability

The indications so far gathered through the analysis of the contributions from psychology, economic theory and experimental economics stress the necessity of developing common praxis of relational leadership that would represent the uniting force between motivations, incentives, values and business performances. For such a perspective, in the following part, the contributions and the aforementioned evidences will be contextualized.

First of all it must be pointed out that the implementation of the incentive solutions is equally, if not more, important of the modeling of their structure. The considerations made by Frey (1997) on the individual perception of incentives emphasizes, matter-of-factly, the subjectivity that affects every individual in the evaluation of what he receives from the enterprise after having reached a result or having achieved a level of conformity. One of the teachings closely connected to the previous argumentation is that the circular loop “motivation → performance → incentive → motivation” is not only affected by the “psychological contract” tying a single individual (A) to the organization, but also by the evaluation of the input/outcome balance of a significant benchmark (B). The subjectivity of the evaluations calls for the concept of perceived equity, which means that an individual does not consider only what he receives from the enterprise (Outcomes A) as a result of his commitment (Input A) (1) but tries instead to observe this relationship comparing it with other workers he considers equal/similar to himself (2: Outcomes B/Input B) (Adams & Freedman, 1976). In case of a perceived inequity (2), independently of the perceived incentive, it is likely that the behavior of the individual (A) will not lead to the expected outcomes.

\[
\frac{\text{Outcomes } A}{\text{Input } A} = \frac{\text{Outcomes } B}{\text{Input } B} \quad (\text{Equity}) \quad (1)
\]

\[
\frac{\text{Outcomes } A}{\text{Input } A} \neq \frac{\text{Outcomes } B}{\text{Input } B} \quad (\text{Inequity}) \quad (2)
\]

Moreover, since the processes of goal reaching generate a further procedural utility (see Frey, Benz & Stuzer, 2004), the organizational context (relationship with colleagues, available technologies, relationship with superiors) and human resources management become a relevant part of the incentive package. Particularly interesting is the fact that when the corporate context is seen as supportive by the workers, individual behaviors are not limited to “productive” or strictly outcome oriented behavior but also include “innovative” and “cooperative” behavior, to use Katz and Kahn’s (1978) terminology. In this sense, the organizational context is potentially capable of generating internal relational economies based on shared procedures, experiences and solutions; in order to generate an organizational context capable of stimulating these kinds of intrinsic motivation and spontaneous behaviors, a relational leadership that enhances the cognitive capital that fuels those behaviors becomes indispensable.

The crowding out effect between extrinsic incentives and intrinsic motivations calls for some clarifications when implemented, or rather managed/constrained, in the firm’s reality. First of all, if we consider some of the previously mentioned works (see Gneezy & Rustichini, 2000) we could come to the drastic conclusion that the intrinsic motivations of the workers can be rendered ineffective by the use of monetary incentives, since those incentives can generate behaviours opposite to the desired ones and even lead to perverse dynamics involving irreversibility. Although, from the
viewpoint of basic forms of remuneration (e.g. a fix wage), an increase of pay which is not strictly and contingently connected to the achieved performance can potentially be detrimental to intrinsic motivation, this does not seem to be the case for variable retribution forms and for profit-share schemes; for the latter, in fact, the conclusion by Fehr and Falk (2002), namely that it is the total sum of the incentives that influences individual behavior, is more relevant; similar are the conclusions reached by various, previously mentioned, studies in experimental economics (e.g. Irlenbush & Sliwka, 2005). This also illustrates the fact that managerial practices often overlook forms of disincentive/punishment than can be equally important. In such cases, relational leadership can help to reduce the impact of such disincentives.

The previous considerations offer various points of interest for visualizing a kind of leadership, the necessity of which has been already emphasized, that is “diffused” in organizations and that tends to privilege the relational component, leveraging on internal networking. Even though the idea of diffused leadership understandably presents outlines that are not always definite, the leader-collaborators relations and interactions rather than surpassing previous theories on leadership, appears as a unifying framework that synthesize many already analyzed and known approaches (e.g. situational leadership, the Vroom-Yettom model, the theory of Leader-Member exchange). The main difference from the previous approaches is due to its inductive method which derives from the observation of firm practices that have been judged successful. The relational leadership, as here described, does not introduce any real innovation but takes its moves from already known interactions, regarding on one side the manager/leader relationship and on the other the mechanisms of disincentive/punishment. Considering the relevant work of van Fleet (1973) and Vroom (1964) the role of manager/entrepreneur as leader and adding the considerations made on disincentives/penalties should result in a style of leadership capable of maximally enhancing the contribution of the firm's human capital thus avoiding, at the same time, the crowding out effects of incentives foreseen by the economic theory. This interpretation of the relational leadership, considered in terms of impact on the commitment on behalf of the workers is coherent with the recent work proposed by Johnson, Chang and Yang (2010) that underlines the importance of personal commitment, motivation and organizational context of reference.
References


Perry, N., & Amabile, T.M. 1999. The key to perpetual innovation? Let creativity be its own reward. [An interview with Teresa Amabile]. New Business.


