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A Behavioral Economics Perspective on the Overjustification Effect: Crowding-In and Crowding-Out of Intrinsic Motivation

Antoinette Weibel, Meike Wiemann, and Margit Osterloh

Abstract
In the last two decades, economic motivation research has undergone a paradigm shift: when it comes to the effect of incentive schemes on individual performance and motivation, inspired by self-determination theory, a new branch in economics evolved called behavioral economics. Especially in explaining the negative effect of "pay-for-performance" or intrinsic motivation, called the "crowding-out" or "overjustification" effect, it challenges the economic paradigm of the relative price-effect and its inherent belief in incentives as universal remedy for motivation and individual performance. This article reviews the findings of behavioral economics on motivation. Drawing on these results we discuss which institutional conditions strengthen rather than weaken intrinsic motivation. We demonstrate that fairness, participation, market-driven wages, and normatively affected decision-making contexts have a positive effect on intrinsic motivation.

Key Words: intrinsic motivation, extrinsic motivation, pay-for-performance, crowding-out effect, overjustification effect, behavioral economics, institutional conditions

Cognitive evaluation and self-determination theory (SDT) inspired one of the most dramatic changes in economic theory. When Bruno Frey demonstrated in the 1990s (Frey, 1992, 1997a, 1997b) that the so-called relative price-effect (i.e., the performance-enhancing effect of incentives), in certain cases is counterbalanced, even outrun by a negative effect on individual performance termed as "crowding-out," many economic theories needed to be rewritten. Bruno Frey was one of the pioneers of behavioral economics whose proponents started to test the behavioral assumptions of economic theory rigorously by means of a bold empirical "invasion" (Camerer, Loewenstein, & Rabin, 2004). This article summarizes the findings of behavioral economics on the negative and positive effects of incentives as an intrinsic motivation and individual performance.

At the core of behavioral approaches to economics lies the idea that social communities cannot flourish without voluntary, intrinsically motivated contributions to public goods (Ostrom, 2000). We show, from this behavioral economics view, which institutional conditions inhibit or boost intrinsic motivation. In particular, variable "pay-for-performance" schemes, which are commonly used by practitioners, can have a negative effect on employees' intrinsic motivation. A positive effect on intrinsic motivation, however, can be achieved through mechanisms of participation, fairness, normatively affected decision contexts, and market-driven salaries.

Is "Pay-for-Performance" recommendable? A Taste of Heated Discussion in the Field of Economics

In many companies, incentive pay has caught on as the embodiment of modern management methods. Such pay-for-performance schemes focus on the relative price-effect, which states that behavior depends on relative prices and assumes that for employees low engagement becomes more costly when they are paid for their performance, hence with pay-for-performance less "silliness" is expected. Standard economic theory assumes that the promise of higher payment tied to measurable performance always leads to increased performance. Empirically, such a positive effect has been confirmed particularly for piece-rate wages paid for simple jobs (Stajkovic & Luthans, 1997). A much quoted example is the field experiment of the personnel economist Latané (2000) on the US company Safelite Glass: after changing from fixed hourly wages to piece rate, the productivity increased by an astounding 36% (incentive effect, 20% selection effect, 16%), whereas the labor costs only rose by 9%. Those human resource management scholars that rely strongly on economic theories have also welcomed these insights. For instance Barry Gerhart and Sara L. Rynes (2003) in their comprehensive review on compensation—particularly on the effect of pay-for-performance on individual performance—clearly seem to recommend the use of incentive pay because it "can produce substantial increases in productivity" (p. 195) and will assist companies in "getting ahead of the pack performers through turnover" (p. 195). Hence the universal recommendation for human resource managers is to install what has been termed "high performance work practices," which always entail some form of individual incentive pay (Becker & Huselid, 1998; Huselid, 1995). As a consequence, the principle of piece-rate wages has been increasingly transferred to all employment forms, for example to companies' middle and upper management (e.g., Böckh & Grünstein, 2005), government agencies (e.g., Benzil, 2006; Schneider, 2007), and even to the public sector (e.g., the new Wages levels in German universities; Osterloh & Frey, 2002).

However, in contrast to typical piece-rate work, these occupations are characterized by a large scope of action, complexity, and are intrinsically interesting. They are difficult to control, and therefore call for much more personal initiative (Osterloh, 2006; Osterloh & Frey, 2000).

Psychological theories have questioned the universal validity of the relative price-effect for a long time, particularly for tasks that call for more personal initiative. They show that, under certain conditions, variable performance-related payment lowers performance (Deci & Ryan, 1985). This is referred to as the "hidden costs of rewards" (Deci, 1976), the "overjustification effect" (Lepper & Greene, 1978), or the "corruption effect" (Kruglanski, 1975). Bruno Frey (1992, 1997a) introduced this effect to economics as the so-called crowding-out effect. It states that extrinsic and intrinsic motivations are related in such a way that external interventions (aimed to strengthen extrinsic motivation) can diminish intrinsic motivation. Hence by granting one of the fundamental new orientations called for by behavioral economics. By now, a sizable number of experiments and field studies from behavioral economics have demonstrated such a crowding-out effect caused by pay-for-performance in a variety of sectors. Coincidentally and more recently, the findings that examined the crowding-out effect have been supplemented with a number of findings on the crowding-in effect, dealing with institutional conditions that strengthen intrinsic motivation. In addition, behavioral economics has provided a number of theoretical explanations for these effects, which nicely complement the self-determination framework.

What is "Behavioral Economics"?
For more than 30 years standard economic theory has dominated business school research and economic research in dealing with human motivation (Ginsb & Khurana, 2008). Standard economic theory has been highly valuable in its capacity to explain competitive markets and it has been successful in permeating managerial practice through prominent subcultures, such as the principal-agency theory and transaction cost economics. For example, nowadays it seems to be common wisdom to view CEOs as agents, who are knowledgeable "contractors" steering companies for their owners, which are in turn seen as principals. In addition, one theoretical assumption of the standard-economic principal-agent model has been taken for granted in the business press and elsewhere, namely that CEOs are often portrayed as employees with their own hidden agendas, who mainly use their formidable inside knowledge of the company to satisfy their own interest (Jensen & Murphy, 1990).

However, standard economic theories use a behavioral model that disregards psychological factors almost completely (Frey & Benz, 2004). The Homo Economicus model treats individuals as utility maximizers, who are rational (cognitive limitations resulting in systematically suboptimal decisions are disregarded), self-controlled (self-control problems and emotions are not
considered), and self-interested (the Homo Economicus does not have prosocial preferences) (Camerer & Loewenstein, 2003; for a recent account see Toner, 2007). Each of these key assumptions is today systematically challenged by findings in behavioral economics, which suggest that “humans are dumber, nicer, and weaker than the Homo Oeconomicus” (Thaler, 1996, p. 227).

Yet, the challenge of the motivational characteristics of the Homo Economicus, namely the assumption that individuals on average are “nicer” than assumed so far, is not an entirely new discussion between standard and behavioral economics (Osterloh & Frost, 2009).

The underlying motivational assumptions of standard economic theory can be typed by the following three assumptions (e.g., Frey, 1990; Kirchgässner, 1991):

1. There is a strict division between preferences (i.e., needs, values, and utilities, which underlie motivation) and restrictions (i.e., external incentives and limitations of one’s freedom of action).
2. The individual’s preferences are fixed and relatively enduring (Stigler & Becker, 1977). As a consequence, changes in individual behavior are mainly a result of changes in restrictions.
3. Individuals only know self-serving preferences. Other person’s preferences are not included in one’s own preference function.

In addition, standard economic theory often adapts an even narrower version of the self-interested human being than the “traditional” Homo Economicus model: individuals are assumed to maximize their own tangible interests, that is, their own monetary or goods payoffs (Camerer, 2005) and are depicted to be solely extrinsically motivated by tangible rewards or avoidance of punishment. Preferences, and thus, intrinsic motivation, cannot be assumed in the short term and are therefore excluded from the analysis.

Behavioral economics rigorously tests these assumptions and usually proceeds as follows (Camerer & Loewenstein, 2003):

1. Identification of an assumption within the standard economic model
2. Identification of deviations from this assumption
3. Use of these deviations in order to generate an alternative hypothesis to the standard economic model

4. Construction of a behavioral economic model out of the alternative hypothesis
5. Testing of this model
6. Development of new implications

The aim of behavioral economics is to stepwise modify conventional assumptions of standard economics in order to set up a more realistic psychological-empirical foundation of (usually mathematical) models, keeping the standard economic model at the same time as a reference (Camerer, 2005; Frey & Banz, 2004; Rabin, 2002). This proceeding explains behavioral economists’ laboratory experiments because they allow the isolation of individual variables and their modification under controlled conditions (Camerer & Fehr, 2006). In addition, adhering to the skepticism of economics toward survey data, observable facts, such as a change in the quantity or quality of performing a task, are taken as evidence of the explanatory in a reverse engineering process the explanation is concluded (Camerer & Loewenstein, 2003). Despite the preference for laboratory experiments, field experiments (e.g., Gneezy & Rustichini, 2000) and experimental survey studies, such as vignettes, recently have complemented the behavioral economics’ toolkit. These latter studies often also incorporate actors’ subjective interests (i.e., they seek to measure motivation as well as changes in motivation; Weibell, Rost, & Osterloh, 2007).

The Motivational Perspective of Behavioral Economics

In contrast to standard economics, behavioral economics has developed a much richer understanding of the motivational characteristics of human beings. Particularly, it is proposed that an empirically grounded Homo Economicus is typified by the following:

1. Prosocial and prosocial preferences (Myers, 2006)
2. Heterogeneous preferences (Andreoni, 1990; Fischbacher, Fehr, & Gächter, 2001)
3. Preferences, which are plastic and systematically susceptible to the design of institutions, working conditions, and the quality of human interactions (Ostrom, 2000)
4. Preferences, which are often not known to the individuals (Atle, Loewenstein, & Prelec, 2006) or are falsely interpreted by them (Stutzer & Frey, 2007)

The most ubiquitous finding of behavioral economics is that prosocial behavior is much more prevalent than standard economic theory suggests (Meier, 2006), a fact that cannot be explained assuming individuals to be solely self-interested and extrinsically motivated. For instance, a large body of research has focused on whether, when, and why individuals contribute to (the) commons. Large-scale survey studies show that individuals contribute substantial amounts of money and time to public goods. In the United States almost 70% of all households make charitable contributions, exceeding 1% of the Gross Domestic Product (Andreoni, 1990). Fehr and Gächter’s (2000) study is estimated to amount to 4.5 million full-time equivalent volunteers for 10 European countries studied (Anheier & Salamon, 1998). Similar “selfless” behavior is observed in laboratory experiments, where behavioral economics have studied participants’ behavior in social dilemma situations. In this situation, standard economic theory assumes that for a self-interested individual, the unique dominant strategy would be to defect, for example to free-ride on others’ contributions. In contrast to this gloomy prediction, experiments of behavioral economists (and social psychologists) show that people cooperate quite often. For example, it has been demonstrated that participants in such experiments invest up to 50% and 60% of their endowments, in public goods (Fehr & Gächter, 1998). Henrich et al. (2001, p. 77) conducted a series of ultimatum games in 15 societies around the world and came to the conclusion that “the canonical model of the self-interested material pay-off—maximizing actor is systematically oversimplified.”

The most popular explanation of these “anomalies” is the introduction of motivational propensities to economic theory. Next to the standard assumption of “egoism,” two further “intrinsic motivation propensities” have been introduced, namely altruism (i.e., unconditional prosocial motivation) and strong reciprocity (i.e., conditional prosocial motivation). Altruism depicts the tendency of an individual to pay a personal cost to provide benefits to others in general (Fowler & Kam, 2007). Strong reciprocity is understood as a tendency to reciprocate kind intentions of the interaction partner because of a moral obligation. Thus, reciprocity and moral obligations are conditioned by the intentions and the behavior of the other (i.e., cooperative and prosocial oriented behavior is met by a change in one’s own behavior; Nyborg, 2010). In laboratory experiments, different types of motivational tendencies are found: overall about 50% of the test persons can be characterized as reciprocitits, 20% as altruists, and 30% as egoists (Andreoni & Miller, 2002; Fischbacher et al., 2001). Field studies show a smaller proportion of altruists (Frey & Meier, 2004).

A second way to explain this high amount of prosocial behavior is to introduce different types of motivation to economic theory. Extrinsic motivation is directed by external incentives for the individual (awards or penalties). These make mediated satisfaction possible, especially by the means of money. In the situations studied by behavioral economists, extrinsic motivation cannot explain prosocial behavior completely. Intrinsic motivation is understood as the direct satisfaction of needs (i.e., activities that are performed for their own sake). Intrinsic motivation can, on the one hand, be seen as a hedonistic preference, self-serving for one’s own fulfillment or well-being. On the other hand, intrinsic motivation can be directed to the well-being of others as a prosocial preference. This is included in one’s own preference function and imports a “warm glow” (Andreoni, 1990). In this case, motivation is derived from internalized social norms (Lindenberg, 2001). Both types of intrinsic motivation have been used to explain the high proportion of prosocial behavior in the studies mentioned previously and both types of intrinsic motivation are seen as plastic, and, hence, are influenced systematically by institutions.

Thus, behavioral economics, just like SDT, seeks to differentiate different qualities of motivation but it is done so in slightly different ways. Intrinsic motivation understanding means autonomous motivation in SDT language. Hence although economists do not care to differentiate different forms of extrinsic motivation it is still apparent that their understanding of intrinsic motivation includes what SDT views as identified—or integrated extrinsic motivation and as pure intrinsic motivation. Furthermore, behavioral economics concurs with the SDT distinction of intrinsic motivation as the desire to fulfill a task, because it is inherently interesting, and prosocial motivation as the desire to serve others (e.g., Grant & Berry, 2011). Nevertheless, behavioral economists rather concentrate on analyzing whether both types of preferences are governed by the same set of mechanisms (like both being control-independent, autonomous forms of motivation), than on targeting their separate underlying psychological processes.
Managing Intrinsic Motivation: Crowding-Out and Crowding-In

Behavioral economics states that extrinsic and intrinsic motivation cannot be seen as additive phenomena. Rather both forms of motivation have been shown to act in concert, producing a crowding-out effect (Frey, 1997b). This crowding-out effect states that intrinsic motivation for an activity can be repressed by extrinsic rewards (or punishments) and by certain forms of control. The crowding-out effect states that specific instrumental conditions might increase intrinsic motivation for an activity (e.g., Andreoni, 1990; Frey & Osterloh, 2002). There are different theories to explain crowding-out effects (see Bolle & Otto, 2010; Frey, 1997b; Sibly, 2003). In this section we synthesize the literature on crowding effects, navigating the crowding-out of intrinsic motivation to effects of pay-performance as well as to the exertion of control, and the crowding-in effect to participation, procedural fairness, priming, and mark-driven wages. At the end of the section, we conclude how crowding effects are conditioned and what implications researchers and practitioners can derive from these findings.

The Crowding-Out Effect

CROWDING-OUT THROUGH PAY-FOR-PERFORMANCE

There are many different explanations for why, and through which mechanisms, performance-related compensation leads to a crowding-out of intrinsic motivation. The most famous theory in order to explain the crowding-out effect is the psychological theory of cognitive evaluation (Deci, 1980; Frey, 1997b; Sibly, 2003; Deci & Ryan, 1989; Deci & Ryan, 1995). Cognitive evaluation theory draws on unobservable cognitive processes to explain the negative effects of rewards on motivation. One of the major premises is the concept of "locus of causality" (DeCharms, 1968), which provides a systematic explanation for the transition from intrinsic to extrinsic motivation, because it accounts for why and under which conditions extrinsic incentives lead to a shift in motivation. The so-called perceived locus of causality pictures a person's attribution concerning a certain behavior, whereby holding an internal locus of causality means to attribute an activity to one's own initiative and endowment, and holding an external locus of causality means to attribute one's own behavior to external constrains (DeCharms, 1968). According to Deci et al. (1989), an internal locus of causality results in intrinsic motivation, relative to an external locus of causality, which is linked to extrinsic motivation.

External conditions are proposed to foster an internal locus of causality, and hence intrinsic motivation, if they provide a good informational feedback and thereby enable individuals to learn and to feel self-determined (Ryan, 1982). Incentive pay, however, is perceived as controlling feedback, which reduces the perceptions of self-determination (Deci, 1999a, 1999b). Individuals feel like "puppets on strings", experience a strong external locus of causality, which thwarts their intrinsic motivation (Deci, 1977), and, as a consequence, motivation shifts to "predominantly extrinsic". Bruno Frey has "imported" this explanation to behavioral economics: monetary incentives and rights, punishment-oriented regulations crowd-out intrinsic motivation if these are perceived to be controlling and hence do not offer acknowledgement of voluntary engagement (Frey & Bell, 2004).

Another cognitive explanation of the phenomenon of crowding-out has been developed by Lieberson (2006). In his goal-framing theory he assumes that all behavior is goal-oriented and that these goals affect the selection of motivation. At any time, there are a number of goals competing for an individual's attention. The goal that eventually wins this competition acts as a dominant frame, which steers attention. A strong and rigid frame can lead to a decrease in the amount of behavior motivated by the goal frame and to a decrease in a more general frame that the individual is aware of. As a consequence, an activity, formerly framed as enjoyable or appropriate, looks less enjoyable and appropriate if a strong goal frame is induced by external incentives (Lindenberg, 2001). Lindenberg and Bog (2007) exemplify how how to encourage proenvironmental behavior. They conclude that the normative frame is central to the issue of environmentally friendly behavior, because this type of behavior is often framed in a normative way as a behavior that is "good and right." In contrast, a prominent gain or hedonic frame would work in the opposite direction, because "environmental conservation" is often associated with high expenditures, thus reducing individual savings, and a lot of personal constraints thereby lowering individual comfort and pleasure. Therefore effective institutional interventions would have to actively increase individuals' moral obligation while at the same time, the competing gain and hedonic frame need to be de-emphasized, for instance by creating low-cost possibilities to engage in environmental friendly behavior.

Other authors hold "the Information aspect of extrinsic incentives" responsible for their crowding-out effect on intrinsic motivation. Extrinsic incentives are proposed to signal to the agent that the principal does not trust in him or her or that the principal considers a certain task to be either not attractive, generally difficult to achieve, or particularly difficult to achieve for the agent (Bénabou & Tirole, 2003). Thus, contingent rewards signal which tasks are not enjoyable, and hence cannot create any intrinsic motivation (e.g., Gneezy, Meier, & Rey-Biel, 2011). Bolle and Otto (2010) extend this view by demonstrating that such a signaling effect of prices can have persistent effects. The authors argue that rewards attach values to activities, which can be problematic, particularly in situations where no "official price tag" to an activity is available. For instance, blood donation is a voluntary act in many countries; introducing rewards in return for a blood donation implies an economic valuation. Those clearly defined prices have been shown to often have a negative effect on the amount of blood donation in a country. Bolle and Otto (2010) argue that such crowding-out takes place because individuals previously attached a cost to their contribution to this public good, and that such a crowding-out effect is persistent once the prices are officially defined. Finally Bénabou and Tirole (2006) extend their argumentation to the signaling effect of prices; rewards also inform individuals about their intentions. The authors claim that individuals are not clear about their preferences and thus about their real "goodness." As a consequence, individuals experience a warm glow in observing themselves behaving proactively, because it confirms their self-serving assumption to be intrinsically "good." However, as soon as fines or rewards are linked to these "good deeds" people face the possibility that their contributions are instead motivated by extrinsic incentives than by high moral values as originally assumed. As a consequence, individuals tend to stop contributing to such deeds voluntarily and in the absence of rewards.

Unintentionally, the different mechanisms underlying the crowding-out effect, Frey and Jegen (2001) identify three conditions, under which variable, performance-related compensation leads to a reduction in effort at work:

1. The activity was originally intrinsically motivated.
2. The reward is interpreted as a monitoring device.
3. And the extrinsic motivation generated by reward does not counterbalance the loss of intrinsic motivation.

By now, there are a large number of laboratory experiments as well as meta-analyses of these experiments that studied influencing factors of the crowding-out effect in detail. The effect is stronger with expected rewards than with unexpected ones, and stronger with pecuniary incentives than with symbolic ones (Deci, et al., 1999a; Hechausen, 2006). Moreover, there is a stronger crowding-out effect with interesting activities than with less interesting, monotonous jobs (Weibl, Rost, & Osterloh, 2010). Jenkins, Gupta, Mitra, and Shaw (1998), although not finding a negative effect of rewards, still provided evidence that these rewards are ineffective when it comes down to performance quality rather than quantity. Furthermore, crowding-out was found to effect contributions to public goods that are delivered to public, but not always to privately delivered public goods (Ardely, Bracha, & Meier, 2009).

In addition, a number of field experiments have supported the existence of a crowding-out effect (e.g., Ardely, Gneezy, Loewenstein, & Meier, 2009; Eichenberger, & Oesterheld, 1996; Frey & Götze, 1995; Holmás, Kjerstad, Lucas, & Strausse, 2010). Holmás and colleagues (2010), for example, show in a unique natural experiment that monetary punishment strongly crowds out prosocial behavior. A long-standing problem in the Norwegian health-care system is the transfer of elderly patients that need specialist care from the treatment hospital to the care facility in the patients' home municipalities. This transfer has to be arranged by the local facilities but is often delayed for a number of reasons. In order to speed-up this transfer some municipalities started to fine their long-term providers for transfer delays, whereas other municipalities were at the same time abolishing their already existing fining system. Holmás et al. (2010) demonstrated that the implementation of these monetary punishments results in a "bed-blocking behavior" from the owners of long-term care institutions. Thus, fines seemed to prolong rather than to shorten patient
stays in state hospitals. In contrast, where fines had been formerly in place and were suddenly abolished, patients' length of stay was significantly shortened. Hence, in this case contingent punishments diminished performance, whereas the abolishment of fines had a positive effect on performance. Another recent study revealed that salient rewards negatively influence performance (Ariely, Gneezy, Loewenstein, & Mazar, 2009). The authors conducted a set of experiments in India and the United States to look at how contingent rewards influence respondents' performance on different tasks. In India, respondents showed lower performance across different types of tasks when performance-contingent rewards were high in comparison with a situation where rewards were rather low. Thus, it could be argued that only salient contingent rewards crowd-out intrinsic motivation. In the United States, the effect of rewards on performance was moderated by the task at hand. On tasks that require motor skills, performance significantly increased with high rewards (in experiment 3 the high reward condition offered 10 times the rewards of the low reward condition). However, performance decreased when rewards were tied to cognitive or creative tasks.

Some experiments conducted by behavioral economists also show how both crowding-out and the price-effect operate in conjunction. Gneezy and Rustichini (2000), for instance, demonstrated how crowding-out and the price effect operate in opposite directions: the authors investigated the influence of financial incentives on the voluntary fundraising behavior of 180 students. These were divided into three groups. The first group received no financial bonus, the second received 1%, and the third 10% of the fundraising. The group with the 1% bonus fundraised considerably less than the group that received nothing. The third group fundraised more than the second group, but still fell short of the achievement of the first group. Thus, the price and crowding-out effect work in opposite directions (Frey & Oechsler, 2002). According to the price effect, the increased bonus boosts work effort (Figure 5.1). Without a bonus (i.e., being intrinsically motivated), the children engage at the A1 level. As long as there is no crowding-out effect, intrinsic motivation stays constant, so the addition of a bonus B raises work effort from A1 to A2. According to the crowding-out effect, a bonus decreases work effort as soon as it is being perceived as autonomy-thwarting. The supply curve moves from S to S' (Figure 5.2), indicating that intrinsic motivation decreases. As a result, work effort drops to A3. If the crowding-out effect is weaker, that is, the intrinsic motivation is not reduced to zero, a lesser decline or even a slight but expensive rise in work effort can result. For this reason, the authors Gneezy and Rustichini (2000, p. 793) entitled their article: “Pay enough or don’t pay at all.” This trade-off has recently been substantiated by Poulalais (2010, p. 618), who finds, that “monetary incentives may have a positive effect on workers’ utilization and performance as long as they are large enough.”

Summarizing the vast evidence about the effects of performance-pay on performance and intrinsic motivation, pay-performance is clearly shown to have a negative effect on individual-level performance for interesting and more challenging tasks as well as for complex tasks. The crowding-out effect tends to be stronger for tangible and salient incentives, although current research has yet to unravel what drives the “salience” of rewards in a company context. However, it is safe to say that the current omnipresent use of individual-level pay-performance does not reflect scientific evidence: the effect of pay-performance on knowledge-based work at high managerial work is dubious and cannot be recommended based on current evidence from behavioral economics. These findings are also in accordance with research from psychology as a recent review of Gagné and Forrest (2008) shows.

CROWDING-OUT THROUGH FORMAL CONTROL

The second institutional mechanism, which is closely linked to crowding-out, is formal control. Here we define control as the pervasive influence on the regulation of an individual’s behavior through hierarchical authority, which leads to the attainment of institutional goals (see Fayol & Urwick, 1963; Gulati, 1998; Snell, 1992). Thus, formal control is firmly built on influencing extrinsic motivation: common goals are defined, goal attainment is monitored by superiors, and individuals are rewarded or sanctioned depending on their compliance. The negative effect of formal control on intrinsic motivation is often a matter of debate, but by now, many authors suggest that formal control undermines intrinsic motivation if certain conditions are met (Weibel, 2010). Two arguments are advanced to explain the possible negative effects of formal control on intrinsic motivation. First, formal control, almost by definition, is seen as a form of externally defined influence on the work context as well as the work process of employees, and is thus naturally "as odd" with the need for autonomy (Argyris, 1957; Walton, 1985). Second, formal control is often portrayed to interrupt social relations (Björklund-Frankena & Corra, 2005; Fox, 1974), it signals suspicion (Falk & Kosfeld, 2006; Kramer, 1999; McGregor, 1960; Stekel & Stekel, 1990), and exacerbates the hierarchical distance between the controller and the controlled (Weibel, 2007).

A number of empirical studies show that formal control crowds-out intrinsic motivation. For example, Behrens (1995), in an econometric study, demonstrates that managers in Dutch companies are more willing to do overtime when they are less monitored by their supervisors. The crowding-out effect of formal control can be particularly strong when the controller holds a "controlling," that is, a suspicious intention. In this spirit, current empirical studies of behavioral economics support McGregor’s (1960) concept of the negative effect of monitored working relations on intrinsic work engagement under the condition that the controller initiates control with a "theory X" in mind, that is, a suspicious and negative view of employees’ work motivation. For example, Falk and Kosfeld (2006) tested the effect of managerial monitoring in a two-stage principal agent game. The principal could choose to monitor the agent’s effort either lightly, moderately, severely, or not at all. The experiment showed that principals who chose to trust, that is, not to monitor their agents at all, fared best. To put a figure in, agents who were trusted showed twice the effort of agents who were lightly controlled. In an attempt to understand the underlying reason for the performance reduction, the authors designed two games with different types of control, in which monitoring was chosen by the principal, whereas in the second case control was exogenously given. Agents reduced their efforts only in the first case, which meant that agents seemed to react negatively to the principal’s suspicious mind-set, and not the monitoring per se (see also Stekeland, 1958). These findings from behavioral economics are corroborated by findings from SDT research, which show that a nonsuspicious and supporting managerial style has a positive effect on autonomous motivation (Deci et al., 1989).

In addition, Slaska (2007) proposed that formal and suspicion-based control affects above all individuals with a specific motivation propensity, which he dubbed “conformists.” He argues that four types of motivation propensity should be distinguished: (1) altruists, (2) reciprocists, (3) egoists, and (4) conformists. Conformists are proposed to behave in the way that is perceived to be the most prevalent in their environment; conformists behave in a prosocial way if their environment is seen to be prosocially oriented and in an egocentric way if their environment is seen to be egoistically oriented. Thus, if a supervisor signals suspicion even when enacting formal control, the controlled is much more likely to act in a trustworthy way in response, as prosocial behavior is framed as “prevailing” in this environment.

The Crowding-In Effect

The crowding-in effect has been investigated to a much lesser extent than the crowding-out effect. Still, many findings show that certain institutional measures can have a positive impact on intrinsic motivation and job performance in the long run.

CROWDING-IN THROUGH PARTICIPATION AND THROUGH ORGANIZATIONAL FAIRNESS

Participation, that is, decision-making at work (Frey & Oechsler, 2002), increases employees’ intrinsically motivated efforts. Participation can also buffer against the crowding-out effect caused by variable performance-related compensation. It has been shown that at the same income level, self-employed persons obtain higher intrinsic benefit from their work than salaried employees (Boms & Frey, 2008). Further support for the crowding-in-through-participation effect is provided by Feld and Frey (2002) and Frey and
CROWDING-IN THROUGH NORMATIVELY SHAPED DECISION-MAKING FRAMES

Individuals contribute more to public goods if the decision-making frame signals unambiguously that prosocial behavior is expected (Rabinovich, 2006). Such a strong signaling effect has been demonstrated very vividly in a public goods game: cooperation in two identical test arrangements differed highly depending on whether the public goods game was labeled as a "Community Game" or a "Wall-Street-Game." In the first case, about 70% of the respondents contributed to the public goods, whereas in the second case only about 30% did so (Liberman, Sainsbury, & Ross, 2004). A recent experimental test by Rixon and Tiell (2008) showed that people's behavioral choices depend on whether or not a normative frame is signaled. Participants were also playing public goods games. Results demonstrated a significant increase in public contribution every time after participants were reminded (with the findings presented earlier). Arcey, Bracha and Meier (2009) provided an explanation for people's strong response to the signaling of social norms. Next to intrinsic motivation, the authors identified image motivation as a determinant of people's decision to act: prosocially. In other words, individuals wanted to be considered "good" by others and by themselves (consistent with Nambatou & Tiele, 2006). In a laboratory and a field experiment the authors showed that if a certain public goods is socially considered "good" and the contribution to that public goods is visible (e.g., blood donations) image motivation is crowded-in, adding an "image value" to the contribution; and that monetary incentives crowd out publicly visible contributions, because they decrease the image value, signaling to others (or oneself) that one's contribution could also be motivated by opportunistic motives.

CROWDING-IN THROUGH MARKET-DRIVEN WAGES

In addition, findings from the field of behavioral economics have clear practical implications. First, companies should refrain from using pay-for-performance schemes for challenging, creative, and complex work. Second, generous fixed pay, participatory procedures, procedural fairness, and clear normative signals to behave prosocially are robust drivers of intrinsic motivation. In addition, several aspects merit further investigation. As present it seems unclear what drives the salience of incentive pay and hence its negative effect on intrinsic motivation. Although it seems clear that a high fraction of variable pay is overall pay mix and frequent performance evaluations drive salience perceptions, we still do not know what "high" and "frequent" means in practical terms. Further research is also needed to unravel the conditions under which control formal can have a positive effect on intrinsic motivation—such a crowding-in effect has been partially shown in research in the field of organizational behavior but findings are still fragile and scattered. Finally, it is unclear whether distributive fairness crowed-in or crowds-out intrinsic motivation. To conclude, behavioral economics clearly shows that the universal application of pay-for-performance as practiced today is not warranted by scientific facts.

Notes

1. This chapter is an extended and refereed version of a German journal article: Olschak, M., & Wieland, A. (2008). "Crowding In, Crowding Out—Verdrängung und Vervielfältigung der Intrinsischen Motivation am Schulpfad der psychologischen Klassik?" 37, 406-411.

2. In a public goods game participants are asked to choose how many of their "pigeon tokens" they want to contribute to the public goods. The tokens in the shared pool are multiplied at a factor and this "public good" payoff is then evenly shared among all participants. In addition, all subjects also keep the tokens they do not contribute.

References


Passion for Work: Determinants and Outcomes

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Abstract

Passion can be uplifting and energizing; it can also be destructive and obsessive. The work realm represents a fertile ground to observe this duality of passion. This chapter provides a 10-year overview of the research on passion for work. The initial work on passion and its conceptualization is followed by a more focused presentation of the studies conducted in the workplace. First, various studies are presented that validate the concept of passion for work, distinguishing between harmonious passion and obsessive passion. Second, research that has examined the convergent and divergent validity of these two types of passion for work and their consequences on cognitive processes, psychological well-being, interpersonal relationships, and performance is discussed. Third, we present research on the determinants of passion, specifically the individual and social factors involved in the early and on-going development of passion for work. Finally, future research directions are proposed to stimulate new and exciting research in this growing field.

Key Words: passion, work, cognitive processes, psychological well-being, interpersonal relationships, performance, harmonious passion, determinants of passion

"Nothing is as important as passion. No matter what you do with your life, be passionate!"

(Jon Bon Jovi)

The above quote from famous rock star Jon Bon Jovi underscores one major point: If you want to succeed in your field of endeavor, be passionate! And Jon Bon Jovi is not the only one to believe so. For instance, the late Steve Jobs, founder and former CEO of Apple, underscored the role of passion in persisting and reaching one's business goals, and business mogul Donald Trump believes in the energy that passion provides while working toward one's goals. Even the famous philosopher Hegel (1770–1831) suggested that "Nothing great in this world has ever been accomplished without passion." But is it the case? Does passion matter with respect to performance? What about other outcomes, such as the quality of relationships that one develops and maintains at work and one's psychological well-being? Does passion for one's work matter as well?

Until recently, it was difficult to answer these questions because little to no psychological research was conducted on passion, let alone passion for work. However, roughly 10 years ago, psychologists started to empirically study passion, largely using the dualistic model of passion (DMP; Vallerand et al., 2003) as a basic structure. Since then, an increasing amount of research has been conducted in a variety of areas including the workplace (e.g., Vallerand & Houlifort, 2003). This chapter reviews such research. The first section describes the concept of passion, the DMP (Vallerand, 2008, 2010), and initial research on elements of the model. The