Handbook of Economic Organization
Integrating Economic and Organization Theory

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Motivation explains people's behaviour. It is therefore important to understand what induces individuals to work in what way. Standard economics (which has been adopted in many business schools) uses a one-dimensional concept of motivation. It essentially assumes that people are perfectly rational and are solely motivated in a selfish way. Based on the insights of psychological economics, this chapter argues, firstly, that people differ in their preferences with respect to pro-social orientations; secondly, that preferences are plastic and systematically susceptible to the design of institutions, working conditions and the quality of human interactions; thirdly, that individuals partly lack self-control in following their preferences; and fourthly, that preferences often are not known to the individuals and are wrongly interpreted. Applying the insights of psychological economics, we derive measures for motivation governance. Motivation governance consists of formal and informal organization designs aimed at influencing incentives in value-creating directions.

The chapter proceeds as follows. Firstly, motivation governance in standard economics is compared to the insights gained from psychological economics. The subsequent sections deal with heterogeneous preferences, in particular pro-social preferences, and plastic preferences. The chapter then engages in two little explored areas, bounded self-control and mistaken preferences, as discussed in happiness research.

**MOTIVATION GOVERNANCE IN STANDARD ECONOMICS**

For more than 30 years, standard economics has dominated business school research and economic research in dealing with human motivation (Gintis & Khurana 2006: 33). Although highly valuable in its capacity to explain competitive markets, it disregards empirical psychological insights almost completely (Frey & Benz 2004). The *Homo economicus* model treats individuals as utility maximizers who are rational, self-interested and self-controlled. The underlying motivational assumptions of standard economic theory can be typified by the following four assumptions (e.g., Frey 1992; Kirchgässner 2008):

1. There is a strict division between preferences (i.e., needs, values and utilities, which underlie motivation) and external restrictions. The individual's preferences are fixed and relatively enduring (Stigler & Becker 1977). Changes in individual behaviour are mainly a result of changes in restrictions. As a consequence, no analysis of the preferences is needed.
2. Individuals do not include other persons' preferences in their own preference function.
3. People act according to their preferences in a self-controlled way.
4. People know their preferences and interpret them correctly.
In addition, standard economics often adapts an even narrower version of the self-interested human being: individuals are assumed to maximize their own tangible interests, that is, their own pay-off in terms of money or goods (Camerer & Loewenstein 2004: 10). They are depicted to be solely motivated by tangible rewards and to avoid punishment.

As a consequence, motivation governance in standard economics is one-dimensional and simple. Motivation can only be fostered by variable pay-for-performance according to the relative price effect: the higher the price, the higher the effort. Empirically, such an effect has been confirmed for several cases, in particular for piece rate wages paid for simple jobs (Stajkovic & Luthans 1997). A much-quoted example is the field experiment of the personnel economist Lazear (2000) on the US company Safelite Glass: after changing from fixed hourly wages to piece rate, productivity increased by as much as 36 per cent (with an incentive effect of 20 per cent and a selection effect of 16 per cent), whereas the labour costs only rose by 9 per cent.

According to the message of standard economics, today in many companies variable pay-for-performance has caught on as the embodiment of modern management methods. The principle of piece rate wages has been transferred to all employment forms, for example to companies' middle and upper management (e.g., Bebchuk & Grinstein 2005; Rost & Osterloh 2009), government agencies (e.g., Bertelli 2006; Schneider 2007), and even to universities (Osterloh 2010). However, in contrast to piece rate work, these tasks are characterized by high complexity, a large scope of action and high interdependence with other employees. They cannot easily be measured by output indicators and be attributed to specific individuals. If employees nevertheless are paid according to the piece rate principle, dysfunctional effects appear, particularly if all people act in a selfish way. Three problems arise.

Firstly, a Homo economicus would have a strong incentive to respond only to those indicators that are easy to measure, because only those are relevant for his income. Not easily measurable parts of the tasks are disregarded, although they might be crucial to fulfilling the task as a whole. This effect is well known as the 'goal-displacement effect' (Merton 1940; Perrin 1998) or the 'multiple-tasking effect' (Ethira & Levinthal 2009; Holmstrom & Milgrom 1991; Kerr 1975). There is considerable empirical evidence for this effect (Staw & Boettger 1990; Gilliland & Landis 1992; Fehr & Schmidt 2004; Ordonez et al. 2009). For example, in the public service there are ambulances that concentrate on dealing with emergencies a short distance away so as to meet the goal to respond within eight minutes (LeGrand 2010). One step further is 'cream skimming' and 'gaming the system'. Empirical examples are chronically ill patients excluded from healthcare, teachers responding to evaluations by excluding bad pupils from tests (for empirical evidence in the United States, see Figlio & Getzler 2002), or putting lower-quality students in special classes that are not included in the measurement sample (Corley & Gioia 2000). These effects contribute to what is called the 'performance paradox': performance measures are manipulated and ultimately lose their ability to discriminate between good, average and bad performance (Meyer & Gupta 1994). These effects might explain why the impact on performance does not seem to have improved (e.g., Marsden & Belfield 2006), although in recent years variable pay-for-performance has been widely applied, and tools for output performance measurement have become more sophisticated.
Secondly, a *Homo economicus* would not contribute to a common good as long as his contribution is not measurable and remunerated individually. However, this is often the case with knowledge team work in which team members are in a good position to free-ride and have an incentive to do so (Osterloh & Frey 2000; Osterloh 2006; Frost et al. 2010). A social dilemma arises in which the actions of selfish and rational individuals lead to situations of collective irrationality (Dawes 1980; Miller 1992). Such an effect was found in a great number of situations when people realize that their individual contribution cannot be measured (Messick & Brewer 1983).

Thirdly, it has been shown that under certain conditions pay-for-performance undermines intrinsic work motivation, in particular the joy of fulfilling a particular task and the pro-social obligation to contribute to the community (see below). However, such a motivation is of great importance in a modern economy because it supports innovation and teamwork, and helps to fulfil tasks going beyond the ordinary (Frost et al. 2010).

Fortunately these problems – though ubiquitous – do not always arise, because the assumptions of standard economics do not hold under certain conditions, which are studied by psychological economics.¹

**THE VIEW OF PSYCHOLOGICAL ECONOMICS**

Each of the key assumptions of standard economics is challenged by findings in psychological economics, which suggests that 'humans are dumber, nicer, and weaker than the homo economicus' (Thaler 1996: 227). Based on empirical evidence, psychological economics has developed a much richer understanding of the motivational characteristics of human beings. In particular, it has shown that individuals to a considerable degree are characterized by:

1. Differences in their preferences (Andreoni 1990), including different extents of pro-social and selfish orientations (Meier 2006);
2. Preferences which are plastic and systematically susceptible to the design of institutions, working conditions and the quality of human interactions (Ostrom 2000; Frey 1997);
3. Bounded self-control in following their preferences (Rabin 1998; Frey & Benz 2004);
4. Preferences that are not known to the individuals and are often wrongly interpreted (Ariely et al. 2006; Stutzer & Frey 2007).

Psychological economics has come to these findings by rigorously testing the assumptions of standard economics. Usually the following procedure is followed (Camerer & Loewenstein 2004):

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 behavioural economic model out of the alternative hypothesis;
5. testing this model;
6. development of new implications.

In this way psychological economics modifies the assumptions of standard economics step by step in order to develop an empirical foundation of the constructed models. At the same time, the standard economic model is used as a reference (Frey & Benz 2004; Rabin 2002). This procedure helps on the one hand to keep the comprehensiveness and elegance of the standard economic model. On the other hand, the economic model is increasingly based on an empirical foundation. This proceeding also explains the preference of psychological economics for laboratory experiments. They allow the isolation of individual variables and their modification under controlled conditions (Camerer & Fehr 2006). The disadvantage is the often missing external validity. For that reason, field experiments are more and more used (List 2006; Levitt & List 2009).

MOTIVATION GOVERNANCE IN PSYCHOLOGICAL ECONOMICS

As psychological economics is based on a much richer understanding of human motivation than standard economics, motivation governance in psychological economics is multidimensional and multifaceted (Frey & Osterloh 2002). We approach motivation governance by considering the four deviations of psychological economics compared to standard economics that are mentioned above.

Different Preferences

People differ in their preferences with respect to the extent of including selfish or pro-social orientations. In psychological economics, extrinsic and intrinsic preferences are distinguished that lead to different kinds of motivation. Extrinsic motivation is aimed instrumentally at activities not valued for their own sake. In contrast, intrinsic motivation is directed towards activities performed for their own sake rather than for any reward (Deci & Ryan 1985; Frey 1997; Osterloh & Frey 2000). According to Lindenberg (2001) extrinsic motivation is driven by the ‘gain goal’ to preserve and enhance one’s resources. Intrinsic motivation is either driven by the ‘hedonic goal’ to feel good or by a ‘normative goal’ to act appropriately. The latter includes the well-being of others or pro-social preferences. Each goal competes to be in a person’s cognitive foreground, thereby pushing the other goals into the background. When a goal is in the foreground, it governs what people like and dislike, what they attend to and what alternatives they consider (Lindenberg & Foss 2011).

Concerning pro-social preferences one of the most ubiquitous findings of psychological economics is that such motivation is much more prevalent than standard economic theory suggests (Meier 2006). For instance, a large body of research has accumulated 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 (US) almost 70 per cent of all households make charitable contributions, exceeding one per cent of GDP (Andreoni et al. 1996). Pro-social
behaviour is observed also in laboratory and field experiments. For example, it has been demonstrated that participants in the experiments invest up to between 40 and 60 per cent of their endowments in public goods (Fehr & Gächter 1998). Henrich et al. (2001: 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 violated'.

Pro-social motivation is differentiated into altruism or reciprocity. Altruists benefit others unconditionally even at a personal cost (Fowler & Kam 2007). Recipients act conditionally, depending on the behaviour or intentions of others (Nyborg 2010). The pro-social behaviour of others is responded with one's own pro-social behaviour; selfish behaviour of others is responded to with one's own selfish behaviour.

Overall, in laboratory experiments, about 50 per cent of the test persons have been found acting in a reciprocal way, 20 per cent as altruists and 30 per cent as egoists (e.g., Andreoni & Miller 2002; Fischbacher et al. 2001). Field studies show a smaller proportion of altruists (Frey & Meier 2004). But such findings should be used with caution since the extent of pro-social behaviour is strongly dependent on the situation, which has an impact on which of the goals – the extrinsic gain goal or the two intrinsic goals – is prevailing.

As a consequence for motivation governance, employees have to be carefully selected. Above all, it has to be checked whether the job seekers are interested in the work to be performed or solely in the money that will come along with it. In all too many sectors of the economy, this task seems to have been neglected. In the financial sector, for example, many persons have been chosen whose only goal is to get as high a salary as possible. They therefore exhibit no loyalty to the firm and immediately accept any job that offers higher compensation (Frey & Osterloh 2012). Moreover, the recent financial market crisis shows that the prospect of huge salaries according to pay-for-performance criteria (which can be manipulated by the managers) has turned some of them from 'legends' (Hegele & Kieser 2001) into 'crooks' (Osterloh & Frey 2004; Osterloh et al. 2011). It also has been shown under pay-for-performance schemes that people who are most interested in money do self-select themselves into pay-for-performance jobs more frequently (Lazear & Shaw 2007).

Plastic Preference

Preferences and motivations are not stable. The three goals – the extrinsic gain goal, the intrinsic hedonic goal and the intrinsic normative goal – differ in their strength (Lindenberg 2001). There can be a crowding-out or crowding-in effect of intrinsic motivation by external interventions which push the intrinsic goals into the background and the gain goal into the foreground. In particular, crowding-out effects can be activated by variable pay-for-performance or by external control if the following conditions hold (Deci & Ryan 2000; Frey & Jegen 2001):

1. the activity was originally intrinsically motivated;
2. the reward or control is interpreted as curtailing one's autonomy;
3. the extrinsic motivation generated by external rewards does not counterbalance the loss of intrinsic motivation.
There is extensive empirical evidence for the crowding-out effect. Firstly, there exist numerous laboratory experiments as well as meta-analyses of these experiments. They show that the effect is stronger with expected rewards than with unexpected ones, and stronger with pecuniary incentives than with symbolic ones (Deci et al. 1999; Heckhausen & Heckhausen 2006). Moreover, there is a stronger crowding-out effect with interesting activities than with less interesting, monotonous jobs (Weibel et al. 2010). Secondly, a number of field experiments support the crowding-out effect (see, e.g., Ariely et al. 2009; Frey et al. 1996; Frey & Götte 1999; Holmas et al. 2010).

Thirdly, some experiments also show how both the crowding-out and the price effect operate in conjunction. Pouliakas (2010: 618) and Weibel et al. (2010) show that a crowding-out effect can be compensated for by higher pay— but at a high cost compared to keeping or strengthening intrinsic motivation. This effect is well illustrated in a field experiment analysing the behaviour of school children voluntarily collecting money for cancer research (Gneezy & Rustichini 2000). The children reduced their efforts by about 36 per cent when they were promised a bonus of 1 per cent of the collected money, and raised their effort when they got a bonus of 10 per cent of the collected money. Fourthly, intrinsic motivation and job satisfaction can also be crowded out by external control, if this control is perceived as suspicious (Falk and Kosfeld 2006; Weibel 2007) or unfair (Long et al. 2011).

Finally, intrinsic motivation can be crowded out due to the free-riding of others. If free-riding takes place without sanctioning it, the pro-social motivation to cooperate in teams is undermined. The willingness to cooperate drops for everybody in the team if other team members are shirking (Fehr & Gintis 2007). In public-good games that mimic social dilemmas, a high number of participants contribute voluntarily in the first round to the common pool. When the participants realize that others are shirking, they reduce their contribution until after several rounds it is close to zero. As a consequence, organizations should guard and provide intrinsic motivation, in particular the normative intrinsic motivation, in order to make sure that employees do not free-ride but contribute to the common good.

Which measures for motivation governance can be derived from the insights of psychological economics in order to avoid crowding out intrinsic motivation and to crowd in intrinsic motivation? In general such interventions should: (1) be targeted to create an intrinsically rewarding job environment; (2) support employees' feelings of competence; (3) support employees' perception of esteem and relatedness by fair processes; (4) signal social norms; and (5) enable self-governance in teams to discipline free-riders. We discuss in detail seven mechanisms to foster intrinsic motivation.

Firstly, employees have to be paid a fixed compensation corresponding to their performance (Frey & Osterloh 2012). They must be given the signal that they are paid a good wage but that they are expected to work accordingly. Thus, a market wage has to be paid in order to be able to win and keep employees. After some time the compensation can be adjusted on the basis of a comprehensive evaluation of their work. This procedure avoids the crowding-out effect as well as the multiple tasking problem. At the end of the year, one can also distribute part of the profit to employees according to their contribution to overall performance rather than according to ex ante criteria. This measure strengthens solidarity with the company as a whole.

Secondly, intrinsic motivation can be enhanced through job design along several
dimensions. The two most important dimensions are autonomy and task feedback (Gagné & Deci 2005). A job providing decision latitude enhances employees' self-determination and thereby strengthens interest and pride in the job. Task feedback, the degree to which the job provides clear information about performance levels, raises feelings of competence and empowers employees in their tasks. Three additional dimensions have been found to strengthen intrinsic motivation through raising perceived meaningfulness of the job (Hackman & Oldham 1980): variety (the degree to which a job requires the use of a number of different skills and talents); identity (the degree to which the job requires completion of a 'whole' piece of work or doing a task from beginning to end with a visible outcome); and significance (the degree to which the job offers opportunities to protect and promote the well-being of beneficiaries).

Thirdly, hierarchical control can be used to crowd in intrinsic motivation. Whereas this kind of control often undermines intrinsic motivation, there are two conditions under which the opposite holds. Empirical research demonstrates that hierarchical control is perceived as supportive if feedback is given in a constructive and timely way, and if caring guidance prevails (Weibel 2007). Hierarchical control that is executed for the sake of the community rather than for selfish interest is perceived to be legitimate. Field research shows that such benevolent, non-selfish monitoring leads to perceptions of organizational support and to higher pro-social motivation. Laboratory research (Fehr & Gintis 2007) demonstrates that people are more willing to contribute to a public good if a leader makes personal sacrifices.

Fourthly, awards and supporting forms of rewards foster intrinsic motivation if they bolster employees' feelings of competence and esteem. Awards play a special role in sectors where voluntary efforts are crucial, for example in academia, the arts, the military and public service (Frey & Neckermann 2008). It has been shown that the motivation of employees not getting an award is not reduced (Neckermann et al. 2008). Rewards in the form of monetary incentives also foster intrinsic motivation if they signal benevolence and a caring attitude and are presented with no strings attached (Kuvaas 2006).

Fifthly, procedural fairness furthers pro-social intrinsic motivation. Therefore, governance mechanisms need to be designed and executed in a fair way. The characteristics of governance mechanisms that lead to perceived procedural fairness can be summarized as participation, neutrality and being treated with dignity and respect (Tyler & Blader 2000). Participation gives employees a voice to choose between alternatives and to participate in devising the rules of cooperation. It has been empirically shown that participation furthers affective worker commitment and loyalty that can be regarded as a 'firm-specific utility' (Brown et al. 2011). Also, participation in political decision-making processes increases tax morale, which can be understood as the willingness to contribute to the community (Feld & Frey 2002; Frey & Torgler 2007). Neutrality refers to the extent to which employees feel that the company or their superiors make unbiased decisions. A precondition is the belief that individuals who set and sanction the rules do not allow personal advantages to enter into their decision-making. Lastly, governance mechanisms should signal dignity and respect to employees. All three characteristics of procedural fairness (participation, neutrality, and being treated with dignity and respect) are essentially unrelated to outcomes. Therefore, procedural fairness is crucial for situations that may lead to undesired results for the employees (Greenberg 1994).
Sixthly, people are highly sensitive to signals about socially appropriate behaviour. Such signals push the normative frame into the foreground and make individuals inclined to adhere to rules even if it is not in their own self-interest (Lindenberg & Foss 2011). Experiments suggest that participants were more willing to contribute to a common good if they were told that they were taking part in a ‘community game’ rather than in a ‘Wall Street game’ (Liberman et al. 2004; Reeson & Tisdell 2008). Subordinates who fill their own pockets with high salaries as well as ‘pay-for-performance’ schemes signal a ‘Wall Street game’.

Seventhly, the punishment of free-riders fosters pro-social intrinsic motivation. In all kinds of communities some people free-ride. The willingness to contribute to the common good in a team declines drastically when contributors realize that others are shirking. Nobody wants to be a sucker. However, when free-riders can be punished, contributions are raised to the initial level, but only when punishment does not serve the self-interest of the punishers (Fehr & Rockenbach 2003). As a consequence, self-governance and peer control in teams, as opposed to control by superiors, is crucial. Sanctions by superiors are, in many cases, not considered to be unselfish. Also, team members often are in a better position than superiors to realize when peers are shirking. There are many examples that self-governance of commons is more efficient than hierarchical control with regard to countering shirking (Ostrom 2000).

Bounded Self-Control in Following One’s Preferences

Individuals are often not able to stick to their long-term goals but fall prey to their desire for immediate satisfaction. Obvious examples are smokers who want to quit smoking, obese people who want to eat less, or workaholics who work more than is good for their health. They suffer from self-control problems. The phenomenon is called ‘time-inconsistent preferences’ or ‘hyperbolic discounting’ (O’Donoghue & Rabin 1999). Short-term and long-term preferences conflict with each other. These problems are also relevant in the sphere of work since they have an impact on employees’ health, productivity and job satisfaction.

Which measures of motivation governance can be applied to mitigate bounded self-control? A common way is to commit oneself to institutions in order to get help when struggling to overcome weaknesses (Frey and Eichenberger 1991). But often this is not very successful. DellaVigna & Malmendier (2006) show that individuals choosing a monthly lump-sum contract with a health club in order to commit themselves in fact use the health club less than expected. In the end they pay 70 per cent more than they would have paid under a payment-per-usage scheme.

Libertarian or soft paternalism aims at skewing the decisions into the ‘right’ direction by a ‘choice architecture’, that is, by changing the context in a way that nudges individuals towards what is best for them in terms of their long-term preferences (Thaler & Sunstein 2003). The authors use the following example: ‘Consider the problem facing the director of a company cafeteria who discovers that the order in which food is arranged influences the choice people make . . . Putting the fruit before the desert is a fairly mild intervention. A more intrusive step would be to place the desserts in another location so that diners have to stand up and get a dessert after they have finished the rest or their meal’ (Thaler & Sunstein 2003:175). Such measures are libertarian in the sense that people are free to
do what they like. They are paternalistic in the sense that the choice architects try to influence people's decisions in order to support their long-term preferences. However, there are objections to the idea of such a 'nanny' governance. It is argued that paternalism might unjustifiably 'take sides' in choosing to favour some personal interests over others. It ignores private solutions to the self-control problem. And it disregards the possibility of paternalists' failures (Whitman 2006). A pragmatic counter-argument is that there is choice architecture anyway. Organizational designs that frame decisions are inevitable, therefore the question is not whether to be paternalistic or not. Therefore 'results from the psychology of decision-making should be used to provide ex ante guidelines to support reasonable judgements' (Sunstein & Thaler 2003: 1166).

These problems could be mitigated if individuals can decide in a democratic way whether such paternalistic measures should be undertaken to serve as self-commitment. But it must be admitted that the problem of unwarranted 'choice architecture' may again appear with the presentation of the choice alternatives during the democratic process. As a consequence, libertarian paternalism is an interesting but disputable measure to overcome the lack of self-control among adults.

Unknown or Falsely Interpreted Preferences of Individuals

Standard economics relies on 'revealed behaviour': people always make choices leading to outcomes that maximize their utility. Individuals are assumed to be perfectly informed about what will bring them how much utility. This means that people do not make any systematic mistakes when making decisions. Possible errors are either randomly distributed, or if systematic mistakes occur, individuals correct them quickly by learning. This view has been criticized because 'it rules out - as a logical impossibility - any conflict between what man chooses to get and what will best satisfy him' (Scitovsky 1976: 4).

Standard economics thus simply assumes that people can successfully predict how they will feel about future outcomes. Many careful experiments and surveys have studied whether people are good at forecasting utility (reviews are provided by Loewenstein & Schkade 1999; Wilson & Gilbert 2003; Kahneman & Thaler 2006). They find that people are able to accurately predict whether an experience will primarily elicit good or bad feelings. In contrast, people often hold incorrect intuitive theories about the determinants of their happiness. They systematically overestimate the impact of specific life events on their experienced well-being with regard to intensity, as well as with regard to duration.

Standard economics is probably appropriate to explain the choices made by individuals for most goods and activities and for most situations. However, this is no longer the case when people have to make trade-offs between different activities, goods or options that differ systematically in the extent to which their future utility is affected. As a result, economic consequences differ from the predictions of standard economics (Stutzer & Frey 2008). When making a decision, some options, or attributes of options, are more salient than others, and are thus relatively overvalued. Consequently, people's experienced utility is lower than what they expected. Moreover, they consume different goods with different attributes and pursue different activities.

There are four major sources for systematic over- and undervaluation of choice options that can be distinguished (Stutzer & Frey 2008):
• the underestimation of adaptation;
• distorted memory of past experiences;
• the rationalization of decisions; and
• mistaken intuitive theories about the sources of future utility – in particular, the future utility of extrinsic goods is overestimated and that of intrinsic goods is underestimated.

The practical importance of misprediction is exemplified by a study on people’s decisions to commute for a longer or a shorter time (Stutzer & Frey 2008). The decision to commute between place of work and place of living involves the trade-off between the salary or the quality of housing on the one hand, and commuting time on the other hand. Rational utility maximizers commute only when they are more than compensated for the costs of commuting. They should receive either a higher wage or more affordable or higher-quality housing. However, when people overestimate utility from goods serving extrinsic wants, they are expected to opt for too much commuting and then suffer lower utility according to their own evaluation. In a large panel data set for Germany, it is found that commuting is not fully compensated and that, on average, people who commute 22 minutes each way (sample mean) would need an additional 35 per cent of their monthly labour income to be as satisfied with their life as people who do not commute.

Which measures of motivation governance can be applied to mitigate systematic misprediction of happiness? In our view the most important measure is to inform individuals about the conditions under which future subjective well-being tends to be overrated and underrated. Practical examples are helpful because they are more easily remembered. Thus, for example, it should be communicated that buying a material good such as a flashy new car only raises happiness for a relatively short period of time. Thereafter, people get used to it and take its possession for granted. In contrast, individuals can be informed that relational goods, that is, having friends, acquaintances, a good family life and many social connections, do not wear out. Having them is a continual source of happiness. Such information helps individuals to learn to overcome errors in evaluations such as succumbing to the lure of materialistic possessions instead of a fruitful social life.

In contrast to some happiness scholars (e.g. Layard 2005; Frank 1999) we do not recommend that governments or firms engage in maximizing the happiness of the population or of their employees. This corresponds to a ‘benevolent dictator approach’ inconsistent with a democratic, liberal society. It provides politicians and executives with strong incentives to manipulate the happiness indicators (see, more fully, Frey and Stutzer 2006; Frey 2011). As the happiness indicators are based on surveys, there are many possibilities for such manipulation, for example by treating non-respondents or outliers in a way serving the politicians’ and executives’ goals, or simply by making up convenient data.

Also in firms, a policy to maximize happiness might strengthen incentives to manipulate happiness indicators. On the one hand, managers of firms may have an interest in diminishing misprediction as well as other sorts of behavioural anomalies leading to reductions in happiness. According to recent research (Oswald et al. 2010) happiness raises productivity. This relationship has long been studied in psychology. In particular,
Wright and Staw (1998), Boehm and Lyubomirsky (2008) and Amabile et al. (2005) show that happier persons are more efficient and creative. On the other hand, a firm’s board should not simply ask the management to maximize the happiness of its employees. Once the employees are aware that the managers intend to raise their happiness in order to make them more productive, they have an incentive to answer in a strategic way. In particular, if they fear that the surveys capturing their happiness are not fully anonymous, they tend to report too-high happiness levels in order not to get into conflict with the management. In addition, managers have an incentive to manipulate the aggregate happiness indicator of their firm in order to satisfy their board. This can be done, for example, by deviating from a randomized survey or by disregarding the views of those employees suspected or known to be critical of the management. Therefore politicians as well as managers should be aware that the ‘governance of happiness’ may produce dysfunctional effects.

CONCLUDING REMARKS

The chapter shows that motivation governance has become a more difficult task once it is acknowledged that people’s motivations are multidimensional and plastic. In contrast, standard economics conceives motivation in a one-dimensional way: more effort can be produced simply by raising the (relative) price or wage offered.

An important consequence for motivation governance is, firstly, to select employees carefully. Job seekers must be interested in the work to be performed, and not solely in the money that will come along with it. In all too many branches of the economy, especially in the financial sector, this task has been neglected. Pay-for-performance schemes are in line with employees who are most interested in money. Indeed, they self-select themselves into pay-for-performance jobs more frequently. Secondly, organizations should guard normative intrinsic motivation in order to make employees inclined to contribute to the common good. There exists an extensive repertoire of measures to do so, such as job design, procedural fairness, signalling of appropriate behaviour and punishment of free-riders. Thirdly, it is important to become aware of the limited measures of governance when it comes to mitigating bounded self-control and raising happiness. In these cases the most important measures are to inform individuals, for example, about the conditions under which future subjective well-being tends to be overrated and underrated. In particular, it has to be demonstrated that the gain in happiness produced by material goods wears off quite quickly, while relational goods can be a continually repeating source of happiness.

The new view of motivation based on insights from psychological economics makes it harder, but at the same time more challenging, to govern motivation in society as well as in particular organizations. We have pointed out ways in which this can be done with respect to heterogeneous preferences, their plasticity, as well as to bounded self-control and misprediction of future preferences. Research has only addressed some possibilities; much more needs to be inquired into in future work.
NOTE

1. We prefer the expression ‘psychological economics’ instead of ‘behavioural economics’ for two reasons. Firstly, economists had already examined human behaviour before this new field emerged. Secondly, Simon (1985) pointed out that the term ‘behavioural’ was misleading because it could be confused with the behaviourist approach in psychology.

REFERENCES


Hegele, C. and A. Kieser (2001), 'Control the construction of your legend or someone else will', *Journal of Management Inquiry*, 10, 298-309.


Rost, K. and M. Osterloh (2009), 'Management fashion pay-for-performance for CEOs', *Schmalenbach Business Review*, 61, 119-149.