

Behavioural Public Policy

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adviser. Innovation in the market for financial services may have similar consequences for the role of the independent financial adviser.

A well-ordered regulatory regime will facilitate the competitive process while allowing room for market structures to evolve in unpredicted directions. As Friedrich Hayek (1948) argued many years ago, markets work by integrating otherwise dispersed knowledge. Regulation may be able to help markets to work more effectively, but it cannot substitute for their role in solving the problem of division of knowledge. If that is right, the role of the regulator should not extend to deciding whether it is expedient to restrict flows of information. This way of thinking about markets may make it easier to reconcile the proposition that having more information does not necessarily mean better decisions with the intuition that conflicts of interest should be fully disclosed.

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How should people be rewarded for their work?

BRUNO FREY

The orthodox view

Recently, I met a couple. Joan has a management education and is employed as a human resource manager by a large international insurance firm with about 30,000 staff. George studied economics and now manages a well-respected family-run car dealing firm with fifteen employees in three locations.

When I talked to them about their professional activities, both emphatically stated: 'People should be paid according to their performance.' Indeed, it was absolutely clear to both of them that performance pay induces people to work. Performance pay means that targets are fixed *ex ante*, and that those exceeding them get a bonus. Those not meeting the targets should be reprimanded or dismissed. In the case of George, each car sold should lead to a higher pay; in the case of Joan, those performing better than the target set should receive a higher salary. However, she did not tell me how 'performance' should or can be determined in the insurance business, except in relation to the direct selling of insurance contracts.

The couple knew that I am an academic economist and they were glad to tell me that their view corresponds exactly to what they learnt in their respective university courses.

Some questions

I first probed George, the car dealer, concerning some problems with performance pay. I asked him whether he really pays a bonus directly linked to the number of cars sold by an employee. I suggested that this would lead his employees to sell cars 'at all costs'. They would disregard the interests of the customers, as well as of his firm.

George immediately agreed and stated that this would certainly be bad for his well-established firm because he is interested in keeping his

customers happy so that they come back to the firm in the future. He even mentioned several other drawbacks of a performance pay linked to the number of cars sold, such as that employees would then tend to 'steal' potential customers from each other, and between locations.

It turned out that in reality, George does not use performance pay in his firm. Rather, he links his employees' salary to the *total* number of cars sold and the revenue generated in *all* three locations. Moreover, he became concerned about the cost of running his firm, and therefore decided to link the salaries to the overall profit, rather than to the revenue, of his firm.

While George is convinced that pay for performance is the right, and academically approved, way to compensate people, in reality he does not act accordingly. The salary he pays does not directly relate to the incentives to work hard. A particular employee is able to shirk profits from the work of all other employees. The harder they work, the higher is his salary. He has no incentive to work hard because he is able to free ride on the public good produced by his colleagues.

George's situation is typical. He would ruin his business if he paid his employees strictly according to performance. Instead, he is letting his experience of life guide him. He refrains from producing a public good situation by putting trust in individual employees and by letting them share *ex post* in the profit they helped to generate.

Joan's job situation is different. While she is equally convinced that 'pay for performance' is the right and only reasonable way to reward employees, she is not in a position to change the firm's compensation policy. The firm is large, and hierarchy dominates.

On being asked, it turned out that she is well aware of the high direct cost of running the compensation system. Her unit counts about 30 well-paid people. She even agrees that to identify and measure 'performance' in a large insurance firm is extremely difficult. Her knowledge is corroborated by a huge literature in management telling us that it is impossible to measure strictly performance when the activity is multi-dimensional (e.g. Argote et al., 2003; Latham et al., 2005; Neely and Neely, 2002).¹ Joan also realizes from her experience that 'you get what you pay for'. In economics, this principle is known

¹ This is an old topic in the social sciences, visible, for example, in the impossibility of aggregating individual preferences; see Arrow (1951), Sen (1970) and many other scholars.

as 'multiple tasking' (Holmstrom and Milgrom, 1991). Rational employees put all their effort into the activities on which their pay depends and disregard the rest. Clearly, if it is not possible to specify *in detail* all the activities expected by an employee, this may lead to inefficiencies and huge costs to the firm.

But there is one aspect that neither Joan nor the literature consider. There is a fundamental, but often neglected, principle in the social sciences: 'Whenever an index is important, it will be manipulated.' This 'manipulation principle' lies behind Goodhart's Law (see Chrystal et al., 2003) in monetary policy: as soon as the quantity of money has become a policy target, it will be manipulated. As a consequence, the systematic relationship between money and economic magnitudes such as national income no longer holds. Sociologist Donald Campbell has gained the same insight in a more general context (see Campbell, 1976).

For the case of performance wages the 'manipulation principle' means that the employees invest effort to influence the performance index in their favour. Indeed, often it is more advantageous to them to manipulate the performance measure than to put effort into working well according to the relevant performance index.

Various motivations to work

Joan and George have quite typical views about why people work, namely because they are paid for doing so. If not compensated by money, they would not work. This seems so obvious that it is not called into question. This view is supported by standard economic theory as can be seen from any textbook on microeconomics. The classical supply curve of labour (as shown in Figure 7.1) is based on the relative price effect which translates this view into a marginal effect: the higher the monetary compensation offered, the more work in terms of time and intensity will be offered (see Becker, 1976, 1993).

Recently, economic theorists have taken into account that people are not only extrinsically motivated but that they may to some extent also be intrinsically motivated. This means that the supply curve of labour indicates that people are willing to put in work even if they are not paid (see Figure 7.2).

The extent of intrinsically supplied work is subject to a psychological anomaly. Most people state that they have a considerable amount of intrinsic motivation. This is reflected by the large amount of voluntary

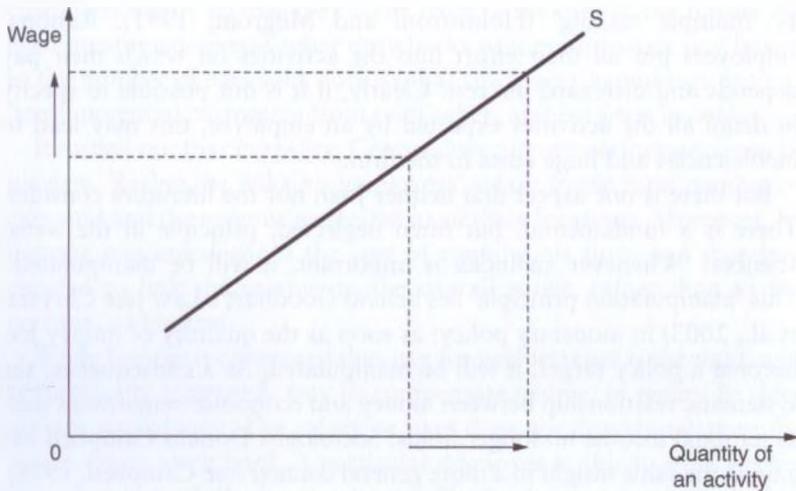


Figure 7.1 Relative price effect of supply curve

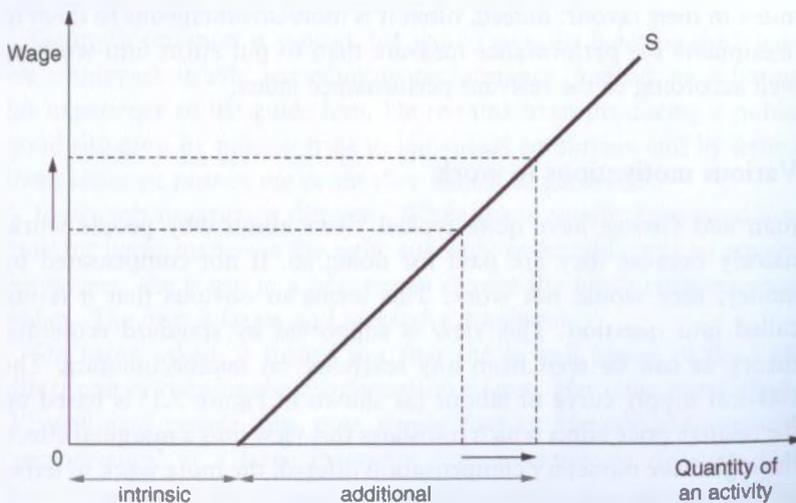


Figure 7.2 Supply curve including intrinsic work motivation

work offered in most countries of the world. Not all voluntary work is done because people are willing to undertake work they find gratifying as such. Some part is motivated by an effort to get experience in work or to establish connections useful for future employment. Nevertheless, the literature (see e.g. Deci et al., 1999; Lindenberg, 2001) clearly suggests that intrinsic motivation plays a large role that is consistent

with what people state about their own motivation. Interestingly enough, the same people *assume* that *other* persons are less, or not at all, intrinsically motivated than they themselves. Others 'must' therefore be induced by money to work. This explains well the undisputed support for 'pay for performance'.

People educated in economics or management at a university that takes psychological economics or behavioural economics into account are by now aware of what has been termed 'motivational crowding theory' (Bénabou and Tirole, 2003; Frey, 1992, 1997; Frey and Jegen, 2001; Le Grand, 2003). It postulates a systematic effect of extrinsic on intrinsic motivation.

The 'crowding out effect' states that intrinsic motivation is undermined when people are paid to fulfil a task. Obviously, this effect can only take place if employees are to some extent intrinsically motivated when they perform a task. This is the first condition. For many types of work this condition does not hold, especially for menial, simple and repetitive work. Somewhat surprisingly to academic observers, empirical evidence suggests that even in these cases people are (to some extent) proud of performing their work well. The picture of human beings performing *only* if they are forced to do so by money or by command is wrong. The converse statement, of course, does not hold. Except wealthy persons, or those receiving income from some other source (e.g. from government) people could not survive without receiving monetary compensation. A realistic view of the labour market considers simultaneously extrinsic and intrinsic incentives.

There is a second condition for the crowding out effect. External intervention via monetary compensation must be considered by the employees in question as 'controlling'. This means that they feel that the wage offered for work makes it unnecessary, or even ridiculous, to maintain their intrinsic motivation for the task that they perform. Interest in the task as such has become unnecessary and is therefore crowded out. The extent to which individuals feel controlled by working for money differs widely. There are people who are rather resistant, especially those who are self-confident and refuse to have their inner feelings dictated by their employers. In that case, the crowding out effect is small or does not exist at all. Paying people to fulfil particular tasks then has no negative consequences for labour supply. In contrast, there are professions, in which individuals self-select or are selected into, where work is solely undertaken for

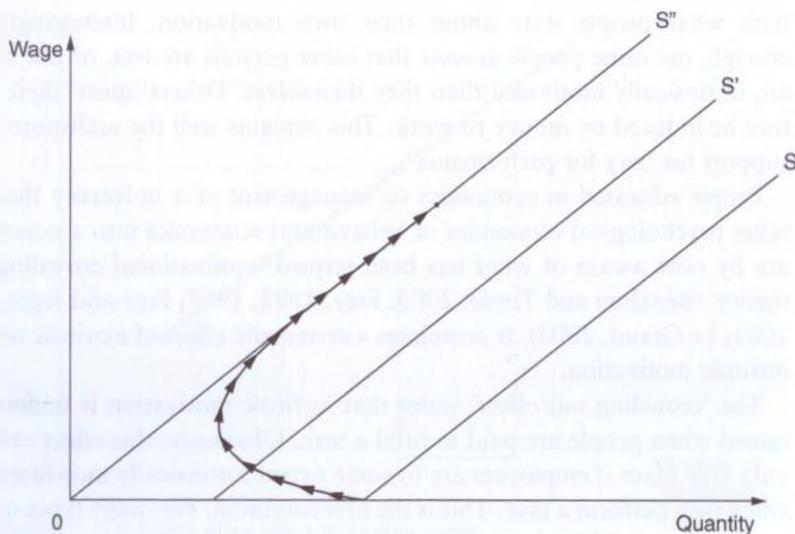


Figure 7.3 Crowding out effect on labour supply

monetary benefit. This may apply to the many materialistically ingrained employees in the financial sector. Even if they initially entered these sectors partly because of an interest in the work as such, they will quickly lose this intrinsic motivation. As soon as it is fully crowded out, a pay-for-performance scheme functions, and the more effort they put in their work, the more highly they are paid. It must immediately be added that this does not hold for all, or even a majority, of managers even in the financial sector, let alone in other sectors of the economy. When you ask a highly paid manager whether he or she would work more for more money, he or she invariably responds that they already work at full capacity. It follows that the monetary compensation has no direct incentive effect on work but serves as an indicator of one's worth compared to other managers.

Provided the two conditions hold, a pay increase may lead to a reduction in effort, as shown in Figure 7.3. The figure is drawn such that the relative price effect of higher pay for more work (a movement along the supply curve) is over-compensated by the reduction in intrinsic work motivation (a leftward shift of the supply curve). It must be noted that this crowding out effect does not necessarily obtain. It may well be that this effect is so weak that the relative price effect dominates. Motivation crowding theory does not postulate a mechanical

relationship. Rather, it emphasizes that the interaction between extrinsic and intrinsic motivation depends on identifiable conditions.

Motivation crowding theory also considers a 'crowding in effect'. There are conditions under which external interventions via money lead to a strengthening of intrinsic work motivation. This is in particular the case when the compensation received indicates that the superiors therewith acknowledge the good work performed. Performance pay then serves to bolster the intrinsic interest in the work. As a result, a pay increase raises work time and effort by the relative price effect as well as by strengthening the underlying interest in the work itself.

Relevance for economic theory

Motivation crowding theory makes a relevant contribution to economics in several regards. It suffices to mention two aspects.

First, intrinsic motivation is closely linked to *creativity* (see the experimental evidence by Amabile, 1996, 1998), thereby establishing the basis for innovation and growth. It would be difficult to argue that people can be induced to be creative by offering them money. Rather, the search for new ideas is an intrinsic characteristic of extraordinary people. Creative people often do make money but this is more a consequence of seeking innovations, and not the underlying incentive. To build a dynamic theory of the economy merely based on extrinsic motives misses a crucial feature.

Second, the crowding out effect *reverses* the conventional relative price effect. A pay increase reduces, rather than increases work input, and therefore introduces a completely new element into theory. For quite some time, behavioural economics has taken into account 'anomalies' to received economic theory (see e.g. Dawes, 1988; Frey and Eichenberger, 1994; Kahneman et al., 1982; Thaler, 1992). Examples are:

- the endowment effect
- the reference point effect
- the opportunity cost effect
- certainty and small probability effects
- anchoring effects
- availability and representative biases
- over-confidence effects
- framing effects

These anomalies have greatly contributed to a better understanding of human behaviour than that offered by assuming the *homo economicus* position (e.g. Frey and Eichenberger, 1994; Simon, 1982). However, these anomalies only modify the strength of the relative price effect, and do not reverse it. In this sense, the crowding out effect is more fundamental as it postulates that the price system leads to behavioural reactions so far not considered in conventional economic theory.

How can people be induced to work?

Many scholars have learnt to accept Motivation crowding theory (see e.g. Bénabou and Tirole, 2003), but they rarely see any alternative to inducing people to work by offering them a corresponding monetary compensation. In the following, four alternatives are discussed (see also Frey and Osterloh, 2002, 2006; Osterloh and Frey, 2000, 2006). However, this does not mean that they can substitute for monetary pay, at least if the crowding out effect does not dominate. Rather, the alternatives discussed can serve as complements, if carefully applied.

Careful selection and job matching

When hiring, a firm's representatives can make a great effort to find persons who are interested in the task and do not only seek the job because of the monetary compensation attached. A close matching of the job requirements with the applicant's interests and capacities helps to have staff that feel part of the firm. When care is taken to have intrinsically motivated employees in appropriate jobs, the management can 'let them work'. The need for monitoring and controlling is strongly reduced, which makes the firm more efficient.

Conserving intrinsic motivation

The least a successful employment policy by a firm can do is to conserve the intrinsic motivation its workers originally have. This sounds trivial but is often neglected. The joy of work is in many cases undermined not only by trying to steer employees' behaviour solely by money, but also by supervising and monitoring them too closely. Many people intrinsically interested in the work they do have been de-motivated by bureaucratic interferences – and not only in the public sector.

Fixed wage and ex post overall evaluation

As mentioned above, money may be used as a signal of appreciation if the recipient perceives that his or her work has been well done. Bonuses may serve this purpose but there is always the danger that the intrinsic motivation will be crowded out. A wage independent of reaching pre-determined targets does not run this danger. The superiors make clear that they pay an adequate (market) salary but that the employees' task is to work – rather than to try to game the pay-for-performance system. The adjustment of the fixed wage over time is based on an overall *ex post* evaluation of the employee. If such evaluation is considered to be fair by the employees, they are even ready to accept a lower wage increase, or no increase at all; the employees trade off any potential wage increase against the procedural utility gained by the fair process (on procedural utility and the respective empirical evidence, see Frey et al., 2004).

Building up intrinsic motivation

A more effective way to raise intrinsic motivation is to emphasize the good performance of the worker by handing out an *award*. This possibility is discussed in more depth in the next section.

Awards as incentives

Ubiquity of awards

There is an enormous number of awards in the form of orders, medals, decorations, prizes, titles and other honours. There are few, if any, areas of society in which awards are not used. Awards are equally ubiquitous in monarchies as in staunch republics. In the French Republic, for instance, the Légion d'honneur plays an important role, and the United Kingdom has an extensive system of awards and titles (House of Commons, 2004). In the United States, the President and Congress bestow medals, and the armed forces give purple hearts, bronze and silver stars (Cowen, 2000, p. 93). It is well known that a flood of orders, medals and titles (such as 'Hero of the Soviet Union' or 'Hero of Socialist Labour') was handed out in communist countries, as well as in right- and left-wing dictatorships.

Awards are also hugely popular in the arts, culture and the media. Prominent examples are the Academy Awards (Oscars), the prizes handed out by the film festivals at Cannes, Venice and Berlin, the Booker Prize and the Prix Goncourt in literature, and the Pulitzer Prizes. In sports, athletes receive the honour of being chosen 'Sports Personality of the Year', and of being admitted into one of the many halls of fame. The International Football Association bestowed on Pelé and Franz Beckenbauer the 'FIFA Centennial Order of Merit'. Awards are also used extensively in religious organizations. The Vatican, for instance, confers many different awards, such as the Order of Christ and the Order of the Holy Sepulchre of Jerusalem.

Academia also has an elaborate and extensive system of awards. Consider the universities handing out the titles of honorary doctor, professor or senator, or professional associations awarding an enormous number of medals, the most important one probably being the Fields Medal in mathematics. There are prestigious fellowships in the many academies of science (e.g. Fellow of the Royal Society). And then, of course, there are the Nobel Prizes.

There is a widespread use of awards in the corporate sectors of market economies. Many firms honour their employees as 'Employee of the Year', 'the Month' or 'the Week'. There seems no limit to the ingenuity of inventing new awards. The media support this by creating their own awards such as 'Best Managers' (*BusinessWeek*), 'CEOs of the Year' (*Financial World*) or 'Person of the Year' (*Time*). In Britain, the leaders of many large corporations are decorated with orders and titles.

Literature

The science of *phaleristics* (the Greek and Roman word for award) has produced a large literature on *specific* awards, in particular on orders, decorations and medals. It is mainly devoted to presenting the historical facts about individual orders as well as the rules according to which an order is handed out. Useful discussions on the present state of orders, focusing on Britain, are provided in Phillips (2004) and a report by the House of Commons (2004). Awards and related issues have been discussed in a considerable literature in sociology.²

² For example, Bourdieu (1979); Braudy (1986); De Botton (2004); Elster (1983); and Marmot (2004).

With few exceptions, these works address social recognition and distinctions in general, but do not analyse particular types of awards. The psychological literature (a survey is given in Stajkovic and Luthans, 2003) provides important insights into the mechanisms through which awards work on the individual level. Personnel psychology systematically compares the impact of different human resource practices on performance (see Combs et al., 2006 for a recent meta-analysis).

Despite the importance of awards in society, economists have largely disregarded them. Some literature in economics provides insights into isolated aspects of awards such as the signal emitted (see Spence, 1974), the competition induced (e.g. Lazear and Rosen, 1981), and in terms of incentives in a principal-agent relationship in a firm (surveys are provided by Gibbons, 1998 and Prendergast, 1999). In behavioural economics, aspects such as esteem, identity, status and reputation have been analysed.³

There may be various reasons why economists have so far neglected awards. First, as they are not fungible, awards may be considered inferior instruments for inducing effort compared to monetary compensation. Second, awards may just be one result of high motivation and success and not a contributing cause. Third, awards may not be perceived as different from monetary incentives. It could be assumed that they are only valued by the recipients due to the ancillary bonus or to the extent to which they induce increases in future income. However, it has been demonstrated in experiments that people value status independently of any monetary consequence; they are even willing to incur material costs to obtain it (Huberman et al., 2004).

Differences between awards and pay

Awards and monetary compensation have various characteristics differentiating them (see Besley, 2005; Frey, 2007; Frey and Neckermann, 2006; Neckermann and Frey, 2007):

³ Examples of recent economic works addressing aspects related to awards are: analyses of status incentives (e.g. Auriol and Renault, 2001; Besley and Ghatak, 2008; Dubey and Geanakoplos, 2005; Ederer and Patacconi, 2004; Fershtman et al., 2001; Loch et al., 2001), rewards as feedback (Sururov and van de Ven, 2006), social recognition (Brennan and Pertit, 2004; English, 2005), reciprocity (e.g. Fehr and Gächter, 2000; Fehr and Schmidt, 2004), identity (Akerlof and Kranton, 2005), conventions (e.g. Young, 1993), superstars and positional goods (Frank, 1985; Hirsch, 1976; Rosen, 1981).

- The material costs of awards may be very low, or even nil, for the donor, but the value to the recipient may be very high. In contrast to monetary compensation, award givers need to take into account that the value of an award decreases with the number of awards in circulation since the prestige associated with winning an award depends on its scarcity.
- Awards are always given in public, normally at a specially arranged ceremony. In contrast, the size of monetary compensations, i.e. salaries, tends to be hidden.
- Accepting an award establishes a special relationship, in which the recipient owes (some measure of) loyalty to the donor. The respective contract is, however, tacit, incomplete and difficult, or even impossible, to enforce by the donor. Monetary compensation in contrast typically does not induce loyalty. Quite the opposite is true: payments can easily be used as justification for working for a principal/an organization that one publicly denounces.
- Awards are better incentive instruments than monetary payments when the recipients' performance can be determined only vaguely. Criteria for awards are typically a broad and not clearly specified set. Therefore, performance can be globally evaluated *ex post*. Monetary compensation, on the other hand, almost always needs to be clearly specified contractually *ex ante*.
- Awards are less likely than monetary compensation to crowd out the intrinsic motivation of the recipients. Typically, awards are perceived as supportive rather than controlling. This lies in the social nature of awards and the fact that the associated *ex post* performance measurement is less intrusive and allows the consideration of input factors such as motivation and work ethic as well as a broad assessment of performance dimensions that are hard to measure. Further, unlike pure monetary payments, awards are less likely to destroy the signal value of actions requiring special commitment or of actions beyond what is typically expected. When payments are involved it is not clear for observers whether the behaviour was driven by dedication and commitment or solely by the money. In principle the same holds for awards because they are also extrinsic incentives. However, awards are less powerful extrinsic incentives, so that the signal value of special behaviours is raised.

- Awards are not taxed, while monetary income is. In countries with high marginal tax rates it is therefore relatively more attractive to receive an untaxed award than to receive a highly taxed monetary compensation.

These considerations make it clear that there are indeed many major differences between awards and monetary compensation that are well worth analysing.

Channels of influence

Awards work as incentives via a number of channels that have been shown to influence human behaviour. Among others, awards motivate because:

- winning an award makes the recipient feel good about himself irrespective of monetary or status consequences, hence even without others knowing about the award;
- they are typically conferred by a principal whose opinion the agent values, and because of the social prestige they generate and recognition they bring from the peer group;
- they are typically set up as tournaments and many agents enjoy competing, i.e. working towards an award generates procedural utility, and hence pleasure irrespective of the outcome;
- awards create and establish role models: they distribute information about successful and desirable behaviour and create loyalty.

While the general term 'award' implies that the different existing honours and prizes pertain to the same group of incentives, specific awards differ vastly from one another in terms of what component is most salient. Some awards are clearly competition prizes, while others more closely resemble feedback or praise. Some awards are valuable in monetary terms, while others come with neither monetary nor other material benefits. Among state orders awards can be identified that convey legislative power, such as the title of a Lord among the British orders, while other orders are purely honorific, such as the title Knight. Awards differ greatly with respect to the social recognition and prestige they will bring to the recipient. In general, awards bestowed within private institutions including

those in for-profit firms differ from other awards mainly in that the money coming with them is of greater importance. Nevertheless, managers clearly indicate that they use awards to give special recognition that goes above and beyond pure material compensation to chosen employees.

The realm of awards is quite vague. The semantics are unclear and the various types of awards are not well defined. These unclear distinctions are no accident, but an important feature of awards.

Criteria

All awards share certain essential features that warrant the analysis of awards as one phenomenon. Awards are handed out according to a *broad set* of criteria. Typically, the various performance dimensions and how these are weighed to determine the winner are not clearly specified. Consider, for example, an award for exceptional customer service. It is not normally made explicit which specific behaviours count and how important these are. Rather, the criteria are left vague. This way, donors, for instance, avoid the risk that employees will only focus on the activities specified rather than on whatever would be best in the situation at hand. This leads to another feature of awards, namely the *subjective element* in determining the winner. Also, awards are *not enforceable*. While awards are typically handed out in a manner that makes the reasons for choosing the particular recipient transparent, non-recipients cannot claim an award by trying to establish that their performance was better. In Germany as well as in many other countries state orders are, for instance, the only governmental acts besides presidential pardons that are not subject to administrative law. A further characteristic of awards is their *tournament character* and the fact that all awards serve as incentives, be it direct or indirect. Awards are direct incentives when they are announced *ex ante* to be granted for certain kinds of performance within a given period of time, such as the customer service award granted for the best customer service in the current year. Awards are indirect incentives when they stimulate other individuals to engage in similar tasks by establishing that this kind of behaviour is deemed desirable. Examples of awards with indirect incentive effects are state orders handed out for exceptional moral courage, such as saving lives.

Conclusion

Most people take it for granted that 'people work because they are paid accordingly'. It follows that 'pay for performance' must be the correct system to compensate employees. Those who perform better than the target set should receive a higher pay, those who perform less well than the target should get a lower wage, or should be dismissed.

A look at how employees are paid in reality suggests that pay for performance is rarely strictly applied. Practitioners are aware of the negative consequences of applying this system. Some of the negative consequences have been extensively discussed in the literature (e.g. Bebchuk and Fried, 2004). The most important are that:

- 'performance' is rarely identifiable and measurable to any degree of precision – except perhaps for very simple tasks;
- the 'multiple tasking effect' leads to possibly important, but unpredictable, tasks being neglected;
- the performance targets are systematically manipulated by the employees subjected to them.

This chapter goes beyond these well-known problems of performance pay and focuses on the effect of various incentives for employees to work. To consider only extrinsic motivation is too narrow; when intrinsic motivation is taken into account possible negative effects of pay for performance become visible, in particular the 'crowding out effect'.

There are viable alternatives to pay for performance:

- carefully selecting and socializing new employees;
- maintaining the intrinsic work motivation people have;
- using fixed wages and *ex post* overall evaluations;
- offering people awards to cater for human beings' fundamental desire for recognition.

Awards have several important advantages over pay for performance. One is that they allow the use of vague, broad and subjective criteria that are crucial when it comes to unexpected, or impossible to expect, events. Awards enable superiors to reward employees who act in their interest under extraordinary circumstances. While awards have been rarely analysed in economics, they are widely used in the public sector, in the arts, sports and media, in academia, as well as in the

for-profit corporate sector. The fact that awards are used in so many areas of human life should serve as a signal that they might fulfil an important role.

It is high time to give up the idea that money is the only thing that matters for performance. Rather, there are a variety of incentives to be considered: in addition to the extrinsic incentives provided by monetary pay or other material compensation, the symbolic value of awards and intrinsic motivation are crucial.

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