

Special Section: Doing Psychological Science

Giving and Receiving Awards

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ABSTRACT—*Awards in the form of orders, medals, decorations, prizes, and titles are ubiquitous in monarchies and republics, private organizations, and not-for-profit and profit-oriented firms. Nevertheless, this kind of nonmaterial extrinsic incentive has been given little attention in the social sciences, including psychology. The demand for awards relies on an individual's desire for distinction, and the supply of awards is governed by the desire to motivate. The technique of analytic narratives is used to show that a number of empirically testable propositions about awards are consistent with observable data.*

If an alien were to look at the social life of people here on earth, it would be stunned by the enormous number of awards in the form of orders, medals, decorations, prizes, titles, and other honors. It would be hard pressed to find any area of society in which awards are not used. Awards are as ubiquitous in monarchies as in staunch republics (a probably incomplete list of types of official awards can be found in Wikipedia's "List of Prizes, Medals, and Awards," 2006; see also Robertson, 2005, and House of Commons, 2004). In the United States, the president and Congress bestow medals (the Congressional Gold Medal, created in 1776; the Presidential Medal of Freedom, created in 1945; and the Presidential Citizens Medal, created in 1969). At the same time, there are a very large number of awards in the military sector. Best known are the Purple Heart, Bronze Star, and Silver Star, which are handed out quite liberally and at an increasing rate (Cowen, 2000). It is well known that a flood of orders, medals, and titles (e.g., "Hero of the Soviet Union," "Hero of Socialist Labor") was handed out in former communist countries, such as the Soviet Union and the German Democratic Republic, and that it is typical for both right- and left-wing dictatorships to hand awards out frequently.

Not only governments bestow awards. In the arts, culture, sports, and the media, awards are also of central importance. A few prominent examples are the Academy Awards (Oscars); the prizes handed out by the film festivals at Cannes, Venice, and

Berlin (see, e.g., Simonton 2004); the Emmy awards for outstanding achievement in television in the United States; the Grammy awards for artistic significance in the field of recording; the Queen Elisabeth International Piano Competition prize in Brussels; the Booker prize and the *prix Goncourt* in literature¹; and the Pulitzer prize (awarded in nine categories: novel, history, fiction, poetry, nonfiction, criticism, telegraphic reporting, breaking-news photography, and reporting). Arts institutions, such as museums, bestow titles, such as benefactor or patron (see, e.g., Ginsburgh & van Ours, 2003; Holden, 1993; Levy, 1987; and R.A. Nelson, Donihue, Waldman, & Wheaton, 2001), upon their supporters. In the field of sports, there are yearly competitions for the title of World Champion, and Olympic Champions are crowned every 4 years. In chess, there are International Masters and Grand Masters. Athletes may become "Sports Personality of the Year" and be admitted into one of the many Halls of Fame. Religious organizations such as the Catholic Church award the titles Canon or Monsignore, and beatify and canonize distinguished persons, an outcome that can be considered a post mortem award.

One might expect that academia, as a place of rational interaction, represents an exception. The opposite is true: Academia has an elaborate and extensive system of awards. Consider all the universities that hand out honorary titles of doctor or senator, or the professional associations that award an enormous number of medals, the most important one probably being the Fields Medal in mathematics.² And then, of course, there are the Nobel prizes. Many prestigious fellowships exist in academies of science (e.g., Fellow of the Royal Society, founded in 1660; Fellow of the American Academy of Arts and Sciences, founded in 1780; Fellow of the Royal Society of Edinburgh, founded, among others, by Adam Smith in 1783; and Fellow of the Academy of Social Sciences in Australia). There are also honorary fellowships in professional organizations, such as those for psychiatrists (Roberts, Warner, Horwitz, McCarty, & Roberts, 1999). Moreover, there is a complicated system of academic titles (not always connected to functions), such as lecturer,

¹There are at least 10 other major prizes in British literature, and 5 in French literature (e.g., the *Prix Fémina*, *Prix Médicis*, and *Grand Prix du Roman de l'Académie Française*).

²In fact, there are at least 15 other important prizes in mathematics ("List of Prizes, Medals, and Awards," 2006).

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reader, assistant professor, associate professor (with or without tenure), full professor, named professor, university professor, and distinguished professor. And then there is the flood of best-paper awards handed out at conferences and by journals (Coupé, 2003). Within psychology, many societies give awards for the best posters and conferences and for the best articles published each year in specific journals. Furthermore, major societies, such as the American Psychological Association and the Association for Psychological Science, give a number of awards for research eminence, teaching, and other scholarly and applied activities. An alien looking at earth might well find that academia is one of the places with the most awards.

Most surprising is the widespread use of awards in the corporate sector of a market economy, where the only valid reward, after all, is supposed to be money. But titles are important and are often little related to functions. What manager is not, at the very least, a vice president or, even better, a senior vice president or first senior vice president (Bielby & Baron, 1986; Malmendier & Tate, 2005)? Firms also commend their own employees for being “Salesperson of the Month” or “Employee of the Week.” Many corporations use formal recognition programs and bestow titles such as “Superstar” as a way of giving approval and acknowledgment to their most valued employees (see, e.g., Magnus, 1981; B. Nelson, 2005). There seems to be no limit to inventing new awards in the corporate sector. The media support this activity by regularly choosing a “Manager of the Month,” “Manager of the Year,” or even “Manager of the Century.” Organizations, such as the World Economic Forum, appoint people to the position of “Global Leader of Tomorrow” (1,200 persons) and “Young Global Leader” (1,111 persons below 40 years of age).

Despite the importance of awards in society, academic research (outside history) has largely disregarded them. There may be various reasons for this neglect. First, awards may be considered to be relatively ineffective as a motivational device, because they are not fungible and are difficult to apply marginally. Monetary compensation is therefore considered a superior instrument for inducing effort (Baker, Jensen, & Murphy, 1988). Second, awards may simply be a reflection of success and high monetary incomes. Third, awards as such may be taken to be of no interest to recipients. After all, they cannot be consumed. The only things of value to individuals may be taken to be the ancillary income and the increase in future income induced by receipt of an award.³ There is certainly some truth in this. It has been empirically shown, for instance, that the recipients of Oscars enjoy a huge increase in subsequent income (R.A. Nelson et al., 2001). But recipients of the Nobel prize certainly value the prize over and above the accompanying or subsequent monetary reward. Psychologists have shown ex-

³Another benefit from receiving awards may be improved health. It has been calculated that, on average, actors who receive an Oscar live 4 years longer than actors who do not get this award (see Redelmeier & Singh, 2001).

perimentally (Huberman, Loch, & Öncüler 2004) that people value status independently of the monetary consequence; they are even willing to incur material costs to obtain high status. As awards are one of the most important producers of status, it follows that people attach value to awards. Conversely, some prizes, medals, and awards that are accompanied by large sums of money are nevertheless relatively unknown and have no prestige even within the relevant community.⁴

There are major differences between awards and monetary compensation, making it worthwhile to analyze awards separately. At this point, it suffices to mention the following differences:

- The material costs of awards may be very low, or even nil, for the donor. Awards consist of a worthless piece of ribbon or medal, but the value to the recipients may be very high when awards signal high social status.
- Accepting an award establishes a special relationship in which one owes (some measure of) loyalty to the donor. The contract is psychological (see Rousseau & Parks, 1993; Rousseau, 1995; and a large subsequent literature); it is tacit, incomplete, and difficult, or impossible, to enforce by the donor. Monetary compensation, in contrast, is explicit, precise, and easy to enforce through the courts.
- Awards are a better incentive instrument than a monetary payment when the recipient's performance can be only vaguely determined, as is typically the case. Performance can be determined precisely only in the case of simple tasks (Frey & Osterloh, 2002).
- Awards are less likely than monetary payments to be subject to the “hidden costs of rewards” (Lepper & Greene, 1978).
- Awards may be the only option available for rewarding exceptional performance when firms are restricted to pay the same wage to all workers at a particular job level (e.g., because of collective bargaining agreements; Clark & Riis, 1998).
- Awards are not taxed, whereas monetary income is.

Unlike monetary compensation, awards characteristically can be only vaguely defined. There is, for example, no clear distinction between orders,⁵ decorations, and medals, and they can come with or without titles and money. These unclear distinctions are not an accident, but an important feature of awards. They make an analysis difficult because the qualitative aspect is

⁴A pertinent example is a prize awarded to eminent scholars since 1961 by the Italian and Swiss presidents. The recipient receives 1 million Swiss francs (U.S. \$770,000), but few people know about this award or attribute any prestige to it. It is called the Balzan prize. For a list of other such prizes, see “List of Orders, Medals, and Awards” (2006).

⁵The word *order* itself has several different meanings: a mathematical sequence, a command, a religious community, or an award. The last two meanings are connected historically. Knights with orders of chivalry (e.g., the Order of the Holy Sepulchre, founded in 1099; the Templars, founded in 1118; the Order of St. John, founded in 1118; and the Teutonic Order, founded in 1170) wore insignia. Over time, such insignia gained a life of their own, independent of membership to an organization.

essential. Moreover, there are serious data limitations. There is no comprehensive list of awards spanning the different types and levels of awards in the various spheres of society (government, the arts, culture, media, sports, religion, academia, and not-for-profit and for-profit enterprises), countries, and time periods. The number of awards handed out in each category, and each country and time period, is even more elusive. Only partial, sketchy, and inconsistent evidence is available from scattered sources. This is true in particular for the many awards given by private institutions, such as nonprofit organizations, clubs, and firms. Orders given by monarchs or governments are somewhat better documented (see List of Prizes, Medals, and Awards, 2006; Robertson, 2005; and House of Commons, 2004). Because of these problems with the data, I applied the method of *analytic narratives* (Bates, Greif, Levi, Rosenthal, & Weingast, 1998) to study awards. With this approach, one seeks to use all the information available—and, in particular, case examples—and one is not restricted to internally consistent data sources. This approach allows the researcher to integrate knowledge that is of varying quality and stems from many different sources in order to support or reject the propositions advanced. In the absence of consistent data on awards, it seems preferable to resort to using many different sources of information rather than to forgo empirical work altogether.

In this article, I discuss awards as an important source of motivation: What makes individuals seek awards (the demand side), and what makes organizations offer awards (the supply side)? The analysis should help us to better understand the important role of awards as extrinsic, but nonmaterial rewards. The following sections present a short overview of the literature, describe the demand for awards as a result of individuals' quest for distinction, and analyze what induces organizations to use awards as an incentive device. The discussion of the demand for and supply of awards takes the form of a list of propositions supported by case examples.

THE LITERATURE ON AWARDS

The science of *Phaleristics* (the Greek and Roman word for award) has produced a huge literature on specific awards, in particular, on orders, decorations, and medals. This literature is historically oriented and is mainly devoted to presenting legal rules and regulations, as well as isolated facts pertaining to particular awards. Examples are Risk's (1972) volume on the Most Honourable Order of the Bath and Galloway's (2002) treatment of the Order of Saint Michael and Saint George. Very useful discussions (including some data) on the present state of orders, focusing on Britain, have been provided by Phillips (2004) and the House of Commons (2004). Only a few works cover orders in several countries (e.g., Klietmann & Neubecker, 1984; Honig, 1986; and Mericka & Marco, 1990). Particular aspects of awards have been analyzed in the context of arts and culture. Ginsburgh and van Ours (2003), Ginsburgh (2003, 2005), and Simonton (2004) discussed the Academy Awards in film, the Brooker prize in litera-

ture, and the Eurovision Song Contest. Glejser and Heyndels (2001) dealt with one of the most important piano competitions, the International Queen Elisabeth Prize.

There is a considerable literature on awards in sociology (e.g., Baumann, 2002; Bourdieu, 1979; Braudy, 1986; Elster, 1983; and Walzer, 1983). With few exceptions, these works address awards and distinctions in general, but do not analyze particular types of awards. Recently, economists have become interested in some of these issues; examples of this line of study are Nalebuff and Stiglitz's (2001) work on incentives, Brennan and Pettit's (2004) examination of esteem, Akerlof's (1976) work on reputation, Auriol and Renault's (2004) treatment of social status, and Scitovsky's (1976), Frank's (1985), and Frank and Cook's (1995) work on positional goods. With a few exceptions (Besley, 2005; Frey, 2005; Frey & Neckermann, 2006; Gavrilin, Caulkins, Feichtinger, Tragler, & Hartl, 2005; and Hansen & Weisbrod, 1972), there seems to be no work on awards in economics.

The study of awards relates to many topics of central importance in psychology, the most important being social status, social comparisons and reference groups, identity, self-esteem, reputation, fame and nonmonetary rewards, symbolic and intrinsic incentives, and the whole area of motivation. However, despite the obvious significance to psychology, there has been a dearth of research in this area. Nevertheless, there have been some studies exploring the psychology of awards, including the work of Magnus (1981), Tait and Walker (2000), B. Nelson (2005), and Zhou and Martocchio (2001) on nonmonetary award programs for employees. Magnus, Tait and Walker, and Nelson considered the effect of awards and recognition in the workplace, specifically focusing on the positive effects on employees' motivation, productivity, morale, and satisfaction. Zhou and Martocchio studied how managers decide to whom they should give nonmonetary recognition, considering in particular employees' relations with others in the workplace. In addition, Roberts et al. (1999) explored the professional development accompanying awards. Moreover, Heppner and Pew (1977) examined how awards influence perceived competence and expertise. Finally, Simonton (1992, 2003, 2004) studied whether creativity is accurately measured by awards received for creativity. Thus, although there has been some psychological research on awards, primarily in the work arena, there are a large number of questions regarding the granting of awards that have not been addressed by psychologists.

WHY DO PEOPLE WANT AWARDS?

Individuals have an innate desire to distinguish themselves from other individuals. People have a strong urge to be better than others. In the analysis presented here, the quest for social distinction is taken to be a hardwired trait of human nature.⁶

⁶This assumption is in line with the sociobiological and evolutionary literature (see, e.g., Henrich & Gil-White, 2001; Zizzo, 2002).

Awards serve as a means to signal social status, and therefore people exert a demand for awards.

Fractionalization and Isolation

Individuals tend to exhibit a higher demand for awards if they live in a society in which one's position in society is uncertain and has to be advertised, rather than a society in which the social rank of the various members is well established and recognized by others; in the latter case, it is less necessary to establish one's status through awards. In societies that are extensively fractionalized (i.e., where people are geographically separated into small groups, and where mobility is low), social distinction has to a large extent been established by history: Each person is more or less aware of his or her position. Also, if a population is racially, culturally, linguistically and religiously diverse, social distinctions are well visible, and there is therefore little demand for further differentiation via awards. In contrast, if a population is more or less homogeneous, individuals seek social distinction in the form of awards. These considerations lead to the first proposition:

- Proposition 1: The more fractionalized or isolated the setting, the lower is the demand for distinctions and for awards.

This proposition can be illustrated empirically by the case of Switzerland, a country that is strongly fractionalized in several respects. Its geography is characterized by high mountains and deep valleys, as well as by many rivers and lakes. It has four native languages (German, French, Italian, and Romansh), with virtually hundreds of dialects in common usage. Accordingly, culture differs markedly over a small area. Switzerland has two major religions, Catholicism and Protestantism, the latter being divided into Calvinism and Zwinglianism. With a population of only 7.5 million, Switzerland nevertheless has 26 cantons and more than 3,000 communes (all with substantial decision-making powers). It is one of the most federalist countries in existence, and the various parts of the country differ much with respect to language, culture, religion, and economic prosperity. This heterogeneity is consistent with the observation that no Swiss government at any level hands out any orders or decorations, not even in the armed forces.

The United States is another country with considerable socioeconomic and political diversity. The several different waves of immigration have made it racially and linguistically heterogeneous, although English remains the single official language. The United States is perhaps the most religiously diverse country in the whole world. The country is divided into 50 states, and each state has a large number of municipalities, all with considerable independence. According to Proposition 1, the United States should hand out only a few government awards, and this certainly holds for the civil sector: As mentioned in the introduction, the central U.S. government bestows only three civilian awards.

The situation is different in France,⁷ whose geography and population are far more homogeneous than those of Switzerland and the United States. The various parts of the country, although historically very different from each other, were homogenized by the last kings (Louis XIV and Louis XV), by revolutionaries (who opposed all fractionalization), and by the Napoleonic empires. Most of the country's citizens are at least nominally Catholic, and all have to speak French. Politically, France is one of the most centralized nations in existence, the regions and communes possessing little decision-making power. According to Proposition 1, France should be a country where individuals exert a high demand for governmental awards. This is indeed the case. France produces "four times as many awards as Britain in any one year" (House of Commons, 2004, p. 2). The well-known *légion d'honneur* has been awarded to 4,000 persons since 1967 (Phillips, 2004, Annex 2, p. 50).⁸ In addition, there are several other orders and medals bestowed by the government, such as the National Order of Merit, or the *palmes académiques*.

Italy is another country homogenized by the political unification process (*Risorgimento*). Until recently, the central government in Rome dominated politics, leaving little power in the administrative regions. Therefore, one would expect the Italian central government to have a well-developed system of orders and decorations. This is indeed the case. Orders play a significant role in Italy. The titles *Cavaliere* and *Commendatore* are commonly used. The Order of Merit of Work has no fewer than 850,000 living members (House of Commons, 2004).

Income

In most modern societies, income gained in the market is the dominant means to signal distinction. In some societies, however, the market is unable to perform this role. In this case, people turn to other means to distinguish themselves from others. In particular, receiving awards is an important way to reach distinction. These observations lead to the next proposition:

- Proposition 2: The less income provides distinction, the more awards are sought.

In socialist and planned economies, the market is to some extent blocked (see Walzer, 1983); market activity is unable to produce the differences in income individuals seek to attain distinction. Therefore, compared with countries that have large market economies, countries with relatively small or suppressed market sectors have a greater demand for awards. A case in point is Britain. Since the Thatcher revolution, the market has gained prominence, and as a result, the demand for governmental awards has fallen. In recent years, the British honors system has come under attack. This view has been reflected in two official

⁷This characterization applies to 20th-century France. Recently, racial, cultural, religious, and political diversity has increased in this country.

⁸Note that Wikipedia reports that the award has 113,780 bearers ("Légion d'honneur," 2006).

reports (House of Commons, 2004; Phillips, 2004) that recommended major reductions in the number of orders and types of orders granted by the government. The House of Commons (2004) report recommended that no new appointments be made to the Order of the British Empire, the Order of the Bath, and the Order of Saint Michael and Saint George, and that a single new order (Order of British Excellence) take their place. This would mean the end of the *Sir/Dame* title associated with some of these orders.

The more equally income and wealth are distributed, the more individuals seek distinction in the form of awards, because they are unable to gain social reputation by having a higher income than others. The communist countries of the former Soviet empire provide an example. The distribution of income and wealth was strongly equalized in these countries; people more or less earned the same income, irrespective of their position⁹ or work effort. Individuals were therefore eager to establish social distinction by gaining awards. Indeed, the communist countries had an elaborate system of honors, the best-known being the “Hero of Work,” but there were hundreds of such awards for all kinds of activities and efforts. About 1 in every 1,000 Russians (men, women, and children) has received a state award (Phillips, 2004). This is probably a far higher rate than in most other countries.

Quality of Awards

Awards are in demand only if they are valuable to recipients because they signal distinction to other persons. If an award is easy to get, it loses this value and no longer serves this purpose. Proposition 3 states this relation between quality and demand:

- Proposition 3: The higher the quality of awards, the more people want to have them.

The higher the quality of an award, the more it is held in esteem by an individual’s reference groups and the population at large. Recognition is higher the fewer people receive the award, the more highly esteemed the former recipients are, and the more distinguished the award’s tradition is (Gavrila et al., 2005). In contrast, if an award can be bought (i.e., if there is corruption), it contributes little or nothing to a recipient’s distinction. A recent example occurred in Britain, when Prime Minister Blair had the Lord title bestowed to several persons who were known to have contributed large sums to the election effort of the Labour Party.

Economic Effects

The demand for awards is also expected to depend on their direct economic effects. Awards are not taxed. For instance, the tax

⁹This was true for monetary income, but not for economic opportunities. Members of the Communist party, especially members of the Politbureau, had significant economic privileges, such as being able to get otherwise unavailable goods in special shops and owning dachas. But the ruling class (the *Nomenklatura*) made a great effort to maintain the illusion of economic equality.

burden of a person awarded the title “Manager of the Year” does not increase. In contrast, if social distinction is achieved by income, that income is subject to taxation. When marginal taxes are substantial, awards are more attractive than higher income as a way of achieving social distinction. As expressed in Proposition 4, this effect is stronger the higher the tax progression is:

- Proposition 4: The higher the marginal tax rates on income, the larger the demand for awards.

Individuals in Britain before Thatcher’s time, as well as individuals in numerous other European countries, were burdened by high marginal taxes. In the United States and (an exception among European countries) in Switzerland, individuals’ tax burden was lower. This helps to explain why state awards played a greater role in the (other) European countries than in the United States and in Switzerland. Since the end of the last century, the situation in some of the European countries has changed, and the top tax rates on income and wealth have been lowered, especially in Britain. This means that the demand for awards among people with lower incomes relative to the demand among people with higher incomes would be expected to be greater now than in the past. Indeed, more awards are now bestowed on persons with lower income than on those with higher income. The proportion of state honors accorded to groups with below-average income has risen markedly. From 1965 to 2004, the percentage of orders (including the Order of the Bath, the Order of Saint Michael and Saint George, the Order of the British Empire, the Companion of Honour, and Knights Bachelors) granted to women increased from about 16 to 35%, and the percentage of orders going to Blacks and minority ethnic groups has increased from 2 to 6% (Phillips, 2004).

Market Ideology

The more highly a society esteems material relative to nonmaterial success, the less effort individuals devote to gaining awards, as expressed in the next proposition:

- Proposition 5: The stronger the market ideology (i.e., the more socially recognized the distinction produced by the market), the smaller the demand for awards.

Capitalist societies tend to measure success according to income. A pertinent example is the United States, where, in general, state awards are considered less important than private wealth. Not surprisingly, then, in comparison with other countries, the United States has few (only three) state awards. In Russia, the market has achieved considerable reputation as a means to signal social status, particularly in the faster-growing areas of the country. At the same time, the excessive granting of awards characteristic of the Communist era seems to have subsided, and the distinction acquired by market income has become more important.

A society's aversion to inequality of income or wealth, and relative acceptance of inequality of awards, is a closely related factor influencing individuals' demand for awards. In societies with marked aversion to income inequality, people turn more to awards in order to assert their status. They would face greater social disapproval if they tried to establish their social position via income.

A society's aversion to income inequality can be captured by appropriate surveys. The share of left-wing parties in parliament or government is a more indirect indicator. The Scandinavian countries have a higher inequality aversion with regard to income differences than other countries have¹⁰ and therefore would be expected to have a higher demand for awards. Indeed, awards have substantial importance in these societies. In contrast, in the United States, individuals have little aversion to economic inequality. Americans with low income believe that there is a considerable amount of upward mobility in their country and that they can benefit from it in the future. Research on happiness (Alesina, Di Tella, & MacCulloch, 2004) shows that the self-reported well-being of Americans is not diminished by rising income inequality, because they think it is likely that they can profit from income inequality by entering a high-income class in the future. In accordance with Proposition 5, fewer governmental awards exist in the United States than in more inequality-averse Europe.

History

Finally, individuals are influenced in their evaluation of awards by the history of their society. Individuals value awards more highly in countries where awards have existed for a long time and have played an important part in establishing the social hierarchy, compared with countries where no such tradition exists. Proposition 6 expresses this relation between demand and tradition:

- Proposition 6: Individuals exert a higher demand for state awards in societies characterized by an aristocratic tradition than in societies with republican traditions.

In some countries, such as the United Kingdom, Denmark, Belgium, and The Netherlands, orders and decorations are held in high esteem in high society and are used extensively. For example, the Danish Orders of the Elephant and of the Dannebrog are among the oldest and most prestigious awards (they were created in 1462 and in 1219, respectively), and the British, Belgian, and Dutch governments and monarchs hand out orders and titles liberally. In Austria, despite having introduced a republic after World War I, the government still confers titles, such as *Hofrat* (literally, "Court Advisor"), that refer

¹⁰For example, the Social Democrats have been dominating Swedish politics for almost half a century. Their dominance has now weakened somewhat, but they are still the single largest party. They vehemently reject differences leading to social ranking and social divisions in power and influence.

explicitly to the monarchy. Individuals in these countries make great efforts to achieve social distinction through awards. In contrast, in the United States (which chose to be a republic in preference to a monarchy) and in Switzerland (which never was a monarchy), state awards, like orders and titles, are used sparingly (in the United States) or not at all (in Switzerland).

WHEN DO ORGANIZATIONS OFFER AWARDS?

Awards can be seen as a device that, like monetary income and intrinsic motivation, motivates individuals to exert effort (Tait & Walker, 2000). The institution bestowing an award wants to induce the recipient to act in its interests. The relationship established has the character of a psychological contract involving a tacit and incomplete agreement. The terms of this award contract are not specified precisely, and are often deliberately left vague. A person accepting an award enters a special relationship with the bestowing institution, owing it some measure of loyalty. The other members of the society clearly recognize this psychological bond. A recipient who turns against the bestowing institution faces social disapproval on the grounds that someone should not accept an award in the first place if he or she does not side with the bestowing institution. The psychological contract between the donor and recipient of an award differs significantly from a trade contract in a market, in which an agent is promised payment for a well-defined performance (e.g., for delivering a good). If the principal accepts the performance as satisfactory, the agent receives the payment and is then free of any further obligation.

Use of Awards to Create a Bond

Governments consciously exploit the binding effect of awards. They offer awards to persons who they know do not fully agree with their ideology and policy. The potential recipients find themselves in an awkward position. If they refuse to accept an award, they must face the wrath of the government, and strongly negative consequences are possible. If they accept the award, they are to some extent bound, and other people will consider them to be supporters of the regime. These observations form the basis of Proposition 7:

- Proposition 7: Governments bestow a great number of awards in order to bind the recipients to their regime.

This proposition is well established by empirical evidence, especially for the case of authoritarian and dictatorial regimes. The Soviet Union, the German Democratic Republic, and Nazi Germany provide striking examples. They handed out orders, medals, decorations, and prizes in many different forms and in great numbers. Professional organizations appointing honorary fellowship awards profit from a similar effect. The recipients are inspired to become more fully integrated into the activities of the organization. A study of six American professional organizations

in psychiatry over 22 years revealed that a majority of the study's participants attended meetings more often, and became more involved with other professional groups, as a result of being appointed a fellow (Roberts et al., 1999).

Honoring General Efforts

When the task to be performed is difficult or impossible to specify *ex ante* and to monitor *ex post*, it is hard to make a monetary payment the recipient would consider fair. "Soft" awards (e.g., Holmstrom & Milgrom, 1991, 1994), which institutions grant in an endeavor to take a broader view of agents' efforts, are then more useful. With a few exceptions in the military branch,¹¹ orders, decorations, and prizes are indeed given to honor general efforts, rather than very specific efforts. These observations lead to the next proposition:

- Proposition 8: The more difficult it is to formulate specific contracts *ex ante* and to monitor performance *ex post*, the more efficiently awards function as incentives, compared with monetary compensation.

According to Nobel's testament, his Nobel prize should be given to the scientists who made the most important contribution to science in the previous year. The fact that the Nobel prize is, in the overwhelming majority of cases, awarded on the basis of a scholar's overall life performance suggests that prizes serve that purpose better. In contrast, one rarely observes a person being given a sum of money for his or her life achievement. If that were done, the question would immediately arise as to why the sum is not higher or lower. It is difficult, to say the least, to evaluate what one has achieved, and how one has performed in life, in dollars and cents, and many people would consider it offensive to have their life evaluated in these terms. The same issue arises with respect to awards, but it is less sensitive, exactly because the value of awards is purposely left vague. But it is precisely this property that helps awards to efficiently compensate people for outstanding achievements.

In many parts of society, compensating people for overall effort is more efficient than compensating them for specific efforts. This applies for the military, where decorations are both extremely important and abundant, because the precise tasks that have to be performed, especially in combat, are largely unpredictable and cannot be contracted *ex ante*. The United States, for instance, has only three civilian state awards, but has about 170 military decorations (of which more than 60 are currently in use), such as the Medal of Honor, Distinguished Service Cross, Distinguished Service Medal, Silver and Bronze Stars, Legion of Merit, Distinguished Flying Cross, Soldier's Medal, Meritorious

Service Medal, Air Medal, Army Commendation, and Purple Heart (Robertson, 2005).

It is expected that more awards will be handed out in the public sector than in the market sector because it tends to be more difficult to formulate an efficient *ex ante* contract in the public sector. The report of the House of Commons (2004) referred to "the special generosity to state servants [with respect to bestowing awards] stemming from the relative modesty of public sector salaries when compared to the private sector"; in recent years, the salaries of government employees in Great Britain have improved substantially, and at the same time, "the long term trend [of granting awards] was clearly away from the state sector" (p. 18). Fifty years ago, roughly 40% of all British state awards went to public servants, whereas the percentage today is below 14% (House of Commons, 2004).

Material Costs

Institutions short of income must turn to awards in order to provide incentives to agents. Awards are cheap in monetary terms. Sometimes they consist solely of a piece of ribbon. In many cases, recipients must even pay for the insignia of the order bestowed upon them, so that the only material costs involved for the donor are the costs of the ceremony during which the award is presented. These costs are, in general, quite low. The next proposition states the relation between awards and the donor's financial situation:

- Proposition 9: The lower an organization's income, the more it turns to awards rather than to money to provide incentives.

The role of income constraint on the supply of awards applies in particular to three institutions. First, monarchies were strongly income constrained in the past, and today they often have no independent source of income. They therefore tend to turn more to awards than do republics benefiting from tax revenue. Second, the more dictatorships in poor countries are income constrained, the more they use awards as incentive instruments. Third, not-for-profit firms are often very income constrained and therefore resort more frequently to awards than for-profit firms do.

Negative Effects on Nonrecipients

The more an award is conceived as a pure positional good¹² (De Botton, 2004; Frank, 1985; Frank & Cook, 1995; Marmot, 2004), the higher is its utility to the recipient, but the more strongly this utility gain is counterbalanced by the utility loss of those not receiving the good. In the aggregate, the incentive effect may even be counterproductive. Awards not only have a positive incentive effect on the persons receiving them, or

¹¹Some orders, such as the Victoria Cross, are given for specific acts of valor, but most military decorations are not. For example, by 1969, the United States had given awards of valor, such as the Purple Heart, to 56 generals who served in Vietnam, although only one general died from enemy fire at that time and might be considered to have performed an act of valor (Cowen, 2000).

¹²In contrast to "normal" goods, the measure of satisfaction derived from positional goods depends on how much one has in relation to everyone else, not merely on their consumption value. Examples are exclusive real estate, fame, or a spot in the freshman class of a prestigious university.

hoping to receive them, but also may have a negative external effect on the persons who are disappointed or angry because they have not received the awards. This aspect of award giving was clearly expressed by Winston Churchill in a House of Commons speech on March 22, 1944:

A medal glitters, but it also casts a shadow. The task of drawing up regulations for such awards is one which does not admit of a perfect solution. It is not possible to satisfy everybody without running the risk of satisfying nobody. All that is possible is to give the greatest satisfaction to the greatest number and to hurt the feelings of the fewest.

Proposition 10 states the trade-offs between the positive effects on recipients and the negative effects on nonrecipients:

- Proposition 10: The more an award is seen as a pure positional good, the less productive it is in the aggregate as an incentive.

Award givers are aware of this effect and react to it. One possible way to mitigate the negative external effects on nonrecipients is to introduce marginal changes in the system. If people have the possibility of slowly climbing up a social ladder of classes to receive an award, or if the recipient must be of a minimum age, outsiders are less inclined to perceive the award as a positional good, and the negative external effect is reduced. The Order of Merit of the Italian Republic exemplifies this approach by requiring a minimum age of 35 years and by not allowing people to jump grades; recipients must work their way along a progression from *Cavaliere* to *Ufficiale*, *Commendatore*, *Grande Ufficiale*, *Cavaliere di Gran Croce*, and finally *Cavaliere di Gran Croce decorato di Gran Cordone*.

Intrinsic Motivation

Recent research on incentive systems suggests that extrinsic rewards do not always work well to raise performance (e.g., in psychology, see Deci, 1971; Deci, Koestner, & Ryan, 1999; Deci & Ryan, 1985; Lepper & Greene, 1978; Pittman & Heller, 1987; in economics, see Frey, 1997; Frey & Osterloh, 2002).¹³ When the outside intervention is perceived to be controlling, people react by reducing their intrinsic motivation (*motivational crowding out*). In contrast, when people perceive the outside intervention to be supporting, their intrinsic motivation increases (*crowding in*). Awards are typically perceived as a gesture of support, rather than of control, and are therefore likely to have a positive, rather than a negative, effect on performance (see Hamner, 1975, for a supporting view and Kohn, 1993, for a

divergent view). Proposition 11 expresses the interplay among intrinsic motivation and the effectiveness of awards and monetary compensation:

- Proposition 11: In sectors and activities in which intrinsic motivation is important and is likely to be crowded out by monetary compensation, awards are more efficient.

Intrinsic motivation is of particular importance in the volunteering and humanitarian sectors, academia, the arts, the military, and certain sectors of public services (Frey, 1997). The list of awards compiled by Robertson (2005) documents that awards indeed play a major role as an incentive instrument in these sectors. Examples can be found in the many countries bestowing awards for voluntary work in the Red Cross, the Fire Brigade, or the Lifeguard.

Control of the Supply

Awards are effective as a motivational device only if they are kept scarce. This principle was clearly expressed by Winston Churchill in a speech in the House of Commons on March 22, 1944: “A distinction is something which everybody does not possess. If all have it, it is of less value.” The award-giving institution has a strong interest in maintaining the quality of its awards and must take measures to guard against a decline in quality. One such measure is to give out a small number of awards, as stated in the next proposition:

- Proposition 12: The more donors are able to control the supply of awards, the more effective awards are as incentive instruments.

Self-imposed restrictions to control the number of awards handed out serve as a means to maintain their quality (Gavrila et al., 2005; Hansen & Weisbrod 1972). However, when several institutions are able to hand out similar awards, a typical public-good situation arises. A particular donor takes into account only its own costs of providing the awards, not the costs of diminishing quality that fall upon all donors handing out awards. But a donor is also burdened by the costs imposed from other principals handing out awards. Each prefers to act as a free rider (i.e., seeks to benefit from the effort of other donors to keep the number of awards low). Each donor therefore has too low an incentive to keep the number of awards down, and thereby keep their quality up.

Military decorations are handed out more liberally when there is no strong central command, but the various branches of the military are in competition with each other and can to some extent act on their own. As they expand the types of awards given, the number of awards bestowed also increases greatly. This pattern has been particularly visible in the United States. In the Revolutionary War, there was essentially one military force under General Washington’s command. The Purple Heart was awarded only three times. In contrast, during World War II,

¹³The concept of hidden costs of rewards has been criticized by, for example, Cameron and Pierce (1994) and Eisenberger and Cameron (1996) and has been subject to several formal meta-analytical studies (e.g., Deci et al., 1999; Rummel & Feinberg, 1988; Tang & Hall, 1995; and Wiersma, 1992). Extensive empirical laboratory and field evidence on the hidden costs of rewards and more generally on motivational crowding out has been collected in Frey and Jegen (2001).

in the battle at Iwo Jima alone, each of the 28,686 casualties (including the 6,821 who died) received a Purple Heart (Cowen, 2000). Today, the American forces are composed of the army, the navy, and the air force, plus the more recent additions of the marines and the coast guard; each has its own command and a good measure of independence. The highest award of the U.S. military, the Medal of Honor, was originally issued to members of the U.S. Army. The U.S. Air Force began issuing its own version of the Medal of Honor in 1947, and the U.S. Navy and Marines followed later. There is also a U.S. Coast Guard version.

Proposition 12 is consistent with the explosion in the number of awards given by not-for-profit institutions and by private enterprises that compete with each other. A case in point is the number of awards given to people in sports. Each year, the British Broadcasting Corporation alone bestows the following awards: “Sports Personality of the Year Team,” “Overseas Personality,” “Coach,” “Lifetime Achievement,” “Young Personality,” and “Unsung Hero.” Other groups do the same. It seems that each sports organization appoints its own “Sports Man,” “Sports Woman,” and “Sports Team” of the year, and increasingly also of the decade or even of the century.

The British monarchy has successfully imposed stringent restrictions on the number of titles it confers in some of the orders. One of the reasons the Most Noble Order of the Garter and the Most Ancient and Noble Order of the Thistle (which is bestowed personally by the sovereign) are held in such high esteem is that the numbers of knights and ladies are restricted to 25 and 16, respectively (Phillips, 2004). The highest British order, the Victoria Cross, has been bestowed only 1,354 times since its establishment 150 years ago. In contrast, the Italian Republic, with a population similar to that of the United Kingdom, hands out state awards very liberally. The Order of Work has no fewer than 850,000 living members, and each year 20,000 more are added. The French Republic has maximum limits on the five ranks of its *légion d'honneur*, but in actuality greatly exceeds these limits.¹⁴

These observations are consistent with Proposition 12. The British monarchy, long established, is very stable, and therefore orders and titles in Britain have been able to retain much of their value (see Phillips, 2004), whereas this is clearly less so in Italy and France.

Worthiness of Recipients

The quality of an award depends on it being bestowed on persons who deserve it. This observation leads to Proposition 13:

- Proposition 13: The more a donor can ensure that its awards go only to deserving persons, the more the value of those awards is maintained.

¹⁴For instance, the number of Commandeurs is restricted to 1,250, but there are actually 3,626; the respective numbers for Officiers are 10,000 and 22,401 (“Légion d'honneur,” 2006).

The Catholic Church has an elaborate system to ensure that only those persons who deserve to be beatified and sanctified, according to the church’s carefully formulated standards, receive this honor. It has used an ingenious institution for that purpose, the role of *advocatus diaboli*. The *advocatus diaboli* is officially given the task of finding potentially harmful aspects in the life of people proposed as *beati* or *sancti*. Accordingly, beatification and sanctification are truly a process in which both the positive and the negative sides are represented. The church is well aware that its reputation would suffer badly if a saint should turn out to be unworthy. But because of its long-standing experience and history, it has managed admirably to avoid this outcome, and saints are still venerated by a huge number of church members and non-church members alike.

The Nobel Prize Committee also makes great efforts to ensure that the recipients of its prizes deserve the honor. It consults extensively within the scientific community and even checks whether a scholar can be expected to behave appropriately at the award ceremony, where the Swedish king bestows the prize (as in the well-known case of John Nash; see Nasar, 1998).

A relatively safe way for a donor to avoid giving honors to unworthy persons is to wait to bestow an award until after a person has proved to be loyal. Thus, orders—a case in which the issue of loyalty is most important—are predominantly given at an advanced age (for Britain, see the extensive documentation in House of Commons, 2004, and Phillips, 2004). When loyalty is of lesser importance, and present work effort matters more, awards are given to younger people.

Long-Term Versus Short-Term Perspectives

The shorter the time horizon of a donor, the more it relies on awards, because the costs, in the form of award inflation, will occur only in the future. This observation is the basis of the next proposition:

- Proposition 14. The lower a donor’s probability of continuing in power (in a democracy, the lower the party’s reelection probability), the larger the number of awards it supplies, and the lower their quality.

Before his resignation in 1976, British Prime Minister Harold Wilson did great harm to the honors system by handing out far too many awards to Labour Party supporters (an action that was heavily criticized; see De-la-Noy, 1985). When a regime fears for its survival, the time horizon is short, and there is a great incentive to try to forestall this collapse by using awards as incentives to supporters. For example, the German Iron Cross, established in 1813, was highly esteemed up until the 20th century, but lost much of its luster when it was given out to 5.4 million soldiers in World War I, in which 13.2 million German soldiers were engaged (i.e., on average, 40% of all German soldiers received this honor). Similarly, in World War II, 5 million Iron Crosses were awarded by the *Wehrmacht* (Keller-

hoff, 2004). In both wars, the Germans were on the losing side. Quite early on, the war leaders were aware of the fact that their chance of winning the war was small and ever diminishing.¹⁵

CONCLUDING REMARKS

Awards form an important part of the motivation system in a society. In many respects, they deviate systematically from both extrinsic and intrinsic incentives. Awards constitute a type of nonmaterial extrinsic reward, extensively used in all spheres of society, including the economy.

In this article, I have examined the determinants of the demand for awards, basing my analysis on the assumption that individuals have a hardwired desire for social distinction. On the supply side, I have analyzed awards as a device (along with monetary income and intrinsic motivation) that motivates individuals to exert effort. The institution bestowing an award wants to induce the recipients of the award to act in its interests. The relationship established has the character of a psychological contract involving a tacit and incomplete agreement.

The propositions advanced here are only a first step toward a coherent analysis of orders, medals, decorations, prizes, and other awards. I have pointed toward instances that support my propositions, but a systematic set of data has not yet been constructed to rigorously test these propositions. A collaborative effort of several disciplines—in particular, psychology, sociology, and economics—seems to be a promising approach to generating additional hypotheses and then testing them thoroughly. Although these disciplines give many awards, they have not yet focused intensive scholarship on explaining this behavior.

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¹⁵This statement is empirically supported by an analysis (Frey & Kucher, 2000, 2001) of the change in value of government bonds during World War II. Over the course of the war, bond prices increased for the Allied powers, but fell for the members of the Axis.

REFERENCES

- Akerlof, G.A. (1976). The economics of caste and of the rat race and other woeful tales. *Quarterly Journal of Economics*, 90, 599–617.
- Alesina, A., Di Tella, R., & MacCulloch, R. (2004). Inequality and happiness: Are Europeans and Americans different? *Journal of Public Economics*, 88, 2009–2042.
- Auriol, E., & Renault, R. (2004). *Status and incentives* (Available from Université des Sciences Sociales de Toulouse, Department of Economics, 2 rue du Doyen-Gabriel-Marty, 31042 Toulouse, Cedex 9, France)
- Baker, G.P., Jensen, M.C., & Murphy, K.J. (1988). Compensation and incentives: Practice versus theory. *Journal of Finance*, 43, 593–616.
- Bates, R.H., Greif, A., Levi, M., Rosenthal, J.L., & Weingast, B.R. (1998). *Analytic narratives*. Princeton, NJ: Princeton University Press.
- Baurmann, M.C. (2002). *The market of virtue: Morality and commitment in a liberal society*. The Hague, The Netherlands: Kluwer Law International.
- Besley, T. (2005). *Notes on honours*. (Available from STICERD, London School of Economics, Houghton St., London, WC2A 2AE, United Kingdom)
- Bielby, W.T., & Baron, J.N. (1986). Sex segregation within occupations. *American Economic Review*, 76, 43–47.
- Bourdieu, P. (1979). *La distinction: Critique sociale du jugement*. Paris: Les Editions de Minuit.
- Braudy, L. (1986). *The frenzy of renown: Fame & its history*. New York: Oxford University Press.
- Brennan, G., & Pettit, P. (2004). *The economy of esteem: An essay on civil and political society*. Oxford, England: Oxford University Press.
- Cameron, J., & Pierce, W.D. (1994). Reinforcement, reward, and intrinsic motivation: A meta-analysis. *Review of Educational Research*, 64, 363–423.
- Churchill, W.S. (1944, March 22). Speech to the House of Commons [Radio broadcast]. London: British Broadcasting Corp.
- Clark, D.J., & Riis, C. (1998). Competition over more than one prize. *American Economic Review*, 88, 276–289.
- Coupé, T. (2003). Revealed performances: Worldwide rankings of economists and economics departments, 1990–2000. *Journal of the European Economic Association*, 1, 1309–1345.
- Cowen, T. (2000). *What price fame?* Cambridge, MA: Harvard University Press.
- De Botton, A. (2004). *Status anxiety* (1st ed.). New York: Pantheon Books.
- Deci, E.L. (1971). Effects of externally mediated rewards on intrinsic motivation. *Journal of Personality and Social Psychology*, 18, 105–115.
- Deci, E.L., Koestner, R., & Ryan, R.M. (1999). The undermining effect is a reality after all—extrinsic rewards, task interest and self-determination: Reply to Eisenberger, Pierce and Cameron (1999) and Lepper, Henderlong and Gingras (1999). *Psychological Bulletin*, 125, 692–700.
- Deci, E.L., & Ryan, R.M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum Press.
- De-La-Noy, M. (1985). *The honours system*. New York: Allison & Busby.
- Eisenberger, R., & Cameron, J. (1996). Detrimental effects of reward: Reality or myth? *American Psychologist*, 51, 1153–1166.

- Elster, J. (1983). *Sour grapes: Studies in the subversion of rationality*. Cambridge, England: Cambridge University Press.
- Frank, R.H. (1985). *Choosing the right pond: Human behavior and the quest for status*. New York: Oxford University Press.
- Frank, R.H., & Cook, P.J. (1995). *The winner-take-all society: How more and more Americans compete for ever fewer and bigger prizes, encouraging economic waste, income inequality, and an impoverished cultural life*. New York: Free Press.
- Frey, B.S. (1997). *Not just for the money: An economic theory of personal motivation*. Cheltenham, England: Edward Elgar.
- Frey, B.S. (2005). *Knight fever: Towards an economics of awards* (Working Paper No. 239). Zurich, Switzerland: University of Zurich, Institute for Empirical Research in Economics.
- Frey, B.S., & Jegen, R. (2001). Motivation crowding theory. *Journal of Economic Surveys*, 15, 589–611.
- Frey, B.S., & Kucher, M. (2000). History reflected in capital markets: The case of World War II. *Journal of Economic History*, 6, 468–496.
- Frey, B.S., & Kucher, M. (2001). Wars and markets: How bond values reflect the second World War. *Economica*, 68, 317–333.
- Frey, B.S., & Neckermann, S. (2006). Auszeichnungen: Ein vernachlässigter Anreiz. *Perspektiven der Wirtschaftspolitik*, 7, 1–14.
- Frey, B.S., & Osterloh, M. (Eds.). (2002). *Successful management by motivation*. Berlin: Springer.
- Galloway, P. (2002). *The order of St Michael and St George*. London: Third Millennium.
- Gavrila, C., Caulkins, J.P., Feichtinger, G., Tragler, G., & Hartl, R.F. (2005). Managing the reputation of an award to motivate performance. *Mathematical Models of Operations Research*, 61, 1–22.
- Ginsburgh, V.A. (2003). Awards, success and aesthetic quality in the arts. *Journal of Economic Perspectives*, 17, 99–111.
- Ginsburgh, V.A. (2005). Languages, genes, and cultures. *Journal of Cultural Economics*, 29, 1–17.
- Ginsburgh, V.A., & van Ours, J.C. (2003). Expert opinion and compensation: Evidence from a musical competition. *American Economic Review*, 93, 289–296.
- Glejser, H., & Heyndels, B. (2001). Efficiency and inefficiency in the ranking in competitions: The case of the Queen Elisabeth Music Contest. *Journal of Cultural Economics*, 25, 109–129.
- Hamner, W.C. (1975). How to ruin motivation with pay. *Compensation Review*, 7, 17–27.
- Hansen, W.L., & Weisbrod, B. (1972). Towards a general theory of awards, or do economists need a hall of fame? *Journal of Political Economy*, 80, 422–431.
- Henrich, J., & Gil-White, F. (2001). The evolution of prestige: Freely conferred deference as a mechanism for enhancing the benefits of cultural transmission. *Evolution and Human Behavior*, 22, 165–196.
- Heppner, P.P., & Pew, S. (1977). Effects of diplomas, awards, and counselor sex on perceived expertness. *Journal of Counseling Psychology*, 24, 147–149.
- Holden, A. (1993). *The Oscars: The secret history of Hollywood's Academy Awards*. London: Little Brown and Co.
- Holmstrom, B., & Milgrom, P. (1991). Multitask principal-agent analyses: Incentive contracts, asset ownership, and job design. *Journal of Law, Economics, and Organization*, 7, 24–52.
- Holmstrom, B., & Milgrom, P. (1994). The firm as an incentive system. *American Economic Review*, 84, 972–991.
- Honig, W. (1986). *Die Ehre im Knopfloch: Orden und Ehrenzeichen im Wandel der Zeiten*. Bergisch-Gladbach, Germany: Lübbe.
- House of Commons, Select Committee on Public Administration. (2004). *A matter of honour: Reforming the honours system. Fifth report of Session 2003–04*. London: Stationery Office.
- Huberman, B., Loch, C.H., & Öncüler, A. (2004). Status as a valued resource. *Social Psychology Quarterly*, 67, 103–114.
- Kellerhoff, S.F. (2004). Das Grosse Sterben. *Die Welt*, 4, 27.
- Klietmann, K.G., & Neubecker, O. (1984). *Ordens-Lexikon*. Berlin: Verlag die Ordens-Sammlung.
- Kohn, A. (1993). *Punished by reward: The trouble with gold stars, incentive plans, A's, praise, and other bribes*. Boston: Houghton Mifflin.
- Légion d'honneur. (2006). Retrieved October 10, 2006, from Wikipedia: http://en.wikipedia.org/wiki/Legion_d%27honneur
- Lepper, M.R., & Greene, D. (Eds.). (1978). *The hidden costs of reward: New perspectives on the psychology of human behavior*. Hillsdale, NJ: Erlbaum.
- Levy, E. (1987). *And the winner is: The history and politics of the Oscar Awards*. New York: Ungar.
- List of Prizes, Medals, and Awards. (2006). Retrieved October 10, 2006, from Wikipedia: http://en.wikipedia.org/wiki/List_of_prizes
- Magnus, M. (1981). Employee recognition: A key to motivation. *Personnel Journal*, 60, 103–107.
- Malmendier, U., & Tate, G. (2005). *Superstar CEOs*. (Available from Department of Economics, Stanford University, Landau Economics Building, 579 Serra Mall, Stanford, CA 94305-6072)
- Marmot, M.G. (2004). *The status syndrome: How social standing affects our health and longevity*. New York: Times Books/Henry Holt.
- Mericka, V., & Marco, J. (1990). *Das Buch der Orden und Auszeichnungen* (2nd ed.). Hanau, Germany: Dauslen.
- Nalebuff, B.J., & Stiglitz, J.E. (2001). Prizes and incentives: Towards a general theory of compensation and competition. *Bell Journal of Economics*, 14, 21–43.
- Nasar, S. (1998). *A beautiful mind: A biography of John Forbes Nash, Jr., winner of the Nobel Prize in Economics, 1994*. New York: Simon & Schuster.
- Nelson, B. (2005). *1001 ways to reward employees*. New York: Workman.
- Nelson, R.A., Donihue, M.R., Waldman, D., & Wheaton, C. (2001). What's an Oscar worth? *Economic Inquiry*, 39, 1–16.
- Osterloh, M., & Frey, B.S. (2000). Motivation, knowledge transfer, and organizational forms. *Organization Science*, 11, 538–550.
- Phillips, H. (2004). *Review of the honours system*. London: Cabinet Office.
- Pittman, T.S., & Heller, J.F. (1987). Social motivation. *Annual Review of Psychology*, 38, 461–489.
- Redelmeier, D.A., & Singh, S.M. (2001). Survival of Academy Award-winning actors and actresses. *Annals of Internal Medicine*, 134, 955–962.
- Risk, J.C. (1972). *The history of the Order of the Bath and its insignia*. London: Spink and Son.
- Roberts, L.W., Warner, T.D., Horwitz, R., McCarty, T., & Roberts, B. (1999). Honorary fellowship awards and professional development in psychiatry. *Academic Psychiatry*, 23, 210–221.
- Robertson, M. (2005). *Orders, decorations and medals of the United States of America*. Retrieved May 23, 2005, from <http://www.medals.org.uk/usa>
- Rousseau, D.M. (1995). *Psychological contracts in organizations: Understanding written and unwritten agreements*. Thousand Oaks, CA: Sage.

- Rousseau, D.M., & Parks, J.M. (1993). The contracts of individuals and organizations. *Research in Organizational Behavior, 15*, 1–43.
- Rummel, A., & Feinberg, R. (1988). Cognitive evaluation theory: A meta-analytic review of the literature. *Social Behavior and Personality, 16*, 147–164.
- Scitovsky, T. (1976). *The joyless economy: An inquiry into human satisfaction and consumer dissatisfaction*. New York: Oxford University Press.
- Simonton, D.K. (1992). Leaders of American psychology 1879–1967: Career development, creative output, and professional achievement. *Journal of Personality and Social Psychology, 62*, 5–17.
- Simonton, D.K. (2003). Creativity assessment. In R. Fernandez-Ballesteros (Ed.), *Encyclopedia of psychological assessment* (Vol. I, pp. 276–280). London: Sage.
- Simonton, D.K. (2004). Film awards as indicators of cinematic creativity and achievement: A quantitative comparison of the Oscars and six alternatives. *Creativity Research Journal, 16*, 163–172.
- Tait, R., & Walker, D. (2000). Motivating the work force: The value of external health and safety awards. *Journal of Safety Research, 31*, 243–251.
- Tang, S.H., & Hall, V.C. (1995). The overjustification effect: A meta-analysis. *Applied Cognitive Psychology, 9*, 365–404.
- Walzer, M. (1983). *Spheres of justice: A defense of pluralism and equality*. New York: Basic Books.
- Wiersma, U.J. (1992). The effects of extrinsic rewards on intrinsic motivation: A meta-analysis. *Journal of Occupational and Organizational Psychology, 65*, 101–114.
- Zhou, J., & Martocchio, J.J. (2001). Chinese and American managers' compensation award decisions: A comparative policy-capturing study. *Personnel Psychology, 54*, 115–145.
- Zizzo, D.J. (2002). Between utility and cognition: The neurobiology of relative position. *Journal of Economic Behavior and Organization, 48*, 71–91.