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Abstract

After discussing various approaches about heroic behaviour in the literature, we first give a definition and classification of moral behaviour, in distinction to intrinsically motivated and 'prudent' behaviour. Then, we present some arguments on the function of moral behaviour according to 'minimal' standards of the average individual in a modern democratic society, before we turn to heroic behaviour. We conclude with some remarks on methodological as well as social problems which arise or may arise if behaviour can not be influenced by extrinsic incentives.

Keywords

Moral Behaviour, Intrinsic Motivation, Voluntary Contribution to Public Goods, Asymmetric Information

JEL Classification

B40

1 Introduction

Economists typically have a 'mixed' relationship to 'heroes'. On the one hand, not different of what other people do, they admire them, especially if they have done something which has been important for economic development. One of the best examples of the last sixty years in that respect was LUDWIG ERHARD who in June 1948 was mainly responsible for the currency reform in West Germany which was the starting point for the positive economic development of the Federal Republic after the Second World War until about 1970, called the German 'economic miracle'. Similar reputations have – at least for 'right wing-economists' – MARGARET THATCHER and RONALD REAGAN for the economic reforms they performed in the United Kingdom and the United States. Sometimes, especially considering the less positive economic development in Germany during the last three decades, economists long for such a strong man (person) again who ought to lead the way to the solution of today's economic problems.[1)]

On the other side, in economic theory, heroes do hardly play any role. General equilibrium theory, the core of modern economic theory, only knows rational agents who maximise their own expected utility. They might take some risk, even though they are usually modelled as being risk averse, but they will, e.g., never put their life at stake when the probability of losing it is high, but the expected payoff is low. Even more, contrary to classical economics, neoclassic theory does not even know entrepreneurs in the sense of J.A. SCHUMPETER (1928) who – at least according to some less orthodox theories – are the key players in economic development.[2)] The theory of the firm describes – at best – managerial behaviour, but "the theoretical firm is entrepreneurless", the entrepreneur has "virtually disappeared from the theoretical literature."[3)]

If we accept that entrepreneurs are necessary for economic development – and few people would actually doubt that this is true – this still does not imply that we also need heroes (in the usual sense of the word) in this process. MARGARET THATCHER and RONALD REAGAN, e.g., might simply have been successful political entrepreneurs.[4)] On the other side, in the peaceful East German revolution of 1989 we could observe many heroes, e.g. the 'heroes of Leipzig', who bore serious risk by participating in the famous 'Monday demonstrations' which were one of the important release for the final breakdown of the old regime. But contrary to LUDWIG ERHARD or the other successful politicians they did not get and also could not expect to get an additional private benefit from these actions for themselves.[5)] Another promi-

1. See, e.g., R. VAUBEL (1989, p. 32).
2. See for this, e.g., M.J.M. NEUMANN (1985, p. 131): "Entrepreneurs in the sense of JOSEPH A. SCHUMPETER (1928) do not exist" in such economies. "They would disturb and are, therefore, rightly banned from this world of boring harmony." – For a similar critique of neoclassical general equilibrium theory see also I.M. KIRZNER (1973), who following L. V. MISES (1940) deals in-depth with the entrepreneur's role in the economic process and quite generally with the enterprising element within the framework of human action. For a critique of J.M. KIRZNER's position see J. HIGH (1982).
3. W.J. BAUMOL (1968, p.66, p64).
4. For the concept of the political entrepreneur see the classical contributions by J.A. SCHUMPETER (1942) and A. DOWNS (1957).
5. For an empirical investigation of this movement, based on the economic model of behaviour, see K.-D. OPP, P. VOSS and CH. GERN (1993).

nent example is VACLAV HAVEL. By becoming the president of the Czech republic he certainly has benefited from his engagement in the human rights movement of his country during the seventies and eighties, but during this period, when he even was imprisoned, he could not expect to ever receive major personal benefits. A last example are those people who tried to kill ADOLF HITLER during the Nazi regime, especially those who organised and carried out the plot at July 20, 1944. Most of them had to pay with their life.

Apart from the analysis of entrepreneurial behaviour, there are, however, at least four authors who consider heroic behaviour in an economic analysis and/or refer to heroic behaviour. Firstly, R.H. FRANK (1988) explicitly discusses heroic behaviour in his "*Passions Within Reason*", and he lists several examples of such behaviour.[6)] For him, the existence of such behaviour is clear evidence that at least some people behave not according to the usual assumption of self-interest even in situations in which such behaviour is very costly and has little or no benefits for the agent him-/herself. However, most of his examples refer to interactions between two (or at most very few) persons, and he does not ask the question whether such behaviour of at least some people is necessary for the well functioning of the economic (and/or political) process. Moreover, the willingness for such behaviour is strongly decreasing with the size of the group.[7)]

Secondly, G. TULLOCK (1987) in his chapters about "Coups and Their Prevention" and "Popular Risings" of his book about "*Autocracy*" has something to say about heroes. This is to be expected because – according to the ordinary use of language – we observe at least sometimes heroic behaviour when an attempt is made to overthrow a dictatorial regime and to install democracy. In the German case, this holds – as mentioned above – for the peaceful revolution in 1989 and also for the group of July 20, 1944, and other assassins during the Nazi period. Actually, G. TULLOCK considers such people. He admits that there are some people who, especially for religious reasons, "are willing to take great risks or sacrifice their lives to benefit other people" (p. 66).[8)] He, nevertheless, correctly states that their incentive to take action against a dictator is infinitesimally small because they are providing a public good (p. 63f.).[9)]

Thirdly, A.C. HARBERGER (1993) lists "a handful of heroes". These are people who significantly contributed to or even initiated economic reforms, especially in Latin America. As far as they were politicians in democracies they did this even at the risk of not being re-elected next time. In calling these people (men) heroes A.C. HARBERGER follows a common tradition to call people heroes who have done a lot for their country whether this was a risky business or not and whether they privately benefited from their actions or not. In presenting these men he wants to "help readers see the process of reform from a different, perhaps more intimate

6. See R.H. FRANK (1988, p. 212f. pp. 231ff.).

7. See for this J. DARLEY and B. LATANÉ (1968) as well as I.M. PILAVIN, J. RODIN and J.A. PILAVIN (1969).

8. Behaviour which is motivated by religious reasons is usually considered as intrinsically motivated behaviour. However, one might interpret such behaviour also as instrumental in a wider sense (as G. TULLOCK (1987, p. 66 does)) in order to get (additional) benefits in eternal life.

9. See also his reference to G. TULLOCK (1974).

perspective than our literature typically provides." (p. 343.) Thus, his intention is to show that "successful economic policy in developing countries is very far from being the product of pure forces of history" (ibid.) but depends on the acting of such people.

Finally, TH. HAVRILEVSKY (1991) argues that as a consequence of increasing politisation of monetary policy in the United States "the anti-inflationary posture of the Federal Reserve chairman has taken on heroic proportions." (p. 65f.) Due to changes in the rules of the game over the past 60 years, the (good, conservative) monetary policy makers have to strongly abide by their principles against the (bad) politicians who strive for redistributive fiscal policies and, therefore, want to gain influence over monetary policy as well. However, TH. HAVRILEVSKY does not really believe that the chief central bankers are such heroes because, according to his conviction, in order for even small, "piecemeal reforms to be enacted, public choice reasoning suggests that they would have to generate sufficient benefits for some of the powerful actors in the monetary policy process." (p. 71.) Thus, there might be a demand, but not enough supply of heroes in this process.

Both, A.C. HARBERGER (1993) as well as TH. HAVRILEVSKY (1991) seem to believe that there are situations where heroes are needed in politico-economic processes. Their examples indicate that they see the necessity of heroic behaviour (only) on the side of economic policy makers, not on the side of private actors. However, there might be situations where heroic behaviour of the latter is needed for the well functioning of economic and political processes in a modern democratic society. Moreover, one can have serious doubts whether the people mentioned by these two authors should really be called heroes. If somebody is doing his/her duty, is well paid and bears (nearly) no risk, why should she or he be a hero, even if his or her work is very beneficial for the country, especially if he served a dictatorial regime? [10)] Thus, it should be obvious that, first of all, we should exactly define what we are meaning if we speak of moral behaviour in general and, especially, of heroic behaviour. Therefore, in *Section 2* we will first give a definition and classification of moral behaviour, in distinction to intrinsically motivated and 'prudent' behaviour. Then, we will present some arguments on the function of moral behaviour according to 'minimal' standards of the average individual in a modern democratic society (*Section 3*), before we turn to heroic behaviour in *Section 4*. We conclude with some remarks on methodological as well as social problems which arise or may arise if behaviour can not be influenced by extrinsic incentives (*Section 5*).

2 On the Definition and Classification of Moral Behaviour

Using ordinary language, we might speak of moral behaviour if any 'good' action is done for the sake of itself and not for a certain purpose.[11)] Such moral behaviour may be advantageous

10. See, e.g., SERGIO DE CASTRO, who is praised by A.C. HARBERGER (1993, p. 345) as somebody "unique among the policymakers" with "almost magical quality of his leadership". He performed his reforms under the regime of AUGUSTE PINOCHET, a dictatorial regime by which thousands of people were murdered.

11. For such a definition which takes up an idea of ARISTOTLE see, e.g., O. SCHWEMMER (1985, pp. 35ff.). For the meaning of 'good' in the philosophical literature see also J.L. MACKIE (1977, pp. 50ff.).

for the individual: Then, such actions are even performed out of pure self-interest. In such a situation, there is no problem at all. Therefore, one of the strategies in economic or social theory to handle the problem of moral behaviour is to show that all behaviour which is usually called 'moral' is indeed performed by self-interest; one has to look only somewhat more carefully to detect that this is the case.[12)] But even if one does not hold this view, it is a meaningful strategy to set the incentives for individual behaviour in such a way as to make moral behaviour (as far as possible) unnecessary, i.e. that the individuals show the desired behaviour if they follow their self-interest.[13)]

The problem behind this definition of moral behaviour is to establish criteria for when an action shall be called 'good in itself' and should, therefore, be performed 'for the sake of itself'. And why should any action be performed 'for the sake of itself' at all? If one starts from given (divine) norms which demand certain behaviour, then such actions are never performed for themselves, but to comply with these norms. But why should one comply with such a norm? This is answered differently by different religions, but all of these answers transcend the scientific discourse: references on trans-human authorities can be motivating arguments for many people, but they cannot serve as arguments in a scientific discourse. Thus, the only possibility which remains is the reference to the interests of other individuals as, e.g., Utilitarianism but also J. RAWLS (1971) in his "*Theory of Justice*" do. But then, moral behaviour becomes identical with altruistic behaviour. Correspondingly, in the following we, therefore, use both expressions synonymously.

One of the typical assumptions of the economic approach is that the individuals act according to their self-interest. The interests of others are considered only as far as this is in the own interest of the acting individual, i.e. they interact with "mutual disinterested rationality", as J. RAWLS (1971, p. 168) states. One might speak of altruistic behaviour whenever an action is performed which imposes costs on the actor and which increases the benefits of others but not (or at best marginally) the benefit of the actor himself; because of the costs the net-benefit of the actor is even diminished. Thus, an individual i is behaving altruistically, if he/she makes a positive contribution $z_{ij} > 0$, which increases the utility of another individual j, $i \neq j$, $\partial Uj/\partial z_{ij} > 0$, and if this contribution imposes costs on the individual which become effective in the budget constraint. The individual might, however, receive a (psychological) benefit from his contribution, if he spends a certain amount of money and/or time for a 'good purpose'. By including this psychological component, the behaviour of an altruistic individual might in analogy to J. ANDREONI (1990) be described as the maximisation of the utility function

$$U_i = U_i(x_{i1}, ..., x_{im}, U_j(z_{ij}), z_{ij}), \tag{1}$$

whose first derivatives are all non-negative, subject to the constraint

$$y_i = \sum_{k=1}^{m} x_{ik}\, p_k + z_{ij}, \tag{2}$$

12. See, e.g., D. GAUTHIER (1986) and – for a critique of this position – J.-L. ARNI (1989) or P. KOLLER (1994). In economics, a similar view is taken, e.g., by W. KRELLE (1993).

13. See for this G. KIRCHGÄSSNER (1991, p. 191).

if $z_{ij} > 0$. x_{ik} are the quantities of the (private) goods which are consumed by the individual i, and for which the prices p_k have to be paid. y_i is his total expenditure. While the amount z_{ij} is included in the utility function like a private good, the costs of the altruistic behaviour are considered in the budget constraint (2). Besides its 'investive component' (to increase the utility of other individuals), this contribution can also have a 'consumptive component' (a direct increase of the utility of the donating individual). Thus, it is possible to distinguish different kinds of altruistic behaviour depending on whether only the utility of the other individuals and/or the contribution itself is included into the utility function.[14)] – This formal representation of altruistic behaviour by the maximisation of the utility function (1) subject to the restriction (2) indicates that altruistic behaviour can be handled like a positive external effect (of consumption), where the individual is making a voluntary contribution.[15)]

This representation only takes the individual level into account. However, more relevant for our problem are situations where moral behaviour results in voluntary contributions to the provision of a public good. As far as the contribution of the single individual at best marginally influences the provided amount of this public good, the (direct) benefit which he draws from *his own contribution* is negligibly small. The standard example for such behaviour, which has been largely discussed in the literature, is electoral participation.[16)] A high turnout supports the stability of a democratic political system, one of the most important public goods in Western societies.[17)] The electoral participation rate as well as the electoral outcome are, however, nearly completely independent from whether a certain individual votes or not: The voters decide, as H. KLIEMT (1986) puts it, behind a "veil of insignificance". If, as much of the literature does, electoral participation is explained by the expectation that the single voter will be decisive, we arrive at the famous 'paradox of not-voting': a rational voter does not vote.[18)]

If any voter is nevertheless participating in an election, this must have reasons which are not directly related to individual utility maximisation. One reason might be social pressure.[19)] But this might hardly be a sufficient argument to explain the high turnout rates in many countries with democratic political systems. If, e.g., in Switzerland on the average about 40 percent of the electorate participate in referenda, it is hardly plausible that exactly those 40 percent are

14. For a corresponding distinction between 'pure' and 'impure' altruism see, e.g., J. ANDREONI (1989, 1990). He speaks of impure altruism if the contribution itself is (with a positive first derivative) included into the utility function of the donator.

15. See also A.K. SEN who, however, speaks in this context of 'sympathy' instead of 'altruism': „In the terminology of modern economic theory, sympathy is a case of 'externality'." (1977, p. 96.)

16. See, e.g., H. MARGOLIS (1982, pp. 82ff.).

17. In fact, 40 percent might be a 'high' turnout rate in this respect. As the examples of Switzerland and the U.S. show, it is not necessary for the stability of a democratic system that regularly more than half of the electorate participates in elections or referenda. On the other hand, in these countries, too, the acceptance of the democratic decisions and, thus, the stability of the democratic system might be endangered if the participation rate would fall, e.g., significantly below 10 percent.

18. This proposition dates back to A. DOWNS (1957). For some new developments of this discussion and for empirical results for Germany see, e.g., G. KIRCHGÄSSNER and A. MEYER ZU HIMMERN (1996) or L.P. FELD and G. KIRCHGÄSSNER (2001). For an overview of the theoretical literature on the 'decisiveness' of the single voter see G. BRENNAN and L. LOMASKY (1993, pp. 54ff.).

19. See R. ZINTL (1986).

under especially strong social pressure. If, however, neither a strong economic utility calculus nor the existence of social pressure is sufficient to motivate the participation in a referendum or an election, the reason for such behaviour has to be looked for somewhere else. Correspondingly, W.H. RIKER and P.C. ORDESHOOK (1968) see one of the basic motivations for electoral participation in the satisfaction people get from fulfilling their civic duty. Following the definition above, that means that altruistic or moral behaviour is assumed.[20)]

According to J. ANDREONI (1990), altruistic behaviour which leads to contributions to the provision of a public good can be described as follows:

(3) $$\text{Max: } U_i(x_i, Q(z_1, ..., z_n), z_i),$$

$$U_{i1} > 0, \quad U_{i2} > 0, \quad U_{i3} \geq 0, \quad Q_i := \partial Q/\partial z_i \geq 0,$$

subject to

(4) $$x_i + z_i = y_i, \quad x_i, z_i \geq 0.$$

Q is the public good, z_i the contribution of the individual i, where the society consists of n individuals, x_i the value of the private goods the individual consumes, and y_i his income. Usually, the production function of the public good is written as

(5) $$Q = Q(Z), \quad \text{with} \quad Z = \sum_{i=1}^{n} z_i \quad \text{and} \quad Q' := \partial Q/\partial Z > 0,$$

i.e. it is the sum of the individual contributions which counts. This is, e.g., the situation where voluntary monetary contributions are made by the individuals to cover the (monetary) production costs. In such a situation, according to conventional economic theory, if the number of individuals in a society is large, for a rational individual it holds that:

$$U_{i2} \cdot Q_i = 0 \ \wedge \ U_{i3} = 0 \ \rightarrow \ z_i = 0,$$

i.e. it will not behave altruistically.[21)] If all individuals behave in this way, the public good will not be provided without additional precautions. An altruistic individual will, however, derive personal utility not only (like all other individuals) from the existence of the public good, but also from the fact that he himself has contributed to the provision of this good.[22)]

However, this is not the only kind of public goods which can be provided by altruistic individuals. Already in the standard example of electoral participation the ‘output’ depends on m, the number of individuals who actually vote, i.e. the number of contributors independent of the private costs they have to bear in order to participate, so that

20. See also P. MEEHL (1977).

21. For $U_{i3} = 0$, corresponding to J. ANDREONI (1988, Theorem 1, pp. 61f.) for large groups ($n \rightarrow \infty$) it holds that $z = 0$, even if $U_{i2} \cdot Q' > 0$. This holds for all except for the richest (in the extreme case for the one richest) individual(s). The average contribution goes against zero.

22. The contribution of the individual is contained twice in his utility function, once as part of the public good, and again as the ‘private good’ z. See for this also J. ANDREONI (1990, p. 465).

(5') $$Q = Q(m), \quad 1 \leq m \leq n,$$

where Q is monotonically increasing in m.

Moreover, the number of contributors who are necessary to secure the provision of the public goods is rather different in different situations. As has been discussed above, in the case of electoral participation many contributors are necessary, but their costs are rather low. With respect to the Monday demonstrations in Leipzig, there was (in the beginning) a (comparatively) small number of demonstrators who bore high risks and acted as core of the movement which was later on joined by (many) others who bore considerably lower risks.

The extreme case is the killing of a tyrant by one single individual who is killing himself in this action. The production function of the public good is in this case:

(5'') $$Q = Q(\max(z_i)), \quad \text{with} \quad Q = \begin{cases} 1 & \text{if} \quad \max(z_i) \geq z^* \\ 0 & \text{if} \quad \max(z_i) < z^* \end{cases}$$

The situation has the basic structure of a volunteer's dilemma game introduced by A. DIEKMANN (1985) with the small but important difference that the payoff for the co-operating individual is negative: He has to bear the costs of (potentially) losing his life and does not benefit from the improved political situation.[23)]

As long as the benefit is higher for the co-operating individual than his costs, defection is not necessarily a dominant strategy in volunteer's dilemma games, though the probability to co-operate decreases with the group size. As A. DIEKMANN (1985, p. 607) shows, if all players have to bear the same costs, for U > C the equilibrium (mixed) strategy in a volunteer's dilemma game results in a probability of defection (q*) of

(6) $$q^* = \left[\frac{C}{U}\right]^{\frac{1}{n-1}},$$

where n is the number of players, C are the costs and U the benefit the individual receives from co-operation.[24)] Thus,

$$\frac{\partial q^*}{\partial (C/U)} > 0 \quad \text{with} \quad q^*(1) = 1,$$

irrespective of the number of players, i.e. nobody co-operates. This holds, of course, even more for situations with C > U, i.e. whenever the (expected) costs the individual has to bear are higher than the benefits, the probability of co-operation is zero, i.e. defection is dominant in such games. Thus, according to the predictions of economic theory the public good will not be produced.

23. Thus, it has the structure of what T.C. SCHELLING (1971) calls a "mattress problem". For additional references to the volunteer's dilemma see, e.g., W. POUNDSTONE (1992, pp. 203ff.) or A. DIEKMANN (1994).

24. If the benefits exceed the costs, co-operation will be the maximin solution.

Considering these different situations, four different 'ideal types' of altruistic individuals, i.e. of individuals who behave according to relations (3) and (4), can be distinguished, depending on whether the costs of this behaviour are high or low, and whether the public good is provided or not:

(i) The 'average moral human being': He acts in situations where many have to contribute to allow for the provision of the public good. He expects that many others contribute voluntarily, and he contributes as well.[25] Thus, the public good is provided. The costs he has to bear are, however, rather small. They are (more than) offset by the moral satisfaction derived from the participation in the provision of this good. Thus, it holds:

$$Q > 0, \quad Q_i \approx 0, \quad z_i > 0.$$

(ii) The hero: He acts in situations where it is sufficient for the provision of the public good, that only one or at least not very many people make a contribution, but the costs are rather high for those individuals. As far as he himself is able to consume the public good, the hero derives direct personal benefits from his own behaviour. However, compared to the total cost of his action, his own personal benefit is comparatively low:

$$Q > 0, \quad Q_i > 0, \quad z_i >> 0.$$

(iii) The idealist: He knows that many have to contribute, and that (nearly) all others do not contribute. Thus, the public good is not provided. He himself, nevertheless, makes a contribution, but his costs are rather small:

$$Q = 0, \quad Q_i = 0, \quad z_i > 0.$$

(iv) The fanatic: He also knows that the public good is not provided and that, therefore, his large personal contribution is in vain. For others, therefore, his contribution does not make sense. Nevertheless, he acts:

$$Q = 0, \quad Q_i = 0, \quad z >> 0.$$

In each democratic society, there certainly are – according to this classification – some idealists and some fanatics; they are, however, not necessary for the well functioning of these societies. On the contrary, heroes can – in specific situations – have a very strong impact. Such behaviour can, however, hardly be expected from very many people, even if it might be necessary in some situations. The average individuals' propensity for moral behaviour, on the other hand, can be expected to be rather low: Only minimal morals can be demanded, if a large part or even a vast majority of the population is expected to behave morally. This holds, e.g., if public goods cannot be financed via coercive contributions by the state but depend on voluntary contributions of the citizens. In such cases, we have to rely on the moral behaviour of very many people. That such behaviour in some instances occurs should be undisputed, as the example of high participation in many elections shows.[26] Thus, the essential difference

25. His motivation to contribute may stem from reciprocity considerations, although this does not necessarily have to be so.

26. There is, however, at least one example where many citizens of a local community made non-negligible contributions to a public good: The citizens of Kleinblittersdorf, a small German town near the French border,

between these two categories is that the hero is acting in a high-cost and the average moral human being in a low-cost situation.[27)]

The difference between moral behaviour and intrinsically motivated behaviour might also be illustrated using the formalisation given above. We speak of intrinsically motivated behaviour if in relations (1) and (3) the first derivative of the utility function with respect to z is strictly positive, i.e. if the individual gets a positive (consumption) value from his action independent of the consequences on others. In most cases, moral behaviour might also be intrinsically motivated. This is particularly valid if as, e.g., with respect to the problem of global warming, moral behaviour consists of voluntary contributions to a (national or international) public good and the effect of his own action on the individual himself is really negligible. On the other hand, there is a whole range of intrinsically motivated behaviour in human life which has nothing to do with moral behaviour. This situation is given whenever an action has neither (intended) consequences on others nor is instrumental for other objectives of the individual himself but the only intention of the individual is to receive the consumption benefit. A classical example for this in mountain climbing.[28)]

The moral behaviour (in the strong sense) considered here should not be confused with 'prudent' behaviour. Prudent behaviour is one which might also be in the interest of other individuals and sacrifice own short-run interests, but can be justified with respect to the long-run interests of the agent. Prudence reveals itself, e.g., in the acceptance that public goods are provided by the government and financed by coercive taxation. The acceptance of 'voluntary' redistribution is also a kind of prudent behaviour, if, e.g., this redistribution can be understood as insurance.[29)] Generally, such behaviour does not demand voluntary contributions to the provision of a public good; all that is needed is that people accept that coercive contributions are raised and that they pay these contributions in order not to be sanctioned.

3 On the Necessity of Moral Behaviour of 'Average Human Beings'

One of the main arguments for the justification of a market order is that self-interested behaviour of the individuals will lead (if not to an optimal) at least to a generally acceptable social result. There should be only few doubts on the ability and willingness of the people to pursue their self-interest. ADAM SMITH already writes: „We are not ready to suspect any per-

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collected more than 3.5 millions DM to (successfully) prevent the construction of a waste incinerator, whose operation would have constituted a local public bad. The average contribution per person was about 800 DM. Though this is an exceptional case which hardly can be generalised, it shows that – in clear contrast to standard economic theory – sometimes even contributions are made which are not to be counted as very small. For a description and analysis of this example see L.P. FELD, W.W. POMMEREHNE and A. HART (1996).

27. For the theory of low-costs situations see H. KLIEMT (1986) and G. KIRCHGÄSSNER (1992).

28. For a discussion of intrinsically motivated behaviour and its implications for economic processes see, e.g., B.S. FREY (1992, 1993, 1997).

29. According to H.-W. SINN (1997) the majority of the publicly provided services belongs to this category of voluntary redistribution.

son of being defective in selfishness“ (1759, p. 446).[30)] If self-interest is generally sufficient to lead to a socially acceptable result, moral behaviour is dispensable, there is no demand for it. Then, the only relevant question which remains is how the economic order can be shaped so that self-interested behaviour actually results in such a socially acceptable result.[31)]

The motivation of self interest is, however, only then sufficient to generate a certain behaviour if strong incentives exist. A main precondition for this is that the costs of ‘wrong behaviour’ are high. This is typically the case for economic decision situations. Generally, a wrong investment will lead to large losses for the investor; in the worst case he will go bankrupt. There are, however, many situations where the decision has nearly no impact on the decision maker.[32)] To behave ‘correctly’ in such situations, a motivation is necessary which transcends pure self-interest: the individuals have to act according to certain given norms; they ought to behave ‘morally’.

One might try to avoid such situations as far as possible as there is no certainty that the individuals behave morally in low-cost situations. As already J.M. BUCHANAN (1954) mentioned, they might behave irresponsible because of the missing personal consequences. On the other hand, in (modern) democratic societies such situations cannot be avoided totally. As mentioned above, the standard example in the literature is electoral participation. However, even more important is the electoral decision itself. While electoral participation might be increased by providing incentives, e.g., by introducing a fine for un-excused absenteeism as in the Swiss canton Schaffhausen, the decision itself of a (secret) election cannot be influenced in such a way. If the voters made their decisions irresponsibly (purely randomly), any result might occur. This could undermine the legitimacy of the democratic political order. Thus, for the provision of the public good ‘democratic political order’ moral behaviour of the decision makers (voters) is necessary.[33)]

The rules according to which decisions are made in a democratic society can generally be fixed before they have to be applied. However, in conflicting cases ‘referees’ are necessary who ‘correctly’ interpret these rules. They can be expected to do so only if they have no personal interest in the solution of the conflict. Correspondingly, every attempt to influence the decision of a judge in a certain direction by providing strong (financial) incentives is –

30. At the same time, however, he points to the importance of altruistic or moral behaviour. See, e.g., A. SMITH (1759, pp. 1ff., pp. 26ff.).

31. That questions of ethical or moral implications of individual behaviour should only be discussed with respect to the economic order (and not with respect to individual motivation) because the economic order is the genuine if not the unique place for morality in a modern market society is the basic hypothesis of the ‘Ordnungsethik’ as proposed, e.g., by K. HOMANN and CH. KIRCHNER (1995).

32. For a consideration of such ‘low-cost decisions’ see G. KIRCHGÄSSNER (1992) and G. KIRCHGÄSSNER and W.W. POMMEREHNE (1993). – Low-cost situations have until now only rarely been discussed in the (economic) literature and, if at all, mostly with respect to voting decisions. See J.M. BUCHANAN (1954), J.C. HARSANYI (1969), G. TULLOCK (1971), G. BRENNAN and J.M. BUCHANAN (1983), G. BRENNAN and L. LOMASKY (1984, 1985, and especially 1993), as well as H. KLIEMT (1986).

33. This does not necessarily imply that the voters vote for that party or proposal which comes closest to their (personal) self-interest. They might instead vote ‘expressively’. See for this especially G. BRENNAN and L. LOMASKY (1993).

in modern societies under the rule of the law – seen as ‘corruption’ and threatened with severe punishment: The judges are required to make their decisions solely according to the law (or its dominating interpretation, respectively). The law restricts the leeway of the judges, and many decisions are controlled by higher courts. A judge who wants to maintain a good reputation and/or wants to reach higher positions has a strong incentive to make his decisions in a way that they will not be overthrown by higher courts. On the other hand, the law often provides a considerable leeway for judges to decide according to their own (personal) convictions. But to provide the public good ‘legal security’, judges have to decide such cases in a way that it is in accordance with the general moral convictions within their society. Thus, some kind of moral behaviour of the judges is necessary for the provision of this public good.

In a market economy, moral behaviour is, however, also necessary in many other situations. In his paper about the “rational fool”, A.K. SEN (1977) shows examples where purely self-interested individuals behave in an immoral manner. The general problem underlying his examples is contract loyalty. The basic elements of market economic orders are contracts which are made voluntarily by both (all) parties, and where all parties have to keep their obligations. However, contracts are necessarily incomplete, because not all possibilities can be anticipated and taken into consideration. This makes opportunistic behaviour possible if the break of such a treaty provides benefits for one of the parties.[34)]

A prominent case in this respect are labour contracts. As, e.g., D.M. HAUSMAN and M.S. MCPHERSON (1993, p. 684) write, “contracts for labour are unavoidable incomplete, and monitoring of worker performance is imperfect and costly, any sort of performance-based contract is subject to moral hazard problems on both sides: with workers attempting to supply less effort than is agreed and employers trying to understate worker performance levels.” Devices to overcome this problem of opportunistic behaviour which solely rely on self-interest, as discussed, e.g., by G. AKERLOF and J. YELLEN (1986), are only partly effective. Work ethic can be an important additional part of the solution.[35)] Moreover, as B.S. FREY (1993) argues, monitoring of workers might crowd out intrinsic motivation and – by this way – actually reduce instead of increase worker performance.

As this example shows, if contracts are agreed upon, it is usually tried to exclude as many situations as possible where opportunistic behaviour is profitable. In the case of labour contracts this is done by monitoring and/or special remuneration systems. In other situations, this can be done by an agreement about fines for the breach of a contract. Because of the uncertainty about the future development and the incompleteness resulting from this uncertainty, and because of the rising costs due to the construction of a more and more detailed contract, it is, however, generally necessary to restrict such fines to situations where opportunistic behaviour would lead to large gains (and where, therefore, opportunistic behaviour is very

34. For the definition of opportunistic behaviour see, e.g., O.E. WILLIAMSON (1985, p. 47).

35. Besides D.M. HAUSMAN and M.S. MCPPHERSON (1993, p. 684f.) and the literature given there see, e.g., R.D. CONGLETON (1991) or B.S. FREY (1997, pp. 88ff.).

likely). In such situations, the motivation of self-interest would dominate in most cases.[36] If the break of a contract leads, however, only to a small gain (or, if the keeping of the contract causes only low costs, respectively), average moral individuals (according to our definition) will adhere to the contract. This does not hold, of course, for strongly opportunistic individuals: they breach every contract, as long as they can expect this to be advantageous (in the long-run) for them. If in making a contract one always had to assume that the other parties are opportunists, many contracts would not be concluded. Thus, a modern market economy could hardly function. The (justified) assumption that the other parties of a treaty behave 'morally' in such situations is a precondition for the well functioning of any market economic order: People should be able to *trust* each other.[37]

If there are repeated transactions between the same parties, opportunistic behaviour might be rather unproductive. The individual will be more easily able to conclude contracts which are (ex ante) profitable, the higher his reputation is, i.e. the more the other parties can rely on the contract being kept. This does not hold if a contract is only once concluded between some parties and if they do not have the possibility of getting information about the reputation of the other parties.[38] Of course, it can never totally be excluded that such information is spread randomly or that at any later time there is again a possibility to agree upon a (profitable) contract with the same party. However, only an extremely risk-averse (and purely self-interested) individual would generally be prevented by such considerations from opportunistic behaviour. On the other hand, many individuals keep contracts in such situations; the story in A.K. SEN (1977) is intended to show just this. Such moral behaviour makes the trust of the other transaction parties possible and, therefore, the well functioning of a market economic order.

All these arguments do, however, not lead very far. They can show that moral behaviour is not necessary in all situations when one might expect it to be, but it is nevertheless necessary in many situations. As mentioned above, social pressure is hardly sufficient to explain the very high turnout rates, e.g., for general elections in many countries. Moreover, such pressure cannot be build up for the electoral decision itself. That judges have a personal interest in their career prospect, is obvious. But many decisions which are within the given legal leeway have at best a marginal influence on their future career. Moreover, this leeway generally increases the higher a judge is within the hierarchy.[39] At the same time, however, his future ca-

36. For a theory of opportunistic behaviour of politicians see M.L. DAVIS and M. FERRATINO (1996). They show that the lack of transferable property rights makes opportunism more likely in political than in commercial markets.

37. This is one of the central themes of communitarianism. But see for this also F. FUKUYAMA (1995) as well as J.L. MACKIE (1977, pp. 111ff.) with reference to THOMAS HOBBES, DAVID HUME, and G.J. WARNOCK (1971). – Of course, contracts are made also without moral behaviour, i.e. if all individuals behave purely self-interestedly. However, the amount of these contracts might hardly be sufficient for the well functioning of a (modern) market economic order.

38. Under such conditions a 'market for lemons' may arise. See for this G.A. AKERLOF (1970).

39. In the Federal Republic of Germany, this holds especially for the Federal Constitutional Court and for the Supreme Labour Court. The Federal Constitutional Court can cancel laws which have been decided on by the majority of both chambers of the German parliament, the Bundestag and the Bundesrat, if they contradict its – by no other institution controllable – interpretation of the federal constitution. The Supreme Labour Court decides because of the inactivity of the German parliament about large areas of German labour legislation.

reer possibilities naturally decrease. Thus, those judges with the largest decision leeway are exposed to the smallest external incentives. And to argue for the effectiveness of reputation effects one has to suppose that such effects can play a role at all because the situations are repeated. If this is not the case and if it is not possible to refer to the experience of others, for one-shot transactions reputation cannot play any role.[40)]

4 On the Role of Heroes in Political and Economic Processes

The next question is whether besides this moral behaviour of average individuals we also need heroic behaviour as defined above. If we look at the examples given in the introduction, with the exception of VACLAV HAVEL and, perhaps, of LUDWIG ERHARD and his acting in the German currency reform in 1948, neither the examples of prominent politicians, nor the central bankers of TH. HAVRILESKY (1991) or the Latin American politicians and chief bureaucrats mentioned by A.C. HARBERGER (1993) are heroes according to this definition, whatever the records of these people might be. In all these cases the individuals did nothing else as for what they were elected and/or paid, even if they did this in an excellent way, and they all were personally highly rewarded. This is quite different for those who participated in the (early stages of the) East German peaceful revolution in 1989 and especially for those who tried to kill ADOLF HITLER and lost their life. The destiny of the latter also indicates, however, that at least in some cases it might be rather difficult to distinguish a hero from a fanatic, as the criteria are 'quasi objective' ex ante-expectations of the success of an action which are hardly observable and need not be identical with the actual result which is known ex post.[41)]

Nevertheless, these latter examples show that heroes *can* have an effect in political processes, especially in transition processes from a dictatorial to a democratic regime. Of course, this possibility does not contradict G. TULLOCK (1987) who states that most coups are performed by people who have strong private interests to overthrow the old regime and to come into power.

However, what is more interesting in our context is whether there are situations where heroes are necessary (or at least helpful) to improve the functioning of market processes similar to the function of average moral human beings discussed above. One field where heroic behaviour can play a role is environmental policy. [42)] An example for such a situation was the behaviour of Greenpeace activists in 1995 to prevent the sinking of the Shell oil platform 'Brent Spar' in the Atlantic ocean. The public good to be produced was to prevent additional pollution of the

40. For a critique of the reputation argument see also R.H. FRANK (1988, pp. 71ff.). – For a more detailed discussion summarising the game-theoretic models employed see G. KIRCHGÄSSNER (1996).

41. On the other hand, despite of their failure in killing Adolf Hitler they provided a public good for the German people by showing to the world that – despite all the Nazi terrorism – there were also Germans who preserved moral standards, and by doing so they raised the self-esteem of the German people after the war.

42. For a more general discussion of the role of moral behaviour in environmental policy see G. KIRCHGÄSSNER (2000).

ocean. To reach this objective, former Shell consumers had to be motivated to boycott Shell by, e.g., driving to another petrol station for getting gasoline, even if this station was somewhat further away. In doing that, Greenpeace with the support of the consumers succeeded in forcing Shell to change its policy. This was costly for the consumers, but for most of them these costs were rather low, i.e. they were morally acting in a typical low-cost situation.[43)]

However, in order to motivate this kind of moral behaviour of the consumers they had to be informed about this problem. Such information can only be spread over a large population by using modern mass media. For this at least in some if not in many cases spectacular actions are necessary. This is exactly the strategy of Greenpeace, not only in this example, but also, e.g., in the case of the French atomic tests at the Mururoa atoll.[44)] Those who personally participate in such actions sometimes have quite considerable costs; they may be imprisoned for some time or even risk their life, without having personal benefits besides the intrinsic satisfaction. They are in many – not all, of course – cases successful, i.e. the public good is provided. Thus, according to the definition given above, they can be considered being heroes.[45)] The number of such heroes is, however, quite small. Despite the fact that a large part of the population is supporting not only the objectives but also the actions itself by, e.g., financial contributions, there are only few people who actively participate.[46)] As stated above, there are not many heroes, but in such situations we need the interaction of only a few of them and of many average moral human beings in order to provide the public good.

This is, however, not the only situation where heroic behaviour can play a role in environmental policy. There can also be a demand for such behaviour if employees realise that envi-

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43. See for this A. DIEKMANN (1996, p. 111) who sees this as a typical case of a low-cost situation. Contrary to his opinion (see p. 115), however, its structure is not different from the structure of the electoral situation: The behaviour (decision) of the single individual has neither an impact on the individual himself nor on the collective outcome, but the collective decision can have a significant impact at least on some and possibly on very many individuals. – The qualification of this behaviour as 'moral behaviour' does not change due to the fact that Greenpeace used information to motivate the general public of which they knew (at least from some point in time onwards) that it was wrong, and that today it is doubtful what – even from an ecological point of view – the optimal procedure would have been in this situation. (See, e.g., R. LUYKEN, Die Protest-Maschine: Wenn eine Greenpeace-Kampagne erst einmal läuft, können Tatsachen sie nicht stoppen, *Die Zeit* No. 37, September 6, 1996, S. pp. 9 – 14.) All what is relevant in our context is that consumers expected to make voluntary contributions to a public good by helping to prevent an ecological scandal, even if their expectations might have been wrong. For the case of Brent Spar see also M. HUXHAM und D. SUMNER (1999), who, however, do not discuss the information policy of Greenpeace.

44. See for this, e.g., Neuer französischer Atomtest im Südpazifik: Wiederholung internationaler Proteste, *Neue Zürcher Zeitung* No. 229 of October 3, 1995, p. 5.

45. This does not imply that those who professionally work in the organisation of Greenpeace (as well as in other similar organisations) are also heroes and are necessarily motivated by moral reasons. Without saying anything about their moral qualification, in a similar way as with respect to other political (and economic) entrepreneurs their behaviour can be explained using the assumption of self-interested rational behaviour. Insofar there is no difference between those working in ecologically oriented and those working in other interest groups.

46. Therefore, the moral reputation of such an organisation is important. If this is damaged, as has been the case because Greenpeace used wrong information in the case of Brent Spar (and in Switzerland in the middle of the nineties also for some other reasons) voluntary contributions are decreasing which can strongly weaken such an organisation. See, e.g., Keine Sterne mehr am grünen Himmel, *Tagesanzeiger*, March 17, 1998, p. 2.

ronmental damages are or at least might be generated which can be avoided. As long as such damages result from technical defects their reporting does not demand special moral qualifications. This is differently, however, if damages result from the deliberate ignoring of legal regulations by the management of the firm. Then the employees come into a difficult situation. If they report the grievance to their management they risk to come into trouble inside their firm. The situation becomes even worse if the management does not react and employees see themselves forced to report the grievance to government officials in order to put an end to it. If this becomes known, they risk their job. If the firm has to be closed down they are – in addition – made responsible by their colleagues for the loss of their jobs. In such a situation, an extent of heroic behaviour is demanded which hardly can be expected of many individuals. On the other side, due to the limited information of the public environmental agencies and due to their limited controlling possibilities these agencies need at least sometimes such information in order to secure that environmental regulations are respected and major ecological damages are prevented.

Such situations might occur more often with respect to environmental than with respect to other problems. They are, however, by no means restricted to this policy area. We have quite similar problems if other regulations are deliberately violated or if, e.g., (national or international) competition rules are not respected. In such cases those who report the violations also bear considerable risk and cannot expect to have a personal benefit from their action besides their moral (intrinsic) satisfaction. If the rules which are violated are part of the basic frame which a market economy needs in order to function well in the interest of the citizens then those who report such violations and – by their action – help to improve the situation are contributing to a public good.

The common problem behind these examples is to overcome an informational asymmetry by giving private information to the general public and/or to political agencies. As this can impede strong economic interests, those who make such information public bear in many cases considerable risks, even if their behaviour is completely legal. The situations differ according to who is in need of the information in order to take action, whether a government agency can take measures in order to improve the situation or many individuals like, e.g., consumers have to react. But despite of this the purpose of the actions is always to provide information (in a secret or a more or less spectacular way).

5 Concluding Remarks

The efficient functioning of the economic (market) as well as the political (democratic) system is only possible if many citizens respect at least some minimal ethical standards. Today, this is disputed only by very few people.[47)] Heroic behaviour can be helpful (and might even sometimes be necessary) for converting a totalitarian or autocratic into a democratic regime

47. For additional arguments that moral norms influence economic behaviour see D.M. HAUSMAN and M.S. MCPERSON (1996, pp 53ff.).

(and perhaps also for introducing a market system). Here, it might play an important role. On the other hand, a well functioning economic and political system should usually not depend on the actions of heroes; the behaviour of the average moral human being should be sufficient for it. But as has been shown above, even if these systems function well there might arise situations were heroic behaviour of at least some individuals can be helpful to improve the functioning of the economic system by overcoming informational problems.

One might question the definition of moral and especially of heroic behaviour which is used in this paper. The main argument against it might be that, as, e.g., the papers of TH. HAVRILESKY (1991) and A.C. HARBERGER (1993) show, some or even many of those who by some or even many people are called heroes are not captured by this definition. However, as long as heroic behaviour is rewarded by considerable private benefits such behaviour is not structurally different from the behaviour of other homines oeconomici and does, therefore, not cause problems for economic theorising. Problems occur only if the concept of mutually disinterested rational behaviour is no longer sufficient to explain the behaviour of the acting individuals but if we have to take into consideration moral and/or intrinsic motivations. Therefore, whether we are convinced by this definition or not, it makes sense to ask whether such behaviour is relevant or not in political or economic processes, i.e. whether we can ignore it as traditional economic theory does if we intend to explain such processes or have to incorporate it into our explanations.

Beside this methodological problem there is also a more general social problem connected with moral (or intrinsically motivated) behaviour. Such behaviour of the individuals is (by definition) mainly determined by their preferences and hardly or not at all by restrictions, i.e. by external incentives. This is obvious in the case of low-cost situations because there are no restrictions available which could generate such incentives. Thus, the average moral human being is simply following his preferences. Because the costs of acting are high, this situation might be different in the case of heroes. However, because (again, by definition) heroes are willing to bear high costs in order to reach their objectives it is also difficult if not even impossible to influence their behaviour by external incentives.

In this paper, we have assumed that such preference-guided behaviour is of high moral quality. As, however, already J. BUCHANAN (1954) mentioned, such behaviour might be guided by any motivations and does not necessarily possess ‘high moral quality’. Moreover, what people qualify as moral behaviour is highly culture- and time-dependent. Even worse, as, e.g., the history of the twentieth century shows, some of the worst crimes in history have been motivated by ‘moral arguments’; the acting individuals have been told that what they did was morally sound, and many of them were personally convinced. Insofar, the transition from moral incentive systems to social systems which rely on the self interest of the acting individuals can be an enormous social progress.[48)] This provides a strong argument that in a society we should generally not try to rely on moral and/or intrinsic motivations.[49)] However, as

48. See for this argument especially A.O. HIRSCHMAN (1977).

49. For a somewhat different view see, however, B.S. FREY (1997a).

has been argued above, there are important areas within a society where low-cost situations and, therefore, the reliance on moral motivations cannot be avoided:[50)] The well functioning of a social order not only depends on the 'correct' external incentives but to some extent also on the morality of its citizens. This is risky, but there is hardly any alternative for it.

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50. See also G. KIRCHGÄSSNER and W.W. POMMEREHNE (1993).

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