NBER Working Paper Series

ALTRUISM IN LAW AND ECONOMICS

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Working Paper No. 217

CENTER FOR ECONOMIC ANALYSIS OF HUMAN BEHAVIOR
AND SOCIAL INSTITUTIONS

National Bureau of Economic Research, Inc.
204 Junipero Serra Boulevard, Stanford, CA 94305

November 1977

Partial support for this research was provided by a grant to the National Bureau of Economic Research from the National Science Foundation (No. SOC77-15657). The views set forth herein do not necessarily reflect those of the National Science Foundation.

ABSTRACT

A classic example of external benefits is the rescue of the person or property of strangers in high transaction cost settings. To illustrate, A sees a flowerpot about to fall on B's (a stranger's) head; if he shouts, B will be saved. A thus has in his power to confer a considerable benefit on B. The standard economic reaction to a situation in which there are substantial potential external benefits and high transaction costs is to propose legal intervention. In the example given, this would mean either giving A a right to a reward or punishing A if he fails to save B. Either method, we show, is costly and may result in misallocative effects. These objections to using the law to internalize the external benefits of rescue would be much less imposing were it not for altruism, a factor ignored in most discussion of externalities. Altruism may be an inexpensive substitute for costly legal methods of internalizing external benefits, though this depends on the degree of altruisim, the costs of rescue, and the benefits to the rescuee. Although the general legal rule is not to reward the rescuer (nor to impose liability), the law recognizes the fragility of altruism and entitles the rescuer to a reward in certain instances. These include rewards to professional rescuers on land (normally a physician) and to rescuers at sea. In both instances the costs of rescue are likely to be sufficiently high to discourage rescue unless the rescuer anticipates compensation.

-- W. M. Landes and R. A. Posner

ALTRUISM IN LAW AND ECONOMICS

William M. Landes and Richard A. Posner*

The use of economics to understand the legal system has been growing rapidly. This new field of applied economics is worthwhile for its own sake in that the legal system is an important part of the social system. But it is also interesting for its potential feedback into the analysis of economic problems in other fields. For example, the analysis of the social costs of crime has led to a change in the thinking of economists about the monopoly problem.[1] And recent work on private law enforcement appears to have broad implications for the problem of employee discipline within a firm.[2] This paper will examine another area where the economic analysis of law appears to have implications for broader economic questions; we shall discuss the economic analysis of the law of rescue and explore its relevance to a variety of economic questions not limited to the "law and economics" field.

Economists have discussed altruism--which we will initially define as any transfer that is not compensated--mainly in relation to transfers within the family, and secondarily in relation to gifts to charity.[3] Another important area of altruistic activity, however, concerns the rescue of the person or property of strangers. One reads in the newspapers about the passerby who jumps into the lake to save a drowning swimmer--and about the passerby who does nothing to assist the screaming victim of a criminal assault. The question of how to explain either kind of conduct from the standpoint of economics is a challenging one. An examination of the legal regulation of rescue may provide clues to its answer.

I.

The peril that invites rescue provides a perfect example of external benefits. A sees a flowerpot about to fall on B's (a stranger's) head; if he shouts, B will be saved. A thus has it in his power to confer a considerable benefit on B. However, it is infeasible for A and B to contract for the rescue because of the lack of time for negotiation.[4]

The standard economic reaction to a situation in which there are substantial potential external benefits and high transaction costs is to propose legal intervention. In the example put, this would mean giving A a right to either a public or private (presumably from B) reward for the service he renders in saving B; or punishing A if he fails to save B. Either form of intervention, however, is apt to be quite costly. Where, as in the example given, the rescuer is not engaged in the business of rescue, the appropriate reward, which from the standpoint of economics depends on the opportunity costs of A's time and his expected losses resulting from the dangerousness of the rescue, would be costly to compute. And if the optimal reward was low (because the rescue entailed little cost to A), the costs of computation and enforcement of A's legal claim would exceed the pure reward component, resulting in misallocative effects.[5]

The costs of legal intervention are in one important respect reduced under a system of liability for nonrescue (as distinct from a reward for rescue), for damages need to be computed only in cases where the rule of liability is violated and these occasions may be few if compliance with the rule is widespread. In contrast, the reward approach would require compensation in every case in which a rescue was effected. The liability approach, however, creates another cost: it operates as a tax on activities

in which a person may be called upon to attempt a rescue, and like any tax will cause people to substitute away from those activities. This could result in too few potential rescuers, again leading to excessive safety precautions by potential rescuees.[6]

The foregoing objections to using the law to internalize the external benefits of a rescue would be much less imposing were it not for altruism, a factor ignored in most discussion of externalities. Altruism may be an inexpensive substitute for what we have seen are costly legal methods of internalizing external benefits--though this depends, of course, on the degree to which altruism will actually motivate rescue.

Becker's analysis of altruistic giving emphasizes wealth disparities between the donor and donee.[7] This emphasis follows from the principle of diminishing marginal rates of substitution--i.e., the greater the donor's wealth relative to the donee, the greater the amount the donor is willing to give up at the margin in exchange for a dollar increase in the donee's wealth. The rescue setting presents a dramatic, if unexpected, example of wealth disparities. At the moment when the flowerpot is about to crash down on B's head, and kill him, A, though he presumably does not know what B's wealth was before the flowerpot toppled over, does know that B's expected wealth is now very small and that his own wealth, however slight, is almost certainly much greater than B's. Moreover, if the cost to A of effecting the rescue is very small (the cost of a shout), A can transfer wealth to B at a very low cost to himself. Thus, even though A presumably values a dollar to himself much more highly than he values a dollar to B, because they are strangers, the rescue may still be a "profitable" transaction for A. Suppose that A considers a dollar to be

worth a dollar in his own possession but only 1 cent in B's possession (though if it were not a rescue setting, i.e., if their wealth were more equalized, A might value a dollar in B's possession at only .01 cent instead of 1 cent). Nonetheless, if A can save B's life at a cost of a dollar, and thereby confer a benefit on B that A can guess is worth several hundred thousand dollars to B, the transfer will increase A's utility though he receives no compensation from B or anyone else. The "leverage" that A obtains by being able to increase B's wealth very greatly at little cost to himself is the counterpart to the matching grant in the conventional charity context, which reduces the cost of a gift to the donor below the dollar amount received by the donee.

The above analysis fails to explain why A derives <u>any</u> utility from the welfare of a complete stranger. This question has generally been elided in economic discussions of altruism; it is assumed that family members (say) have interdependent utility functions but the source of the interdependence is not investigated. But once it is observed that gifts are by no means limited to family members, the source of this component of the utility function becomes difficult to accept as a matter of pure assumption.

The biologists have done more work on this question than the economists. They have shown that altruism may increase the likelihood of the altruist's genes surviving in the competition among populations. If insect A saves B from some peril, this means B will be alive to save A should he find himself in danger. This "reciprocal altruism" may enhance the survivorship of the group to which A and B belong relative to that of some nonaltruistic insect group.[8] A closely related concept (call it

"gene survival") comes into play where, say, A in our example dies while saving B. A and B may share some of the same genes and B's survival may contribute more to the chances for the survival of their common genetic endowment than A's (e.g., if A is B's parent and A is no longer capable of reproducing but B is).[9]

Reciprocal altruism may explain some, but surely today only a very small, fraction of rescues of strangers. In small communities, the person you rescue, even if a stranger, may indeed be a potential rescuer. But in modern urban communities the probability that you are saving someone who will someday reciprocate will often be very close to zero, if he is indeed a stranger. To be sure, the "stranger" may be carrying some of your genes. But this possibility will often be as or more remote than the possibility that he will someday rescue you. Thus, the likelihood that the nonaltruist will be "weeded out" in the competition within or among modern societies is slight.

If we emphasize simply the large discount that the potential rescuer will apply to a stranger's welfare in deciding how much cost to incur in rescuing him, the biological analysis of altruism is helpful. But the analysis seems to imply not only that the discount will be large, but that normally it will be so large that only a small fraction of cost-justified (i.e., where the costs to the rescuer are less than the benefits to the victim) rescues would be attempted.

A possible alternative to the biological approach is to emphasize the <u>recognition</u> factor in rescues. The fact that most charitable donations are not anonymous and, indeed, that many donors seem quite avid to obtain publicity for their gifts (as where a university chair is named after the donor) suggests that the desire for publicity or recognition is an

important factor in charitable giving. Rescuers, too, get their names in the newspapers and this may be the "real" reason why they rescue complete strangers.

But this analysis may appear merely to push the inquiry back one step: why do donors, whether of money or services, receive favorable public recognition? Presumably, this results from a public sense, however dim, of altruism as an economizing force (i.e., a low-cost method of internalizing external benefits, compared to legal intervention). Notice that this analysis does not require that anyone be in fact altruistic in the sense that he derives utility from making a transfer to a stranger. Conceivably everyone who makes such a transfer does so not out of altruism but to obtain a reward which consists of favorable publicity.

The importance attached to the recognition factor is relevant to shaping public policy toward rescues. If it is deemed a substantial motivating force in rescues, this would argue against creating liability for failure to rescue. One effect of liability is that the successful rescuer will no longer receive as much favorable public attention, because the public will assume he acted simply out of fear of liability. This increases the tax effect of the liability approach in discouraging potential rescuers.

II.

Although the basis for altruistic impulses toward strangers in peril is obscure, the existence of the impulse is verified by the numerous instances in which rescues have occurred where neither reciprocal altruism nor gene survival could provide a plausible motivation. The fragility of such impulses--a clear implication of the biological analysis--has also been recognized by the law. Generally the law does not rely on altruism

to internalize external benefits where the costs to the rescuer are great. For if the rate at which the potential rescuer equates his costs to the benefits to the person saved is very low (e.g., it takes $100 in benefits to the person saved to compensate the rescuer for incurring a cost of 1¢), it will follow that altruistic rescues are unlikely to occur in cases where the costs of rescue are large.

Two examples will illustrate the law's recognition of this point. Although the ordinary rescuer is entitled to no reward, the professional (normally a physician) is entitled to collect his standard fee from the person rescued in the high transaction costs setting (e.g., no negotiation is possible because the victim is unconscious). Not only is the physician's opportunity cost of time higher than that of the average non-professional rescuer, but, because of his greater knowledge of medical treatment, he is expected to spend more time with the rescued person (treating him, as distinct from simply calling an ambulance). Thus the total costs of rescue to the physician are apt to be much higher than those borne by the non-professional. (To some extent, however, the greater benefit normally conferred by the professional rescuer's more extensive services may offset the added cost.) The costs of computing the reward, moreover, are relatively slight because the physician's fees for similar services are readily discoverable.

The second example is rescue at sea. Normally this is undertaken by commercial operators and (especially in cases where the vessel or its cargo, rather than just passengers and crew, are salvaged) at substantial cost. So one is not surprised that a successful rescue at sea entitles the rescuer to a reward--and that the rescuer's right is most firmly established where it is property rather than lives that is rescued (as mentioned, the cost of pure life salvage is normally much less than that of property salvage and the normally greater value of lives versus property increases the likelihood

of an altruistically motivated rescue of lives).[10] An additional factor is that to the extent rescue is undertaken by firms operating in a competitive market, and this is usually the case at sea, the costs of altruism to the rescuer tend to be very great; the firm's very survival may be at stake because altruism implies the bearing of uncompensated costs that a non-altruistic competitor would avoid. A closely related point is that altruism is not a trait with positive survival value in a competitive market. On the contrary, competition will tend to weed out the altruistic seller, just as it tends to weed out any other type of high-cost seller.

Given that legal intervention and altruism are substitute methods of encouraging the internalization of the external benefits of rescues in emergency situations, the question naturally arises whether studying the pattern of legal intervention in rescues might provide a clue to variations over time or across societies in the level of altruism. We have compiled a list (available on request) of the countries (and single U.S. state--Vermont) that impose liability for failure to rescue, by date of first imposition of liability. The task of explaining this ordering is a formidable one and we are not able to offer more than conjecture. It may, however, be significant that no law imposing liability for nonrescue has been found prior to 1867. This may reflect the fact that in a pre-urban society reciprocal altruism may provide an adequate substitute for legal coercion to rescue.

Another suggestive feature of our list is the predominance of fascist and communist states among the early adopters of liability for nonrescue. Liability for failure to rescue is a form of conscription for social service which would seem congenial to a state that already regards its citizens' time as public rather than private property. It is perhaps not accidental

that the first (and thus far only) U.S. state to impose liability for non-rescue is Vermont, which has the third highest tax rate (after Alaska and New York) in the U.S.

III.

Thus far we have discussed altruism as a substitute for law in internalizing external benefits. But why shouldn't it equally be a substitute for law in internalizing external costs? Indeed, if we do not need a law to compel rescues, why do we need, for example, a law to compel drivers to avoid running down pedestrians?

The reason would appear to lie in the significant discount the driver is likely to attach to the pedestrian's benefits and the high cost of accident avoidance (e.g., damage to one's car and personal injury, or the cost of altering one's behavior at an earlier stage, such as driving at a slower speed, to avoid situations in which an accident is imminent). To be sure, when these costs are low, even a relatively small degree of altruism will be sufficient to induce the driver to avoid the accident. But when these costs are substantial, though not as large as the benefits to the pedestrian, altruism is unlikely to be an adequate method of internalizing the pedestrian's losses and hence a liability rule will be required to generate optimal accident avoidance.

Why, therefore, doesn't society impose liability only when the costs of avoidance are high (though still less than the victim's benefits) and rely on altruism alone to deal with low-avoidance-cost accidents? This approach would be symmetrical to the treatment of compensation in the rescue setting. However, the principal objections to compensation in the low-cost rescue case--the cost of computing the reward, the cost of transacting between the parties, and the possible use of costly legal proceedings to

enforce one's right to a reward--are not present when the question is whether to impose liability in the low-avoidance-cost accident situation. Here a liability rule, if effective, will be a relatively costless device because the accident will be deterred.

Footnotes

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This paper is based on a larger on-going study supported by the Law and Economics Program at the University of Chicago Law School, and by a grant to the National Bureau of Economic Research from the National Science Foundation for research in law and economics.

1. See Gordon Tullock, "The Welfare Costs of Tariffs, Monopolies, and Theft," Western Econ J, June 1967, 5, 224-34 and Richard A. Posner, "The Social Costs of Monopoly and Regulation," J Pol Econ, August 1975, 83, 807-27.

2. See Gary S. Becker & George J. Stigler, "Law Enforcement, Malfeasance, and Compensation of Enforcers," J Legal Studies, January 1974, 3, 1-18.

3. See Gary S. Becker, "A Theory of Social Interactions," J Pol Econ, November/December 1974, 82, 1063-93.

4. Actually, the basic cause of the high transaction costs here is not the limited time but, as in more conventional high-transaction-cost cases, the number of relevant parties: there are simply too many potential rescuers for B to identify and negotiate with before he ventures on his walk.

5. If, for example, the gain to B from rescue was $10 and the optimal reward was $1 but the cost of computation $100 and was borne by B, B might be led to adopt excessively costly safety precautions to avoid being in the position of having to reward A for rescuing him. Placing the cost on the taxpayer would have different, but not necessarily less serious, misallocative effects.

6. For a more complete analysis of the costs and benefits of compensation and liability rules in the rescue setting see William M. Landes and Richard A. Posner, "Salvors, Finders, Good Samaritans, and Other Rescuers: An Economic Study of Law and Altruism," J Legal Studies, January 1978, 7, (forthcoming).

7. See Gary S. Becker, supra note 2.

8. See Robert L. Trivers, "The Evolution of Reciprocal Altruism," Quarterly Review of Biology, March 1971, 46, 35-56, and for an economic model of reciprocal altruism see Mordecai Kurz, "Altruistic Equilibrium" in Economic Progress: Private Values and Policy.

9. See Richard Dawkins, The Selfish Gene ( ).

10. For a detailed discussion of professional rescue and some empirical analysis of salvage awards see W. Landes and R. Posner, supra note 6.