self-sacrificial in nature. In other cases research subjects are seen as belonging to a class of victims, whose rights and welfare are exploited by more powerful others.

At the same time, however, we cannot identify research subjects as being exactly like any other class of persons who occupy a definable social role. This, in part, is because research subjects do not constitute a readily identifiable group like, for instance, volunteer firemen. One consequence of this is that, with the exception of refusing to participate in research, subjects have little ability to protect themselves. They have no common goal, union, club or lobbying group. Subjects, for the most part, are involved in research for a relatively short period of time and cannot form a self-protective organization. They will never collectively be in a position to demand protection and therefore form no constituency. Therefore this form of protection, like those discussed above, must come about not by demands from subjects but from those concerned with their protection.

These considerations are among those that we see as setting research subjects apart from other classes of persons who engage in potentially hazardous activities. To the extent that research subjects are virtually unique in terms of their attributes and social role, social policy decisions about compensating them for injuries thus can be seen as a unique case, one that does not open up a Pandora's box of many classes of compensation for non-negligent injury.

On the other hand, finally, we do see the case of compensation for injured research subjects, in important and appropriate ways, as stimulating us to think about a transcendent range of moral and social policy issues. These issues, as we have suggested, have to do with defining and acting on our views of individual and collective responsibilities as well as rights, with our sense of justice, and with whether we should relate to each other not only as our brother's keepers but our "stranger's keepers."\(^{38}\) as well.

This paper constitutes an exploration of the ethical justifications (or arguments against such justification) for providing compensation to experimental subjects for research-related injuries. Many of the pertinent issues have been dealt with extensively in reports commissioned for the HEW Secretary's Task Force on the Compensation of Injured Research Subjects, and in the paper entitled "Compensating Injured Research Subjects: I. The Moral Argument," which grew out of James Childress' presentation before the Task Force.\(^1\) Hence I shall not attempt to provide a complete analysis of the problem starting from scratch, but rather confine myself to clearing up possible sources of confusion or error in these previous reports, and to examining aspects of the problem or arguments bearing thereon that have been overlooked in the earlier materials. Consequently this paper will not present a wholly continuous line of argumentation. In the first three sections I will lay down some of the conceptual foundations that are necessary for a clear view of the problem. The fourth section will be devoted to an examination of the arguments that have been, or might plausibly be, offered in favor of compensating injured research subjects. The fifth section will address secondary practical questions, e.g., the question of whether the possibility of abuses can legitimately be taken into account in designing or adopting a compensatory program. To fix ideas I shall primarily concentrate in Section 4 on what I regard as the

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core case: a subject who freely volunteers, without renumeration or other advance consideration, to participate in a research project that is not designed to benefit the subject either medically or otherwise (commonly known as “non-therapeutic” research).

The Varieties of Moral Status

Ethical theory commonly recognizes different types of moral status that an act might have. Thus compensating injured subjects might be wrong, morally neutral, morally permissible, supererogatory, or obligatory to greater or lesser degree.

A case can be made out that compensating injured subjects is at least presumpitively wrong. Compensation involves the transfer of funds from one group (the taxpayers who foot the bill) to another group (the injured subjects). Now, a democratic government can be viewed as an agent of the people that merely carries out the people’s will. On this view such transfers constitute a free act of the people. However, there are many possible alternative uses for the resources that would be used in compensation—the funds could be used to achieve a higher level of medical or welfare support for the poor, better education, a stronger defense capacity, swifter and surer justice in the courts, less inhumane conditions in the prisons, fewer deaths from starvation among the impoverished overseas, and so forth. It seems plausible that the people have obligations to achieve at least some of these alternative goals, obligations that could be fulfilled (to some degree) by the funds that would be used for compensating injured subjects, but will go unfulfilled if compensation is chosen instead. Hence the use of funds is presumpitively wrong: wrong all things considered unless there are opposing moral considerations in favor of compensation, considerations at least as powerful as those supporting the use of funds for some of these alternative purposes.

Moreover, it is not clear that a democratic government always acts as the mere agent of the people. Sometimes it appears rather as an independent actor that coercively extracts resources from the people to be used for various ends. Such coercive taking of private possessions is wrong unless contrary moral arguments exist to justify it. Hence on this ground as well we can say that there is a moral presumption against the use of public monies for compensating research subjects. If the practice is justified it must be in virtue of powerful arguments in its favor. Consequently in subsequent sections I shall focus on positive arguments that pursuant to fill this bill.

From the foregoing we can see that compensation is not a morally neutral act, i.e., one without any moral quality, either positive or negative. If there is nothing positive to be found in favor of compensation, then it is morally wrong. But if positive considerations at least match the negative case, compensation might assume any of the types of moral status listed above. If the positive and negative considerations exactly balance out, then compensation is merely morally permissible: compensation and failure to compensate have equivalent moral status, neither one being wrong. If positive considerations outweigh the negative case, compensation might be supererogatory: morally superior to failure to compensate, but such that failure to compensate would not be wrong. The classical example of a supererogatory act is that of a soldier who volunteers for a suicidal mission designed to save the lives of his trapped comrades. But some supererogatory acts are merely “favors” of less heroic stature—for example, turning all one’s canned goods price-side-up in a supermarket line in order to aid the check-out clerk. Heroic or not, supererogatory acts are acts beyond the call of duty. Alternatively, compensation might be obligatory: morally superior to failure to compensate, and such that failure to compensate would be wrong. Some obligatory acts are only mildly so—failure to perform the act would be wrong, but only by a minor dereliction. The obligation not to break into ticket queues is of this order. Other obligatory acts are more stringent—failure to perform the act would be a serious wrong. The obligation not to kill another human being is of this sterner order. There is a good deal of disagreement about where to draw the line between supererogatory acts and mildly obligatory acts. For example, people of a more utilitarian stripe consider charitable gifts as obligatory; people of more libertarian inclinations view them as merely supererogatory.

Possible Reasons for Action

The diverse reasons for acting can conveniently be divided into three categories: there are reasons of self-interest; reasons involving beneficial effects on other persons; and reasons that we can call “deontic”—those involving duties arising from considerations, such as justice or fair dealing, that do not simply involve beneficial consequences of the act.

Normally it is supposed that self-interest does not provide a moral reason to perform an act. The fact that becoming a physician would make one happiest over the long run does not establish even a presumption that choosing this career would be morally right. In light of this one might suppose there is no moral presumption in favor of state action that promotes the social good: a collection of individuals who act to promote their own welfare is morally indistinguishable from the single person who becomes a physician merely to promote his or her private happiness. On this view, no moral presumption in favor of governmental insistence that injured subjects be compensated is established by the fact (which we can assume for hypothesis) that compensation would attract more volunteers and so raise the level of medical care available to the citizenry. Such a position seems to be
reflected in Englehardt’s comments. But we must not adopt this position too hastily. In cases involving state action to promote "social good," the actor and the beneficiary of the act are often not identical. Increased medical research that would benefit United States citizens would also benefit citizens of other countries, including those that could not fund comparable research themselves. Moreover, many of the beneficiaries would be members of future generations, distinct from the present United States citizens who would be responsible for the promotion of research through compensation, and who would foot the bill. Finally, even within United States boundaries and within the present generation, many of the beneficiaries of such a policy could not be counted among the participants in any decision to pursue it: children, the mentally retarded, and persons [like felons] without a vote would not be responsible for such a decision, and the untaxed poor would not bear the burdens involved in supporting it. Hence the hypothetical fact that compensation would promote "social good" in at least these categories of persons does establish a moral presumption in its favor, despite Englehardt’s argument to the contrary.

Actions that produce good effects for others are often lumped together under the catch-all title "beneficent acts." However, it is important to recognize that there are different sorts of good effects. For example, one might identify some level of human welfare as minimally acceptable—a sort of "poverty line" below which no one should fall. Some beneficent acts, such as giving money to the Rockefellers, raise the beneficiary above this level, perhaps far above it. Other beneficent acts, such as providing gratis medical care for indigent patients, raise the beneficiary up to the minimum level or at least closer to it. Even if giving ten dollars to a poor person would produce no more happiness than giving a thousand dollars to the Rockefellers, the former act seems morally preferable. When people think of beneficent acts, they often focus only on the sort that raise people above the minimum level, and hence regard beneficent acts in general as merely supererogatory rather than obligatory. Remembering that some beneficent acts improve the position of persons below this minimum level may make it seem more plausible that at least some beneficent acts are obligatory.

Actions for which there are "deontic" reasons form a heterogeneous group. Obligations can arise from a number of deontic sources: one has a duty to keep one’s promises and to tell the truth; one has a duty to deal justly—to distribute benefits and

* Tristram Englehardt, Jr., A Study of the Federal Government’s Ethical Obligations to Provide Compensation for Persons Injured in the Course of Their Participation in Research Supported by Funds Administered by the Secretary HEW, Appendix A, REPORT OF THE HEW SECRETARY’S TASK FORCE ON THE COMPENSATION OF INJURED RESEARCH SUBJECTS (1977), pp. 48–49.
subject. In the latter case it is difficult to know what we should say. Fortunately we need not resolve this question, since HEW now requires consent forms to explicitly state that compensation will not be forthcoming when it will not. This means we need not answer question A.

Second, we must note the distinction between Question B on the one hand and Question C on the other:

(C) If an injured subject has consented to participate on the promise of compensation for injury, but would have consented to participate without the promise of compensation, ought the subject to be compensated?

Clearly the answer to Question C is “yes.” Once compensation is promised, an obligation to provide it is established, whether or not the subject would have been willing to agree to some other arrangement. But this issue is distinguishable from the following one:

(D) Ought compensation to be offered in advance to subjects who would be willing to participate without the promise of compensation?

Certain of the arguments to be examined in later sections address themselves to this query.

Finally, we must distinguish the following two questions:

(E) Ought an injured subject be compensated who has consented to participate without compensation, but who desires compensation after the injury has occurred?

(F) Ought an injured subject be compensated who has consented to participate without compensation, and who does not want compensation after the injury has occurred?

The situation envisioned in Question F is undoubtedly rare, but the answer to this question is obviously “no.” We have no obligation to force compensatory payments on someone who does not want them; in fact our obligation is just the reverse. The real problem, then, is raised by Question E.

Arguments in Favor of Compensation

A survey of the relevant philosophical literature reveals seven arguments that have been offered in favor of compensating injured subjects. In the case of some of these arguments, the subject’s consent or lack thereof plays little or no role; in the case of other arguments it plays a large role. In this section I will describe each argument briefly, and then examine them in more detail.

(1) The argument from beneficence. The costs of compensating injured subjects are outweighed by the good effects to be achieved, both for the injured subject and for society. Hence we ought to compensate.
not compensating, and in particular many different ways in which the funds that would be used for compensating could otherwise be used—e.g., to finance more research, to finance projects under other federal budgets, or simply left in the taxpayers' pockets. Each of these alternatives would have different effects itself.

One problem the Commission must resolve in this context is that of deciding whether the relative benefits of compensating should be arrived at by comparing a compensation program with the best alternative non-compensation program, or by comparing it with the most likely alternative non-compensation program, which may of course be quite distinct. It may be that the best compensation scheme is worse than the best possible non-compensation scheme, but better than the most likely non-compensation scheme. The simplest way out of this dilemma for an advisory body such as the Commission may be to restrict itself to providing a description of the net effect of what it regards as the best compensation scheme, and allow the ultimate decision-making body to compare this with whatever alternatives they regard as live options.

The Argument from the Moral Tone of Society. The argument from the moral tone of society claims that society's choice to adopt a compensatory program, or not to adopt such a program, is expressive in a dramatic and concrete way of certain important moral attitudes. For example, it could be held that adoption of a compensatory program expresses society's concern for those in need of help, gratitude towards those who have sacrificed themselves in order to benefit society, appreciation for the sacrifice involved, solidarity with those who suffer on society's account, and recognition of the altruistic quality of their act. On the other hand, failure to compensate might express less admirable attitudes, for example, willingness to exploit those for whatever reason are willing to run personal risks that benefit society, callousness to those in need of help, or ingratitude towards those who have aided society. Public expression of the first class of attitudes is highly important, the argument claims, because it establishes the context in which members of society choose their own moral stance towards each other, and in which they evaluate their own significance in the eyes of others. Thus Rawls, for example, argues that "... a desirable feature of a conception of justice is that it should publicly express men's respect for one another. In this way they insure a sense of their own value."6

I believe this argument, and the phenomenon to which it points, is highly important in the choice of whether compensatory programs should be adopted or not. However, it also seems to me parasitical upon the other arguments, in the sense that it achieves

of helping her. For example, she ought to offer to replace his eyeglasses if they are broken, repair his torn jacket, and so forth. (We often feel that it would be appropriate for him to turn down such an offer of compensation, at least if the damage has been slight.)

Debts of gratitude have traditionally been held to be some of the most fundamental, and most stringent, of all moral requirements. Hume for example wrote “Of all the crimes that human creatures are capable, the most horrid and unnatural is ingratitude, especially when it is committed against parents.” Kant held that ingratitude was one of the vices that are “the essence of vileness and wickedness.” Shakespeare has King Lear exclaim “Ingratitude, thou marble-hearted fiend, more hideous when thou show’st thee in a child than the sea-monster!” Hobbes had gratitude required by a Law of Nature, and Richard Price includes it as one of his six “heads of duty.” In recent years, however, the obligation of gratitude has figured less significantly in moral writings. It may be that this stems from too narrow a focus on the first two elements in the duty, since we now realize that one can have no obligation, strictly speaking, to experience certain emotions, and we also realize that expressions of gratitude can often be fairly trivial performances, such as writing thank you notes after social occasions. But these reasons do not warrant this relative eclipse of the obligation of gratitude, since the obligation to express gratitude and to compensate one’s benefactor can be stringent, and the performances required by way of compensation can be far from trivial. For example, society’s obligation to provide medical care for injuries suffered by volunteers in the military services is clearly an obligation of gratitude. The obligation to them differs in source from the obligation to injured draftees, which is a matter of justice. Draftees must be repaid for what was, so to speak, taken from them against their wills, just as a person must be repaid when the government seizes his land under eminent domain. What we owe military volunteers and draftees is the same, but the sources of the obligations are distinct.

To determine whether or not society owes a debt of gratitude towards injured research subjects, we need a precise account of

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9 King Lear, I. iv, quoted in Simmons, loc. cit.
10 Thomas Hobbes, Leviathan, chap. 15, quoted in Simmons, loc. cit.
the conditions under which such obligations arise. The best current account of this is provided in an analysis offered by A. John Simmons in Moral Principles and Political Obligations. Two of the conditions mentioned by him are crucial to our question. We may phrase them as follows:

(1) The benefitactor must be motivated by a desire to help the beneficiary.

According to this requirement, someone who benefits another by accident, or unknowingly, or who is moved by other considerations than concern for the beneficiary, is owed nothing. In particular this is true if the benefactor acts purely out of self-interest. For example, if my neighbor plants a hedge in his yard to afford himself privacy from me, then of course I benefit by gaining privacy from him as well. But since he acted only with his own interest in mind, I do not owe him a debt of gratitude. Or suppose an aspiring politician donates large sums to charitable organizations in order to improve his record and increase his chances of election. The starving Biafrans who are his ultimate beneficiaries owe him nothing. (Of course, they may owe gratitude towards the organization that transmitted the funds; and if they learn of the politician they might feel gratitude, but that attitude is not called for and may even be inappropriate, since in effect he is merely using them to achieve his own ends.)

(2) The beneficiary must not only want the benefit but must be willing to have it provided by this benefactor.

This condition provides for the fact that there are some persons to whom we would rather not be beholden, even though that means foregoing the benefit. If you detest your brother-in-law, you may prefer to mow your lawn with a hand mower than accept the loan of his gasoline-powered machine.

Clearly, there are many cases in which an injured research subject can be seen as a benefactor and society as a beneficiary who meet these conditions (and the other intuitively obvious ones Simmons formulates). In these cases society owes a debt of gratitude to the injured subject and must compensate him or her for the losses suffered. Moreover it is appropriate for society to express its gratitude for the beneficial acts; and the clearest and most convincing way it can do this is through the act of compensation itself.

Within the framework established by recognizing society’s debt of gratitude towards injured research subjects, several more precise questions can be answered. First, we can gain some foothold on the question of how much compensation is owed an injured subject. It has long been recognized that the content of an obligation of gratitude is often much less clean than the content of some other sorts of obligations, e.g., those incurred as a result of making a promise. In particular, difficult issues are raised when the benefit to the beneficiary is significantly greater than the cost or loss to the benefactor of providing that benefit. But there is general agreement that in such a case the benefactor ought to be compensated at least up to the level of his or her loss. On this model we can conclude that an injured research subject, who is owed a debt of gratitude, ought to be compensated for the medical expenses necessary to restore health, as well as for out-of-pocket financial losses, such as lost wages, and for any pain and suffering experienced. We should remember, of course, that this is a prima facie obligation; if contrary considerations militate against this level of compensation, then it may be correct to reduce it.

Second, we can determine whether or not compensation is owed to a subject’s surviving family in a case where the subject suffers a mortal injury. Since the survivors themselves did not act in order to benefit the state, no debt of gratitude is owed to them. Nonetheless, assuming that the deceased cared deeply about them, harm to them counts as harm to the deceased as well: it is one of the evils of death that he or she wished to avoid. Hence the debt of gratitude owed to the subject includes an obligation to compensate his or her survivors for any losses they may suffer through death of the subject.

Third, according to our account of the conditions under which obligations of gratitude are owed, an injured subject is only owed compensation if he or she acted out of concern for society in participating in the research project. Of course it is impossible for society to determine reliably in any individual case whether or not such an altruistic motive was what moved a given subject to participate. Hence a program of compensation can not be rested upon individual determinations. However, it may be possible within reason to define categories of subjects who are highly likely to have acted out of altruistic motives, and categories of subjects who are highly likely not to have acted out of altruistic motives. Two of the latter categories would be the following: (1) subjects who were paid well enough to participate that such payment would induce a reasonable person for reasons of self-interest to undergo both the inconveniences of participation itself, and the risk of otherwise uncompensated injury; and (2) participants in so-called therapeutic research—research from which they can expect benefit for some underlying disadvantageous condition of their own, such as illness. The presumption would be that persons in these two categories participated for reasons of self-interest, not primarily from a desire to benefit society, and hence are owed no compensation by society if they are injured. At least gratitude does not require compensation. Other principles may, however. For example, suppose it is thought that society owes each person, as a matter of justice, some minimum form of medical aid. Suppose further that indigent persons suffering from say, cancer, cannot afford treatment themselves, but are (only) offered free treatment in a highly experi-

12 Simmons, op. cit. chap. VII.
mental protocol that may have spectacular results but on balance has less expectation of cure than the current standard form of treatment. If one of the persons who accepts this form of treatment is injured, it would appear that society owes him or her compensation as a matter of justice relating to the original obligation to provide medical aid.

The fourth question to be asked within the framework of an obligation of gratitude is the most difficult. Suppose prospective research subjects, who are motivated by altruism, would agree to participate in the research without receiving compensation for any injuries—that is, they would agree in advance to release society from its obligation to compensate them. If society knows they are willing to do this, may it request them to agree to such a release in advance, and then refuse to compensate them subsequently if they are injured and then want compensation? May society, in effect, ask for a higher level of gift from its prospective beneficiaries—an uncompensated sacrifice? This is a difficult issue. The fact, noted before, that a beneficiary owes nothing to a benefactor unless the beneficiary was willing to receive a benefit from that benefactor means that to some degree a prospective beneficiary may pick and choose among its prospective benefactors. For example, suppose my car has a flat tire while I am driving on the expressway. Two passing motorists offer to assist me changing the tire. I remark there is some danger they will get road grease on their clothes, and one says he is happy to help me even so, while the other says he’d be pleased to help if I will be willing to foot any resulting cleaning bill. May I accept aid only from the former, and not offer to pay for his cleaning bill when his clothes are soiled? It seems as though I may, since I accepted his help, and he offered it, only on this understanding. By analogy, then, it seems as though society could accept help only from prospective research subjects who agree not to ask for compensation if they should be injured.

But this case may be deceptive. It may be that in the flat tire case I can legitimately choose, and then fail to compensate the helpful motorist, because receiving aid in changing my tire is not worth the cost to me of paying his cleaning bill. I would prefer to change the tire myself than receive aid and pay the resulting bill. But what if I would prefer to receive aid and pay the cleaning bill to receiving no aid at all? Then it is not so clear to me that I can legitimately fail to offer to pay his bill. Of course if we had made a straightforward contractual agreement this might be so. But insofar as his offer is a free gift, my compensating him must be a free act as well—not one that he can exact from me, as he could exact performance of a contract or fulfillment of a promise. Since he lacks control in this direction over my act of compensating, it appears he lacks control the other direction as well—that is, he cannot waive his right to compensation, or release me from my obligation to compensate, since he has no right to it. My obligation is not releasable by him. Hence I believe I must still offer to compensate him for the damage to his clothes, even though he tells me in advance that he is not interested in being compensated. (Of course, if he continued to refuse compensation after the damage has occurred, I cannot force it on him nonetheless. But I must make a genuine offer.)

Thus it appears to me that if society would prefer to have research subjects, and then compensate those who are injured, to having no research subjects at all, then it should offer compensation—even though some of those subjects would have been willing in advance to participate without receiving any compensation. And certainly, even if this conclusion is wrong, compensation remains society’s most effective means of expressing its gratitude towards injured subjects, and so is obligatory on this ground alone. Such expression is highly important for maintaining a desirable moral tone within society, and between the research establishment and those who enable it to conduct its work.

The overall conclusion, then, is that in cases where the injured subject has acted out of a desire to benefit society, society owes him or her compensation for the injury as repayment of a debt of gratitude.

The Argument from Harm Suffered at Society’s Behest. In “Compensating Injured Research Subjects,” James Childress advocates a principle according to which society has an obligation of fairness to compensate a person under the following circumstances: (1) the person engages in an activity at the behest of society, (2) the objective function of the activity is to benefit society, and (3) the person is injured because of his or her participation in that activity. A guiding idea for Childress is the point that society voluntarily incurs this obligation through its acceptance or encouragement of the individual’s participation. According to this principle, society must compensate injured research victims, since their participation in research is accepted and encouraged by society, the research is aimed ultimately at benefitting society (whatever the private aims of the research subjects might be), and the injured subject has suffered injury because of his or her participation.

It is clear that Childress’s principle is closely related to the principle, just discussed, that one owes a debt of gratitude to an injured benefactor. Notably, Childress’s requirement that the benefactor act at the behest of society seems to play precisely the same role as the requirement (under the principle of gratitude) that the beneficiary be willing to accept the benefit from this benefactor. Thus neither principle implies that society owes compensation to an individual who privately acts to apprehend a criminal and suffers injury in the attempt. Society does not encourage such attempts, and refuses them where possible, pre-

13 Childress, op. cit.
cislly because they often result in injuries that are too high a price to pay for the criminal's apprehension. The principal difference between the two principles is that Childress's principle does not require, whereas the principle of benevolence does, that the benefactor must act out of a desire to benefit the beneficiary. But it is precisely this difference that renders Childress's principle less plausible. For example, suppose society organizes a national lottery, in order to increase public revenues and undercut illegal numbers rackets. I buy a ticket in the lottery with an eye to making my fortune. Then when my number indeed comes up, I suffer a heart attack from shock. According to Childress's principle, society owes me compensation for my injury, since I participated in the lottery at society's behest, and the objective function of the lottery (although not my private aim) is to benefit society. But according to the principle of gratitude, society does not owe me compensation, precisely because my goal was to enrich myself, not benefit society. I see no intuitive plausibility to the idea that society owes me compensation in such a case. Hence I think we need not accept Childress's principle, but will do better to explain its appeal as a somewhat distorted, and therefore incorrect, version of the principle of gratitude.

The Argument from H. L. A. Hart's Principle of Fairness. According to H. L. A. Hart (and later John Rawls), when a group conducts some cooperative enterprise that requires all to make sacrifices in order to achieve joint benefits, those who have already made these sacrifices have a right that similar sacrifices should be made in turn by any member of the group who has accepted the benefits gained by the enterprise. This principle is intended to articulate why we think the behavior of "free riders" is unfair—people who profit from the sacrifices of others, but refuse to do their share in keeping an enterprise going. A classic case would be someone who keeps his air conditioner set at 68° while everyone else sets theirs at 78° in order to conserve energy during an energy crisis. The person in question derives the benefit (in the form of reduced gasoline prices, etc.) of the others' sacrifice, while himself doing nothing to contribute to the group effort.

As applied to injured research subjects, the idea would apparently be that research is a cooperative enterprise involving society, the investigators, and the research subjects. In a case where a subject has been injured, he has made a sacrifice that enables the enterprise to go forward, but society, if it fails to compensate him, acts as a free rider—it profits from his loss while failing to carry its full share of the burdens necessary to achieve the ultimate goal.

I do not find the application of this principle to the case of injured research subjects very persuasive. For one thing, the principle applies most clearly to circumstances where an ongoing enterprise is already in existence, the sacrifices required from each person have been settled upon, some have borne their burden already, and now someone else tries to weasel out. But the question facing the Commission is essentially one of what sort of enterprise is to be set up—how research programs in the future should be designed, with compensation or not. Hence the principle has no clear application in this context. Moreover, it appears that some research subjects are willing to participate without compensation for any injuries—i.e., they are willing, so to speak, to allow society to operate as a free rider on their sacrifices. As long as the subjects are not coerced into this agreement (which some may be), it is hard to see how the resulting arrangement can be unjust. For example, suppose the owners of air conditioners got together and agreed that sufficient energy would be conserved if ninety per cent of them set their conditioners 78° while the remaining ten per cent set theirs at 72°. Enough people volunteer for each category. Is there any injustice to the ones who voluntarily set theirs at 78°? It appears not. Similarly, it also appears there is no injustice (deriving from Hart's principle) to research subjects who voluntarily agree to bear the cost of injuries themselves. Hence Hart's principle gives us no ground for thinking that compensation is required.

The Argument from Lack of Consent to the Injury. Tristram Englehardt has argued along the following lines. We have an obligation not to injure another person unless he or she consents to the injury. In the case in question, the injured research subject signed a document giving consent to participation in the research and to not receiving any compensation in the event of injury. But despite the appearance created by this fact, the subject has not given valid consent to the actual injury sustained, since he or she did not have the information necessary to really apprehend its character or the probability of its occurrence. Hence consent to the injury (although not to the immediate fact of participation itself) was uninformed and invalid. Since society injured this person without his or her consent, it must compensate for the loss insofar as possible.

It is undoubtedly true that many research subjects do not completely grasp the nature of possible injuries they may sustain, or fully realize what the probabilities involved signify. Nonetheless there are many other contexts in which we would feel adequate consent has been given even when the person's decision-making is handicapped in precisely the same ways. For example, a person who agrees to undergo surgery for the purpose of restoring his or her health may labor under precisely the same cognitive handicaps despite all efforts to make the decision an informed one. However, if mishap occurs, we do not feel that the surgeon or hospital must compensate the person for his or her injury unless it is traceable to some fault of theirs. The person

\footnote{Hart, op. cit., and Rawls, op. cit. pp. 111-112.} \footnote{Englehardt, op. cit.}
took a risk, and unfortunately lost, but that does not show that the party who offered that risk must be responsible for the loss. Yet we tend to feel differently about an injured research subject—there is far more plausibility to the claim that he or she is owed compensation. Why should we react differently, even though the consent in the two cases was equally poorly informed? One possible explanation is that the level of information required for valid consent is higher when the act is altruistic than when it is self-interested. But why this should be is wholly mysterious. Another explanation is that the obligation to compensate in the research injury case derives from another source altogether, e.g., a debt of gratitude to the injured subject. If this is the explanation, the alleged failure to obtain valid consent plays no role at all in our obligation. Indeed, this seems to me the proper conclusion. Englehardt’s argument, then, can be rejected.

Practical Concerns

In the fourth section we examined seven arguments that have been put forward in favor of compensating injured research subjects. Of those, only three were found to have merit: the argument from beneficence, the argument from the moral tone of society, and the argument from gratitude. The argument from gratitude was found to clearly imply an obligation to compensate injuries among certain categories of subjects; the argument from the moral tone of society was found to imply this whenever an underlying moral principle (such as gratitude) independently implies compensation is required; and the argument from beneficence was found apt, but its actual implications for compensation await determination of relevant empirical facts concerning willingness of non-compensated subjects to volunteer, etc.

In view of these conclusions, we are now in a position to answer three more practically oriented questions. (A) In determining whether or not to compensate injured subjects, is it morally legitimate to take into account such factors as the likelihood of abuses arising under a compensation program? (B) If it is decided that injuries ought to be compensated, is it morally legitimate to phase in a compensatory program, or initially operate a pilot program in order to develop a data base that would facilitate implementation of a wide-scale program? (C) If it is decided to compensate future injuries, is there a retroactive obligation to compensate past injuries? I will answer these questions solely by reference to obligations arising from the principle of gratitude.

Let us first look at question (A). The types of compensatory programs under review by the Commission are open to certain sorts of problems. For example, such a program might be modeled after existing workers’ compensation programs, but these programs have particular difficulties in handling claims involving illnesses rather than accidental injuries and in claims involving pre-existing conditions; they have a poor record of weeding out non-meritorious claims; and their high level of payment encourages the lodging of spurious claims. In effect such a program might amount to a high-level national health insurance scheme for research subjects. Any program will have difficulties along these lines, especially since the principle of gratitude implies that subjects should be compensated for types of subjective injuries and distress that are difficult to prove or disprove. The issue, then, is whether or not a program’s vulnerability to this sort of abuse can legitimately be taken into account in deciding whether to implement it rather than some alternative program, or whether to implement any program at all.

We have a tendency to be idealistic about questions of this sort. The temptation is to say, if society has such-and-such an obligation, then it must be fulfilled, even though society must pay dearly in order to do so. But this attitude is too simple. To see this, let us look at an analogous case in which a person has an obligation of gratitude. Suppose a passing motorist helps push my stalled car out of a heavy snow drift, and then, seeing I appear to be wealthy, claims he got car grease on his coat in the process. If his claim is true, then as a matter of logic I should offer to pay to have the coat cleaned. But suppose I have substantial reason to think his claim was already soiled when he offered to assist me. And suppose in addition (despite appearances) I have little money to spare, so that if I pay his cleaning bill, I must defer for another month purchase of my son’s badly-needed glasses. If there were no conflicting obligation in this case, we might well say that I should pay the motorist’s cleaning bill, even though there is only a probability that I have a genuine obligation to do this. But in the actual case I must balance the probability of this obligation to the motorist against the certainty of an obligation to my son, when I cannot fulfill both. And it seems as though the balance may be struck against the motorist—by refusing to pay his bill, or refusing to pay the whole of his bill—if the obligation to him seems less stringent than that to my son, or if the probability of an obligation to him seems low enough.

The case of compensating injured research subjects is similar. Perhaps a certain program would fulfill society’s actual obligations to legitimately injured subjects better than any other program could do. But at the same time it would involve spending public funds for payments to individuals who have no legitimate claim to compensation—persons whose alleged injuries are nonexistent, or whose injuries were not caused by their participation in the research program. If society implements this compensatory program, it will fulfill its obligations of gratitude, but at the same time it will be prevented from fulfilling other obligations that could be discharged by funds that under this program will “compensate” spurious claims. On the other hand, there is available an alternative compensatory program (e.g., one that disallows claims for pain and suffering) that would involve many fewer payments to spurious claimants, but would also involve failure to
sustained only minor or moderate injuries; for those who were severely harmed, or those whose injuries have not abated, compensation probably retains enough importance that the obligation survives.

Conclusion

In this paper I have examined the arguments that might be offered in favor of compensating injured research subjects. After some initial clarification of the relevant normative concepts, seven arguments were scrutinized. Of these, only three proved acceptable: the argument from beneficence, the argument from the moral tone of society, and the argument from gratitude. Since the implications of the first of these depend on empirical judgments that I am not in a position to make, and the impact of the second depends on independent establishment of some underlying argument, the conclusion of this paper is that the primary source of an obligation to compensate injured research subjects is an obligation of gratitude on the part of society to compensate those who have acted in order to benefit society and suffered thereby. Not all research subjects fall into this category; for example injured subjects of so-called therapeutic research do not.

In the last section I have explored the implications of this obligation in light of the practical difficulties involved in implementing a compensation program. I have argued that such difficulties may legitimately be taken into account, both in choosing which program, if any, to implement, and in deciding whether to implement any compensatory program at all.