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WHAT'S SO MORAL ABOUT THE MORAL HAZARD?

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ABSTRACT

A "moral hazard" is a market failure most commonly associated with insurance, but also associated by extension with a wide variety of public policy scenarios, from environmental disaster relief, to corporate bailouts, to natural resource policy, to health insurance. Specifically, the term "moral hazard" describes the danger that, in the face of insurance, an agent will increase her exposure to risk. If not immediately clear, such terminology invokes a moral notion, suggesting that changing one's exposure to risk after becoming insured is morally problematic. This paper challenges that position. It argues that there is nothing inherently moral about the moral hazard. It does so by arguing against three proposed claims regarding the wrongness of the moral hazard: first, the view that conceives of it as deception; then, the view that conceives of it as cheating; and finally, the view that conceives of it as stealing.

WHAT'S SO MORAL ABOUT THE MORAL HAZARD?

By the time the outer bands of Hurricane Katrina brushed the banks of the Gulf shore like so many tentacles of an automated car wash sponge, the National Weather Service was already anticipating that the storm would be a disaster. Predictions were ominous. Reporters explained that the city of New Orleans had been built in a "bowl," and that if the retaining walls or levees that held the water back were to fail, the city would be sunk. As the story is now legend, most know that such prognostications eventually did come to pass. Billions of dollars were flushed into the Gulf of Mexico, and hundreds of thousands of people found themselves or their loved ones suddenly homeless, unemployed, or dead. It didn't take long before commentators began to question the wisdom of rebuilding a sub-sea-level city in the path of hurricanes; then, of course, it wasn't long after that, that they began to question the wisdom of ever building on the coast in the first place.

What circulated in the background of this discussion was a concern about what is sometimes called the "moral hazard"—the tendency of insured parties to assume risks that they would not otherwise assume. In the case of Hurricane Katrina, some took the position that building levees to hold back the floodwaters of the Gulf created "bad" incentives for citizens to build in areas that would otherwise make undesirable nesting sites. More than this, some argued that the tragedy was made extra-tragic because the citizens of the Gulf were irresponsible—too reliant on the government to rescue them.[1] Whether regarding the bailouts of the Federal Emergency Management Agency (FEMA), the construction of levees around New Orleans, or even U.S. Treasury Secretary Henry Paulson's September 2008 proposal to spend $700 billion bailing out Wall Street financial firms, many policy analysts are concerned that provision of such insurance induces actors to behave in a way discordant with individual utility schedules.

One thing that should be clear about the terminology of the "moral hazard" is that the language invokes a normative notion. It suggests that there is a *moral* danger, a *moral* problem, associated with the provision (or the overprovision) of insurance. It is true that the existence of social programs like federal emergency response teams, levee construction, flood insurance, and so on, creates incentives for people to do things that they might otherwise not. This is an economic fact about insurance. What is hazier is whether there are true moral complications of changing one's behavior in the face of insurance. In this paper, I argue that there is nothing inherently moral about the moral hazard, and in fact, that the so-called moral hazard is better understood as a central and inextricable feature of insurance and public policy more generally.[2]

The strategy that I employ involves giving arguments against three of the primary claims that one might make regarding the alleged immorality of the moral hazard. Throughout, I suggest that there are often many good reasons to emphasize, instead, the positive effect that insurance and policy regimes have on behavior. Given the scant attention to the problem of the moral hazard in philosophy journals, I devote the first portion of the paper, however, to a discussion of the meaning of the moral hazard and its use in public discourse. Section I attempts to give a background on the moral hazard and to define it. Section II addresses public policy applications and instances of the moral hazard. I devote the remainder of the paper, Sections III, IV, and V, to conceptions of the moral hazard that might incriminate it as inherently immoral. In Section III, I seek to address claims that the moral hazard is problematic because it involves lying or deception. Then, I address in Section IV, claims that the moral hazard is problematic because it involves cheating. And finally, in Section V, I address claims that the moral hazard is problematic because it involves stealing or taking from others.

I. So What Is a Moral Hazard?

The moral hazard is a market failure most commonly associated with insurance but also associated by extension with a wide variety of public policy scenarios, from unemployment insurance, to corporate bailouts, to natural resource policy, to health insurance, to environmental disaster relief. Talk of moral hazards has been around since at least as long as the modern insurance industry, which some date back as far as 1662.[3] It was not until 1963, however, that Kenneth Arrow employed the concept to discuss the economics of medical care. By 1968, he and Mark Pauly had engaged in an exchange that was to invigorate the use of the concept in public policy economics for years to come. More than earlier investigations of the moral hazard, this exchange identifies the tendency of insurance coverage to change the behavior of individual actors.[4] Of particular interest to us is Mark Pauly's brief objection that "the problem of 'moral hazard' in insurance has, in fact, little to do with morality, but can be analyzed with orthodox economic tools."[5] With this short sentence, Pauly suggests the thesis that I will be defending in this paper—that there is nothing inherently moral about the moral hazard. For some reason, this is the extent to which the moral dimensions of moral hazards have been discussed in public forums. Perhaps not surprisingly, Pauly's objection fell into immediate disfavor with economists.[6] Instead, moral hazards continue to be discussed in economics and policy classrooms as accepted market failures, implying all the while that when moral hazards occur, something has gone morally awry.

Says Nobel Laureate James A. Mirrlees, "Pauly adopted the startling position that such 'rational economic behavior' cannot be morally perfidious; Arrow, more reasonably, emphasized its disadvantages. But both were wrong: there is a wide class of cases in which there is no significant loss of efficiency as a result of self-interested unobservable behavior."[7] Needless to say, I find nothing at all startling about Pauly's original assertion regarding the morality of moral hazards, and while most economists will continue to debate the degree to which moral hazards take root, I think it is high time that philosophers began a discussion of the degree to which Pauly may have been correct about the morality of the moral hazard.[8]

The need to do so is amplified by recent attempts to re-interpret moral language by invoking moral hazards. In a particularly creative attempt to make sense of the contrary phenomenon, Chunchi Wu and Peter F. Colwell write that a "*moral imperative* is the opposite of moral hazard. Thus, moral imperative is the drive for an individual to produce more safety when insured than when uninsured."[9] Being charitable, this explanation stipulates a new meaning for the phrase "moral imperative." Less charitably, this explanation demonstrates an underlying confusion among economists about the nature of morality and moral imperatives.

There has thus been a flurry of characterizations of the moral hazard, though few economists have stopped to outline the true meaning of the term, or even its applicability to moral theory. E. J. Faulkner, in a definition that is immensely unhelpful, explains the moral hazard as "the intangible loss-producing propensities of the individual assured."[10] Steven Shavell, somewhat more concretely, defines the moral hazard as the "tendency of insurance protection to alter an individual's motive to prevent loss."[11] John M. Marshall proposes that the "moral hazard is commonly defined as excessive expenditure due to eligibility for insurance benefits."[12]

From these explanations, we can discern at least three characterizations of the moral hazard.[13] One view, Faulkner's, emphasizes losses, and thus the consequences of the action. Faulkner's view might be interpreted to suggest that the loss-producing propensities of the "individual assured" lead the agent to act *inefficiently*. The next view, Shavell's, emphasizes motives, and thus the reasons for certain actions. On this view, what's wrong with the moral hazard is that it alters the *motivation* of the agent, and thus the reasons of the agent for acting. Yet the third view, Marshall's, emphasizes excess, and thus the degree to which one is inclined to *excess* in the face of few repercussions. There's quite a bit to say on each of these three possible views, but I'll restrict myself to the single question in this paper about whether there's anything really morally troubling about the moral hazard.

Specifically, I've restricted my discussion to Shavell's characterization of the problem as a problem with motivations, because I think it is the most perplexing variant here. I should, however, say a few things on Faulkner's "efficiency view" and Marshall's "excess view." The efficiency view proposes that what is wrong with the moral hazard is that it produces inefficiencies. This position appears to offer little more than lip service to the possibility that a moral hazard has a moral component. If one can be said to be violating some moral norm or principle, it is the principle of efficiency. While it is true that many view inefficiency itself as a moral offense, or more generally, that many consequentialist and welfarist doctrines can be boiled down to claims about the moral undesirability of inefficiency, it is hard to see what is especially moral about *moral* hazards. They could just as easily be characterized as simple inefficiencies, apart from any claim about their morality.

As for Marshall's "excess view," we find here a similar sort of objection. In this case, it appears that what's wrong with the moral hazard is that it encourages parties to engage in overindulgent (e.g., undesirable, negative, naughty) behavior, thus suggesting that temperance and prudence have fallen by the wayside. My suspicion, in fact, is that this is the commonsense view of the moral hazard. If this is the case, the value element implied by the moral hazard is exogenous to the assessment of its alleged wrong. Society must agree on what qualifies as undesirably overindulgent, and then clarify that the insurance situation will bring this overindulgence about. Moreover, this position is fraught with similar problems to the efficiency view. For one thing, one could just as easily argue that there are equally as many moral *safeguards* with insurance.[14] Street lamps in dangerous neighborhoods produce incentives for hoodlums *not* to mug or kill. Health insurance for babies *encourages* parents to take them to the doctors. Excessive consumption of insurance does not *necessarily* pose a moral problem at all. For another thing, this creates difficulties for those who appeal to moral hazard logic as a reason to abandon public programs. If it is the case that public programs ought to be abandoned not because exposing oneself to more risk is morally problematic, but because of the undesirable bad that the moral hazard brings about, then those who argue that the provision of insurance brings about the undesirable bad must argue not that *insurance* is the problem, but instead argue for the moral impermissibility of the action taken to excess.

Nevertheless, there is some appeal to the commonsense view of the moral hazard. It would appear that overindulgence is undesirable from a social standpoint. I'll say more on this below. I'll be arguing throughout that because issues of moral concern are not inherent to the moral hazard, they must be exogenous to the moral hazard; therefore, this is the only sensible position. The natural outcome of this line of thinking, I believe, is that the determinations of what is morally desirable from a social insurance standpoint must be made apart from market considerations. Unfortunately, I do not have the space to argue this here. As I have mentioned, this paper argues only that the moral hazard is morally neutral and that, because of this, there are many reasons to be skeptical of those who employ the moral hazard as an offhand condemnation of a public policy decision. What I mean by this is that the "moral" evaluation of the actions described by the "moral hazard" must come from outside, from some exogenous determination of their rightness or wrongness.

Toward a working definition: Loosely, a moral hazard is thought to explain the occurrence of behavioral change in the face of insurance, broadly conceived. More colloquially, it is sometimes considered to be "taking advantage of" insurance. For our purposes, it should suffice to define the moral hazard as "the danger that, in the face of insurance, an agent will increase her exposure to risk." Since we are seeking to determine whether there is anything inherently moral about engaging in such actions, what we are asking is whether there is anything inherently morally wrong with increasing one's exposure to risk in the face of insurance.

Suppose that I insure my house against fire. On one account, the reason that I insure my house against fire is so that I will be reimbursed if a fire breaks out. But certainly, if I am insured, I have less to worry about, and consequently, less incentive to be attentive to the devices that a more cautious homeowner might use to protect herself. In this case, as Arrow notes, the "probability of fire is somewhat influenced by carelessness, and of course arson is a possibility, if an extreme one."[15] Here we have at least two undesirable scenarios. In the first scenario, insurance forces a change in my behavior such that I become more *careless*. In the second scenario, insurance places me in a position in which

I have greater incentive to take a deliberate action and torch my house to its foundations. What I am concerned about is the first scenario: whether a tendency toward increased carelessness is cause to be morally concerned. The second case of arson seems more troubling, but we might reason equally strongly that arson is itself morally problematic for reasons standing outside of insurance, and so therefore stands on its own moral terms, exogenous to the insurance arrangement.

II. Policy Applications

As I mention above, the moral hazard is a principal-agent problem said to occur most often in insurance-type situations. Perhaps less obvious is that it also pertains to many public policy situations in which risk is distributed. In this paper, I'm speaking primarily about the standard insurance scenario, to be clear about the meaning of the moral hazard. I leave the slightly more complex considerations associated with public policy decisions up to the imagination of the individual reader. It might be helpful to recognize, however, the common lament issued from conservative quarters regarding state provision of health insurance. Writes Malcolm Gladwell in a recent *New Yorker* article,

> The logic behind [the Bush Administration's proposed Health Savings Accounts] was laid out in the 2004 Economic Report of the President. Americans, the report argues, have too much health insurance: typical plans cover things that they shouldn't, creating the problem of overconsumption. Several paragraphs are then devoted to explaining the theory of moral hazard. The report turns to the subject of the uninsured, concluding that they fall into several groups. Some are foreigners who may be covered by their countries of origin. Some are people who could be covered by Medicaid but aren't or aren't admitting that they are. Finally, a large number "remain uninsured as a matter of choice." The report continues, "Researchers believe that as many as one-quarter of those without health insurance had coverage available through an employer but declined the coverage. . . . Still others may remain uninsured because they are young and healthy and do not see the need for insurance." In other words, those with health insurance are overinsured, and their behavior is distorted by moral hazard. Those without health insurance use their own money to make decisions about insurance based on an assessment of their needs. The insured are wasteful. The uninsured are prudent. So what's the solution? Make the insured a little bit more like the uninsured.[16]

Of course, this is not the only area in which moral hazard logic is invoked. It is also invoked to describe situations in which individuals are said to "avoid responsibility" for the consequences of their actions.

> A major argument for the privatization of Social Security is that the current system creates "moral hazard"—harming recipients by giving them a perverse incentive to avoid responsibility for themselves in retirement. By this logic, the money that Social Security provides encourages workers to spend their earnings rather than save for old age. Such programs, privatization proponents argue, breed social pathology by rewarding laziness, incompetence, and an entitlement mentality.[17]

In a more current light, take the construction of levees, which provide insurance (security) against floods. At first appraisal, the construction of levees may not seem analogous with the provision of insurance, since there is no clear principal and no clear risk pool. Yet the construction of levees is often cited as a classic case of a public program fraught with moral hazards.[18] After a moment's thought, this seems reasonable: circumstances in which individuals might not be inclined to build on a flood plain change dramatically once levees have been built; expected value calculations shift; otherwise uninhabitable land becomes prime real estate; and the government pays the cost. Levees make it possible for citizens to build and live on a flood plain without fear of loss. To add insult, citizens might be further inclined, upon benefiting from government construction of levees, not to purchase flood insurance (often itself an insurance program administered by the state). That the government provides flood insurance for those who might not necessarily take the risk of building on a flood plain could be thought to be a further bureaucratic failure, giving rise to a second moral hazard. There are hazards associated with building on flood plains, and certainly, having built on the flood plain may not seem like such a wise thing to endorse once the plain is flooded.

For instance, John Stossel—host of *ABC News 20/20* and avowed Libertarian—has recently taken to explaining that the reason that he built his multimillion dollar house on the Gulf shore was because he was sure that FEMA and the U.S. government would reimburse him.[19] On the face of it, it would appear that there is something wrong with this arrangement—Stossel is taking serious risks and doing so on the taxpayer's back. He even implies this in his telling of the story. He suggests that coverage provided by FEMA allows him to act inefficiently, and that his rational action, like the action of any other rational citizen, creates an undesirable burden on the taxpayer.[20] More than this, however, he goes on to suggest that the government has abrogated its duties by interfering with the market. This is meant to infuriate the reader, to make the reader feel that such programs are altogether ill-conceived. What he thus implies further is that the government ought not, under any circumstances, to be involved in the business of providing insurance. He is making a moral argument: because the government is in the business of providing insurance with the money of other taxpayers, some of whom may not want to play a role in the provision of insurance, the government ought to get out of the insurance business.

Stossel blames the government for getting involved in a business that should be tied to the economic market. I am not necessarily convinced that the government should be involved in the insurance business either, but I am also not convinced that deliberative and bureaucratic mechanisms are inappropriate for determinations about whether one should be insured against losses. It is this broader concern that motivates this work.

The problem of the moral hazard is particularly sticky with government provision of insurance, since such insurance is often based on nonmarket considerations. Government insurance is based on other considerations, like normative concerns and social values, which wend their way into the making of public policy. Some areas in which this is most prevalent might be in bankruptcy safety nets, in universal health insurance, or in federal emergency bailouts, as in the case of Katrina or of the recent bailout of investment giant Bear Stearns.[21] These programs are adopted, presumably, because a legitimate decision-making authority has decided that such protections are good and worthwhile. The intractable difficulty is that very often moral hazard logic works its way into arguments about public policy and, when it does, it is employed for the purpose of undercutting the policy.

The argument works like this: because citizens know that they will be bailed out in the event of a disaster, they have incentives to be less cautious (or do not have incentives to be more cautious) about disaster; they act on these incentives and change their behavior, which is wrong; therefore, we ought not to bail citizens out in the event of disaster (or we ought not to bail them out as much). This does not necessarily follow. The confusion stems from the second premise, in which it is asserted that there is something wrong with acting according to revised incentive schedules. In some cases it *might* be wrong; but, if this is so, the wrongness of the changed behavior is *exogenous* to the moral hazard.[22] At least, that is my contention. If it can be shown that there is nothing *inherently* wrong about such moral hazards, as I will do here, then moral hazard arguments against public insurance programs must be shown also to give rise to morally undesirable outcomes in order to be held morally problematic. That is the goal in this paper.

Grounds on Which the Moral Hazard Might Be Said to Be Immoral

Of the several interpretations of the moral hazard offered above, I understand at least three reasons that one might say that a moral hazard induces behavior that is inherently immoral. In the following sections, I'd like to discuss these reasons. I do so by investigating scenarios that view the moral hazard as a problem with lying, cheating, or stealing. My strategy is to present scenarios that appear to be described accurately by the moral hazard, but that, when taken in parallel with follow-up scenarios, lose their persuasive force.

III. A. Lying about My Actions

On one reading of the moral hazard, the risk of moral wrongness rests on its tendency to induce misrepresentation of actions. Richard Zeckhauser characterizes the moral hazard as a problem of "hidden action,"[23] a problem of deception. Emmett Vaughn and Therese Vaughn also refer to the moral hazard as a problem with "dishonest tendencies."[24] What they mean by this is that one might, for instance, have a tendency to downplay the risks to which one normally subjects oneself, either in order to obtain a lower insurance premium or in order to cash in on the insured object. Under many moral theories, lying is clearly wrong, and so if the moral hazard necessarily involves lying about facts in the world, then it, too, would be morally impermissible.

First, let's clarify matters. We should distinguish between straightforward insurance fraud and dishonesty or hidden action associated with the moral hazard. Insurance fraud is fraud, plain and simple—it is lying about one's actions or losses when filing an insurance claim. It is wrong, regardless of the degree to which one is insured. There is no hazard here, so this is not the moral hazard. The moral hazard describes a different phenomenon. It might be thought, however, that the moral hazard describes the situation in which the agent has an increased incentive to commit insurance fraud; therefore, there is only a *hazard*, a danger, that this fraud will occur. If this is the case, if the moral hazard involves only circumstances in which one's incentives to commit fraud increase, then the explanatory force of the moral hazard would be relatively minimal. It would suggest that the moral wrongs associated with the moral hazard are *exogenous*. What is wrong, according to this view, is that the moral hazard creates incentives to lie (or to commit some other morally undesirable behavior). On this view, those who argue against insurance programs on moral hazard grounds would need to establish what is so fraudulent about the hazarded behavior. So, cases of building near levees, increased consumption of health care, or riskier behavior when driving, would all have to be established as wrong in themselves.

The other way of reading the moral hazard, however, suggests that one's incentives to commit hidden actions increase as the rewards for acting *deceitfully* increase. Acting deceitfully is not exactly fraud. In this case, acting "deceitfully" means acting without reporting one's actions. To say such a thing would be to say that insurance induces a situation in which one might have greater incentive to behave "secretively" about what one is doing—not to reveal as much as one might otherwise reveal. On this view, what is wrong with the moral hazard is that it encourages hidden behavior. The risk here is *inherent* to the moral hazard. If this is said to be wrong in itself, as is often implied by critics of social insurance, then we ought to rethink such insurance.

Consider auto insurance. When we insure our cars, we do so primarily with the objective of taking more risks. We insure our cars so that we can travel freely on highways at high speeds, without fear that we will lose our shirts in the event of an accident. If we were to drive without insurance, it is possible that we would avoid driving our cars under such risky circumstances. Our behaviors change precisely because we have insurance. The moral hazard cannot reasonably describe a case of deceit about actions because deceit requires that agents have a clear sense that their revised actions are directly linked to their insurance.

The interpretation of the moral hazard that proposes that the hazarded behavior involves lying about one's actions leaves many cases of assuming risk in the face of insurance off the table. If it were true that moral hazards necessarily involve lying about one's actions, then they would be inherently wrong. But they are not. This view fails because there is not a clear sense in which one can be said to be lying about one's actions.

III. B. Lying about My Motivations

One might instead say that the moral hazard describes a situation in which the agent is deceitful, not about his actions, as we discussed above, but rather about his motivations or risk orientations. The agent might paint himself as risk averse, for instance, but harbor a secret risk proneness. This kind of misrepresentation, we might say, is what is really wrong in cases of moral hazard. In this case, the defender of the moral position is suggesting that the agent has lied about how he *intends* to act, about how his risk orientation will shift—that the insurance arrangement implies that the agent will maintain a risk orientation equivalent with the orientation that he had at the time of the initial contract.

This resolves the problem of conspicuous and public behaviors, but this approach, too, seems somehow wrong. For instance, just as we discussed above, the person who takes out auto insurance does so with the express intention of changing her behavior. The same goes for almost all insurance programs. Christopher Columbus would probably never have embarked on his voyage to the new world if the Queen had not borne much of the risk; Neil Armstrong would probably never have traveled to the moon if his family and his health had not been cared for; and Judith Jarvis Thomson might never have walked through Unpleasant Way at night if it had not been for some safeguards provided by the state.[25] The principal provides security to Captain Columbus, Mr. Armstrong, and Prof. Thomson so that they can change their risk orientations and explore new worlds, land on the moon, or walk at night—relatively risky endeavors. If the principal had not provided such insurance, the trio might well have huddled in their respective homes.

Those who argue that the moral hazard involves a deceitful or secretive shift in one's risk orientations argue inconsistently. The very act of taking out insurance involves notifying the principal of one's future risk orientation. There are certainly cases in which one might have a greater incentive to lie or be deceitful, but the wrongness of these actions is not inherent to the moral hazard arrangement. Rather, the wrongness must be exogenously established.

IV. A. Cheating: The Contract Objection

One might then propose, instead, that a moral hazard is the flip side of lying—that the moral hazard describes a case in which one breaks promised obligations, a case in which one violates the rules of the insurance game. In this case, the claim might be that the agent violates an agreement or a contract with the principal. On the agent's end of the contract, one might say, the agent promises to continue acting in the same way, so long as the principal promises to cover the agent should calamity befall her. Perhaps it is not that the agent has been *dishonest* about her intentions to be more or less risk prone, but that she has *committed* herself to a particular motivational preference—that she has said, effectively, "Whether I am or I am not risk averse, I promise to maintain the same risk orientation that I had upon taking insurance."

So here we must ask why one would take out insurance at all. The answer is somewhat embedded in the language of insurance, but I think it can be made plain by putting it this way: one takes out insurance so as to share risk across *comparatively* risk-averse actors. (In this case, "comparative" refers to the risk orientation of agents before insurance versus the risk orientation after insurance.) When sharing risk, one does so for an implied reason: to be able to take more risks. One reason that I might take out insurance is because a loss to me would be costly, as we explored in the above section. But another reason that I might take out insurance is because I seek to alter the probabilities of a bad occurrence. This is an argument of a different nature. In this case, the reason that I engage insurance at all is to try to *increase* the probability that something otherwise undesirable will happen, but so that its outcome is less undesirable to me. This is a funny way of speaking, but effectively, I seek to become *more risk prone*. I seek to do this either by distributing cost, probability, or uncertainty. I might even seek to increase the probability that I will get into an accident—not because I love accidents, so much as that my life is worse off if I do not have insurance: I either drive too cautiously, live too safely, or do not take the risks that it takes to get ahead. To suggest otherwise suggests that insurance should apply only at the time that a contract is set in writing.

To get a clearer grip on this, suppose that I approach you with a full deck of cards, and propose that you give $100 to me in exchange for the opportunity to pull one card from the deck. If you pull one ace from the deck, no matter the suit, I offer to give you $1,000 in return. If you pull a card of any other rank from the deck, you lose your money. Under most circumstances, you will take this to be a bad arrangement—a stupid bet. It is stupid because it returns $1,000 only one out of thirteen times, such that the expected return of your $100 bet is roughly $76.92 (≈$77). For every $100 that you contribute to the pot, you get $77 back. Bad investment. And yet, this arrangement is sometimes thought to characterize insurance. People make similar such investments all the time. The expected value on the insurance dollars that they contribute is *lower* than the money that they put in. So what's the deal? Why do they do this? Why such irrational behavior?

The remaining $23 can be explained by appeal to one's willingness to pay to overcome uncertainty (as laid out in our rough equation at the beginning). The loss in value of their dollar is not actually a loss in value at all. Instead, it is the price of certitude, the price of peace of mind. One can then adjust the costs to include uncertainty costs and anxiety costs. Let's set this as our maximum willingness to pay to overcome uncertainty.

The insurance arrangement might thus be confused with cheating, as one might cheat at cards. Consider blackjack. Some might think that the game of blackjack is simply a matter of "one hand, one play," where the deck is reshuffled after each deal and players ought not to have the opportunity to alter their behavior based on how many cards appear to have been dealt from the deck. Indeed, I myself have browsed casino tables and muttered to myself about the stupidity of betters. The odds are terrible. But this assessment seriously misunderstands the game, as any blackjack player will tell you. The game of blackjack involves a *deck* (or more) of cards, in which the player of the game plays against the house. Here is how the Supreme Court of New Jersey views blackjack and card counting:

> The purpose of blackjack is to obtain cards having a higher count than those of the dealer without exceeding a total count of twenty-one. In blackjack, unlike in other games of chance, players' skill can increase the odds in their favor. Card counting is a method of playing blackjack that involves keeping track of the number of "high value" cards. This technique allows a blackjack player to identify a favorable count, which occurs when an unusually high percentage of the cards remaining in the "dealing shoe" are high value cards. At that time, the chances increase that the dealer will "bust," or deal cards that exceed twenty-one points, thereby permitting the card counter to win. A favorable count occurs infrequently, and almost exclusively after most of the cards have been dealt. Consequently, card counters must maximize their play at such times. To do so, card counters may increase their bet, play two hands at once, or both.[26]

It would appear then that those who reason that card counting is cheating believe that the contract to which one binds oneself is a contract that specifies that one remain indifferent to the next card in the deck, continually resetting one's mental odds ratio, one's risk calculations. But this is silly. This is expressly *not* the game of blackjack. That game, the one described, is a game in which a deck is shuffled before each hand. Let's call it splackjack. To follow through with the insurance analogy, we must then ask whether insurance is the type of game in which the deck is shuffled before each hand, in which the uncertainty costs remain constant (splackjack)—or whether it is a game in which the deck changes according to how many cards have already been dealt (blackjack).

Splackjack insists that the probabilities remain constant—that the player have no insight into the alignment of cards in the deck. It demands, effectively, that the player gamble on pot odds only. It insists that the player conduct only an expected value calculation, leaving them to subscribe to the standard, simple definition of risk (Risk = Probability * Loss). Blackjack, by contrast, insists that the probabilities can change, that players' calculations can shift across a multitude of scenarios, some of which turn out well for the player and others which turn out poorly. What blackjack allows, that splackjack does not allow, is that the player *have a reason* for playing a game in which the deck is stacked against him.

It is reasonable to believe that insurance is more like blackjack than splackjack. One reason that people play blackjack is for the purpose of *playing*, for the *enjoyment* of blackjack, for the *challenge* of a win—not solely for the purpose of winning large sums of cash. It is nearly impossible to explain the phenomenon of gambling otherwise (outside of attributing irrationality to the gambler). This has parallels with insurance.[27] One reason that people take out insurance is for the purpose of coping with uncertainty, in order to gain peace of mind. Both outwardly irrational games, blackjack and insurance, can be understood by appeal to either enjoyment and challenge in the case of blackjack, or peace of mind and increased risk exposure in the case of insurance. Accepting this, return to the example of card counting.

Card counting is, by many accounts, neither illegal nor immoral.[28] This is so because what it means to *play* blackjack involves changing one's behavior in the face of changes to one's probability of making a hand. One can do this *either* by basing one's strategy on the two cards on the table, or by counting cards, by becoming more skillful. Card counting may be *undesirable* from the standpoint of the casino because it shifts the balance of odds (just as moral hazards are undesirable from the standpoint of the insurance company), but it is difficult to say that it amounts to cheating. Anybody who does not count cards in a card game involving both skill and odds is bound to lose that game (and anybody who does not act or think differently in the face of insurance is a damned fool for taking out insurance). This goes for blackjack, poker, bridge, hearts, spades, and many other games. This goes for fire insurance, health insurance, auto insurance, flood insurance, and many other types of insurance. What makes these games games, in part, is that there is more to them than that they are just flat probability calculations.[29] What makes insurance insurance, in part, is that there is more to it than just basing one's decision to insure on flat expected value calculations. In both cases, one seeks to maximize possibilities for wise investments. To argue otherwise is to consider such arrangements on a par with strict games of chance—where rows of bad mathematicians mindlessly pull the arms of rigged slot machines.

IV. B. The Kantian Objection

There is yet a further objection that understands the moral hazard as cheating. One could argue, as a Kantian might be inclined to argue, that "insurance would not work if everyone cheated." Changing one's behavior once one becomes insured appears not to be universalizable. But this depends on what we mean by "cheat." If what we mean by "cheat" is "to break the rules when it suits us," then it is certainly true that cheating is forbidden. No game would work if it were the case that one could change the rules whenever it suited one to do so. But there is a great deal of fogginess about the rules of insurance, as we discuss above. More importantly, if, on the other hand, what we mean by "cheat" is "to act in a way discordant with the expected value schedules of the insurer," then it is also true that insurance would not work if we acted only in accordance with these expected value schedules.[30] Which is to say, insurance depends also on the notion that one have something reasonable to insure—that one desire to expose oneself to greater risks, which is exactly what the moral hazard proposes is immoral.

The Metaphysical Hard Drive

We can understand why this is the case if we imagine a "metaphysical hard drive." Suppose that some inventor creates a metaphysical hard drive that can return the universe and any of its possessions to a state prior to some unforeseen calamity. Much like a hard drive on a standard personal computer, the metaphysical hard drive keeps a running backup of structural data on all objects for which it is programmed. Should some terrible calamity befall a person, the metaphysical hard drive can simply check backup files stored on the drive and reinstate the object exactly as it was prior to the calamity. There are nominal costs to operating this metaphysical hard drive, and so there is a monthly service fee for maintaining these regular backups.

Now imagine a case where a car aficionado of limited financial means desires to purchase a car of great value to her. Suppose that this aficionado currently owns a Dodge Dart, but desires strongly that she drive a Maserati. Being somewhat naïve to the advances of technology, imagine that she is unaware of the metaphysical hard drive. After years of hard work, she may have saved just enough money to purchase her Maserati, but will be car-poor once she has purchased the car. To buy the Maserati would mean risking complete bankruptcy should something terrible befall her or the car. Prudently, she may continue to drive her Dodge Dart.

If we think about this driver's predicament, we can see that she is in a worse-off state than she would be if she had access to or knowledge of the metaphysical hard drive. The issue here is not that she *could* be driving a Maserati, but that she will make a suboptimal decision due to her concern that she will be brought down by a calamity. But the critical observation is this: under these suppositions, the driver would be able to afford her dream Maserati *only* *because* she has the reassurance that the hard drive maintains a copy of her prized automobile.

The Kantian objection is that it is unacceptable to change one's risk orientation upon becoming insured because if such a principle were universalized, insurance would cease to function. But insurance depends on reducing or spreading risk across multiple agents, at an expected loss to the insured (as discussed above, in the comparison with blackjack). Since the reason people have insurance in the first place is so that they can change their risk orientation (as outlined in the case of the metaphysical hard drive), insurance would *also* not function properly if agents were restricted from changing their risk orientation, if they could *not* take advantage of insurance. If changing one's risk orientation were not permitted, and, say, were willed into a universal law, then players would be playing splackjack, running expected value calculations to reduce losses to themselves. Stupid bets. Stupid games. Nobody but fools would play. What we see here is that insurance *also* would not function if agents were forbidden from changing their risk portfolios.

One reason that we get auto insurance is so that we can drive without fear that we will lose our shirts. One reason that people purchase fire insurance is so that they do not have to bear the full risk of total loss; and one reason that they do not want to bear the full risk is so that they can act differently. What we pay for with insurance is either the possibility of increasing our probability of loss or the possibility of playing with more costly material goods than we can actually maintain. In a world of the excessively rich, we do not need insurance. In a world of infinite supply, we would have no need for coverage. We do not insure ballpoint pens or rolls of yarn. If cars were made of scrap tin foil, if bodies and limbs could be regenerated with hard drives, or if homes and investments could be reinstated as if by magic, then we would have little reason to insure ourselves. But this is not the case. We are not all excessively rich, and the goods we value do not grow on trees. We have insurance in order to create a circumstance in which we are richer than we actually are, in which we can act with less care—expressly *not* in order to create a situation in which we keep ourselves at the same level of impoverishment.

V. Stealing

Finally, we must explore the third and perhaps most damning criticism of the moral hazard. Some argue that relying on insurance programs and safety nets not only breeds laziness and irresponsibility, but involves a selfish consumption of resources that is detrimental to others involved in the insurance pool. The conservative commentator William Safire thinks that the moral hazard describes the hazard of greed, and presumably also constitutes a sort of stealing.[31] Referring to Arrow's characterization of the moral hazard, he says: "Makes sense; whenever a disk in my back starts to crumble, I greedily demand an MRI; if I weren't insured, I'd settle for a cheaper X-ray."[32] Greedy indeed.

I propose to address this concern by first invoking the following understanding of insurance: as a technique for shifting resources from one state of the universe to another state of the universe. In this case, the idea is that we can accumulate resources from the numerous states of the universe in which things don't go awry, and use them to pay off the instance of the universe in which things do go awry. This has the effect of decreasing the one element of risk in our universe that makes us risk averse—of spreading risk or distributing risk among multiple instances of ourselves in other universes. So, for example, we might be less inclined to take a gamble on an investment if we don't have some insurance that the universe in which we make that gamble is going to turn out okay.

I will therefore begin by assessing the claim that the moral hazard describes a situation in which one steals (or takes) from oneself; then I will expand this examination to assess the claim that the moral hazard describes a situation in which one steals (or takes) from others.

A. Stealing from Oneself

On one view, what is wrong with the moral hazard is that it involves taking from others without their permission; it involves stealing. But on one view of *insurance*, I insure my future by convening an untold number of instances of myself and urging all instances of myself to throw money into a collective pot. Insurance involves impersonal agents who contribute to a collective pot, and so it is understandable to say that when contributing to an insurance pool, what one is really doing is contributing to one's own pot. On this way of thinking about insurance, therefore, the moral hazard would have to describe a situation in which I could steal from myself.

But consider a more concrete case. Suppose I were a berry farmer. Suppose that I know I must grow x acres of a crop in order to survive. Suppose I also know, however, that only one in ten of the seeds I plant will germinate and grow to maturity. To insure myself against losses, I plant ten times as many seeds as I need plants, over many more acres. The cost to me in seeds and land is great, but I do so in order to survive.

Planting more seeds on more acres allows me to stop worrying so obsessively about my future. I have insured myself against losses, shifting resources across one state of the berry farm to other states of the berry farm. I can use my surplus crops from one part of the farm to offset losses on another part of the farm. If I choose to plant more seeds on the farm—say, fifteen times as many seeds as I need plants, perhaps to cover discrepancies in growth or weather patterns—then I have some wiggle room with regard to my overall crop. In fact, I have now freed myself to take some chances with my crops that I might not otherwise have considered taking. I can experiment with new growing techniques; I can leave some

stones unturned. By insuring myself against losses, I have created possibilities for myself.

It is true that I am borrowing against myself by spreading my risk across different states of my berry farm, but it would be wrong to suggest that I am stealing from myself. What I do by acting in this manner is improve the whole system, improve the whole farm. What I do is take the surplus value from one state of the berry farm and reinvest it in another state of the berry farm. I *contribute* this value to the other state of the berry farm. A cynic might think this excessively generous of me, but, of course, it is my berry farm, so it is really just a matter of self-interest. It makes sense for me to shift resources from the abundant state of the berry farm to the one that has not done so well. Further, I contribute this value from one state of my berry farm to the other state of my berry farm prior to ever having any sense of which parts of my berry farm will do exceedingly well, as if from behind a veil of ignorance.

Extend this to states of the universe. If we conceive of insurance as the shifting of resources from one state of the universe to another state, then I shift resources, skim off the top of successful states of the universe, to offset costs in other states of the universe.

In this sense, I am not *stealing* or *taking* from myself if I take advantage of the other states of the universe, but rather, the nine other instances of me have *contributed* to the well-being of the one instance of me that is not as well off—precisely out of self-interest to them (me), and precisely for the reason that the one instance of me will benefit from such value in the case that my state of the universe goes awry. Should another instance-of-me's state of either the berry farm or universe go equally tragically awry, then the remaining eight instances of me will be left to pick up the slack. This is true on down the line, so that even though the costs to some instances of me are steep, the reason that all instances of me engage in insurance is to avoid being caught in the bad states of the universe.

What is deceptive in this kind of calculation is that we conceive of states of the berry farm only according to a closed-system calculation, so that it would appear that on a probability that there will be one in ten bad berry farms, then any action that might make it instead the case that one in five berry farms go bad, would seem to throw the entire insurance scenario out of whack (as with the Kantian objection, above). But if one considers, instead, that, just as above where I plant fifteen times as many seeds as I need berry bushes, one could also construe insurance to account for one in five bad berry farms, then it becomes clear that insurance for berry farming, as with insurance for states of the universe, is a situation in which agents must recognize that they are giving to a pot in order to make it possible that other instances of themselves take more risks, just like *they* are going to take more risks.

If one further considers that all participants to the insurance configuration are voluntarily *contributing* to the pot with this understanding—the reason that we insure is so that we may expose ourselves to greater risk—then it would appear that acting more riskily in the face of insurance is not so much stealing from oneself, as enabling other instances of oneself to become exposed to greater risks. Quite good.

B. Stealing from Others

This is not how many people think of insurance, however. Instead, they think of insurance as the pooling of *other people's resources* to pay down the debts of the bad-off and unlucky. In effect, the concern is that the true moral hazard involves *stealing from other people* who need the coverage, and that this is wrong. This complaint manifests often with those who talk about cashing in on their insurance. We've certainly felt the impulse not to declare a damaged article because we don't need to declare it. We might even have said to ourselves that it would be better overall if, even though we are insured, we were to assume the burden so that others could be reimbursed when their losses are more serious.

This concern inspired one caller to National Public Radio's evening program *All Things Considered*, to ask their resident ethicist, Randy Cohen (*The Ethicist*) whether, as a reasonably well-off resident of New Orleans who suffered only minor damage after Hurricane Katrina, it was acceptable to request aid for minor damage when so many others were in such great need.[33] Cohen's response was correct: let the insurer worry about this because these programs are in place for a reason. He might have added that it would be an act of *charity* for the caller to forgo his insurance claim in the face of the calamity. What it most certainly was not was a matter of *greed*.

To understand this, we must ask again: why would anyone contribute money to an insurance pool in the first place? Is it for the self-interested reason that we have detailed above, so that only *we* can benefit from the insurance by increasing our exposure to risk, but that others must shoulder the cost? I cannot imagine that this is why. To assume so would be to make ourselves an exception to the rule. Or is it for a more impartial reason, so that others might also expose themselves to risk? If it is for this latter reason, then there is no stealing occurring at all. Instead, others have subjected themselves to the insurance scenarios for just the reason that we have subjected ourselves to the insurance scenario, and although it will certainly be the case that many of us increase our exposure to risk, we have done so with the tacit consent of those who participate in the risk pool.

Imagine again our berry farm. Imagine that ten of us are berry farmers. Under normal circumstances, we must each grow ten acres of a crop in order to survive (one hundred acres total), yielding one acre each (ten acres total), but there is no guarantee that all ten acres will grow properly on each farmer's apportioned land. One farmer might be left with nothing, while another farmer might be flush with berries. Luckily for us, we have an insurance pool. We grow our ten acres each, just as we had planned. Nine of our berry farms produce well; one fails.

Suppose that in response to the insurance pool, all ten farms engage in riskier behavior. Some begin experimenting with new growing techniques, others begin to experiment with new soils, and still others try new seeds. They are insured, after all, and needn't worry as much if their experiments do not work. We might complain that farmers on the berry farm are taking advantage of one another, that they are exploiting their risk-sharing arrangements. But this is no more the case between them than it is in the berry farm of which I am the sole owner. They all benefit from the distribution of risks.

The way I see it, there are two ways to view what is happening in this pool of berry farmers. One way views the farm as a collective, in which all ten farmers participate in tandem to produce one collective crop. On this view, one farmer has an incentive to take risks that will force the other farmers to work extra hard. This describes the moral hazard (when it is thought to relate to stealing from others). The other way to view the arrangement on this berry farm is to conceive of it as a chain of workers working on separate farms (or in separate states of the universe), all of whom work to help each other *when* something does not turn out the way that they had hoped. The reason that they do this is because, as we discuss in the above section, they become members of this insurance pool exactly so that they may alleviate their own tensions and so that they may begin to take more risks.

The first view conceives of insurance as inducing a free-rider problem. It would appear with the moral hazard that the insured gets something for nothing. But if we examine the logic of the arrangement closely, we can see that insurance does not produce this same sort of problem. With the free-rider problem, the question of who is pulling whose weight is unclear. If we are rowing a boat, and I relax my arms to allow others to pick up the slack, then I am a free rider. Insurance is not like this boat. Insurance is like a relay race in which team members alternate between runners, so that at one moment I might rest for one lap, and then at another moment I might pick up the slack so that others may rest. That I have rested does not suggest that I am not pulling my weight. Resting after running was part of the bargain, part of the deal. As a relay *team*, we have agreed to ferry the baton to the end of the track. This kind of sharing enables the *entire* team to go the distance, to bring the baton to the end of the track expediently—and to do so both while resting and while contributing to the collective effort.[34]

Other people, we must assume, are beneficiaries of the insurance arrangement just as much as the agent is the beneficiary of the insurance arrangement. It is not that an agent is the sole beneficiary of a well-run insurance program, to the exclusion of the interests of any given individual. It is not as if the agent breaks into the bank accounts of nine other people in order to pay down his Maserati or to take risks on his berry farm. Instead, costs are shared across insured instances of undifferentiated and presumably willing participants to the insurance arrangement. If there is a problem with inefficiency or overindulgence, this is an actuarial problem related to the formation of the insurance pool. What should, instead, be the case, for instance, is that fifteen farmers should participate in the pool and not ten.

If the objection that the moral hazard involves stealing is primarily against *government-administered* insurance programs that give rise to moral hazards (like flood insurance or the construction of levees), then this is a blanket criticism against redistributive regimes, not against insurance scenarios *per se*. This is a separate claim suggesting not even that the moral hazard is exogenous to the insurance scenario, but only that moral hazards arising from public insurance provision maintain a special moral status because the funds by which the insurance program is supported were not collected with the consent of all parties. Whether it is stealing from others would be true in *all* instances of public insurance (because others have not assented to the use of their funds in this manner), not just in cases in which moral hazards come into play. Unfortunately, this is a matter for another paper. For our purposes, it will suffice to recognize that moral hazards appear in private insurance as well as in public insurance, and the claim in both cases is that there is something morally wrong with changing one's behaviors in the face of insurance.

Conclusion

What this exercise illustrates is that there is no inherently moral element of the moral hazard—at least not as related to lying, cheating, or stealing. There is nothing wrong with increasing one's exposure to risk in the face of insurance, public or private, because enabling risky behavior is what insurance is for. What this illustrates, instead, is that one must be extra vigilant when making decisions as an insurer, not to insure for the wrong price or probability. When the government acts as a principal, citizens who take advantage of the insurance are doing nothing wrong; they are not necessarily committing a moral act at all. The moral hazard, if there is anything moral to it, comes from poor decision making on the part of the decision-making authority.

This should not, of course, suggest that one cannot behave immorally when insured. Lying for personal gain, whether this is due to insurance or some other arrangement, is still wrong. But it is wrong for the same reason in both cases—one makes oneself an exception to the rule. Insurance does not function like this, and "moral" hazards that purport to have some normative component also do not function like this. When economists, or more aptly, politicians, speak of moral hazards, this is code for some exogenously undesirable variable. Politicians who argue, for instance, that government ought not to get involved in the provision of insurance because it imposes moral hazards on actors, sneak morality in the back door.[35]

What appears to be wrong in the case of moral hazards has little to do with morality at all, just as Pauly claimed forty years ago. What appears to be the case is that undesirable ends rear their heads and insurance programs are not in place as promised. This is hindsight, not morality. This is a sneaky way for insurers and politicians to weasel out of their bargains. Says Elizabeth Anderson: "Commonsense practical reasoning is often backward-looking: agents often choose an alternative not because it maximizes expected future payoffs but because the alternative bears an appropriate relation of narrative unity to prior actions the agents have undertaken."[36] I am inclined to agree. Condemnations of changes of behavior in the face of insurance often rely on backward-looking reasons, not on truly bad or immoral behavior. In the aftermath of Hurricane Katrina, it is easy to point fingers at the people of the coast whose houses and lives were swept away. It is easy to call them irresponsible, to suggest that government levee construction creates suboptimal development, that flood insurance provides a false sense of security. From an incentive standpoint, this is probably true. From a moral standpoint, however, the matter is not so easily resolved. For this, we must turn to ethicists and the deliberative resources of an open democracy. For this, we cannot depend solely on economists or the tools of public policy. For this, we must determine our collective priorities, and we must know that if we build levees, if we build cities in the middle of sub-sea-level "bowls," then people will build houses on flood plains. There's nothing inherently *wrong* with this, even though it may perhaps be a phenomenally bad idea.

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NOTES

1. John Stossell, for instance, argued this point on *Fox News* immediately following the Katrina disaster. He argues a similar point in his article, John Stossell, "Confessions of a Welfare Queen," *Reason* (March 2004), http://www.reason.com/0403/fe.js.confessions .shtml.

2. In earlier versions of this paper I used the term "endogenously moral" in lieu of "inherently moral." I had initially chosen that term over the "inherent," "intrinsic," or "*prima facie*" because it seemed to me at the time that there is a good deal of confusion surrounding each of these more common philosophical terms, and more importantly, because the term "endogenous" is commonly used in economics to refer to variables within a modeled system. After presenting this paper to numerous philosophy faculties, I have received significant feedback on the use of "endogenous"—some critical, some supportive—and for this published version, at least, have decided to go with the more familiar use of "inherent." I still have some attachment to the notion of endogeneity, but I appreciate the criticism from several readers that it may be better to stick with more familiar terrain: "inherent."

3. Ian Hacking, *The Emergence of Probability: A Philosophical Study of Early Ideas about Probability, Induction, and Statistical Inference* (London: Cambridge University

Press, 1975); and Ian Hacking, "Risk and Dirt," in *Risk and Morality*, ed. Richard V. Ericson and Aaron Doyle (Toronto: University of Toronto Press, 2003), p. 28. In my research, I uncovered Roy Foulke's early but fascinating analysis of moral hazards associated with fire insurance in the New York City fire of 1835. Foulke notes that, even then, insurers were aware that insurance plans could be flawed if agents took active steps to defraud the companies. See Roy A. Foulke, *Relativity of the Moral Hazard* (New York: Dun and Bradstreet, 1940).

4. Kenneth J. Arrow, *Aspects of the Theory of Risk-Bearing* (Helsinki: Yrjö Hahnsson Foundation, 1965); Kenneth J. Arrow, "Uncertainty and the Welfare Economics of Medical Care," *American Economic Review*, vol. 58, no. 5 (1963), pp. 941–73; Kenneth J. Arrow, "The Economics of Moral Hazard: Further Comment," *American Economic Review*, vol. 58, no. 3 (1968), pp. 537–39; and Kenneth J. Arrow, "The Economics of Agency," in *Principals and Agents: The Structure of Business*, ed. Richard J. Zeckhauser and John W. Pratt (Boston: Harvard Business School Press, 1985).

5. Mark V. Pauly, "The Economics of Moral Hazard: Comment," *American Economic Review*, vol. 58, no. 3 (1968), pp. 531–537.

6. Responds Arrow: "Mr. Pauly's wording suggests that 'rational economic behavior' and 'moral perfidy' are mutually exclusive categories. No doubt Judas Iscariot turned a tidy profit from one of his transactions, but the usual judgment of his behavior is not necessarily wrong. [. . .] The underlying point is that, if individuals are free to spend as they will with the assurance that the insurance company will pay, the resulting resource allocation will certainly not be socially optimal." Arrow, "The Economics of Moral Hazard: Further Comment," p. 538. As I explain in the next footnote, this was not Pauly's claim.

7. This is not, in fact, an accurate characterization of Pauly's claim, though it appears to have been Arrow's interpretation of Pauly's claim as well. Pauly was making the much softer point that the moral hazard has little to do with morality, not the stronger point that such "rational economic behavior" "cannot be morally perfidious." It is the purpose of this paper to argue that such rational economic behavior *can* be morally perfidious (or, at least, it is an open question whether it can), but that, in itself, inherently, such behavior in the face of insurance is not morally perfidious. For mention of Pauly's article, see J. A. Mirrlees, "The Theory of Moral Hazard and Unobservable Behavior: Part I," *The Review of Economic Studies*, vol. 66 (1999), p. 1, p. 8.

8. For what it's worth, Pauly's original assertion comes as a lone side note in the midst of a somewhat technical piece on economics. In my research, I have found no literature addressing the morality of moral hazards, and voluminous literature on the prevalence and theory of moral hazards.

9. Chunchi Wu and Peter F. Colwell, "Moral Hazard and Moral Imperative," *The Journal of Risk and Insurance*, vol. 55, no. 1 (1988), p. 101, (my italics).

10. E. J. Faulkner, *Health Insurance* (New York: McGraw-Hill, 1963), p. 4.

11. Steven Shavell, "On Moral Hazard and Insurance," *The Quarterly Journal of Economics*, vol. 93, no. 4 (1979), p. 541.

12. John M. Marshall, "Moral Hazard," *American Economic Review*, vol. 66, no. 5 (1976), pp. 880–890.

13. To be fair, none of these authors set to the task of specifying the normative force of the moral hazard. All three of these articles define the moral hazard in one sentence, and then proceed to assess its economic implications in given situations. Still, I think these positions provide a nice starting point for this discussion.

14. I believe that the term "moral safeguard" may be a more appropriate characterization of Chunchi Wu and Peter F. Colwell's proposed "moral imperatives." If so, then this lends support to the position that moral hazards are interpreted in Marshall's excess view, since the valuing is exogenous to the institution of the hazard. In recent work, Deborah Stone has characterized such moral safeguards as "moral opportunities." I am inclined to agree with her characterization, though her approach is to argue that "the act of participating in insurance can be and often is a highly moral choice, because (following another long line of thought), insurance is a form of mutual aid and collective responsibility." See Deborah Stone, "Beyond Moral Hazard: Insurance as Moral Opportunity," *Connecticut Insurance Law Journal*, vol. 6, no. 1 (1999–2000), pp. 11–46.

15. Arrow, "Uncertainty and the Welfare Economics of Medical Care," p. 961.

16. Malcolm Gladwell, "The Moral Hazard Myth: The Bad Idea behind Our Failed Health Care System," *The New Yorker* (August 29, 2005).

17. I should note that I disagree with Harrington's employment of the term "perverse incentive." (See the next section.) Presumably, he is speaking loosely here and is not speaking of the related market failure of perverse incentives. Brooke Harrington, "Money and the Moral Hazard," *The American Prospect* (September 10, 2001).

18. *The Concise Encyclopedia of Economics*, s.v. "Insurance" (by Richard Zeckhauser), http://www.econlib.org/ (accessed November 13, 2008).

19. See John Stossel, *Give Me a Break: How I Exposed Hucksters, Cheats, and Scam Artists and Became the Scourge of the Liberal Media . . .* (New York: Harper Collins, 2004). Here is his explanation from another article:

> In 1980, I built a wonderful beach house. Four bedrooms—every room with a view of the Atlantic Ocean.
>
> It was an absurd place to build, right on the edge of the ocean. All that stood between my house and ruin was a hundred feet of sand. My father told me: "Don't do it; it's too risky. No one should build so close to an ocean.
>
> But I built anyway.
>
> Why? As my eager-for-the-business architect said, "Why not? If the ocean destroys your house, the government will pay for a new one.
>
> What? Why would the government do that? Why would it encourage people to build in such risky places? That would be insane.
>
> But the architect was right. If the ocean took my house, Uncle Sam would pay to replace it under the National Flood Insurance Program. Since private insurers weren't dumb enough to sell cheap insurance to people who built on the edges of oceans or rivers, Congress decided the government should step in and do it. So if the ocean ate what I built, I could rebuild and rebuild again and again—there was no limit to the number of claims on the same property in the same location—up to a maximum of $250,000 per house per flood. And you taxpayers would pay for it.
>
> Thanks.

From Stossell, "Confessions of a Welfare Queen."

20. He says further: "Federal flood insurance payments are like buying drunken drivers new cars after they wreck theirs. I never invited you taxpayers to my home. You shouldn't have to pay for my ocean view." From Stossell, "Confessions of a Welfare Queen."

21. Gretchen Morgenson, "Moral Hazard Tossed Out As Fed Saves Bear Stearns," *International Herald Tribune* (March 16, 2008), http://www.iht.com/articles/2008/03/16/business/morg.php.

22. To speak of the moral hazard in exogenous terms, as though it just introduces an increased incentive to behave badly, eviscerates the force of the term. If this were the definition, then all possible incentive structures, not just incentives arising out of insurance, would possibly create moral hazards. There would be moral hazards associated with wearing fancy jewelry; moral hazards associated with driving nice cars in not-so-nice neighborhoods; moral hazards associated with not locking one's doors; and moral hazards associated with leaving hair dryers near bathtubs in houses with domestic disputes. Any action that involves an improvement on one's condition, any action that creates a possibility for moral perfidy—that is, any action whatsoever—could create an incentive for another agent to behave badly.

23. *Concise Encyclopedia of Economics*, Zeckhauser.

24. Emmett J. Vaughn, and Therese M. Vaughn, *Fundamentals of Risk and Insurance* 9th edition (New York: John Wiley and Sons, 2003), p. 5.

25. Judith Jarvis Thomson, "Imposing Risk," in *Rights, Restitution, and Risk: Essays in Moral Theory*, ed. Judith Jarvis Thomson (Cambridge, MA: Harvard University Press, 1986), p. 189.

26. See *Campione v. Adamar of New Jersey, Inc.*, in which it is argued that there is no breach of contract (legally, at least) for card counting. "*Campione v. Adamar of New Jersey, Inc.*," in J. Pollock, A-125/126/160–97 (Supreme Court of New Jersey 1998).

27. Frank Freeman makes a similar claim about the similarities between gambling and insurance, though he seems to believe that there are no deleterious effects of taking out insurance, where there certainly are deleterious effects to the character of the person who gambles. Frank N. Freeman, "The Ethics of Gambling," *International Journal of Ethics*, vol. 18, no. 1 (1907), pp. 76–91.

28. As to the legality of card counting, there are some interesting rulings. See for instance: *Campione v. Adamar of New Jersey Inc.*; "*Richard Chen v. Nevada State Gaming Control Board and Monte Carlo Resort & Casino*, No. 31959, 116 Nev. 282 (Supreme Court of Nevada 2000); and *Timothy John Childs v. The State of Nevada*, No. 21373, 107 Nev. 584 (Supreme Court of Nevada 1991).

29. For fascinating commentary and genuinely fun reading on what makes a game a game, see Bernard Suits, *The Grasshopper: Games, Life and Utopia* (Ontario: Broadview Press, 2005); Bernard Suits, "What Is a Game?" *Philosophy of Science*, vol. 34 (1967); and Bernard Suits, "Games and Paradox," *Philosophy of Science*, vol. 36, no. 3 (1969), pp. 316–321.

30. Assuming, of course, that the insurer's expected value schedules do not take into consideration our changes in behavior.

31. The claim that the moral hazard involves stealing may be a bit of an exaggeration. Still, I think the motivating concern for many critics of the moral hazard is that insurance involves risk sharing, and since others are involved, when an agent increases his risk exposure, he also increases the burden on others.

32. William Safire, *No Uncertain Terms* (New York: Simon and Schuster, 2003), p. 192.

33. Randy Cohen, "The Ethicist: How Much Hurricane Help Is Enough?" on *All Things Considered*, National Public Radio (October 23, 2005).

34. Ian Hacking explains that insurance is liberating because it ensures a level of security and stability for the whole. Ian Hacking, *The Taming of Chance* (Cambridge: Cambridge University Press, 1990), pp. 1–11.

35. For some recent such moral hazard arguments, kindly refer to David Hogberg, "Pulling Teeth," *The American Spectator Online* (September 7, 2005), http://spectator.org/archives/2005/09/07/pulling-teeth; G. Tracy Mehan III, "Dam It," *National Review Online*, (September 12, 2005), http://www.nationalreview.com/comment/mehan200509120811.asp; and Kenneth Kidd, "Why We Place Ourselves in Harm's Way: On the 'Moral Hazard' of Hurricanes," *Toronto Star* (September 4, 2005).

36 Elizabeth S. Anderson, "Reasons, Attitudes, and Values: Replies to Sturgeon and Piper," *Ethics*, vol. 106, no. 3 (1996), p. 541.