Understanding Moral Hazards in Markets

In the previous lesson we introduced the concept of asymmetric information. Asymmetric information exists when one party to a deal knows more about the quality of the good being traded than the other party does. And we looked at time at a particular kind of asymmetric information, when one party knows about the traits, some unobservable trait of the good, or some unobservable trait of themselves. I'm a seller and I have a car for sale. I know whether it's a gem or a lemon and you, the buyer, don't. I'm applying for health insurance and I know what my health risks are and you don't. You're the seller of insurance. Or I'm a student who wants to join the study group. Perhaps I know more about my aptitudes and skills than you do, my other people in the study group that I'm trying to get to invite me. Whenever one party has special knowledge about some kind of characteristic, then we get the problem of adverse selection. The presence of low quality drives high quality out of the market. The presence of lemons causes people who have good cars to take them out of the used car market. The presence of people with high health risks in the market for insurance drives up the price of insurance and causes people with low risks to drop out of the market. The presence of people who are not especially hardworking students or devoted to serving their study group causes people to be very careful about who they invite to their study group and, once people get into the study group that are hardworking and are contributing, then it's always the smartest students who seem to leave first, because they could do better on their own. This is the problem of adverse selection.

Now, there's another problem that stems from asymmetric information, and that's called the problem of moral hazard. Moral hazard arises when one of the parties to the deal takes an unobservable action after the deal is done. This is the example of someone who gets insurance and then decides to behave in a risky fashion. For instance, when I went to apply for insurance on my house, I was very happy not to have to worry about things being stolen from my house and therefore I was more inclined to leave the windows open when I went out for a walk, or maybe even leave the back door unlocked whenever I went to work. After all, carrying around keys is a bit of effort and I like the windows open during the day because the house then smells fresh when the breeze blows through. However, whenever I take that choice, when I make that decision, I'm imposing a cost on the company that insured me, because I make it more likely then that my house will be ripped off, things will be stolen and I'll file an insurance claim, and they'll have to compensate me for a lost television set, or a lost answering machine or stolen clothing. This is the problem of moral hazard. When an insured person then begins to take extra risks and these extra risks impose a cost on the person who offers insurance.

Let's suppose I'm a salesman and I'm working on commission, but I don't like the risk. Some days are good, some days are bad. I'd rather have a nice, safe, reliable income. So, I go to my boss and I say, "Look, I want to get rid of the commission and go on a fixed salary. The fixed salary then protects me from risk and I feel better." And the boss, perhaps, decides that he's persuaded by my case and he puts me on a fixed salary. Well, what's the temptation then? The temptation is I don't work as hard to make the extra sales because I'm no longer subject to risk. I'm not insured and being insured, I may be inclined to make decisions that impose a cost on my boss. Not working as hard to sell clothing then, or sell shoes, or cars or whatever then causes my boss and the company to lose revenue. But I'm only doing that because I'm not scared anymore. I'm only doing that because I'm insured against risk.

Moral hazard is a difficult problem. It often causes insurance markets to break down. People aren't going to insure you if, by insuring you, they are going to give you incentive to take risks, which then cause the insurance not to be a profitable business. If we insure people with life insurance they all decide then they want to go skydiving because they don't have to worry about anyone who may be hurt, if the have a skydiving accident, besides themselves, of course, then the life insurance become a very difficult product to offer. The price of life insurance goes way, way up because the people you insure then are behaving in a risky way. If you offer health insurance and people decide, as a result of that, that they want to have a diet or other habits that increase the risk that they'll make a health insurance claim, then the price of health insurance has to go up to insure only risk taking people. Moral hazard can cause a market to break down and the solutions to moral hazard are to return some of the risk to the person who's insured. That's why insurance companies give you a deductible. If your car is hit, then you have to pay the first $1,000 worth of damages yourself. That way you still face some of the risk. Other things that can happen are when you go to a bank and you take out a loan, they may ask you to post collateral. This gives you an incentive, so that if the business that you're starting goes bankrupt, you're still going to lose something, perhaps you car, perhaps some bonds or something. In any event, with some of the risk restored to you, you're more inclined to invest in safe and profitable business ventures rather than going out and doing something highly speculative or risky.

A second thing that happens is that there is coinsurance; that is, an insurance company will only insure you for 50% of your loss or 80% of the loss. That way, you still bear a chunk of the risk. You still have to pay 20% of the damages, and that may be enough to incline you to make safe decisions and to protect the insurer from a big loss.

Finally, a third thing that can happen that can reduce the problem of moral hazard is monitoring; that is, a company may decide that if you want to have insurance on your house, you have to be subject to an inspection every so often to make sure that you are locking your doors and windows. Or there may be a provision in your insurance policy that says, "If your house is ripped off and you left the windows or doors open, then the insurance company doesn't pay as much." This, again, is a kind of monitoring and the way that the insurance company enforces this is they require you to call the police any time there's an accident or any time there's a crime. This makes sure that the police come, investigate and report that, in fact, yes, the doors were locked. This person was imposing extra risk through his choices.

So, moral hazard then arises when one of the agents makes an unobservable choice. You can't tell directly whether I'm leaving my doors open or not. You can't tell directly whether I'm going out and eating fatty foods or smoking cigarettes, but you can, however, you can make it a provision that either I be a part of the risk through a deductible or through coinsurance, or you can incur the extra expense of monitoring my behavior, so as to make sure that I'm not imposing extra cost after I'm insured.

Moral hazard is different from adverse selection, and we can distinguish the two with a story. It is part of our modern legend and it's confirmed by statistics that people who drive Volvos get more traffic tickets for moving violations than people who drive other cars. Why is it? Why are people in Volvos so often cited for running red lights, running stop signs and driving too fast? Well, there are two answers that we could give. The first is based on adverse selection; that is, people who know they're bad drives and they're scared that they might get in an accident, they go and they buy a Volvo to protect themselves from the risk of the accident. That way, when somebody shows up at a Volvo dealership, the first question you want to ask them is, "You know, are you a bad driver? Is that why you're hear? Are you scared of getting in a wreck?"

There's also another explanation for why Volvos are in so many traffic incidents, and that is moral hazard. Once you own a Volvo, you're not scared of other people any more because you're driving a tank, and so you can drive fast, and run red lights and things like that without any fear. The Volvo protects you from risks and therefore creates a kind of moral hazard. Not being afraid may lead you to take more risks or engage in riskier behavior.

So, how do we tell whether this particular story is an example of adverse selection or moral hazard? Maybe we inspect people's driving records ahead of time. When people show up to buy a Volvo, if we find out that they already have lots of citations for traffic accidents or traffic violations, then they're coming to get a Volvo because they're already risky. That would be adverse selection. Moral hazard, on the other hand, would be people who drive safely before they get a Volvo and then once they get a Volvo, they start driving like a maniac because they're protected.

In summary then, asymmetric information causes problems for markets. If people have unobservable characteristics before the deal, then the problem is adverse selection. Low quality drives high quality out of the market. On the other hand, if people make unobservable decisions after the deal, then the problem is moral hazard, the presence of protection from risk, the presence of insurance leads people to engage in risky behaviors that impose costs on someone else.