Youngberg

Econ 304—Bethany College

**Homework 02**

Answer all the following on a ***typed, stapled*** (if applicable)separate sheet of paper. Make sure that you justify your answers, use your own words, and show your work. All questions are equally weighted.

1. Provide an example of adverse selection and moral hazard not covered in class. Briefly justify your answer.

*Adverse selection—Voting for a candidate who intends to embezzle your tax dollars to pay off his friends. The candidate was always a problem, even before he entered office.*

*Moral hazard—Voting for an honest candidate who discovers how easy it is to use your tax dollars to payoff her friends. The candidate then takes advantage of her office in a way voters clearly wouldn’t want: the candidate became a problem only after selection.*

1. Leeson discusses the importance of a separating equilibrium in “Ordeals.” What is a separating equilibrium and how is it used (or, how does it manifest) in the paper?

*A separating equilibrium is when two agents of different qualities do different things. It’s critical to signaling theory: the only way that signaling works is if different people send different signals. In “Ordeals,” Leeson mathematically demonstrated that the guilty would act in a very different way than the innocent, even when accounting for skeptics. The priests could condemn some innocents and undergoing the Ordeals would still look favorable to the innocent and look dangerous to the guilty.*

1. Suppose Akerlof were to redo his famous paper with the following utility functions:

$$U\_{1}=\frac{1}{2}\sum\_{i=1}^{N}x\_{i}; U\_{2}=\frac{4}{3}\sum\_{i=1}^{N}x\_{i}$$

Rewrite the total demand curves as indicated in Lecture 15.IV.b. Show your work. Do you reach the same conclusion as Akerlof? Justify your answer. (HINT: *μ* still equals *p/2*.)

$$D\left(p,μ\right)= ^{(Y\_{1}+Y\_{2})}/\_{p} , if p<^{ μ}/\_{2}$$

$$D\left(p,μ\right)= ^{Y\_{2}}/\_{p} , if ^{ μ}/\_{2}<p<^{4μ}/\_{3}$$

$$D\left(p,μ\right)= 0 , if p>^{4μ}/\_{3}$$

*The sellers now value their cars less, thus they are less willing to buy more (the price would have to be really low). The buyers value cars less as well, but still more than buyers; the demand curves are basically the same. We just had to swap out the multipliers from the utility curves.*

*We reach the same conclusion as Akerlof: for the middle curve, it holds if p/4 < p < 2/3p, which cannot happen—p will always be greater than 2/3p (as long as p is greater than zero, which it always is.*

1. The movie *The Invention of Lying* imagines a world where not only everyone tells the truth but also volunteers (often embarrassing) information. This isn’t merely a place where no one “technically” lies. Everyone is reflexively forthright. As a result, everyone believes what everyone else tells them—there is no word for “lie.” If we lived in that world, what problems associated with our healthcare system would go away and which would remain? Be sure to justify your answer.

*A big problem with healthcare is asymmetric information and the difficulty of correcting for it. With no lies, this problem goes away. “Do you really need to go to the doctor for this?” “No. I do not.” Payment denied. Deductibles, as a side note, would not be necessary.*

*Medicare might still succumb to fraud simply because government agents have less incentive to deny someone coverage even if the person admits to maybe taking too much. Political pressure, however, would be the incentive that’s result in dramatically lower levels of fraud and over-payment.*

*Insurance would still be tied to your job, however, because it came about as a way to get around price controls. Ditto for the tax break which ensures this insurance-to-job connection persists. And, if we have insurance covering standard items as a way of compensation, that will persist as well.*

*Monopoly will likely die as well since it is based on false justifications. Some monopoly power will be politically untenable (“we’re not going to build this clinic because while there is a need, we don’t want the competition”) and will go away if it’s ever awarded in the first place. Other forms of monopoly power, because they were granted based on claiming it increases quality, will definitely die (if they ever existed in the first place).*

*Prices would still be high (but not as high) without insurance because there’s still an incentive to train medical workers. Hospitals might provide free care, as well, out of genuine affection for the downtrodden patients. But they wouldn’t be as high because, again, people won’t consume as much healthcare so there’s less incentive for the insurance firms to demand deep discounts and thus less incentive for hospitals to increase starting prices.*

1. We laugh at the idea that ordeals were a sound system of justice but as Leeson argues, this was actually a pretty good method for the time. What aspects of this system of justice would work in modern society and what ways wouldn’t? Justify your answer.

*In some ways, we have this system but the “ordeal” in this case is the trial itself. If you are found innocent, your payoff is zero; if you are found guilty, your payoff is way less than zero. If you plead guilty or strike a deal, your payoff is less than zero but still better than if you were found guilty while pleading innocent. While we should be careful at claiming if someone pleads guilty they are guilty, there is an undeniable correlation: I’m much more willing to believe you’re guilty if you’re pleading guilty. (Though sometimes, a settlement is just a way to end the legal battle which incurs a cost itself.)*

*But the ordeal system, as described in the medieval texts, won’t work because our belief is zero. No one would believe that innocence or guilt can be determined by mystical methods like through someone in the water. There would be no separating equilibrium. Modern onlookers require scientific explanations, often to absurd levels. Contemporary prosecutors sometimes complain about the CSI effect: juries expect a great deal of forensic evidence for every trial, even if that evidence isn’t necessary to demonstrate guilt, would be prohibitively expensive to gather, or simply isn’t possible. This, interestingly, is sort of a reverse version of ordeals: rather than relying on an unreasonable belief to prove innocence, jurors rely on an unreasonable belief to prove guilt.*