

Econ 354

Exam on Order Without Law by R. Ellickson

Greg Dow

March 22, 2013

Please answer all three of the following questions. Question 3 is on the back.

1. Consider Ellickson's case study of Shasta County in Part I of the book.
 - (a) Describe the main social norms about animal trespass (ch. 3) and fences (ch. 4). Then suppose someone claims that these norms maximize aggregate welfare. Do you think this claim is mostly true or mostly false? Justify your answer.
 - (b) RE argues that the cattle ranchers in Shasta County sometimes behaved in ways that were not economically rational. Explain why RE believes this, and describe the non-economic motives that might have influenced the ranchers' behavior.

2. Two ranchers are neighbors. Each rancher must decide whether or not to build a fence around her own land. The payoffs measured in dollars are as follows.

		B	
		build	do not build
A	build	5, 5	5, 9
	do not build	9, 5	3, 3

- (a) Draw a graph with A's payoff on the horizontal axis and B's payoff on the vertical axis. Indicate the points that correspond to each of the four strategy combinations above and show the additional points that could be obtained by having one person give money to the other. Define the Pareto frontier and label it on the graph.

- (b) Assume the game is played once. Does it have a dominant strategy equilibrium? Explain. Now assume instead that the game is played many times and both of the ranchers use the strategy "Even-Up". How would the history of the relationship in past periods influence a rancher's actions in the current period? Explain.

3. An oil refinery emits pollution that causes damage to people who live nearby.
- (a) Assume only one person lives near the refinery, the damage done to this person is d , and it would cost the refinery c to stop polluting, where $c < d$. Under legal rule (i), everyone has a right to clean air. Under legal rule (ii), the refinery has a right to pollute. Use the Coase Theorem to argue that under certain conditions the legal rule does not affect whether pollution occurs. Would the person living next to the refinery care which legal rule is used? Explain your reasoning.
- (b) Now assume N people live near the refinery where N is a large number. Each of these individuals suffers damage d/N from pollution, so the total damage is d as in part (a). Is it likely that the legal rule would have an effect on whether pollution occurs? Is it likely that social norms will evolve to maximize aggregate welfare? Explain your reasoning in each case.

Econ 354

Exam on Order Without Law by R. Ellickson

Greg Dow

March 17, 2011

Answer ALL THREE of the following questions.

1. Early in his book, Ellickson talks about the Coase Theorem.
 - (a) State the Coase Theorem and then state Ellickson's hypothesis from Part II of the book. Carefully define the key concepts in each case.
 - (b) What are the main ways in which the Coase Theorem and Ellickson's hypothesis are similar? What are the main ways in which they differ? Explain carefully.

2. Consider a specialized labor game with two players where the payoffs are $A > B > C > D > E$. Assume $A + D > 2B$. Each player can either 'work' or 'shirk'.
 - (a) Suppose aggregate welfare is maximized if person 1 shirks and person 2 works. Draw a table showing the payoffs to each person from each strategy combination. Next, suppose person 1 pays person 2 an amount $t \geq 0$ when player 1 shirks and player 2 works. What is the smallest value of t that gets player 2 to work? What is the largest value of t that gets player 1 to shirk? Explain your reasoning.
 - (b) Draw a graph with player 1's payoff on the horizontal axis and player 2's payoff on the vertical axis. Label the point that occurs if the game is only played once. Then draw the utility possibility frontier and label the points on this line that are associated with the values of t from part (a). Explain your reasoning.

3. Consider the following situations involving social norms.
 - (a) What is the main substantive norm about animal trespass in Shasta County? What is the main substantive norm about building fences? Does Ellickson think these norms are consistent with the strategy of "Even Up"? Why or why not?
 - (b) Professors at SFU need chalk when they lecture. A good norm would be for each professor to leave the chalk in the classroom when they are finished, so the next professor can use it. However, each professor is uncertain whether there will be any chalk when they arrive at the next classroom, so they take the chalk from their previous classroom. This is not a Pareto efficient norm because everyone has to carry chalk around. Does this observation show that Ellickson's hypothesis about social norms is incorrect? Why or why not?

Econ 354

Exam on Order Without Law by R. Ellickson

Greg Dow

November 15, 2010

Answer ALL THREE of the following questions.

1. Early in his book, Ellickson talks about the Coase Theorem.
 - (a) Give a short statement of the Coase Theorem and define the principal theoretical concepts that are involved. Why is the Coase Theorem a logical starting point for Ellickson? How does the rest of his book relate to the Coase Theorem?
 - (b) Consider a simple externality problem involving a rancher and a farmer. If there is no fence, the rancher's cattle will cause damage d to the farmer. The rancher is legally liable for this damage. The farmer can build a fence which costs $c < d$ but the rancher doesn't know how to build a fence. Use a utility graph to show why a fence might be built and what range of outcomes could occur. Then explain why the fence might not be built if transaction costs are too high.

2. The title of Ellickson's book is "Order Without Law".
 - (a) What does Ellickson mean by "order"? How can order be achieved without using the law? Are there situations where achieving order does require law? Explain.
 - (b) Ellickson uses game theory to justify his hypothesis that close-knit groups tend to develop social norms that maximize total welfare in workaday affairs. Carefully explain these game theory arguments and discuss any limitations they may have.

3. Consider the hypothesis described in question 2(b).
 - (a) In part I, Ellickson describes the social norms among ranchers in Shasta County. In part II, he gives examples of social norms in several other situations. Taken as a whole, are these case studies (i) strongly supportive of Ellickson's hypothesis? (ii) weakly supportive? (iii) not supportive at all? Justify your answer.
 - (b) Suppose a skeptical social scientist has read the book but still does not believe the hypothesis is true. What further empirical research could Ellickson do in order to convince the skeptic that the hypothesis is true? What problems would Ellickson encounter in carrying out this research? How could he deal with these problems?

Econ 354

Exam on Order Without Law by Robert Ellickson

Greg Dow

November 8, 2007

Please answer all of the questions.

1. Consider the following payoff matrix.

		<u>Rancher</u>	
		Build	Don't
<u>Farmer</u>	Build	$10 - c_F + t, 20 - c_R - t$	$10 - c_F + t, 20 - t$
	Don't	$10, 20 - c_R$	$10 - d, 20$

The cost to the farmer of building a fence is c_F and the cost to the rancher is c_R . If neither builds a fence, the rancher's cattle cause damage d to the farmer where $0 < c_F < c_R < d$. The rancher can pay $t \geq 0$ to the farmer if the farmer builds a fence.

- (a) Suppose the law says that the rancher must compensate the farmer for the damage d , if it occurs. According to the Coase theorem, will a fence be built? If so, who will build it? What values of t could occur? Explain your answer using a graph.
- (b) Suppose now that the law is irrelevant and the rancher does not have to compensate the farmer for the damage d . However, the rancher can still provide a voluntary gift worth t to the farmer if the farmer builds a fence. Assume social norms maximize aggregate welfare. Will a fence be built? If so, who builds it? What values of t could occur? Explain using a graph. If your answer differs from part (a), say why.
2. In Part II of the book, Ellickson discusses a strategy called "Even-Up".
- (a) Describe the main features of this strategy. Then explain how "Even-Up" differs from (i) "Tit for Tat" (TFT) and (ii) a trigger strategy. What advantages could "Even-Up" have in the real world in comparison to these alternatives?
- (b) Do you think "Even-Up" is a good description of the norms about cattle trespass and fence building in Shasta County? Why or why not? Next, choose one of the case studies from Part II or III of the book, describe the basic facts of the situation, and say whether you think "Even-Up" is a good description of the relevant norms. Carefully justify your answers.

3. Choose a situation you have personally observed that involved (i) a close-knit group (ii) engaged in workaday affairs where (iii) norms helped guide individual behavior.
 - (a) Describe the situation and carefully explain why (i), (ii), and (iii) were true. Give as much detail as possible about the content of the norms, and say how you know.
 - (b) Do you think the norms were followed mainly due to feelings of duty, morality, etc., or because people believed it was in their self-interest to obey the norms? Do you think the norms maximized aggregate welfare, at least approximately? If you wanted to test this hypothesis, how would you do it? What difficulties might arise if you actually tried to carry out such a test? Carefully justify your answers.

Econ 383

Exam on Order Without Law by Robert Ellickson

Greg Dow

November 12, 2003

Answer two of the following three questions. Do not answer all three.

1. The Coase Theorem says that if transaction costs are zero, rules about legal liability have no effect on the allocation of resources.
 - (a) Some people think that to solve problems involving animal trespass, ranchers must be legally liable for the damage done by their animals. Why would Coase disagree? Give a detailed explanation, using a graph if possible.
 - (b) A brief summary of Ellickson's view is that "Coase is right for the wrong reasons." Evaluate this statement. In your answer, be sure to comment on any evidence from Shasta County that supports Coase's theory and any evidence that conflicts with it.

2. Consider a food collection game where payoffs are measured in calories consumed.

		2	
		hunt	gather
	1	hunt	3,3 4,2
		gather	2,5 2,1

- (a) Does player 1 have a dominant strategy? Does player 2? If the game is only played once and there is no compensation from one player to another, what outcome would you predict? Is this outcome Pareto efficient? Explain.
 - (b) Draw a graph with the payoff of player 1 on the horizontal axis and the payoff to player 2 on the vertical axis. Show each of the four points from the payoff matrix. Now suppose either player can give food to the other, and draw lines indicating the feasible payoffs. In order to maximize total welfare, what strategies would have to be chosen, who would have to offer a gift, and how large does the gift have to be?

3. Some SFU professors keep library books in their offices longer than necessary. This is inconvenient for other professors who want the same books. All

professors would be better off if everyone returned books immediately, but unfortunately it is a dominant strategy for each individual professor to keep books too long.

- (a) Does this situation involve a close-knit group and workaday affairs? If you aren't sure, discuss how you could try to find out. Do you think efficient norms about returning library books would tend to evolve over time? Why or why not?
- (b) Pick a case study from the later chapters of the book (not Shasta County). In what ways is this case similar to the problem involving library books? In what ways is it different? To which case is Ellickson's hypothesis more likely to apply? Explain.

Econ 383

Exam on Order Without Law by Robert Ellickson

Greg Dow

November 14, 2001

Answer two of the following three questions. Do not answer all three.

1. Ellickson mentions the Coase Theorem several times in his book.
 - (a) State the Coase Theorem and say what it means. Then use a graph to show why it is true. Carefully explain your reasoning. What are the major assumptions needed for the theorem to be valid? What would happen if the assumptions did not apply?
 - (b) Does Ellickson believe that the Coase Theorem gives correct predictions about the behavior of people in Shasta County? Apart from the accuracy of its predictions, does Ellickson believe that the Coase Theorem gives a correct explanation for the behavior of these people? Use evidence from the book to justify your answers.

2. In Part II of the book, Ellickson discusses a strategy called "Even-Up".
 - (a) Describe the kinds of games in which this strategy might be used, and say how the strategy operates. Use a payoff table or matrix to explain your answer. What are the main advantages and disadvantages of Even-Up? Why does Ellickson believe it would commonly be used for workaday affairs in closely knit communities?
 - (b) Ellickson claims that this strategy (or something similar to it) was used to deal with conflicts in Shasta County. Evaluate this claim. What evidence supports this view? Is there any evidence from Shasta County suggesting that at least some people were not using this strategy? How do you think Ellickson might account for evidence of the latter kind? Overall, do you think Even-Up offers a satisfactory description of the norms Ellickson found in Shasta County? Explain.

3. Choose one of the case studies from Part II or III of the book (not the Shasta case).
 - (a) Briefly describe the basic facts of the situation. What is the physical environment, who are the people involved, what are they trying to do, how do they interact with one another, and what are the main social norms that have developed among them?

- (b) Do people obey the norms in part (a) primarily due to feelings of duty, obligation, guilt, shame, or similar emotions? That is, do they follow the norms as a result of self-control? Or do they obey the norms due to self-interest, because they rationally expect that anyone who violates the norms will be punished? Justify your answer.
- (c) Often it can be costly to discover whether someone has violated a social norm, or to impose a punishment on them if they have (this may require time, effort, money, or other resources). A free rider problem can therefore arise where each member of the community leaves it to others to look for violations, or waits for someone else to impose a punishment when a violation occurs. Explain how the people in part (a) handled this problem, and comment on their success or failure in dealing with it.

Econ 387

Exam on Order Without Law by Robert Ellickson

Greg Dow

November 9, 1999

Answer two of the following three questions. Do not answer all three.

1. A key idea from Part I of the book is the difference between open and closed range.
 - (a) Briefly describe the legal differences between open and closed range.
 - (b) Ellickson says these legal differences were not very important for people's behavior in Shasta County. What evidence does he give to support this view?
 - (c) Despite the evidence from part (b), some ranchers fought strongly to prevent open-range land from becoming closed. Ellickson says that this happened in part because the ranchers had false beliefs about certain things. What were these beliefs?
 - (d) Ellickson says that close-knit groups evolve welfare-maximizing norms to organize their workaday affairs. But (i) the ranchers were a close-knit group; (ii) opposing range closures seemed to be an important norm for this group; and (iii) if Ellickson is correct about their false beliefs, the ranchers were persistently acting contrary to their own workaday interests by spending time and effort fighting against policies that actually had no effect on them. So it could be said that the Shasta County case provides evidence against Ellickson's hypothesis. Discuss.

2. In explaining the Coase Theorem and again for Ellickson's hypothesis I mentioned that payoffs or utility units could be transferred from one person to another through compensation of various kinds (by means of dollars, time, or gifts, for example).
 - (a) Why are such compensation payments important for the Coase Theorem? Would Coase's conclusions differ if such payments were impossible? Explain.
 - (b) Why are such compensation payments important for Ellickson's hypothesis about welfare-maximizing norms? Would Ellickson's conclusions differ if such payments were impossible? Explain.

3. Choose one of the case studies from Part II or III of the book (not the Shasta case from Part I).
 - (a) Briefly describe the basic facts of the situation. What is the physical environment, who are the people involved, what are they trying to do, how do they interact with one another, and what are the main social norms that have developed among them?
 - (b) In what ways, if any, does the evidence from this specific case support Ellickson's view that close-knit groups develop welfare-maximizing norms to govern workaday affairs? In what ways, if any, does the evidence conflict with this view? Are there reasonable alternative explanations for the behavior of the people involved? Overall, would you say that this case provides strong support for RE's hypothesis? Weak support? Or no support? Carefully justify your answer.

Econ 387

Exam on Order without Law by Robert Ellickson

Greg Dow

November 12, 1998

Answer two of the following three questions. Do not answer all three.

1. Ellickson devotes Part I of his book to a description of some social norms found in Shasta County. In Part II he develops a general hypothesis based on this research.
 - (a) What are the principal norms in Shasta County dealing with trespassing by cattle? What are the principal norms about building and maintaining fences? In each case you should briefly describe both the 'substantive' and 'remedial' norms.
 - (b) The hypothesis Ellickson developed in Part II of the book can be summarized as follows: "close-knit groups will develop welfare-maximizing norms to govern their workaday affairs". Explain why he believes the norms from part (a) are consistent with this hypothesis.

2. Coase and Ellickson agree that under certain conditions, resources will be allocated efficiently. However, they disagree about the process through which this occurs.
 - (a) Why does Coase think that resource allocation decisions will be efficient? What are the main reasons why this might not happen, according to Coase?
 - (b) Why does Ellickson think that resource allocation decisions will be efficient? What are the main reasons why this might not happen, according to Ellickson?

3. The Ostrom book gives several examples where people have successfully devised institutions to manage common pool resources. But she also provides examples of failures, where institutions of this kind did not develop and natural resources were seriously overused or destroyed.

Do these failures contradict Ellickson's hypothesis? Explain why someone who is skeptical about Ellickson's approach might view these cases as evidence against his hypothesis. Then say how a supporter of the Ellickson hypothesis would respond to examples of this kind. Which view do you find more persuasive? Why?