CORNHUSKER ECONOMICS

University of Nebraska–Lincoln Extension

September 4, 2013

Institute of Agriculture & Natural Resources
Department of Agricultural Economics
http://agecon.unl.edu/cornhuskereconomics

Empathy Nudging as a New Component of Conservation Programs

Market Report	Yr Ago	4 Wks Ago	8/30/13
Livestock and Products, Weekly Average			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight	$122.38	$121.21	$123.83
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb.	159.88	167.25	188.35
Nebraska Feeder Steers, Med. & Large Frame 750-800 lb.	143.60	164.69	166.58
Choice Boxed Beef, 600-750 lb. Carcass	191.05	186.68	195.91
Western Corn Belt Base Hog Price Carcass, Negotiated	73.47	99.35	87.19
Pork Carcass Cutout, 185 lb. Carcass, 51-52% Lean	82.73	101.09	96.88
Slaughter Lambs, Ch. & Pr., Heavy, Wooled, South Dakota, Direct	94.00	117.25	102.00
National Carcass Lamb Cutout, FOB	315.09	274.64	279.26
Crops, Daily Spot Prices			
Wheat, No. 1, H.W. Imperial, bu.	8.10	6.88	6.72
Corn, No. 2, Yellow Nebraska City, bu.	8.04	5.86	6.12
Soybeans, No. 1, Yellow Nebraska City, bu.	17.37	12.62	14.33
Grain Sorghum, No. 2, Yellow Dorchester, cwt.	13.21	9.21	9.32
Oats, No. 2, Heavy Minneapolis, MN , bu.	4.07	3.71	3.63
Feed			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton.	242.50	185.00	242.50
Alfalfa, Large Rounds, Good Platte Valley, ton.	220.00	180.00	162.50
Grass Hay, Large Rounds, Good Nebraska, ton.	160.00	160.00	125.00
Dried Distillers Grains, 10% Moisture, Nebraska Average.	322.50	220.00	220.00
Wet Distillers Grains, 65-70% Moisture, Nebraska Average.	119.00	79.00	77.50

*No Market

In this article we continue discussing our vision for appealing to other than self-interest-only (profit maximization) in public policies on conservation of farming land. We look specifically at the downstream water pollution problem (i.e. agricultural practices of upstream farmers leading to soil erosion and chemical/fertilizer runoff, which results in poor water quality downstream). We are trying to find less costly solutions which will result in farmers using conservation technologies that decrease the impact of their agricultural practices on downstream rivers and lakes. One possible solution is to nudge for empathy, to encourage the farmers to consider the results of their choices from the perspective of the affected people, to encourage them to walk in the shoes of people who carry the negative effect of the pollution. As a result of doing so, these farmers might then join in the shared cause of improved water quality downstream, and change farming practices upstream, with lower costs overall.

Our third economic experiment investigating the effectiveness of empathy nudging, monetary incentives and a combination of both was conducted in June 2013, in the Experimental and Behavioral Economics Laboratory of the University of Nebraska-Lincoln. In total, 500 individuals participated in the experiment over an eight-day period. The sample included both university students and other members of the community. The average age was 26 years (ranging between 19 and 78 years), and one-half of our subjects were female. The experimental sessions took 60 to 90 minutes, during which the participants earned $43.60 on average.

The results discussed in this article are based on four out of five treatments. As in our previous experiment, participants were assigned a role based on their performance (accuracy and speed) on a farming quiz,

with the top 50 percent earning the role of upstream farmer (UF). In each of the 20 playing rounds, UFs chose the level of conservation on their 500 acres of land. Less conservation is less costly for the UF, but results in more soil erosion and chemical runoff. This leads to lower water quality downstream and higher costs for the downstream water user (DWU). A higher conservation level on the other hand, is more costly for a farmer, but results in better water quality and thus decreases the costs arising from poor water quality for the DWU. In treatments two and four, the UFs received a crop insurance subsidy if they chose conservation above 250 acres – this is called *Incentivized Conservation Compliance* or *CC*. In treatments three and four, the DWU sent messages nudging the farmer for empathy. Specifically, they were asking the farmers to see the decision from the DWU's point of view, put themselves in the DWU's shoes, look at both sides of the argument, etc. – this is called *Nudging*.

The levels of conservation were compared under these treatments. It was found that the combination of financial incentives and nudging increased the conservation level by more than 25 percent, as compared to financial incentives or nudging alone (see Figure 1 on next page). This suggests that financial and non-financial incentives appeal to dual-interest and works in synergy, motivating people to sacrifice a bit of self-interest for the sake of the shared-other-interest.

Another way to look at the results is to compare the levels of sharing across the treatments. By opting for higher profits in each of the 20 periods/years, and letting the DWU absorb the costs of water clean-up, the UF can receive the maximum available profit in the experiment (up to $72 in some treatments), while the DWU will be left with a profit as low as $16. Since the UFs have earned their roles, we expected that they would feel that they were entitled to receive a relatively higher payoff than the DWUs. In the *Non-incentivized CC* with and without *Nudging* treatments, approximately half of the UFs opted to share 40 percent or more of the payoff with the DWUs (see Figure 2 on next page). In contrast, in the *Incentivized CC* treatment, 64.4 percent of UFs shared 40 percent or more of the payoffs. The percentage increased to 77.6 percent in the respective treatment with *Nudging*.

In a time when businesses are trying to understand and influence consumer preferences by empathizing with them and taking (while also perhaps nudging) the consumer's perspective, public policy should also start incorporating these other kinds of empathy-related emotional factors that temper desired outcomes. During our study we found that people believe that empathy nudging matters, and it indeed increased pro-environmental and sharing behavior. This gives an additional scientific justification for designing policies that appeal to both self- and other (shared with others)-interest within an individual, providing for both profit-seeking and shared "joining the cause" behavior.

This research was funded by a USDA Grant (Award #2012-70002-19387). Special thanks to UNL students Shannon Moncure and Stephanie Kennedy for their assistance in conducting the experiment.

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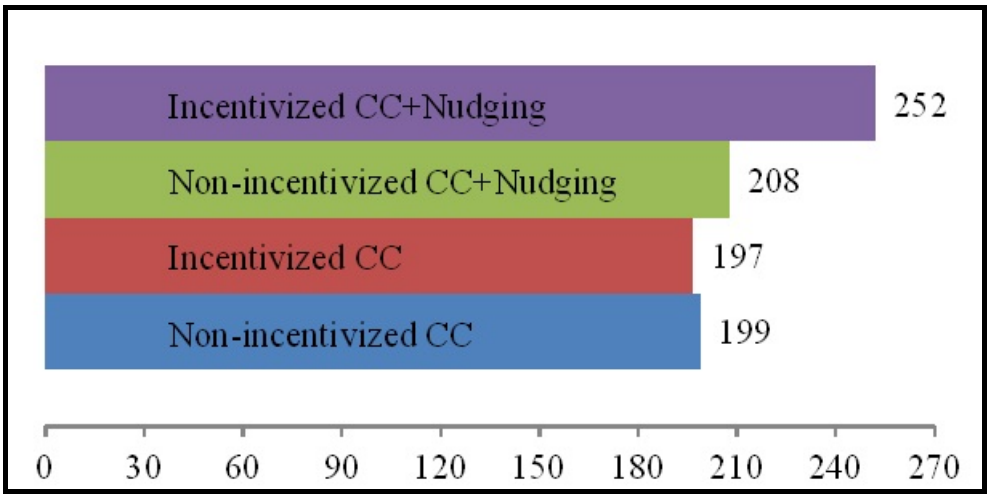

Figure 1. Conservation Compliance Levels and Empathy Nudging

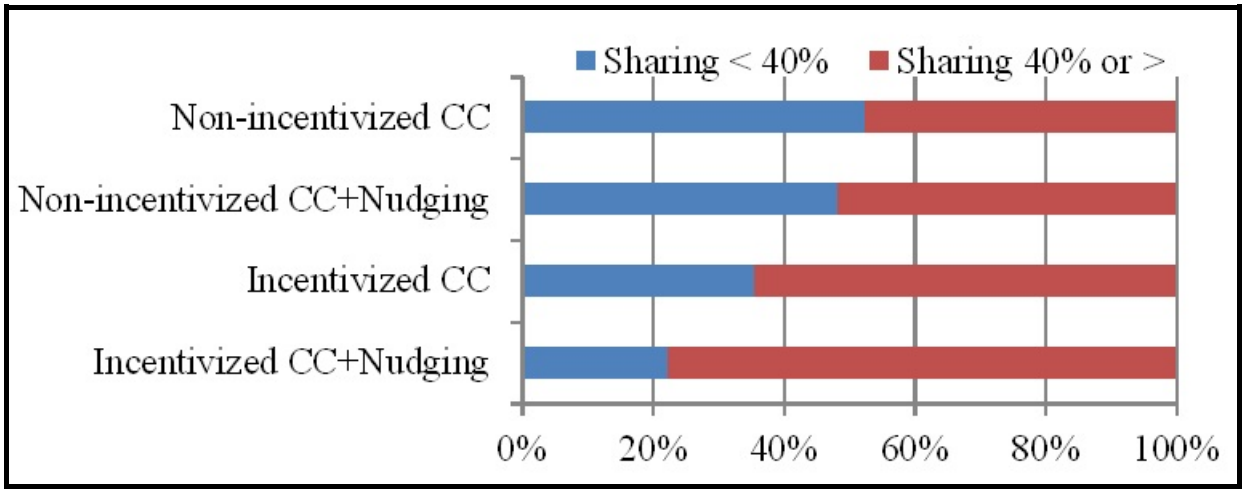

Figure 2. Sharing of the Payoff in Different Treatments