Transcending the Limitations of Environmental Economic Framing:
Toward a Metaeconomics of Environmental Choice

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1. Abstract
Purpose of the paper is to test dual-interest theory and the metaeconomic approach to environmental choice, specifically:
• recognize the role of empathy as the basis for internalized shared other-interest,
• tempering self-interest by empathetic concern.

Approach:
• a framed laboratory experiment on downstream water pollution.

Major findings:
• upstream farmers who practice conservation temper profit maximization with empathy-based environmentally conscious behavior.
• dual-interest metaeconomic model (MEM) produces better results than the standard economics model (SEM).

2. Hypotheses
H1: Pursuing self-interest (max profit) leads to lower levels of environmentally conscious behavior.
H2: Pursuing empathy-tempered self-interest leads to higher levels of environmentally conscious behavior in metaeconomic model.
H3: MEM produces more accurate results than SEM.
H4: Personality adjusted MEM is more accurate than MEM.
H5 A/B: Framing the decisions with the emphasis on empathy/self-interest leads to more/less environmentally conscious decisions.

3. Experimental design
Hypothetical scenario: upstream farmers (UF) decide on how much Conservation Tillage (CT) to use on their land (500 acres):
• higher levels of CT lead to lower chemical runoff and better water quality downstream, but lower profit for UF
• lower levels of CT lead to worse water quality downstream, but higher profit for UF

Players:
• Upstream Farmer (UF)
• Upstream Farmer/Downstream Water User (UF/DWU)
• Downstream Water User (DWU)

Empathy frame: selected CT and payoffs (UF, UF/DWU, DWU)

4. Experimental procedures
Participants: 226 in total, 45% female, 27 years old on average
Cash earnings:
Mean of $28.9 for 70-90 min (opportunity costs = $6/hour)

Treatments:
• Empathy frame
• Self-interest frame
• Neutral frame

5. Results

6. Conclusions
• Confirmed HYPOTHESES 1, 2 and 4.
• Mixed support for HYPOTHESES 3, 5A&B:
  • UF equation strongly supports, UF/DWU no sig. difference.
  • Female UF (but not UF/DWU) are more environmentally conscious than their male counterparts.
  • UF/DWU who literally “walked in the shoes of” DWU made more environmentally-friendly and empathetic choices than UF.

Selected References