MOTIVES FOR PRIVATE LAND CONSERVATION: INSIGHTS FROM SIX CONTINENTS

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PART I: MOTIVATION

















sense of achievement

fun

curiosity

interest

 $+ \in$





Overview of empirical studies on crowding effects for the biodiversity context.

| 1 | 0 | | |
|---|---|--|--|
| Article Description of targeted behaviours, study population and geographical location | Economic incentive measure | Method and data | Reported findings on motivation crowding effects |
| Cardenas et al. (2000) Over-use of forest resources by rural communities in Colombia | Negative: quota with weakly enforced fines | Framed field experiment: CPR game with local population, verbal framing of token extraction as "time to collect firewood in the forest" Behavioural data: amount of tokens extracted | CO — stat. significant: Introducing sanctions initially reduces extraction levels, but subsequently extraction rises back to pre-intervention level. Authors argue that "the regulation appeared to crowd out otherregarding behaviour" (p.1719). |
| Cardenas (2004) Over-use of forest resources by rural communities in Colombia | Negative : quota with weakly enforced fine (high or low) | Framed field experiment : CPR game with local population; verbal framing Behavioural data: amount of tokens extracted | No effect: All treatments (high fine, low fine, self-governance) significantly reduce extraction rates over the entire 10 periods. |
| Rodríguez-Sickert et al. (2008) Resource over-use (fish or water) by rural communities in Colombia | Negative: quota with weakly enforced fine (high or low); incl. a setting where people can vote for or against the fine. | Framed field experiment: CPR game with local population, verbal framing. Behavioural data: amount of tokens extracted | CI — stat. significant: Then participants vote against the fine, the suggestion reduces extraction (initially). Authors write that In the low fine setting, they conclude that "Low fines stabilize cooperation by preventing a spiral of negative reciprocation" (p.215). |
| Vollan (2008) Over-grazing by small-scale life- stock farmers in traditional communities in South Africa and Namibia | Negative and positive : Quota with external sanction s or rewards | Framed field experiment : CPR game with local population, verbal framing of token extraction as "number of sheep to own", "trust game" to study effect of trust on cooperation; Behavioural data: amount of tokens extracted | CO — suggestive: Author states that he "did not obtain the crowding-out effect for the complete sample." (p.569), but observe (although without a test for statistical significance) "a crowding-out effect in the penalty scenario occurring in groups where the penalty rule had been chosen with the lowest possible group support for the rule" (p.570), concluding that "Penalty works significantly the best in the low trust region but crowds-out co-operation in a |

high trust area." (p.571)

"Crowding out effects can have detrimental impacts on long term biodiversity and ecosystem conservation which are difficult to reverse. Therefore, we call for caution in cases where uncertainties regarding the negative effects of incentive measures remain, especially when existing intrinsic motivations among the targeted population are strong and the biodiversity values at risk are high." (281)

Extrinsic

Extrinsic Motivation

Intrinsic

Intrinsic Motivation



Increasing autonomy, efficacy, social connection

PART 2: POLICY

Four types of policy





Incentive



Capacity

Symbolic



Schneider and Ingram, 1990







PART 3: PLC MOTIVES

Extrinsic

Intrinsic

| External regulation | Introjection | ldentifi- cation | Integration | Intrinsic Motivation |
|---------------------|--------------|---------------------|-------------|-------------------------|
|---------------------|--------------|---------------------|-------------|-------------------------|





Extrinsic Intrinsic Identifi-External Intrinsic Introjection Integration regulation Motivation cation 7 7 2

What factors make private land conservation appealing to landowners?

- Owners of privately conserved areas (PCAs)
- Private individuals and families
- Private ownership, not necessarily exclusive use
- No requirement for 3rd party verification or legal status
- No size requirement
- 13 countries, 6 continents
- Interviews
- Grounded theory analysis



Personal benefits vs. conservation values



Extrinsic

Intrinsic

| External regulation | Introjection | ldentifi- cation | Integration | Intrinsic Motivation |
|---------------------|--------------|---------------------|-------------|-------------------------|
|---------------------|--------------|---------------------|-------------|-------------------------|



Motive categories



Motive categories: Statement category groupings by individual



Conceptualizing co-benefits of PLC



Conservation context



PLC fosters two modes of engagement



Gooden & Grenyer 2018. Conservation Biology.



Gooden & Grenyer 2018. Conservation Biology.

Relationship between intrinsic motivation and external reward

| Amount of intrinsic motivation | Reward (or punishment) needed |
|-----------------------------------|----------------------------------|
| Low | High |
| Medium | Medium |
| High | Low |

Motive categories





Increasing autonomy, efficacy, social connection

PART 4: TOOLS FOR PROMOTING CONSERVATION

- I. Education
- 2. Price
- 3. Awareness
- 4. Social norms

These are tools for people who are (probably) extrinsically motivated.

Following slides: Schultz. 2012. Water Conservation: From Awareness to Action. USDN.

- Education
 - Involves disseminating information
 - Assumes (usually falsely) that lack of behavior results from lack of knowledge
 - Small-to-null effects, consistently across domains

8 Ways to Save our Planet 1. Walk it, bike it or transit 2. Turn it off 3. Eat meat-free 4. Eat local organic foods 5. Compost it 6. Use fluorescent bulbs 7. Recycle it 8. Reuse it



How should we care ? You can do lots of good things for the earth. Here are ideas to keep in mind. Keep Your Neighborhood Clean If you see trash on the ground, toss it in a trash can. Recycle Cans, Bottles, and Paper Save them at home and at school, and help your family recycle them. Help Keep the Air Clean Ride your bike or walk to school. Too many cars cause a lot of pollution.

- Price
 - Cost directly affects behavior
 - Problems with price triggers
 - Specificity (no spillover)
 - Transaction framing
 - Can erode intrinsic motivation



Awareness

- Crisis can induce change
- Individuals rally around a cause
- Crisis messages can boomerang if used for too long
- Short-term effect





- Social Norms
 - A promising alternative
 - Conservation often means deviating from the norm
 - Need to promote community support:
 - Your neighbors are conserving
 - People will disapprove if you don't conserve
 - How much you consume relative to others

Normative social influence

- Norms serve as a guide for behavior
- Generally not perceived as motivational (Nolan et al., 2008)
- Stronger effects for high users, and individuals who are less motivated (Göckeritz et al., 2010)

Impacts of water study in San Diego County, OMWD



Year-to-year comparison of treatment and control



Impacts of water study in San Diego County, VWD

- Participants: 300 single-family households
- Conditions: Control, descriptive norm messages
- Delivered via web or postal mail (web did not work)
- Mail only: Treatment group used less water than control
- Treatment moderated by household usage



Normative social influence

- Personal feedback
 - Meaningful units
 - Linked to specific actions
 - Regular frequency
- Referent
 - Personal goal
 - Allocation
 - Social norm

Points for consideration

- Where do landowners in ELCN pilot programs fall on the intrinsic-extrinsic continuum?
- What co-benefits are they getting from conservation?
- What strategies can we use to facilitate engagement?
- Can we use normative social influence in private land conservation?



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