

Supplementary Materials for **Integrating simultaneous prosocial and antisocial behavior into theories of collective action**

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The PDF file includes:

Materials and Methods

Additional results

Table S1. Characteristics of our study site and our surveying effort.

Table S2. Description of variables.

Table S3. Mean differences (or frequencies) between MPA and non-MPA sites.

Table S4. Cooperation to fishers.

Table S5. Cooperation to nonfishers.

Table S6. Hypercompetitiveness to fishers.

Table S7. Hypercompetitiveness to nonfishers.

Table S8. Hypercompetitive cooperation to fishers.

Table S9. Robustness test: exclude high-stake sessions.

Table S10. Robustness test: include all participants.

Appendix 1. Experimental instructions.

Appendix 2. Ex-post questionnaire.

References (98–107)

1. Materials and Methods

This section provides further details on (1) the sample selection of the experimental sessions (note that a sample copy of the instructions is presented in SM Appendix 1), the decision environments (public goods and joy-of-destruction), the post-experimental questionnaire, the deployment of the experimental procedure itself, and related payments. (2) The large-n standardized survey and (3) the qualitative data gathering approaches we used (i.e., participant observation, archival data, and semistructured interviews to key informants).

1.1) Experimental sessions

Sample selection

To sample the population of fishers in our study area we built a sampling frame for non-MPA communities using key informants that knew fishers by name in the communities. For the MPA communities we relied on already existing sampling frames we had created to deploy our large-n standardized survey (see section 2 for a description of the large-n standardized survey). To recruit nonfishers at each location we used the “random walk approach” (98). This approach is used in small settlements or towns for which there is no population census available. The first step to select households consisted in downloading a map of the locality (using Google Maps satellite view), and divided it into four regions of equal size. From each region our field assistants randomly selected a house (by closing eyes and placing a pencil on the map until it clearly points a house) for initial visitation. After the first household is visited, the field assistants went to the third house to the left of the first house.

Afterwards, visited the third house to the right of the second house. If the selected house was not a residential home (i.e. business, abandoned house, empty terrain), the assistants continued walking down the street in the same direction until they reached a residential home. At each junction they randomly selected the direction of movement by flipping a coin (head = right; tail = left) and continued the procedure. If it happened that they reached one of the households that have been already visited, or the street ended, they repeated the initial household selection procedure (map and pencil).

For each visitation (fishers and nonfishers) a field assistant asked to speak with the head of the household and explained the nature of the visit. If the head of the household was not present the first time, a second visitation was scheduled. If he/she was not present for the second visit, another house to visit (or fisher from the list) was selected. The head of the household was invited to participate in the activity if he/she was, at least 18 years of age, and was able to read and write (see *SM Appendix 1* for a transcript of the invitation). One day prior to the experiment we again contacted all participants in order to remind them of their commitment.

Economic Experiments

Linear public goods game

In this game two participants i and j have each an initial endowment of 80 pesos that they can keep for themselves or they can move to a common project simultaneously and anonymously. They can move any integer value between 0 and 80, that is 0, 1, 2, ..., 79, 80. For every peso that any of the two participants moves to the joint project, we added 50 cents. The total value of the joint project is then split evenly among the two participants, independently of the amount contributed to the project. The payoff function for the specific parameters implemented in the experimental session is:

$$\pi_i = (80 - x_i) + \frac{1.5 \cdot (x_i + x_j)}{2}$$

where x_i is the number of pesos participant i moved to the joint project and x_j is the number of pesos participant j moved to the joint project. This game serves as a simple workhorse to study cooperation. This is a form of social dilemma, where there is a tension between best-responses of self-interested payoff-maximizing agents and social optimum. The Nash equilibrium for self-interested payoff-maximizing agents is to move zero pesos, for a payoff of 80 pesos, whereas the social optimum is for every participant to move all 80 pesos to the joint project, for a total payoff of 120 pesos. However, if a subject does not contribute to the joint project he can obtain benefits from the contribution of the other participant and keep his initial endowment. This strategy case can result in a highest of 140 pesos for the free-rider and 60 pesos for the subject who fully contributed.

Previous experimental results show that subject's average contributions are between the theoretical predictions of the Nash Equilibrium and the social optimum, typically between 40% and 60% of the social optimum, but with wide variations in individual contributions, ranging from 100% contribution by some to 0% by others (see reviews in 43, 99). Moreover, previous results support a systematic increase in cooperation for higher values of the marginal per capita return of contributions to the joint project (e.g., 100, 101-103). The marginal per capita return in the sessions presented here is 0.75. This is a rather high value, encouraging cooperation.

Joy-of-destruction game

Subjects started with an endowment of 80 pesos and they could use up to 8 of these to reduce the earnings of the other participant. They can use any integer value between 0 and 8. For each peso that a subject uses, we reduce the earnings of the other participant by 4 pesos. Thus, subjects can induce losses to the other participant of up to 32 pesos in multiples of 4. In this case the payoff function is as follows:

$$\pi_i = 80 - z_i - 4z_j$$

where z_i is the amount of pesos subject i uses to reduce the earnings of subject j and z_j is the amount of pesos subject j uses to reduce the earnings of subject i . In the joy-of-destruction game, the Nash equilibrium is the maximum potential earnings that subjects can do, and imply that no participant invests any money in reducing the other participant's income. Moreover, the Nash equilibrium and the social optimum coincide in this activity and result in a payoff of 80 pesos.

Post-experimental questionnaire

The post-experimental questionnaire provided individual data on socio-economic characteristics of participants in the two games, history of conflict, relatives present in the session, civil engagement, support for a collection of social norms, personality characteristics, support for MPAs, support for the work of different public agencies and perceptions on collective action at the municipality. *SM Appendix 2* provides a translated version of the questionnaire.

Experimental procedure

Instructions were read out loud and explained with the assistance of several posters where the experimenter could work through the different examples. The instructions

for each decision environment were followed by a written quiz to check comprehension. During the completion of the quiz participants could raise their hand and ask questions in private. After all participants finished answering the quiz, the quiz were collected and the experimenter publicly revealed the answer to each of the questions jointly with a justification of the answer. At this point participants could ask further questions in private. Next, we distributed the decision sheets for the corresponding decision environment where participants needed to write their decision. Once participants had finished their decisions we collected all decision sheets and moved on to the next decision setting. This process was followed iteratively until the last of the decision tasks. Research assistants helped participants with literacy limitations to answer the quiz and the questionnaire by reading individually once more the questions and writing the answer participants instructed them.

First activity was always the public goods game, then the joy-of-destruction game and lastly the post-experimental survey. We did not alternate order since previous research by Prediger et al. (19) showed that the joy-of-destruction results are not affected by a public good game in the first round but that the results of the public good game are affected if the joy-of-destruction game is played first. In each of the two games we publicly announced that the participant was first paired to a fisher in the session (irrespective of whether the participant himself /herself was a fisher or not) and then to a person in the session whose main activity was not fishing. We implemented two additional decision in each game not reported here based on pairings on environmental preferences of the participants in the session (in particular, based on their willingness to make a donation to 1 out of 3 different NGOs, one of which was environmentally oriented).

In incentivizing decisions, we implemented two sessions where stakes were increased tenfold. One of these sessions was in Todos Santos and the other in Mulegé. In both games subjects started with an endowment of 800 Pesos. In the public goods game subjects could make decisions in counts of ten from 0 to 800. In the joy-of-destruction game subjects could use up to 80 Pesos to reduce the earnings of the other player, also in counts of 10. These were implemented as a test of whether the standard stake size for economics experiments is too small to induce thoughtful behavior on the side of participants. Both towns were non-MPA sites. Thus, we cannot test the effect of MPA for the high-stake sample, but we do robustness tests where we exclude the high stake sessions (see section 2.2). The main results reported in the text remain robust. All decisions were conducted using pen and paper. After all decisions were final we distributed the ex-post questionnaires that we read out loud providing explanations on how to report answers. Participants could choose to follow these explanations or answer the questionnaire at their own pace. Once a participant reported to have finished to any of the research assistants, these checked for completeness of the answers.

Payments

Payments were done in private at the end of the sessions. We paid a show up fee of 50 Pesos (US\$ 3.92 with an exchange rate of $f 100 \text{ Pesos} = 7.84 \text{ \$US}$) and for one out of the eight decisions participants made in every experimental session. The decision we paid for was selected in public at the end of the session by choosing a card from a shuffled deck of cards. This resulted in average payments of 106 Pesos (US\$8.3) for

the low stakes sessions and 590 Pesos (US\$46.3) for the high stakes sessions. The minimum wage in Baja California in 2013 was 65 Pesos (US\$5.1) per day.

1.2) Large-n standardized survey

The first step towards the design of the standardized survey consisted in creating a sampling frame of fishers using the MPAs in our study. We hired local assistants with knowledge of who were fishers in all localities under the influence of MPA regulations. We identified and surveyed 71.20% of all the fishers (48.56% active) in our study area. Table S1 provides a summary of our surveying effort per locality. Data was collected using four to six local enumerators per location. Enumerators had at least an undergraduate degree of formal education and were trained during a 2-day intensive course on data collection methods, getting acquainted with the survey instrument, and practicing data collection. We also conducted a focus group with five local fishers and pretested the survey with 12 fishers prior to starting with data collection. Data collection lasted for 13 months between July 2012 and July 2013 and data was captured in the field using Access database (version 2010, Microsoft Office). Back at Duke University a team of three undergraduates reviewed all data entries to assure no capture errors remained prior to data analysis.

1.3) Qualitative data gathering approaches

Participant observation

X.B. has had a long engagement with fishing communities in the Gulf of California since 1999 conducting research and documentary film-making (see 40, 41, 95, 97, 104-106). M.N. participated in fishing activities with commercial fishers in three out of four locations (excluding San Felipe) between July 2012 and July 2013. He also participated in numerous state and municipal meetings and forums with a diversity of stakeholders where fisheries-related issues were presented, discussed, and debated.

Archival data

Intensive archival data collection and analysis was conducted both prior to the start and during fieldwork. The process consisted of finding and reviewing peer-reviewed and grey (government reports, NGO reports) literature, and laws and regulations pertinent to the small-scale commercial fishing sector in our study localities.

Semi-structured interviews to key informants

We conducted 77 in-depth interviews with fishers; government officials from a number of federal institutions that regulate fishing activities or manage protected areas (i.e. CONAPESCA, INAPESCA, CONANP, and PROFEPA); NGO staff that was active in the creation and implementation of the local MPAs; and other key informants that were knowledgeable about present and historic fishing practices, and the origins of the local MPA. The interviews were semi-structured, lasting on average 1.5 hrs thus allowing the interviewer to collect information on the main issues and to explore other relevant fishing and conservation aspects that were raised during the interview (107). We transcribed the interviews and analyzed them using NVivo (version Mac, QSR International).

2 Additional Results

2.1) Direct Quotes from Interviews

Direct quotes from audio-recorded interviews are shown below to illustrate how different stakeholders articulated their explanation of why MPAs were established in the first place. These quotes suggest that (a) the establishment of MPAs were part of an international and national level agenda to increase the amount of marine conserved territory in Mexico. (b) Local support was gained by creating rules that would reduce access to industrial fishers (particularly shrimp trawlers). (c) Fisheries policies favored the organization of local fishers around fishing co-ops after the establishment of MPAs. Original interviews in Spanish are available upon request.

a) Establishment of MPAs in Mexico: Part of an International and National Agenda

Interview with National Commission of Protected Areas Governmental Official:

“This was a process started by the Salinas de Gortari administration [1988-1994] but it was not decreed during his time. This [protected area] was already discussed in Rio (1992) and the international commitments to start to allocating spaces for marine conservation, because Mexico almost hadn’t had marine protected areas. Very few. In those years most of what we had were 15 million hectares or something like that between marine and terrestrial. There started the idea to protect five or six percent of the national territory. He [president] had not focused in Loreto, because the governor of [the state of] Baja California Sur had so much power that if he did not approve a project it would not get done. In earlier times you could ignore the governor, like when Los Cabos, Islas del Golfo, Vizcaíno protected areas were declared, but not now. In this epoch of participatory democracy you needed the governor to support the project. Beginning in 1994 the governor started to create space and votes were no longer stolen on the voting booth... It could have been a biosphere reserve, but why it wasn’t? I think because a national park has a biodiversity and tourism component... Cancún, Cozumel, Alacranes, Huatulco, Pulmo, La Paz, Loreto, all have a strong tourism sector. So if they had made them biosphere reserves the tourism value would have been lost. So FONATUR (national tourism fund) and the ministry of tourism were behind the creation, which is good for an area that was planned in an integral manner...”

b) Stakeholder Support for MPAs Gained through Banning Access Outside Fishers

Interview with Recreational fisher from Loreto:

“Too many [shrimping] boats would come in the beginning of the shrimp season... The shrimpers trawled many of the species that grow here because it was not a protected area. The government sold us that idea. They presented it to us arguing that by having a [national] park shrimpers could enter no more. And it worked because since the park was created no more shrimpers came here. In that regard we need to give a credit to the marine park [CONANP].”

Interview with commercial fisher from Ligüi:

“Around 1980 or 1982 we started to have problems with the shrimping boats. They would trawl inside the entire Loreto Bay. There was a tourism director named Ruth, and a man from San Nicolás who went with me to have the first meeting in the hotel on the waterfront. The three of us had a first conversation. She did not like the shrimpers trawling all the bay and

suggested something could be done. I told her we need to get into action and do not allow that they come in to destroy all [the resources] we got here.”

Interview with Tourist Developer (TD) from Loreto:

TD: “Three of us were against the shrimp boats. It was during the first municipality, now we are on the sixth, so 18 years ago... We started to get a movement together and meet with the people from the municipality. There was a meeting where someone [from the municipality] said not to be bothering them with sea stuff! And several of us jumped up: How come if the ocean is what feeds us here! Tourism and commercial fishing is what brings life to Loreto. We got to take care of the ocean... so what are we going to do? One day we had a meeting about the shrimpers... [authorities] said they couldn't do anything, because [shrimpers] had a permit to work here, they were legally here, and there was nothing they could do.

Interviewer (I): Who said that?

TD: The fisheries representative based in La Paz. And he was right, shrimpers worked legally [in Loreto]... Someone said: “Lets put them on the other side of the legal line. Why don't we create a national park, a protected area, where these creatures of god [shrimpers] cannot come in? Good idea! And so we started to investigate a bit... it [the national park] was an idea from everyone.

I: And were all [different stakeholders] in favor or not all?

TD: Yes, we signed a letter including the taxi drivers, everyone supported the petition to make a protected area which would protect our resources. The government found it very entertaining that a community asked the federal government to create a national park. In this country all national parks were decreed by the government. Never had there been a community that said: “Hey government, we want to take care of our resources.”

Fisheries Policies Favoring Local Fishers After Establishment of MPAs

Interview with commercial fisher (CF) from Loreto:

Interviewer (I): what did you fish in the 80s?

CF: “Back in those years there was no problem in terms of fishing permits. Permits were required but you only needed to have one to fish anything you wanted. You only needed to have a copy of the permit and with that you could fish without any problems. We worked with someone from town who had a fishing permit. There were only two fish buyers [in Loreto].

I: In that time, two fish buyers for so many fishers?

CF: A lot of fishers. And we would harvest as much as we could. There was no problem to harvest fish, pen shells, scallops, conch... when they started to ask for permits was when the park was created. This is when the problems started since you could not go out to fish as easily. Now you needed a

permit to fish anything, and that was when we started to request our own fishing permit. We started the fishing co-op.

I: Is that why you started the co-op?

CF: That is why we started the co-op.

I: In what year?

CF: We formed the co-op in 2001 so we could get fishing permits. In 2003 we got our first fishing permit. Before then we had to go fish away from Loreto; I had my diving gear, boat and everything, and if I saw the day was going to be good I would go out fishing and bring harvest back. Only one or two lobsters, snappers, pen shells, two or three kilograms of snails. Usually about five kilos of everything and that was enough to make a living, I had no problems. But in those times [after the creation of the MPA] was when I started to have problems because I couldn't go out to fish at all without the fishing permits. The inspections started so we began to look for different options. So I talked to the family of my wife and my father-in-law. I told them: "why don't we organize as a co-op and we request a fishing permit." He had his boat, I had mine, his sons fished too. He said: "sure thing." We formed the co-op and we started to request fishing permits."

2.2) Supporting Tables

Table S1: Characteristics of our study site and our surveying effort.

MPAs ¹	Localities using the MPA	Popul. ²	# of enumerators	# of identified fishers ³	# of total surveys	# of surveys with active commercial fishers
San Felipe	San Felipe	16,702	4	197	86	79
Loreto	Loreto	14,724	6	229	227	129
	Juncalito	40				
	Ligui	203				
	Ensenada Blanca	255				
La Paz ⁴	La Paz	215,178	6	161	71	63
Cabo Pulmo	La Ribera	2,050	4	177	160	100
	Cabo Pulmo	50				
	Los Frailes ⁵	9				
	Agua Amarga	382				
	Boca del Alamo	100				
GRAND TOTALS:				764 (100%)	544 (72.20%)	371 (48.56%)

¹We use the names provided below for ease of presentation, but the official names of each MPA is San Felipe= Upper Gulf Biosphere Reserve, Loreto = Loreto National Marine Park, La Paz = Espiritu Santo National Marine Park, Cabo Pulmo= Cabo Pulmo National Marine Park. These are 4 of 7 protected areas in the Peninsula of Baja California, the other three are: Reserva de la Biosfera Bahía de los Angeles, Parque Nacional Archipiélago de San Lorenzo and Area de Flora y Fauna Cabo San Lucas.

²Data from the 2010 population census, INEGI

³Total number of fishers (active and inactive) is based on our work. This information is not available through official records.

⁴We focused our surveying effort to identify fishers who exclusively use or used fishing area within the local MPA.

⁵Fishing community of Los Frailes consists of fishers that migrate from other locations within Baja California Sur to this area to fish during a fishing season. Most prominent are fishers from Agua Amarga and Boca del Alamo.

Table S2. Description of variables

Dependent Variables						
Variable	Description	Median (mean)	Std.	Min / Max	No obs	Measuring unit
<i>Contfish</i>	Percentage contribution to fishers	0.375 (0.411)	0.353	0/1	127	percentage
<i>Comp.fish</i>	Percentage hypercompetitiveness to fishers	0.05 (0.047)	0.041	0/1	127	percentage
<i>Contcit</i>	Percentage contribution to nonfisher	0.25 (0.361)	0.329	0/1	127	percentage
<i>Comp.cit</i>	Percentage hypercompetitiveness to nonfisher	0.05 (0.049)	0.040	0/1	127	percentage
Explanatory variables						
Continuous variables						
Variable	Description	Median (Mean)	Std.	Min/Max	No obs	Measuring unit
<i>Age</i>	Age of participant	37 (39.589)	14.536	18/82	129	Years
<i>Locality</i>	No of year a participant is living in this particular locality	28 (30.664)	17.457	1/82	128	Years
<i>Conflict</i>	Number of conflicts participants had with other participants	0 (0.156)	0.539	0/4	128	Number
<i>Closefam</i>	Number of close family members and relatives	1 (2.085)	3.003	0/20	129	Number
Categorical variables						
Variable	Coding	Frequency in %	No obs	Contents		
<i>Edu</i>	No education	9.48	116	Educational level of participant		
	Primary	31.90				
	Secondary	48.28				
	High school	1.72				
	College	8.62				
Dichotomous variables						
Variable	Coding	Frequency in %	No obs.	Contents		
<i>Fisher</i>	Fisher	41.86	129	Participant is a fisher or nonfisher		
	Nonfisher	58.14				
<i>MPA</i>	No	45.74	129	Participant lives in a fishing village influenced by MPA rules and regulations		
	Yes	54.26				
<i>Gender</i>	M	70.54	129	Gender of participant		
	F	29.46				
<i>Winning2¹</i>	Disagree	60.48	124	Winning is most important		
	Agree	39.52				
<i>Society2</i>	Disagree	52.07	121	It is not possible to have a good society without competition		
	Agree	47.93				
<i>Thinkact2</i>	Disagree	93.80	129	I usually think before I act		
	Agree	6.20				

<i>Coopmem ber</i>	No Yes	71.32 28.68	129	I am a member of a cooperative
<i>W.Cooper ation2</i>	Unlikely Likely	64.80 35.20	125	If there was a problem with water supply in your community, how likely do you think is that people would cooperate to solve the problem

¹Variables ending with “2” were recoded from a 5-point Likert scale to dummy variables. “Agree” means that the person either “strongly agrees” or “agrees” to the statement while disagree included “don’t know”, “disagree” and “strongly disagree”.

Table S3: Mean differences (or frequencies) between MPA and non-MPA sites (significant differences displayed in bold, $p < 0.05$). For metric variables we use t-test and for dummy variables we report p-values from Fisher exact test.

Variable	MPA	No-MPA	T-test (t-value)	Fisher exact test (p-value)
<i>Contfish</i>	.54	.29	-4.1929	n.a.
<i>Spitefish</i>	.44	.31	-2.1871	n.a.
<i>Contcit</i>	.66	.33	-4.8957	n.a.
<i>Spitecit</i>	.64	.31	-5.1508	n.a.
<i>Age</i>	39.44	40.78	0.5228	n.a.
<i>Locality</i>	29.58	32.98	1.0961	n.a.
<i>Conflict</i>	.19	.14	-0.5671	n.a.
<i>Closefam</i>	1.73	1.74	-0.5671	n.a.
<i>Edu</i>	1.6	1.65	0.3083	n.a.
<i>Fisher</i>	.37	.48	n.a.	0.282
<i>Gender</i>	.27	.32	n.a.	0.567
<i>Winning2</i>	.48	.29	n.a.	0.030
<i>Society2</i>	.48	.52	n.a.	0.728
<i>Thinkact2</i>	.05	.09	n.a.	0.493
<i>Coopmember</i>	.24	.31	n.a.	0.433
<i>W.Cooperation2</i>	.33	.33	n.a.	0.570

Notes: n.a. = not applicable

Table S4. Cooperation to fishers.

VARIABLES	(1) contfish	(2) contfish	(3) contfish	(4) contfish	(5) contfish	(6) contfish
MPA	0.251*** (0.0426)	0.300*** (0.0439)	0.300*** (0.0402)	0.290*** (0.0371)	0.303*** (0.0334)	0.286*** (0.0408)
fisher		0.0387 (0.104)	0.0835 (0.106)	0.114 (0.107)	0.0995 (0.0996)	0.0996 (0.106)
highstake		0.101*** (0.0289)	0.0687** (0.0216)	0.0749** (0.0246)	0.0865*** (0.0218)	0.100** (0.0353)
Gender			0.0690 (0.0855)	0.0462 (0.0801)	0.0544 (0.0900)	0.0912 (0.0834)
closefam			-0.0123 (0.0111)	-0.0110 (0.0110)	-0.0122 (0.0108)	-0.00536 (0.00922)
age			0.00531 (0.00290)	0.00641 (0.00367)	0.00451 (0.00307)	0.00739* (0.00328)
locality			-0.000428 (0.00293)	-0.000828 (0.00299)	5.38e-05 (0.00318)	0.000498 (0.00255)
edu			0.0200 (0.0379)	0.0103 (0.0386)	0.0167 (0.0393)	0.0538 (0.0379)
conflicts				-0.0309 (0.0395)		
winning2				0.116* (0.0621)		
society2				0.0718 (0.0597)		
thinkact2				-0.125 (0.0978)		
coopmember					-0.0953 (0.0589)	
w.cooperation2						-0.0176 (0.0927)
Constant	0.292*** (0.0341)	0.229** (0.0689)	-0.0148 (0.165)	-0.100 (0.192)	0.0261 (0.164)	-0.192 (0.167)
Observations	127	127	127	123	127	120
R-squared	0.123	0.136	0.181	0.230	0.193	0.202

Results from the OLS regression. Coefficients with robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table S5. Cooperation to nonfishers.

VARIABLES	(1) contcit	(2) contcit	(3) contcit	(4) contcit	(5) contcit	(6) contcit
MPA	0.127** (0.058)	0.144* (0.0740)	0.148* (0.0766)	0.115 (0.0783)	0.147* (0.0773)	0.171** (0.0751)
fisher		0.0258 (0.0600)	0.0993 (0.0820)	0.119 (0.0834)	0.0978 (0.0806)	0.0913 (0.0839)
highstake		0.0322 (0.0798)	0.0149 (0.0818)	0.0342 (0.0861)	0.0133 (0.0842)	0.0670 (0.0827)
Gender			0.0658 (0.0783)	0.0346 (0.0779)	0.0671 (0.0804)	0.0726 (0.0805)
closefam			-0.00591 (0.0110)	-5.06e-05 (0.0114)	-0.00591 (0.0110)	0.000331 (0.0112)
age			0.00392 (0.00315)	0.00343 (0.00303)	0.00399 (0.00327)	0.00588* (0.00321)
locality			-0.00235 (0.00280)	-0.00243 (0.00274)	-0.00240 (0.00288)	-0.00244 (0.00279)
edu			0.0551* (0.0323)	0.0244 (0.0307)	0.0554* (0.0326)	0.0903*** (0.0344)
conflicts				-0.0624 (0.0447)		
winning2				0.197*** (0.0703)		
thinkact2				-0.120 (0.130)		
coopmember					0.00855 (0.0710)	
w.cooperation2						0.0223 (0.0622)
Constant	0.309*** (0.0404)	0.282*** (0.0689)	0.0707 (0.141)	0.0878 (0.150)	0.0670 (0.146)	-0.0993 (0.154)
Observations	127	127	127	127	127	120
R-squared	0.037	0.040	0.077	0.147	0.077	0.109

Results from the OLS regression. Coefficients with robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table S6. Hypercompetitiveness to fishers.

VARIABLES	(1) comp. fish	(2) comp. fish	(3) comp. fish	(4) comp. fish	(5) comp. fish	(6) comp. fish
MPA	0.334*** (0.0682)	0.252*** (0.0826)	0.252*** (0.0854)	0.234** (0.0899)	0.253*** (0.0857)	0.262*** (0.0854)
fisher		0.0387 (0.0698)	0.0964 (0.0876)	0.109 (0.0913)	0.102 (0.0876)	0.102 (0.0915)
highstake		-0.194** (0.0959)	-0.182* (0.105)	-0.195* (0.107)	-0.176 (0.107)	-0.137 (0.112)
Gender			0.0154 (0.0864)	0.0226 (0.0881)	0.0101 (0.0891)	0.0412 (0.0937)
closefam			0.00360 (0.0153)	0.00436 (0.0157)	0.00361 (0.0153)	0.00840 (0.0154)
age			0.00544 (0.00341)	0.00503 (0.00352)	0.00515 (0.00353)	0.00635* (0.00367)
locality			-0.0057** (0.00287)	-0.0058** (0.00287)	-0.0055* (0.00291)	-0.00514* (0.00302)
edu			0.0106 (0.0426)	-0.00189 (0.0435)	0.00944 (0.0431)	0.0290 (0.0479)
conflicts				-0.0448 (0.0653)		
winning2				0.0433 (0.0759)		
thinkact2				-0.172 (0.126)		
coopmember					-0.0343 (0.0885)	
w.cooperation2						-0.00523 (0.0770)
Constant	0.327*** (0.0496)	0.395*** (0.0729)	0.302* (0.161)	0.346** (0.164)	0.316* (0.170)	0.181 (0.197)
Observations	127	127	127	127	127	120
R-squared	0.161	0.190	0.216	0.229	0.217	0.191

Results from the OLS regression. Coefficients with robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table S7. Hypercompetitiveness to nonfishers.

VARIABLES	(1) comp. cit	(2) comp. cit	(3) comp. cit	(4) comp. cit	(5) comp. cit	(6) comp. cit
MPA	0.335*** (0.0650)	0.274*** (0.0755)	0.280*** (0.0788)	0.284*** (0.0824)	0.284*** (0.0791)	0.281*** (0.0810)
fisher		0.0565 (0.0650)	0.121 (0.0897)	0.119 (0.0914)	0.142 (0.0876)	0.0994 (0.0926)
highstake		-0.150 (0.0911)	-0.139 (0.102)	-0.147 (0.103)	-0.117 (0.102)	-0.108 (0.110)
Gender			0.0321 (0.0898)	0.0415 (0.0929)	0.0137 (0.0893)	0.00829 (0.0941)
closefam			-0.00370 (0.0175)	-0.00509 (0.0180)	-0.00368 (0.0178)	-0.00661 (0.0190)
age			-0.00173 (0.00309)	-0.00169 (0.00318)	-0.00274 (0.00312)	-0.00269 (0.00334)
locality			-0.00186 (0.00261)	-0.00185 (0.00264)	-0.00126 (0.00264)	-0.00135 (0.00277)
edu			0.0294 (0.0443)	0.0347 (0.0460)	0.0252 (0.0436)	0.00616 (0.0507)
conflicts				0.00743 (0.0541)		
winning2				-0.0410 (0.0722)		
thinkact2				-0.00691 (0.115)		
coopmember					-0.120 (0.0776)	
w.cooperation2						-0.0649 (0.0781)
Constant	0.308*** (0.0457)	0.348*** (0.0677)	0.392** (0.175)	0.397** (0.184)	0.444** (0.174)	0.498** (0.219)
Observations	127	127	127	127	127	120
R-squared	0.175	0.198	0.227	0.229	0.241	0.208

Results from the OLS regression. Coefficients with robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table S8. Hypercompetitive cooperator to fishers.

VARIABLES	(1) comp. coop	(2) comp. coop	(3) comp. coop	(4) comp. coop	(5) comp. coop	(6) comp. coop
MPA	0.392*** (0.0732)	0.404*** (0.0807)	0.399*** (0.0801)	0.427*** (0.0798)	0.401*** (0.0792)	0.385*** (0.0821)
fisher		0.0328 (0.0739)	0.0551 (0.0964)	0.0413 (0.0965)	0.0679 (0.0957)	0.0898 (0.0984)
highstake		0.0198 (0.0733)	-0.0248 (0.0845)	-0.00043 (0.0853)	-0.0106 (0.0825)	0.00215 (0.0934)
Gender			0.0507 (0.0928)	0.0141 (0.0937)	0.0390 (0.0952)	0.103 (0.0936)
closefam			-0.00919 (0.0148)	-0.00200 (0.0168)	-0.00917 (0.0145)	-0.00185 (0.0137)
age			0.0079** (0.00332)	0.010*** (0.00354)	0.0073** (0.00344)	0.009*** (0.00343)
locality			-0.00065 (0.00299)	-0.00144 (0.00313)	-0.00027 (0.00304)	0.000802 (0.00307)
edu			0.0289 (0.0468)	0.0406 (0.0490)	0.0262 (0.0471)	0.0595 (0.0480)
conflicts				-0.0118 (0.0793)		
winning2				0.0670 (0.0847)		
society2				0.168** (0.0737)		
thinkact2				-0.173 (0.108)		
coopmember					-0.0762 (0.0883)	
w.cooperation2						0.0215 (0.0768)
Observations	127	127	127	123	127	120
R-squared	0.169	0.190	0.241	0.312	0.246	0.246

Results from the binary Probit regression. Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table S9. Robustness test: exclude high-stake sessions.

VARIABLES	(1) contfish	(3) contfish	(1) comp.fish	(3) comp.fish	(1) contcit	(3) contcit	(1) comp.cit	(3) comp.cit
MPA	0.296** *	0.301***	0.248***	0.252***	0.142*	0.155**	0.268***	0.275***
	(0.0690)	(0.0730)	(0.0821)	(0.0849)	(0.0727)	(0.0779)	(0.0747)	(0.0797)
fisher		0.0394 (0.0858)		0.0814 (0.0922)		0.0892 (0.0952)		0.110 (0.0990)
Gender		0.0545 (0.0866)		0.0770 (0.0986)		0.0872 (0.0957)		0.0495 (0.103)
closefam		-0.00802 (0.0149)		0.00685 (0.0155)		-0.00525 (0.0115)		-0.00595 (0.0201)
age		0.00394 (0.00412)		0.0101** (0.00413)		0.000854 (0.00437)		0.00120 (0.00417)
locality		0.00238 (0.00328)		-0.00657** (0.00328)		0.000499 (0.00364)		-0.00275 (0.00338)
edu		0.00650 (0.0434)		0.0595 (0.0510)		0.0387 (0.0356)		0.0522 (0.0557)
conflicts								
winning2								
thinkact2								
coopmember								
w.cooperation2								
Constant	0.247** *	-0.00951	0.413***	0.0477	0.294** *	0.123	0.375***	0.274
	(0.0536)	(0.195)	(0.0674)	(0.196)	(0.0592)	(0.174)	(0.0587)	(0.232)
Observations	98	98	98	98	98	98	98	98
R-squared	0.156	0.210	0.091	0.152	0.040	0.061	0.116	0.153

Results from the OLS regression. Coefficients with robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table S10. Robustness test: include all participants, also those with less than 4 questions correct in both tests.

VARIABLES	(1) contfish	(3) contfish	(1) comp.fish	(3) comp.fish	(1) contcit	(3) contcit	(1) comp.cit	(3) comp.cit
MPA	0.247*** (0.0583)	0.299*** (0.0690)	0.313*** (0.0663)	0.253*** (0.0832)	0.119** (0.0555)	0.135* (0.0723)	0.334*** (0.0623)	0.283*** (0.0758)
fisher		0.120 (0.0763)		0.103 (0.0846)		0.118 (0.0788)		0.123 (0.0886)
highstake		0.0629 (0.0848)		-0.139 (0.0995)		-0.000309 (0.0794)		-0.117 (0.0938)
Gender		0.0910 (0.0715)		0.0418 (0.0864)		0.0791 (0.0767)		0.0374 (0.0868)
closefam		-0.0130 (0.0128)		-0.00427 (0.0159)		-0.00546 (0.0105)		-0.0121 (0.0156)
age		0.00445 (0.00293)		0.00291 (0.00336)		0.00252 (0.00310)		-0.00322 (0.00294)
locality		0.000605 (0.00236)		-0.00516* (0.00277)		-0.000998 (0.00270)		-0.00177 (0.00244)
edu		0.0229 (0.0395)		-0.0249 (0.0406)		0.0610** (0.0305)		-0.00419 (0.0395)
conflicts								
winning2								
thinkact2								
coopmember								
w.cooperation2								
Constant	0.312*** (0.0415)	-0.0225 (0.161)	0.323*** (0.0479)	0.424** (0.164)	0.318*** (0.0395)	0.0708 (0.137)	0.301*** (0.0436)	0.500*** (0.164)
Observations	140	139	139	138	140	139	139	138
R-squared	0.115	0.173	0.140	0.192	0.032	0.070	0.173	0.220

Results from the OLS regression. Coefficients with robust standard errors in parentheses; *** p<0.01, **

p<0.05, * p<0.1.

APPENDIX 1. Experimental Instructions

Instructions for the experiment were originally written in Spanish. We provide a translation of the instructions when the recipient is a fisher for public goods and joy-of-destruction. Instructions for the other treatment conditions (e.g., when the recipient is a nonfisher) are analogous and available upon request from the authors.

A1.1 Script for recruitment



INVITATION to participate in a research activity

My name is [NAME] and I am a member of a team that is going to conduct research activity in your community during this month. This activity is organized by the Duke University from the USA. The purpose of this research activity is to better understand factors that influence individual decision-making.

The head of your family has been chosen to participate in this research activity. You will receive at least 50 pesos for your participation. In addition to this amount you will be able to earn considerably more money depending on your decisions during the activity and the decisions of other participants. The activity will last in total about 3 hours. During this time we will provide snacks and soft drinks.

Your participation is voluntary and the information provided is considered confidential and will be used only for academic and research purposes. There is no commercial interest related to this study and we will not publish any personal information obtained from the study that could be used to reveal your identity. However, you must be at least 18 years old and you must be able to read in order to participate in this study.

The research activity in your community will be on: [DATE]

Beginning time: [TIME]

Place: [PLACE]

Would you like to participate in this research activity?

[No] → Thank you for your time.

[Yes] → Thank you for deciding to participate in this research activity.

If you have any questions about the study, please contact us. Here is a card with the contact information [GIVE CARD].

Could you please give me your name? _____

A1.2 Instructions and script for registration

[Participants need to register by their name at the front desk and while doing so they get a random participant number. The participants randomly choose an ID card (cards facing upside down). ID cards are randomly allocated to seats. The person in the registration desk is the same person that will be making payments.

[To each participant during registration]: “Good afternoon/morning, we are glad that you are participating in this workshop. We will shortly tell you what is the activity about. Please enter the room and look for the seat with your participant number. Once everybody is here we will start the activity”

Basic instructions and script – once all participants are seated

Thank you all for coming today. My name is Xavier Basurto and I am part of the team conducting the workshop today. For our research we would like to play two activities with you. In these activities you can earn between 100 and 200 pesos. You must understand that this is not our private money but it is given to us for research purposes. We are interested in your decision during the activity and it is very important to bear in mind that there are no “right” or “wrong” answers.

The workshop is organized by Duke University. The information obtained in this workshop will be used only for academic purposes and it is not part of a development or government project. Before we proceed with the activities, I would like to tell you some important things.

1. The workshop will take at most three hours of your time. If you find that this workshop is something that you do not wish to participate in for any reason, or you already know that you will not be able to stay for the three hours, please let us know immediately so that we can replace you with somebody else.
2. In the workshop, your identity will be kept anonymous. This means that except for the person making payments, no one will come to know the decisions you made or the money you earned. Instead of using your name, we will assign you a number (show participant number) that we will use throughout the workshop. Please do not lose this card.
3. During the workshop we will play two activities with you, and you will receive your money in the end. Each activity consists of four decision tasks. Because you will be playing two activities, each of you will participate in eight decision tasks. Your earnings will be randomly chosen from one of these eight decision tasks. For each decision you will be randomly paired with one other person in this room whose identity you will not know. With this setup, the chance to play more than one decision with the same person is very low.
4. You will be paid 50 pesos for coming to the workshop plus the additional earnings that you have made in the decision task randomly chosen for payment. We will keep a record of your earnings in all the decision tasks to make sure that you receive the correct amount. Today Xavier Basurto will be in charge of making payments.

5. Before each activity we will give you separate instructions and examples on how to do it. It is very important that you understand the activity. Therefore, please listen to these instructions carefully.
6. It is very important that you ask questions if there is something that you do not understand. Just raise your hand and wait until one of the assistants comes to you. Then you can ask your question privately to the assistant and the assistant will answer it.
7. Before we start the activity we will check your understanding by asking each of you test questions.
8. We would like to keep the workshop anonymous, therefore, please do not discuss the activity with each other nor talk to other participants during the workshop. If you violate any of these rules, you will be excluded immediately from the workshop and you will not receive any money.
9. Upon the completion of the activity you will answer a short questionnaire. Then, each participant will come one by one to Xavier, who will pay you. Once you sign the receipt you are free to leave.

In case you have any questions at this stage, you may ask them now. Otherwise, we will begin with the instructions for the first activity.

Thank you in advance for your effort and time.

Sample instructions for the public goods game

We will now give you instructions and examples for the first activity. There are four parts in this activity. After we are done with the instructions we will check if you have understood the activity by asking each of you a few questions. Once we are sure that you have understood the activity, we will begin playing the four parts of the first activity.

At the beginning of the activity, each participant will receive 80 pesos from us. Now you have to decide how many from the 80 pesos to put into your pocket and how many into a Group Fund. You may put any amount between 0 and 80 pesos into the Group Fund. Now we will show you how this is done. We will be using this poster for explanations. Please note that this is an example, but when you do the actual activity, you will have to decide this on your own, without any help from us. Suppose participant A here is a participant in this activity. As mentioned before, you receive an endowment of 80 pesos from us. Now let us assume that out of the 80 pesos, participant A put zero pesos into the Group Fund. Can you tell me how many pesos there are in the Group Fund? How many pesos does the participant have in his pocket? Have you understood this? Now, let us assume that out of 80, participant A put one peso into the Group Fund. Please put one peso. How many pesos are in the Group Fund? How many pesos does the participant have in his pocket? (*Carry on this procedure for contributions of 5, 10, 20, 60 and 80*). Have you understood this part? Do you need additional examples? (*If yes, repeat the examples in the same order for Participant B in the poster*).

Every peso put in the Group Fund will be increased by 50 cents. For example, if you put 0 pesos into the Group Fund, the project amount will be increased by 0 pesos. Now, the final amount of money in the Group Fund is 0 pesos. If you put 1 peso into the Group Fund, the Group Fund amount will be increased by 50 cents. Now, the final amount of money in the Group Fund is 1 peso and 50 cents (*Carry on for contributions of 5, 10, 20, 60 and 80*). I repeat, the Group Fund amount will be increased by 50 cents for each peso

any participant put in it. Have you understood this? Do you need additional examples? (*If yes, repeat the examples in the same order for Participant B in the poster.*)

After the Group Fund has increased, it will be divided equally between participant A and participant B, irrespective of how much each participant have put into the project (*Please repeat this again*). For example, if the Group Fund contains 0 pesos, it will be increased by 0 pesos and then divided equally between you and the other group member. However, since zero does not increase, both you and the other group member will get zero pesos from the Group Fund. For example, if the project contains 1 peso, it will be increased by 50 cents. Now the total value of the project is 1 peso and 50 cents, and both you and your partner participant get 75 cents each from the Group Fund (*carry on for contributions of 5, 10, 20, 60 and 80*). Have you understood this part? Do you need additional examples? (*If yes, repeat the examples in the same order*). Please remember that any money that you put into the Group Fund is first increased and then divided equally among the participants in your group. Any amount that you put in your pocket remains the same. If you put 1 peso in your pocket, it remains 1 peso. It neither increases nor is it divided. Your final earning from the activity is the sum of the amount you have in your pocket and the amount you receive from the Group Fund.

We will now give you three examples and we will use this poster to illustrate them.

Example 1: Now we will see what happens if both participants put zero pesos into the Group Fund. Now, can you tell me how many pesos did participant A put into the Group Fund? How many pesos does he have in his pocket? How many pesos did participant B put into the Group Fund? How many pesos does he have in his pocket?

How many pesos are in the Group Fund? We have zero pesos in the Group Fund. Since zero pesos does not increase and cannot be divided, each participant gets zero pesos back from the Group Fund.

Participant A has put zero pesos into the Group Fund, so he has 80 pesos in his pocket. He gets zero pesos from the Group Fund. Can you tell me, what is his income? Since participant A has 80 pesos in his pocket and he gets zero pesos from the Group Fund, his final income is 80 pesos.

(Please repeat the procedure to calculate the income of the second participant.)

Example 2: Now we will show you the second example. Now we will see what happens if both participants put his/her 80 pesos into the Group Fund. Now, can you tell me how many pesos did participant A put into the Group Fund? How many pesos does he have in his pocket? How many pesos did participant B put into the Group Fund? How many pesos does he have in his pocket? How many pesos are in the Group Fund? We have 160 pesos in the Group Fund. The Group Fund amount will now be increased by 80 pesos.

The final amount in the Group Fund is $160 \text{ pesos} + 80 \text{ pesos} = 240 \text{ pesos}$. Now 240 pesos is divided equally among both participants. So, each participant gets 120 pesos.

Now, can you tell me, how many pesos does participant A have in his pocket? How many pesos does he get from the Group Fund? What is his final income? We repeat, since participant A has zero pesos in his pocket and he gets 120 pesos from the Group Fund, his final income is 120 pesos. (*Please repeat the procedure to calculate the income of the second participant.*)

Example 3: Now we will show you the third example. We will see what happens if participant A puts zero pesos into the Group Fund and Participant B puts 80 pesos into the Group Fund. Now can you tell me how many pesos did participant A put into the Group Fund? How many pesos does he have in his pocket? How many pesos did participant B put into the Group Fund? How many pesos does he have in his pocket? How many pesos are in the Group Fund? We have 80 pesos in the Group Fund. The Group Fund amount will be increased by 40 pesos. So the final amount in the Group Fund is $80 \text{ pesos} + 40 \text{ pesos} = 120 \text{ pesos}$. Now 120 pesos is divided equally among both the participants. So, each participant gets 60 pesos. Now, how many pesos does participant A have in his pocket? How many pesos does he get from the Group Fund? So, what is his final income? We repeat, since participant A has 80 pesos in his pocket and he gets 60 pesos from the Group Fund, his final income is 140 pesos. How many pesos did participant B put into the Group Fund? How many pesos does he get from the Group Fund? So, what is his final income? I repeat, since participant B has zero pesos in his pocket and he gets 60 pesos from the Group Fund, his final income is 60 pesos.

We will now summarize the key results from these examples:

- a) If both participants put zero pesos into the Group Fund, they both earn 80 pesos.
- b) If both participants put 80 pesos into the Group Fund, they both earn 120 pesos.
- c) If one participant puts zero and the other participant puts 80 pesos into the Group Fund, the participant who puts zero pesos earns 140 pesos, while the participant who puts 80 pesos, earns 60 pesos.
- d) If you and the other group member put the same amount into the Group Fund, you both earn the same income.
- e) If you put less than what the other group member puts into the Group Fund, you earn a higher income.
- f) If you put more into the Group Fund than your partner, you earn a lower income.

If you have any questions, you may ask them now. Please raise your hand and an assistant will come to you. Otherwise, we ask you to answer a brief questionnaire to see if you understood the instructions. Please note that if you answer most of these questions wrong, we will need to give your 50 pesos show-up fee and request you to leave the activity venue. Therefore, please tell us if we need to repeat the examples or not. (*If yes, repeat the examples in the same order*).

Questionnaire [Control questions for Activity 1]

1. How much money do you get at the start of the activity? Answer: 80
2. How many pesos can you move to the Group Fund? Answer: 80
3. Suppose, you decide to put 5 pesos into the Group Fund, how much is left in your pocket? Answer: 75
4. If you put 1 peso into the Group Fund, by how much will this increase? Answer: 50 cents
5. After increasing, there are 10 pesos in the Group Fund. How much each will you get from the Group Fund? Answer: 5

6. If you put 1 peso into the Group Fund and the other group member also puts 1 peso into the Group Fund, who earns more? Answer: both earn the same
7. If you put 3 pesos into the Group Fund and the other group member puts 1 peso into the Group Fund, who earns more? Answer: the other group member earns more.

(After everyone finishes, read out loud the control questions with their answer. Ask again, if everyone understands).

Before we start, please don't forget that you are not allowed to talk to other participants during the workshop!

Please remember that you will receive your earnings from this part of the workshop only after both parts of the workshop are finished.

It is very important that you keep in mind that the decisions are absolutely private and that your decision will never be disclosed to anybody else.

You will make four decisions in this activity. The instructions of the activity are the ones we just explained. In each decision you will be having 80 pesos that you can move to the Group Fund. From one decision task to the other we will only vary with whom in this room you are interacting. You will not be able to know the identity of the person just some characteristics of him/her. We will now distribute some decision sheets, please write in them your participant number. You are not allowed to talk to others about your decisions. It is your private choice. In the decision sheet you can see who is in your group for each decision situation.

At any point during decision-making, you will have the opportunity to review and (if you wish) change any of the choices that you have already made. After all participants have had time to finalize their decisions, the monitor will announce the end of the experiment, after which no one will be allowed to change their decisions.

Sample instructions for the joy of destruction game

[Activity 2]

We start now with the second activity. You are again randomly assigned to a group of two people; you and another individual in this workshop. Again, you will not learn the identity of the participant you are matched with, and vice versa: your partner will never learn about your identity.

You and your partner both receive 80 pesos in the beginning. You have now the possibility to spend up to 8 pesos to reduce the income of the other group member. For each 1 peso that you spend you will reduce the other partner's income by 4 pesos. Now you have to decide how many from the 8 pesos you want to put into your pocket and how many you spend in reducing the other group member's income.

Now we will show you how this is done by using this poster. Please note that this is an example; when we do the actual activity, you will have to decide this on your own, without any help from us. Suppose participant A here is a participant in this activity. As mentioned before, you receive an endowment of 80 pesos from us and you can use up to 8 to reduce the other group member's income. Now let us assume that out of the 8 pesos, you spend zero pesos to reduce the other group member's income. *Ask the group:* Can you tell me how many pesos does the participant have in his pocket? How many pesos he

reduced from the other group member? Have you understood this? Now, let us assume that out of the 8 pesos, you spend one peso to reduce the other group member's income. How many pesos he reduced from the other group member? (*Carry on this procedure for 2, 5, 7 and 8*). Have you understood this part? Do you need additional examples? (*If yes, repeat the examples in the same order for Participant B in the poster*).

Similarly, the other group member has the same possibility to reduce your income at a cost for him or her.

We will now give you three examples and we will use again this poster to illustrate them.

Example 1: If both of you choose to leave the other person's income unaltered, both of you will earn the 80 pesos that you got at the beginning.

Example 2: If both of you choose to spend 1 peso to reduce the other group member income, both of you will earn 75 pesos (80-4-1).

Example 3: If you spend 1 peso to reduce the other group member income, but he/she decides to leave your income unaltered, you will earn 79 pesos (80-1) and the other group member will earn 76 pesos (80-4).

Example 4: If you choose not to reduce your the other group member income, but he/she decides to spend 1 peso reduce yours, you will earn 76 pesos (80 - 4) and the other group member will earn 79 pesos (80-1).

Example 5: If you spend all 8 pesos to reduce the other members' income and he/she does the same, both of you will earn 40 pesos (80-8- 32).

Do you have any questions?

If you have any questions, you may ask them now. Otherwise, we ask you to answer the questionnaire designed to test if you understood the activities. Please note that if you answer most of these questions wrong, we will need to give your 50 pesos show-up fee and request you to leave the activity venue. Therefore, please tell us if we need to repeat the examples or not. (*If yes, repeat the examples in the same order*).

Questionnaire [Control questions for Activity 2]

1. How much money do you get at the start of the activity? Answer: 80
2. How much of it you can use to reduce the other group member's income? Answer: 8
3. Suppose, you decide to spend 6 pesos to reduce the other group member's income, how much does this reduce your income? Answer: 6
4. Suppose, you decide to spend 1 pesos to reduce the other group member's income, how much do you reduce his or her income? Answer: 4
5. If you spend 5 pesos to reduce the other group member's income and he or she also spends 5 pesos to reduce your income, who earns more? Answer: both earn the same
6. If you spend 3 pesos to reduce the other group member's income and your partner spends 8 pesos to reduce yours, who earns more? Answer: the other participant

7. If you spend 8 pesos to reduce the other group member's income and your partner spends 3 pesos to reduce yours, who earns more? Answer: you

(After everyone finishes, read out loud the control questions with their answer. Ask again, if everyone understands).

Before we start, please don't forget that you are not allowed to talk to other participants during the workshop!

Please remember that you will receive your earnings from this part of the workshop only after both parts of the workshop are finished.

It is very important that you keep in mind that the decisions are absolutely private and that your decision will never be disclosed to anybody else.

You will make four decision tasks in this activity. The instructions of the activity are the ones we just explained. In each decision task you will be having 80 pesos in the beginning. You have now the possibility to spend up to 8 pesos to reduce the income of the other group member. From one decision task to the other we will only vary with whom in this room you are playing. You will not be able to know the identity of the person just some characteristics of him/her. We will now distribute some decision sheets, please write in them your participant number. You are not allowed to talk to others about your decisions. It is your private choice. In the decision sheet you can see who is in your group for each decision situation.

[The instructor remains in the room to monitor and make sure that all adhere to the non-communication rule].

APPENDIX 2. Ex-Post Questionnaire

Ex-post questionnaire used to collect information about participants in the experimental procedure.

of player _____

Location: _____

Date: _____

ABOUT THE ACTIVITY

1. In the first activity (joint project), calculate how much money you think the other player contributed to the joint project when:

the player was a fisher \$ _____

the player was not a fisher \$ _____

the player was somebody who donated to conservation international \$ _____

the payer was somebody who did not donate to conservation international \$ _____

2. In the second activity (payment to reduce other player's earnings), calculate how much money you think the other player used to reduce your earnings when:

the player was a fisher \$ _____

the player was not a fisher \$ _____

the player was somebody who donated to conservation international \$ _____

the payer was somebody who did not donate to conservation international \$ _____

3. Did the first activity (joint project) remind you of situations that you have experienced in your day-to-day?

YES NO I DON'T KNOW

4. Did the second activity (payment to reduce other player's earnings) remind you of situations that you have experienced in your day-to-day?

YES NO I DON'T KNOW

5. In regard to the second activity, please select which of the following statements describes best what motivated your decisions in general:

Statements:	
I did not reduce the earnings of the other player	
I reduced the earnings of the other player just because the game allowed me to do so.	
I reduced the earnings of the other player because I like vengeance.	
I reduced the earnings of the other player because I wanted to earn more money than he/she.	
I reduced the earnings of the other player because it makes me feel good when others loose.	
I reduced the earnings of the other player because I do not like people in this workshop.	
Other reason:	

6. How many participants in today's activities are members of your close family (spouse, brothers/sisters, children, parents)? # _____
7. How many participants in today's activities are relatives of yours (uncles/aunts, grandparents, cousins, etc.) # _____
8. How many participants in today's activities are your friends? # _____
9. With how many of the participants in today's activities have you had conflict in the past? # _____

PERSONAL INFORMATION

10. Age: _____
11. For how long have you lived in this locality? _____years
12. What is the highest level of education that you have completed? _____grade
13. What is your marital status?
 Married Single Common law Divorced Widow-er
14. How many people live in your household? # _____
15. Which religion do you practice? _____
16. How often do you go to church/temple?
 Once a week Once a month Once a year Rarely Never
17. The economic conditions of fishers in your community, compared to the individuals who do not fish, are (mark only one):
 The same Better Worse I don't know
18. The political influence of the fishers in your community, compared to the individuals who do not fish, is (mark only one):
 Larger Smaller Equal I don't know
19. Do you think that there are people in your community who feel good when somebody is doing poorly economically? (mark only one)
 YES NO I don't know
20. What is your occupation? _____

21. Indicate whether you generally agree or disagree with the following statements:

Statement	(1) Completely agree	(2) Agree	(3) Disagree	(4) Completely disagree	(5) Undecided
Obedience and respect of the authority are the most important values that children should learn.					
Individual progress depends more on work and persistence than on individual connections.					
I am a perseverant person. I generally achieve everything I decide to do.					
Winning is the most important					
When another person is doing better than I am, I get upset.					
It is not possible to have a good society without competition.					
I feel good when I cooperate with others.					
It is my duty to help and take care of my family, even when that demands that I sacrifice the things I personally want.					
Sometimes I am impulsive and I do things that I should not do otherwise.					
I blame others.					
I easily get upset/nervous.					
I usually think before I act.					

22. If you are a fisher, how good do you think your cooperative works? Given the following options, would you say it works: (mark only one)
 Very good Good Bad Very bad Neither good nor bad I am not a member I am not a fisher

23. Mark which of the following options describes best your opinion about the creation of the Cabo Pulmo National Park in 1995. You: (mark only one)
 Completely agreed Agreed Disagreed Completely disagreed Were neutral

24. Mark which of the following options describes the best your opinion about the Cabo Pulmo National Park today. You: (mark only one)
 Completely agree Agree Disagree Completely dsagree Are neutral

25. Have you participate in any of the committeess and boards where issues related to fishing and natural protected areas were discussed?
 Examples: Subcomité de Pesca y Acuicultura Municipal, Consejo Asesor del Parque, Comité de vigilancia ambiental participativa, Comités Social de Programas de Empleo Temporal (PETs), Comités Pro-Obra de PROCODES (Programa de Conservación para Desarrollo Sostenible), Comité de Programa de Vigilancia Comunitaria (PROVICOM), etc.
 YES NO

26. In general, how likely do you think is that other people will return money they borrowed from you? (mark only one)

Always Almost always Almost never Never Half the time I don't know

27. If there were a problem with water supply in your community, how likely do you think is that people would cooperate to solve the problem? (mark only one)

Very likely Likely Unlikely Very unlikely I don't know

28. Are you currently a member of any group/association that is not related to fishing? It could be a formal or informal organization, such as sports club, church, municipal committee, or political party. (mark only one)

YES NO

29. Indicate whether you agree or disagree with the following statements:

Statement	Agree	Disagree	Undecided
People from your community help their families and their friends before helping anyone else.			
People from your community only help those that they know will help them back.			
People from your community help each other whenever it is necessary.			
People from your community are always busy and don't help much.			

30. Indicate statements that you identify with:

Statement	Agree	Disagree	Undecided
People in my community sometimes yell when arguing in the street.			
There have been fistfights among people in my community.			
There have been vandalism acts in my community that damaged the property of other community members.			
People steal things from other people in my community.			
None of the above mentioned things occur in my community.			

31. How many times during the last year did you attend a meeting organized by an NGO (nongovernmental organization)? (mark only one)

Once Between 2 and 5 times Between 6 and 9 times More than 10 times Never

32. How often do the following groups and organizations do their best to hear what people like you have to say?

Organizations	Always	Almost always	Sometimes	Almost never	Never	I don't know
NGO (nongovernmental organization)						
Municipal authority						
CONANP (National Commission for Natural Protected Areas)						
Your church						
University/Academics						
CONAPESCA (National Commission for Aquaculture and Fisheries)						
Fish Buyers						

33. Let us talk now about the authorities in your community. How would you say they are managing the following issues:

Issue	Very good	Good	Regular	Bad	Very bad	I don't know
Management of ecotourism activities.						
Management of activities related to recreational fishing.						
Management of activities related to small-scale fisheries.						
Management of protected areas.						
Water management.						
Waste management.						
Management of problems related to public security.						

**End of
Supporting
Information**