Economics Bulletin

Volume 33, Issue 3

Self-Licensing and Financial Rewards: Is Morality For Sale?

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Abstract

This paper studies the impact of financially rewarding good deeds on self-licensing. We run a between-subjects experiment comprised of an adapted dictator game preceded by paid and unpaid pro-environmental tasks. We find that prefacing the dictator game with an unpaid good deed seems to establish a 'moral rectitude' which licenses subsequent selfish behaviour, whereas a paid good deed dampens this effect. Interestingly, the nature of the initial task has more of an effect on the binary option (give vs. not give) than on the amount donated.

We thank the French research program GESSOL sponsored by the Ministère de l'Ecologie, du Développement durable, des Transports et du Logement, the Agency for the Environment and Energy Management (ADEME) for financial support.
Citation: Sophie Clot and Gilles Grolleau and Lisette Ibanez, (2013) "Self-Licensing and Financial Rewards: Is Morality For Sale?", *Economics Bulletin*, Vol. 33 No. 3 pp. 2298-2306.
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Submitted: May 22, 2013. **Published:** September 10, 2013.

In Hollywood movies (as in most movies), the good guys and the bad guys are easily recognized. In the typical economic landscape, the Good Samaritan and the Free Rider are similarly well distinguished. In both cases, we expect the good guys to act generously and the bad guys, or free riders, to act selfishly. If decisions were consistent, these "exogenous preferences" would not matter very much for economists. Emerging research and daily observations, however, raise conflicting evidence that suggests a temporal inconsistency wherein the decision-making process exhibits more substitutions than complements. From food consumption habits to pro-social attitudes, illustrations of this phenomenon exist in a wide range of domains, as suggested by the following cases: soaring sales of Big Macs after McDonald's added healthier items to its menu, Prius Hybrid drivers being more likely to break crosswalk laws, get into accidents, and receive fines, green buyers being more likely to steal, etc. (Woodyard, 2009; Mazar and Zhong, 2010). Several contributions from marketing and psychology attribute these types of behaviors to a "self-licensing effect", a situation wherein a good deed might excuse subsequent dubious behaviour (Khan and Dhar 2006; Sachdeva et al., 2009).

Until now, analysis of the licensing effect remains scarce in the economic literature. A notable exception is the contribution of Branas-Garza et al. (2011), in which the authors show that a deviation from a 'normal state of being' is balanced with a subsequent action that compensates for prior behaviour. Performing an economic experiment in which subjects played a sequence of giving decisions, they found that participants' donations in each round were negatively correlated to the amount they donated in the previous period. The authors therefore interpret donations over time as the result of a pattern of self-regulation: moral licensing (being selfish after being generous) and cleansing (being generous after being selfish). Our analysis also pertains to a recent contribution by Tiefenbeck et al. (2013), in which the authors discuss the positive or negative potential side effects of environmental behavior change. They found evidence that the behavioral change studied (decrease of water consumption due to a targeted campaign) generates negative, rather than positive, spillover in a related domain (increase in electricity consumption). They also indicated that their results were consistent with the predictions of self-licensing theory. Additionally, in the nudges literature, some researchers have found that informing people they are contributing more than others to a social good (e.g., by lower electricity consumption) can decrease contributions (e.g., lead to increased electricity consumption; Schultz et al., 2007). Even if alternative explanations have been suggested, such as conformity to a social norm, another possible explanation could well be the existence of a moral-licensing effect.

This work examines the licensing effect in the context of pro-social behaviour. More precisely, we investigated whether a good deed performed either for free or in exchange for payment will impact subsequent pro-social behaviour in the same way. We use an adapted dictator game with one control and two treatments. In both treatments, players are first asked to imagine that they could engage in a pro-environmental activity, which consists in cleaning riverbanks near their home. We ask them to choose the number of bags they would be willing to fill with litter, from 0 to 20. In treatment one, respondents receive no payment for the activity. In treatment two, respondents are paid 2€ for each bag they fill. The control treatment does not include any prior neutral task, but we contend that this design does not fundamentally change our results.1 The second step of the experiment is common to all groups and consists in

[1] Khan and Dhar (2006) tested the impact of a neutral task (identifying words that are misspelled in a passage of a text) vs. a positive task (indicating whether or not to help a foreign student). Their results show that the licensing effect is robust to this framing, such that subjects are more likely to behave self-indulgently after having performed a positive task than those having performed a neutral task ($X2 = 7.95$, $p<0,05$). In another experiment, Khan and Dhar (2006) compared mean self-assessment in license (positive task) and control (neutral task) conditions. Consistent with their previous results, participants rated themselves significantly more positively (over

asking participants to allocate an amount (30€) between themselves and an environmental charity (either World Wildlife Fund or Greenpeace).2 Previous literature has shown that moral licensing can arise in the same domain (Monin and Miller, 2001, Sachdeva et al., 2009) or extend into unrelated domains (Mazar and Zhong, 2010). We select the initial activity and the pro-social behaviour from the same domain, i.e., removing debris from riverbanks and voluntary contribution to environmental protection (see Tiefenbeck et al., 2013 for another application of two environmental issues). While this issue is beyond the scope of our contribution, it may be useful to consider the suggestion made by Merritt et al. (2010) that 'prior behaviour may license a misdeed in the same domain via moral credentials (…), but license a misdeed in a different domain via moral credits'.

Before we ran the experiment, we hypothesized that establishing moral credential through doing a good deed for the environment will reduce subsequent pro-social intentions as measured through a charity donation game. In an experiment, Khan and Dhar (2006) showed that people who initially imagined doing a good deed were less inclined to behave ethically later on. In other studies, it has been shown that subjects who wrote something positive about themselves later gave one fifth of the amount given by those who wrote a story referring to their negative traits (Sachdeva, Lliev and Medin, 2009). Interestingly, another experiment demonstrated that performing a good deed under external motives (doing community service as a court-ordered punishment) dampened the licensing effect (Khan and Dhar, 2006). We test the effect of an external reward in the form of a financial incentive on self-licensing to determine whether paid and unpaid good deeds induce self-licensing in the same way.

The between-subjects experiment was performed among 290 students (40.5% male) at universities in Montpellier, a major city in southern France. Three sessions following identical instructions took place during student lecture periods, which reduced potential selection bias. The instructor asked participants to arrange themselves in exam formation (one student for every two places) to ensure anonymity. Students' earnings were based on their own responses. The dictator game lasted an average of five minutes, and the potential gain ranged from 0€ to 30€. The instructions indicated that one student in thirty would be selected by drawing lots at the end of the session to determine who would receive effective payments. Earnings were distributed in a closed envelope to participants upon presentation of their identification number. Detailed instructions for the experiment are provided in the appendix.

Donation behaviour between the two organizations mentioned in the questionnaires was nearly equivalent (48.71% chose Greenpeace, giving an average amount of 9.82€ vs. 9.99€ for WWF). Figure 1 shows the selfishness rate (i.e. donation is equal to zero) for the control and treatments. In the control group, one in eight subjects (12.37%) exhibit selfish behaviour. This rate increases to more than one in four (27.37%) in treatment one (unpaid good deed) and is significantly different from the control group at the 1% level (Student's t-test: t=2.6413, p=0.0089). This difference is less salient between the control group and treatment two (good deed in exchange for payment): 17.53% of the subjects give nothing after a hypothetical paid good deed, which is not significantly different from the control group (t=0.9738, p=0.3314). These results suggest that performing an imaginary good deed for free allows more people to act selfishly when compared to the case where no good deed is performed (as in the control

4 attributes on a scale from 1 to 7) in the license condition than in the control condition. They replicated a parallel experiment with positive vs. no prior task and obtained similar results, proving that licensing effect is due to the positive attribute of the task and not the task itself. In a similar vein, Sachdeva, Lliev and Medin (2009) found a significant decrease in donations among subjects who previously wrote a positive story about themselves compared to those who wrote a neutral story. Also, Mazar and Zong (2010) showed that people who bought green products were then significantly more likely to cheat than people who bought regular products. Overall, it has been well established in this literature that the positive attributes of a given task are the factor underlying moral behavior change.

[2] Those two environmental charities were chosen because of their high popularity among French people.

group) or when the good deed is paid (as in treatment two). The difference in selfishness rates between treatments one and two is significant at the 5% level using a binomial test (p=0.014142), which suggests that offering financial rewards for a good deed dampens the licensing effect.

Figure 1 - Share of selfish subjects (=subject's donation is zero)

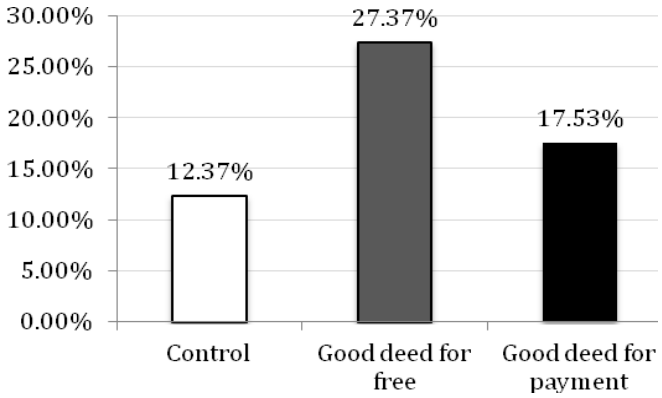


Figure 2 shows the average donation and filled bag rates in the control and treatment groups. Overall, we observe that introducing payment led to a greater increase in the good deed than in the subsequent charity donation. Among all observations (including when donation is null), subjects gave an average of 31.62% of their endowment in the control group, equal to about 9,5€. Among participants who imagined themselves as having performed an unpaid good deed, fewer chose to donate at all. The decrease is slightly mediated in the case of a paid good deed (-1.42 points) compared to an unpaid good deed (-1.95 points). The difference between the control group and treatment one (unpaid good deed) is statistically significant at the 5% level using the Student's t-test (t=190, p=0.0375). The difference between the control group and treatment two (paid good deed) is not statistically different (t=192, p=0.1222). Among respondents who donated a positive amount, the licensing effect appears to be softened, as differences in the amount donated between the control and treatments groups are not statistically significant. Table 1 summarizes these results.

Figure 2 - Mean of donations (0-30€) and bags (0-20 bags) filled in the control and treatment groups

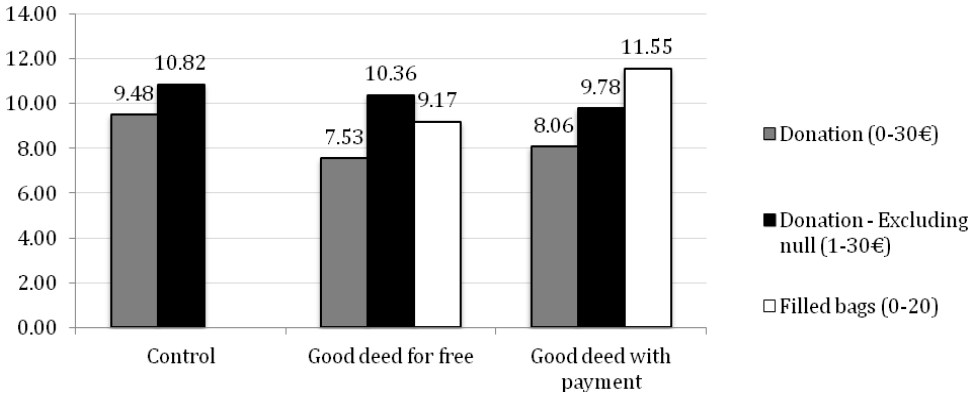


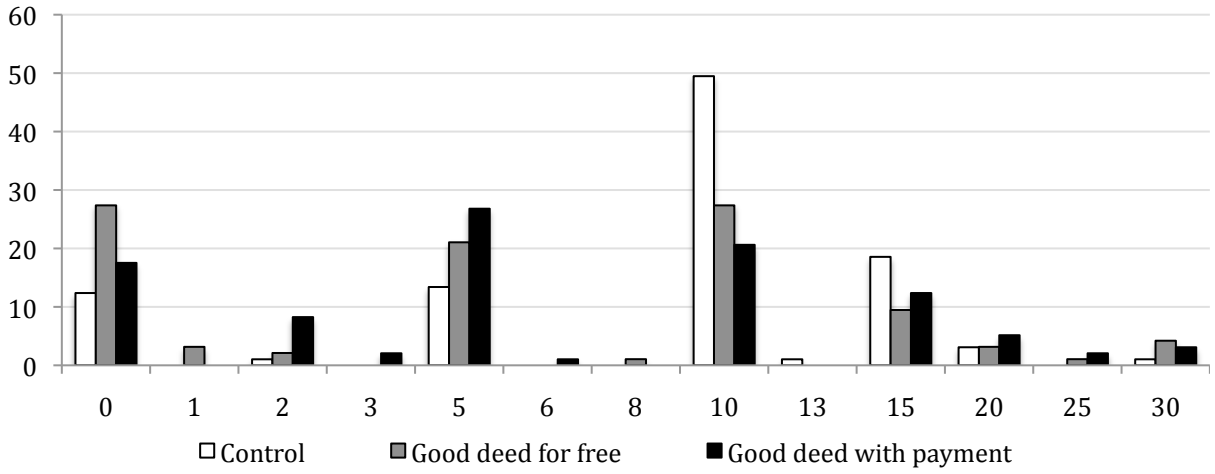
Table 1 - Statistical differences between control and treatment groups using the Student's t-test

	Student's t-test
All subjects	
Control (n=97)/ **Treatment 1** (n=95) *(Good deed, No payment)*	t= 2.0952/ p=0.0375**
Control (n=97)/ **Treatment 2** (n=98) *(Good deed, Payment)*	t= 1.5525/ p=0.1222
Treatment 1 (n=95)*(Good deed, No payment)* / **Treatment 2** (n=98)*(Good deed, Payment)*	t=-0.5029/ p=0.6156
Donors only (donation >0)	
Control (n=85)/ **Treatment 1** (n=69) *(Good deed, No payment)*	t=0.5115/ p=0.6097
Control (n=85)/ **Treatment 2** (n=80) *(Good deed, Payment)*	t=1.1863/ p= 0.2372
Treatment 1 (n=69)*(Good deed, No payment)* / **Treatment 2** (n=80)*(Good deed, Payment)*	t=0.5190/ p= 0.6045

***, **, * Indicates statistical significance at the 1, 5 and 10 percent significance levels, respectively.

Figure 3 provides further insights into the distributions of donations between control and treatment groups. In the control group, positive donations are less dispersed from the average (mean= 10.82353, sd=4.212161) than in the unpaid good deed (mean=10.36232, sd=6.87701) and paid good deed (mean= 9.775, sd=6.897027) treatments. In addition to the higher proportion of selfish subjects in the two treatments than in the control group (as mentioned earlier in the text), we also observe that positive donations are marked by an increase in non-selfish responses (i.e. donations greater than 10€). There are significantly more donations above 10€ among respondents who performed paid (Wilcoxon–Mann–Whitney test: z = -2.202, p=0.0277) and unpaid (z = -2.244, p=0.0248) good deeds than in the control group.3,4

Figure 3 - Distributions of donations (0€-30€) in control and the two treatments

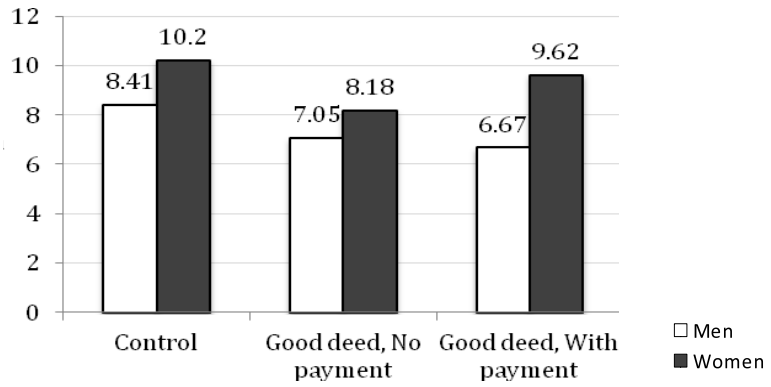


[3] Non-parametric tests are preferred when at least one of the two samples involved in the comparison is below 60.

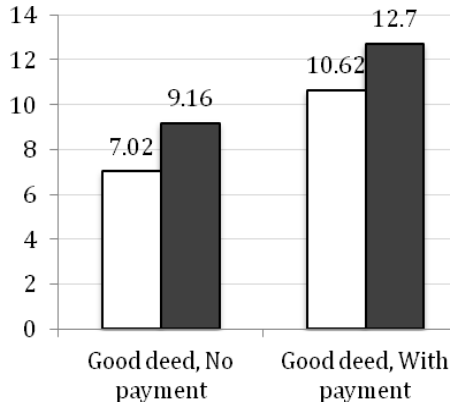
[4] Assuming that treatments had heterogeneous effect among subjects, a possible interpretation is that a 'foot in the door' effect applies to intrinsically motivated individuals (doing a good deed also encourages subsequent good behaviour) while a 'licensing effect' applies to less intrinsically motivated individuals (doing a good deed licenses subsequent bad behaviour).

Research in economics indicates substantial and consistent differences in behaviour between men and women, indicating that women tend to be more socially-oriented while men tend to be more individually-oriented (Eckel and Grossman, 1998; see also Aguiar et al., 2009; Gneezy and Croson, 2008). Furthermore, some studies suggest that this gender difference is more pronounced when the recipient is a charity rather than another anonymous participant (e.g., Eckel and Grossman, 2003). In a meta-analysis of dictator games, Engel (2011) confirms that women tend to donate more money than men. Figures 4 and 5 present a gender analysis of our experiment. Results show that, as is consistent with existing literature (Engel, 2011), women gave more to charity than men in all groups. This difference in donation behaviour between men and women is statistically significant for all groups combined (Student's t-test: t=276, p=0.0175) as well as for treatment two (z = -1.745, p=0.0810). Moreover, men and women appear to react to financial incentives in opposite ways: whereas payments for a good deed tend to attenuate the licensing effect among women, they tend to strengthen the effect among men. When considering gender and treatments, the only subgroups where the licensing effect remains statistically significant is for women, between control and treatment one (z=2.562, p=0.0104). The lack of significance among subgroups crossing gender and treatments may also be linked to the sample size. In further support of the established gender effect, women declare a willingness to fill more bags than men in both treatment groups. This difference is significant at the 10% level in the no payment treatment (z =-1.747, p=0.0807) and not significant in the payment treatment5.

Figures 4 - Average donation across treatments, by gender



Figures 5 - Average bags filled across treatments, by gender



[5] As mentioned by a referee, income levels of participants and their average donations outside the experiment could constitute good control variables. Unfortunately, income data are very rough and average donations outside the experiment have not been gathered.

We conclude this analysis by performing a hurdle model, which separates the decision-making process regarding whether or not to give from the decision-making process regarding how much to give. The first part of the model consists of running a logit regression to explain the binary outcome of a zero versus positive donation. This regression confirms that the main explanatory variable in the decision to give is the unpaid good deed. Models 2 and 3 corroborate the robustness of this result.

Table 2 - Logit model regression – Donations (0/1)

	Model 1		Model 2		Model 3	
Good Deed Free	-0.946**	(-2.42)	-0.982**	(-2.55)	-0.763**	(-2.49)
Good Deed Paid	-0.335	(-0.80)	-0.409	(-1.00)		
Gender	0.223	(0.70)				
Constant	1.606***	(2.76)	1.958***	(6.35)	1.739***	(8.63)
Observations	278		289		289	
BIC	280.5		291.2		286.5	
Chi2	7.024		7.143		6.125	
p>chi2	0.0711		0.0281		0.0133	

T statistics in parentheses
* p<0.10, ** p<0.05, *** p<0.01

Table 3 presents results from the truncated linear regression, which seeks to explain positive donations under 30€ (the maximum donation amount was restricted to 30€). In line with our previous analysis, the linear regression shows that treatments do not impact the amount donated. However, it does confirm a crossed effect of gender and treatments on donations.

Table 3 - Truncated linear regression – Donations (1-30)

	Model 1		Model 2	
Good Deed Free	-0.234	(-0.17)	1.227	(1.625)
Good Deed Paid	-1.039	(-0.77)	0.331	(1.519)
Gender	2.917**	(2.42)		
Male * Good Deed Free			-3.957*	(2.174)
Male * Good Deed Paid			-3.868*	(2.134)
Constant	4.808**	(2.10)	9.602***	(0.985)
Observations	227		227	
BIC	1451.8		1446.2	
Chi2	6.438		6.379	
p>chi2	0.0921		0.0412	

T statistics in parentheses
* p<0.10, ** p<0.05, *** p<0.01

In sum, our experiment reveals that the establishment of 'moral rectitude' through the imagination of performing an unpaid good deed may license subsequent selfish behaviour. Our results also suggest that paid good deeds are accordingly less likely to induce self-licensing. This study also provides evidence that the paid or unpaid characteristic of a good deed has a stronger impact on the decision regarding whether or not to donate than on the decision regarding how much to donate. In general, we find that engaging in an unpaid good deed encourages purely selfish behaviour (i.e. a donation of zero), but has little effect in determining the value of positive donations. Regarding gender considerations, our results indicate that women are more willing to donate to charity and to volunteer. The results of our dictator game are very similar to those of Engel (2011). Our results also suggest that men and women may

react differently to payments for good deeds, though confirming this would call for further research. Overall, the key contribution of this work is to present payments as a mediator of the licensing effect. An interesting extension would be to investigate whether the results would still hold if the hypothetical and real money tasks were made simultaneously rather than sequentially. More broadly, this work calls into question the image of the typical economic world as comprised of immutable Good Samaritans and Free Riders, raising evidence that is instead suggestive of a more nuanced vision of humanity wherein context plays a major role in determining whether people will behave as good guys or bad guys.

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