

Identifying the deontological component of tax compliance

EXTENDED ABSTRACT

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1. Introduction

It is well established that framing matters. Before the systematic and flourishing research on how choices depend on the description of the decision problem and its interpretation - which generally finds its *ground zero* in Tversky & Kahneman (1981) - the importance of wording was already proved in earlier studies on public opinion (Rugg, 1941; Cantril, 1940).

No stream of experimental literature has been left untouched by framing manipulations and, of course, this also occurred for tax compliance research. Nevertheless, there is no a clear consensus on the role of a loaded frame in tax compliance experiments. Although a loaded frame is considered to have a somewhat positive effect on compliance (Malézieux, 2018), it is not always straightforward to support the idea that framing has an overall positive impact itself. While, among many, Baldry (1986), Wartick, Madeo, & Vines (1999) and Mittone (2006) find a positive of correlation between framing and tax compliance, other studies highlight no effects or point out the fact that framing may have a positive effect but jointly determined by other variables (see, for example, Trivedi & Chung, 2006; Choo, Fonseca, & Myles, 2016). In addition, it is not uncommon to find studies which support the concept of *tax aversion*, which entails that individuals dislike taxes more than other (equivalent) non-tax related costs (Sussman & Olivola, 2011) and they feel negative reactions only by hearing the word “tax” (McCaffery & Baron, 2003). It has been found that tax aversion may also harm the potential of efficient policies, e.g. Pigouvian taxes, aimed at solving market failures (Kallbekken, Kroll, & Cherry, 2011).

The purpose of this current paper is to shed light on this gray area. More precisely, it's either one of two things: the tax frame fosters deontological motives which entails social norms and tax morale; or it rises tax aversion and it crowds out intrinsic motivation to pay taxes.

In a first laboratory study, we test the effect of a loaded frame on tax compliance by avoiding any other possible confounding factors such as interactions with the experimenters (which may involve experimental demand effect or the feeling of being somehow observed by an “authority”), efficiency concerns (e.g. via public good provision), inequity aversion, and threats of enforcement mechanisms (e.g., fines and audits). The second study extends the research by introducing enforcement mechanisms.

2. Experimental design

To ensure and make clear to the participants that no contributions (as explained later, tax payments or voluntary donations) could be traced or observed, we implement a strictly double-blinded procedure where contribution decisions were not taken via computer. Hidden behind a *contribution booth*, participants received two plastic cans: a red can containing twenty €0.50 coins¹ and a black can containing seven metal disks with

¹ Earned with the effort task proposed by Gill & Prowse (2012).

similar weight and dimension of a €0.50 coin. Participants were required to contribute €3,50 by switching the seven metal disks in the black can with seven coins of the red can.² While exiting the booth, subjects were required to leave the black can in a common box. The collected amount in the common box is then used for acquiring goods for the student community while participants kept for themselves the content of their red can as payment.

In addition, any possible inference, by the experimenter or any other one involved in the experimental session, on the contribution process is not even possible at the moment of the final payment since, in each experimental session, this was managed by two randomly selected participants.

2.1. Study 1

We conduct two treatments in a between-subject fashion. In the first, TAX, the framing of the contribution phase is “loaded”, e.g. we justify the €3.50 as a tax equal to 35% of the earned income. Thus, participants are required to pay the €3.50.

In our second treatment, DON, the €3.50 are justified as a donation to the fund for acquiring the students’ goods. Donation was, of course, not mandatory.

The prediction of the game under standard (neoclassical) preferences is the same in all treatments: participants keep all the earned income for themselves and pay/donate (hence contribute for both treatments) zero. If subjects are altruistic towards the student community, we predict no differences in contribution rates across conditions. According to deontological motives, we expect more contribution in TAX than in DON since the tax payment was framed as mandatory, while the donation was not.

Finally, since in TAX treatment any act of evasion is not punishable (there are not audits and fines), any contribution has not been fostered by punishment threats. We thus believe that results are free from any possible confounding factors and differences across treatments (if any) may have been driven only by deontological motives.

2.2. Study 2

A tax compliance game without the threat of punishment can be viewed with suspicion, but it was necessary for studying the pure impact of deontological motives. Given that we find that this effect (see the next section), we ask ourselves whether audits and fines work on top of these motives in sustaining tax compliance (but still avoiding the other abovementioned confounding factors).

The main research goal of this study is twofold: first we test the robustness of the results of Study 1 by replicating the TAX treatment and second, we aim to identify the introduction of fiscal audits and fine on detected evasion.

The experiment consists in two treatments (AUD0 and AUD10, again between-subjects).

AUD0 is an exact replication of the TAX treatment in Study 1. We add a phase consisting in eliciting subjects’ risk preferences using the Bomb Risk Elicitation Task (BRET) proposed by Crosetto & Filippin (2013). The number of boxes chosen provides a measure of risk attitude: the higher the number, the more risk lover the subject. Earnings in this phase are independent on what happened in the contribution task.

AUD10 introduces fiscal audits and fines on detected evasion.

² Two red cans were not loaded with €0.50 coins: the content was 20 metal disks and a €10 note. Those who found the €10 note were not required to contribute. The presence of these two dummy players ensures that, neither in the case of no contribution by all subjects, the experimenter is able to identify with certainty the non-contribution of a subject.

The probability of incurring in a fiscal audit is set to 10%. In case of a detected evasion, the subject is required to fill the gap in terms of tax due and to pay a fine of €1.³

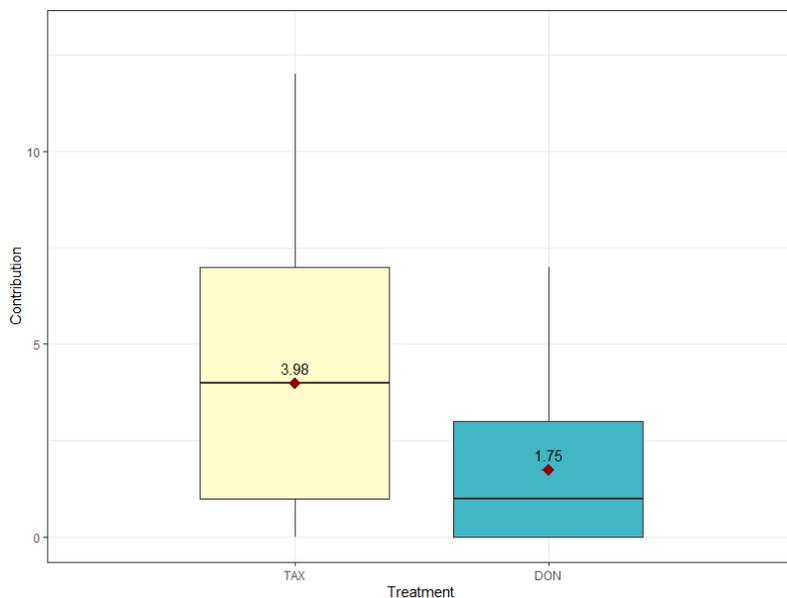
Notice that audit probability and fines are set in order to not modify the dominant strategy which remains not to contribute also in AUD10. This holds also for reasonable values of subjects' risk aversion.

Thus, differences across AUD0 and AUD10 (if any) may have been driven only by the mere introduction of the enforcement mechanism.

3. Main results

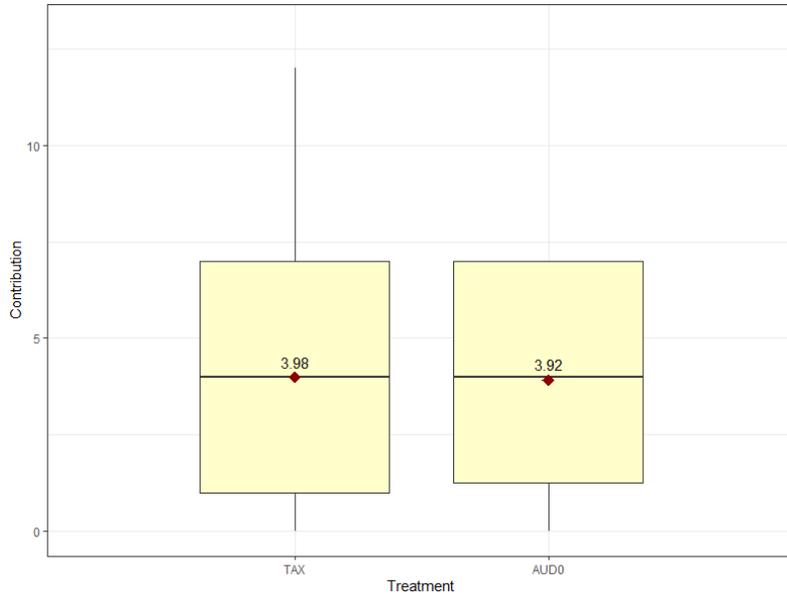
Treatment	Obs	Variable: Contribution (coins)			
		Mean	Std.Dev	Min	Max
TAX	64	3.98	3.97	0	12
DON	68	1.75	2.10	0	7
AUD0	50	3.92	2.82	0	7
AUD10	52	3.40	3.02	0	7

Result 1. Participants in TAX contribute significantly more than those in DON (Mann–Whitney–Wilcoxon test (MWW), $p < 0.001$).

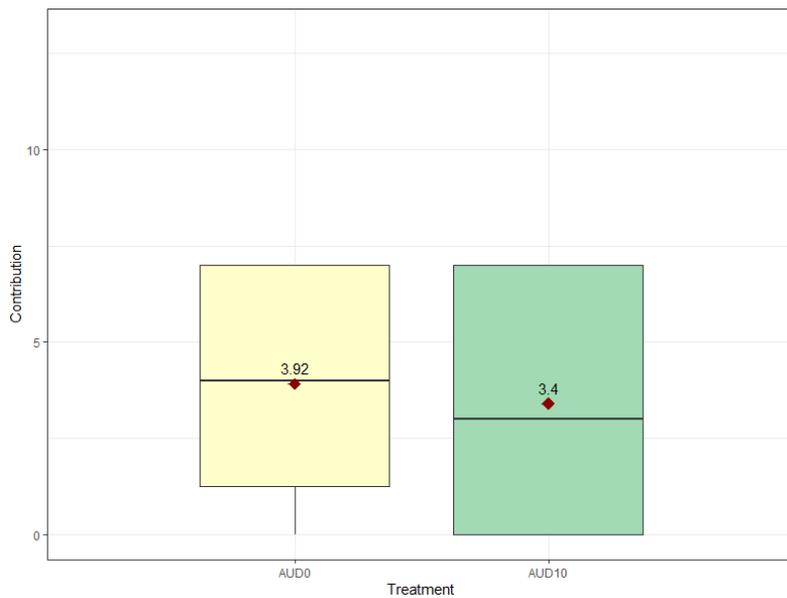


³ Audits and application of fines were performed by the assistants.

Result 2. AUD0 confirm the robustness of results in TAX. There are no significant differences in the contribution levels between treatments (MWW, p-value = 0.9485).



Result 3. The introduction of enforcement mechanisms does not entail any effect (no evidence of crowding out). Variance is slightly different among treatments with median and mean somewhat smaller in AUD10. Statistical tests fail in detecting any significant differences in the contribution levels between AUD0 and AUD10 (MWW, p-value = 0.3611).



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