Enforcing social norms: peer nonmonetary versus external monetary punishment

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While economics pays great attention to the use of monetary incentives to change behavior, there are many examples in which everyday decisions are influenced by the prospect of peer punishments that can affect an offender's utility even without imposing tangible costs. Various types of nonmonetary peer punishment may emerge spontaneously or originate from public or private organizations. The existence of norms of cooperation enforced through social disapproval, peer pressure, or public embarrassment is well documented (Guala 2012). Guala reviews anthropological evidence on cooperation and concludes that it is generally enforced by means of peer nonmonetary punishment, such as verbal or other types of expressive sanctions. Experimental work by Masclet et al. (2003) provides laboratory evidence regarding how cooperation can be enhanced purely by nonmonetary social punishment. More generally, Elster (1989) has argued that everyday cooperation is supported by members of the general community.

However, the hitherto cited works as well as field examples suggest that peer nonmonetary punishment alone most often does not lead to Pareto-efficient outcomes. The most common response to this scenario is to supplement peer nonmonetary punishment with monetary sanctions. Noussair and Tucker (2005) show that combining peer nonmonetary punishment with the opportunity for group members to also inflict monetary punishment à la Fehr and Gaechter (2000) is efficiency-enhancing. Thus, peer nonmonetary and peer monetary punishment seem to be complementary instruments in achieving cooperation.

In our modern societies, cooperation is, however, often secured through legal incentives—that is, **monetary punishment introduced by an external third party** (Engel 2014). Unfortunately, an equivalent body of knowledge does not yet exist on the effectiveness of peer nonmonetary punishment in the context of external monetary punishment. The law and economics literature generally maintains that, because legal sanctions tend to be mild, the presence of social norms

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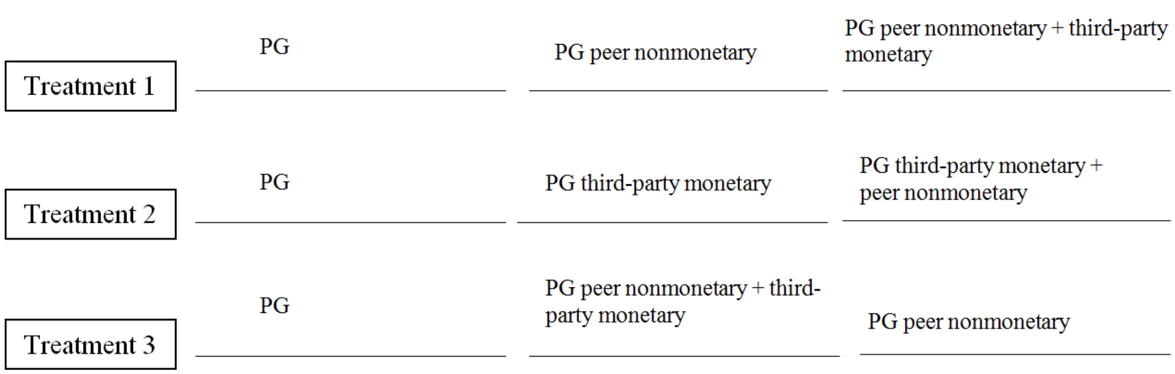
and the corresponding peer pressure they generate is crucial insofar as they provide additional incentives to comply (Cooter 1998, Kube and Traxler 2011). However, whether peer nonmonetary punishment and external monetary punishment are more effective together than alone, especially in strategic situations such as public goods games, is to our knowledge unknown. Importantly, what remains unstudied in this sphere is the relative effectiveness of peer nonmonetary and external monetary punishment and whether the simultaneous availability of both generates a higher level of overall welfare than either type on its own. Ours is the first such study.

The effect of the two punishment systems, considered alone and in tandem, on the overall level of contributions is the core issue we address. However, we also explore how the availability of external monetary punishment affects peer enforcement, as measured by the willingness of subjects to inflict nonmonetary punishment on other group members. Changes in enforcement behavior are, in turn, likely to affect the total level of contributions. Furthermore, we ask whether it makes a difference (in welfare terms) if a community, organization, or society is first governed by explicit social norms (peer nonmonetary punishment), to which external monetary punishment is added, or the other way around. Last but not least, we seek to provide evidence on the (relatively) long term effects of institutional design by having subjects begin playing in a system in which they are faced with both external monetary and peer nonmonetary punishment and then remove the former in order to observe whether its effect on contributions and enforcement behavior endures. The focus on sequentiality is important because it has meaningful implications in terms of education and deliberation in promoting cooperation. The experimental design is presented in Figure 1.

Figure 1: Treatments.



In the next weeks we plan to run the first sessions of this experiment in the context of a Voluntary Contributions Mechanism (VCM) (Fehr and Gaechter 2000). Importantly, this type of game has been extensively used to investigate the conflict between self- and group-interest, and is analogous to many real-world scenarios. As such, this study will conceivably be of interest to researchers and decision-makers in a wide range of domains. The experiment will consist of a two-stage VCM in which participants make repeated decisions regarding contributions to a group account. We follow Masclet et al. (2003) in how cooperation is enforced within groups of 4 subjects. Specifically, subjects are given the possibility to send punishment points to other group members. These points are costless to the sender and to the receiver and purely serve as an expression of disapproval. External monetary punishment is specified following Tyran and Feld (2006) and Galbati & Vertova (2014), where punishment is mild, i.e. it is structured such that free-riding remains the dominant strategy for Nash players. A future research topic will be to vary the monetary incentive in order to investigate whether the size of the external monetary punishment changes the results we obtain in terms of contribution levels and the willingness of subjects to employ peer disapproval.

In light of Ostrom's (2000) conceptualization of social control as a type of "internal" or "intrinsic" motivation, our paper contributes to the literature that examines how and when external incentives may undermine people's internal motivations to employ peer nonmonetary punishment. More precisely, while there is much research investigating the effect of extrinsic incentives on intrinsic motivations to engage in prosocial behaviors, we seek to study the impact of extrinsic incentives on a second-order prosocial behavior – punishing those who do not behave prosocially. This analysis will moreover allow us to compare competing paradigms that suggest divergent interpretations regarding the nature of social norms and of laws (e.g. the expressive function of law and norms vs. crowding out theories).

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