Snitches get stitches?: Understanding Greek attitudes towards peer enforcement of laws

By

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Submitted to

Central European University

Department of Public Policy

In partial fulfillment of the requirements for the degree of Master of Arts in Public Policy

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Vienna, Austria 2025

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Abstract

Countries are increasingly relying on citizen enforcement to uphold laws where official enforcement channels fail. However, in practice, these citizens often become targets of negative reactions by other people, being branded "snitches". This is reflected in the antisocial punishment theory, where cooperators and norm enforcers are sometimes the ones being punished. Drawing on Greece, where previous experiments have suggested this phenomenon is significant, I examine how people perceive the decision to report someone breaking a law, in a smoking ban violation or tax evasion. I hypothesize that disapproval will: differ by violation type (H1), decrease as the perceived seriousness of the violation increases (H2), increase when a reward for reporting exists (H3), and increase when other people are perceived to also disapprove (H4).

The study employs a 2 x 2 randomized vignette-based survey experiment including 488 Greek respondents recruited online, who were exposed to these two violations, with the presence of a reward varying. The findings show higher disapproval in the case of reporting a smoking ban violation, no effect of reward on disapproval, and disapproval increasing as perceived seriousness falls, and the norm is perceived as more disapproving. This suggests that policies relying on citizen enforcement should address reputation issues rather than provide only rewards.

Key words: Antisocial Punishment, Cooperation, Citizen Enforcement, Survey Experiment, Vignette Experiment, Incentives, Second-order beliefs, Greece

Acknowledgements

This research was only possible due to the constant support and guidance of my Supervisor, Professor Anand Murugesan, who taught me everything I know about quantitative analysis.

I would also like to extend my deepest gratitude to my family, friends, and partner for always being by my side throughout this process, and never letting me lose sight of my goals.

Last but not least, I would like to thank the wonderful CEU community, as well as all the anonymous participants of my survey who allowed me to gather the data I needed.

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1. Introduction

In countries with low cooperation norms and relatively weak institutions, such as Greece, people might hesitate to report rule-breakers to the authorities out of fear for retaliation. At the same time, consistent compliance with laws is not achieved solely through official enforcement channels. So how are rules enforced when the official channels trigger social backlash? In recent years, many governments have attempted to increase compliance by encouraging citizens to actively identify and report law-breaking, particularly in areas such as taxation, environmental offenses, and petty corruption (Bergemann 2024). However, participation in such efforts is often limited. In Greece, reporting rule-breakers is seen as unnecessary and suspect (Cheliatsidou et al. 2023; Abatsibasis 2023). Those attempting to uphold rules through official channels are often blamed, criticised, and ostracised by their peers (Flogaitis 2020). When formal enforcement is weak, and approval by peers matters more than adhering to the law, even prosocial behavior can be punished. This thesis asks: When do people in Greece disapprove of those who enforce socially beneficial rules?

One way to understand the negative social reactions that follow the decision to report or sanction wrongdoing is through the concept of antisocial punishment. This term refers to the punishment of people who cooperate or enforce norms, rather than those violating them and was first observed in laboratory experiments (Fehr and Gächter 2000; Sylwester, Herrmann, and Bryson 2013). Although initially treated as an anomaly, cross-societal studies showed that it is a significant phenomenon in many parts of the world, with Greece being a leading case (Herrmann, Thöni, and Gächter 2008; Balafoutas and Nikiforakis 2012).

While revenge is often considered a motivator of antisocial punishment, these patterns have been associated with low institutional and social trust (Vollan et al. 2019). Therefore,

antisocial punishment cannot be seen as simply a product of lab experiments, but a social dynamic that undermines informal rule enforcement. It is often associated with reputational sanctions, disapproval, exclusion or loss of status, that discourage people from reporting violations (Milinski, Semmann, and Krambeck 2002). Understanding these dynamics means looking beyond the laboratory setting, to examine how reporting violations is judged in real-life scenarios.

Experimental research has shown that antisocial punishment of enforcers varies across contexts, and is more common where institutional and social trust are low (Suleiman and Samid 2021; Bruhin, Janizzi, and Thöni 2020). Some recent studies have explored punishment in general through field experiments, showcasing the fear of pushback (Balafoutas and Nikiforakis 2012), but few have specifically focused on the social backlash itself. We still know little about the factors that lead to the approval or disapproval of citizen enforcers of laws (Khan et al. 2022). These questions are important, especially for contexts like Greece, where trust in the state apparatus and judicial system is low (Dianeosis 2024).

To explore these dynamics, this thesis employs a vignette-based survey experiment that presents respondents (Greek adults) with one of four short scenarios involving real-life-inspired rule violations (Hughes and Huby 2004). This method allows for the measurement of disapproval as a pathway to social sanctioning, in response to realistic enforcement acts. In each vignette, a person reports someone else for violating a socially beneficial rule - either a ban on smoking indoors, or tax evasion -, with respondents asked to evaluate that decision. Within those two cases, the presence or absence of rewards is manipulated to understand how incentivising enforcement affects how the enforcer is viewed by respondents. This presents a classic policy trade-off, where rewarding a behavior might boost compliance, but also risk sending self-interested social signals (Bowles 2008). Furthermore, this study explores how the seriousness of the violation - as judged by the respondents -, as well as second-order beliefs about what others think is the right thing to do might affect attitudes.

Social judgement of rule enforcement often depends on the type of violation being committed, as people attribute different meanings to it, therefore judging it differently (Gross, Götz, and Ullrich 2025). Therefore, I hypothesize that the tax-evasion and smoking ban scenarios will have different levels of disapproval (H1). Furthermore, research has shown that a norm violation might trigger more backlash if seen as more serious, self-profiting, or going against the expectations of what other people deem appropriate to do (Mellström and Johannesson 2008; Wu, Balliet, and Van Lange 2016; Balafoutas and Nikiforakis 2012). As such, I hypothesize that disapproval will increase the less serious a violation is perceived to be (H2), that reward incentives will increase disapproval (H3), and that second-order beliefs will be a moderator for the evaluation of the decision to report (H4).

The analysis of the results showed that disapproval was higher in the smoking ban scenario than the tax-evasion one. These results support H1. Furthermore, both the perceived seriousness of the violation, and the perceived social norm were found to have a statistically significant relationship with disapproval, thus supporting H2 and H4. However, the reward condition was found to have no statistical effect on disapproval, leading to the rejection of H3. These findings emphasize the need to consider trust dynamics and local social norms when designing policies that require citizen enforcement.

2. Literature review

Formal and Informal Enforcement

It is argued that two major guidelines exist through which a society regulates the behavior exhibited by its members: a formal one, namely written laws; and an informal one based on shared expectations; often described in social sciences as social norms (Bicchieri 2005; Hechter and Opp 2001). Formal rules are enforced with the support of explicitly and legally mandated formal sanctions or rewards. However, these are often far from the only factors; people comply based on the legitimacy of the state, its enforcement capacity, and the clarity of its rules (Levi 1988; Tyler 1990). This is crucial, as when a state with weak institutions lacks the ability to sanction and stop unwanted behavior on its own, then it often needs to rely on informal rules lest it risks losing control (Thomson, Jr. 2000).

In contrast with laws, social norms are not officially described, but rather regulate behavior through expectations (Mackie et al. 2015; Bicchieri, Muldoon, and Sontuoso 2018). These expectations are formed based on each person's own moral attitudes, as well as second-order expectations: more specifically, those pertaining to insights into what behavior a society or group expects of its members (Webster and Whitmeyer 1999; Troyer and Younts 1997). In the absence of formal rules, social norms create expected behaviors which help retain behavioral consistency within a group. This predictability is capable of reducing conflict, therefore increasing cooperation towards shared goals (Glover and Dixon 2017).

Conceptually, these expectations are impossible to standardize, with people instead relying on social cues of approval and disapproval to understand and transmit them (Mackie et al. 2015). People must infer what behavior they should exhibit based on feedback and observation of others, which they then internalize in the process of conforming (Bicchieri 2005). Some of the most potent mechanisms include gossip and reputation: Especially in tight-knit communities, people's desire to be liked and accepted by others can easily shape

their behavior, as it makes them more likely to receive help when in need (Grimalda, Pondorfer, and Tracer 2016; Milinski, Semmann, and Krambeck 2002). This makes social norms especially important in settings where formal rules are not able to properly regulate behavior.

The relationship between formal and informal rules is complex, showcasing both clashing and complementary characteristics. When laws are in conflict with already established social norms, legal legitimacy may be questioned, causing enforcement to suffer (Acemoglu and Jackson 2017; Deffains and Fluet 2020). Laws that are in alignment with social norms are more successful in achieving compliance, as they simply reinforce already acceptable behavior, while in other cases laws may even "[tip] the balance" (Cooter 2000, 11). As such, it is important that social norms are taken into account during the policy-making process, in order to foster a complementary relationship with laws.

Punishment in public goods

Despite commonly accepted and followed rules being the most important component of cooperation, people often disagree on how often they should be followed, or how strongly they should be enforced (Acemoglu and Jackson 2017). When there are shared goals to be met, people can choose to contribute towards them by incurring personal costs, such as by paying fares or taxes. However, when faced with the dilemma of lower personal profits in return for better collective outcomes, some people instead choose to 'free-ride' on others' contributions (Fehr and Gächter 2000). In public-good experiments where cooperation is voluntary and lacks practical enforcement, contributions tend to collapse in the long-run (Fehr and Gächter 2000; Fischbacher, Gächter, and Fehr 2001). This tendency is commonly referred to as the 'Tragedy of the Commons' (Milinski, Semmann, and Krambeck 2002).

Punishment has received substantial experimental attention for its possible role in deterring free-riding: experiments show that when participants are allowed to punish free-riders, total contributions increase over time (Fehr and Gächter 2000; Balliet, Mulder, and Van Lange 2011). As participants punished others at a personal cost, and without immediate direct benefits, they are often thought to be motivated by altruistic reasons (Baumard 2010; Fowler, Johnson, and Smirnov 2005). However, not all signs point toward punishment being fully driven by morality: Egas and Riedl (2008) have demonstrated that cost-benefit factors are considered, as participants will not punish others when that seems ineffective. In addition, Falk et al. (2005) suggest that established fairness theories could not adequately explain the variations in punishment across their different experiment settings. Taken together, these studies suggest that punishment is not a universal tool motivated by morals, but one that also depends on costs and context.

Positive reinforcement through rewards has also been studied as an alternative to punishment. Similarly, experimental studies show that it has a generally positive effect on increasing cooperation without any real negative effects (Andreoni, Harbaugh, and Vesterlund 2003; Balliet, Mulder, and Van Lange 2011). However, state-administered rewards might be socially interpreted differently than peer-driven ones. While it can financially benefit the receiving person, it can also raise questions about their motivation: when rewards are introduced, it is more likely that a person's motivation behind punishment may be questioned (Alam and Rai 2025; Chen, Lian, and Zheng 2023). Irwin et al. (2014) further show that trust and cooperation fall after incentives are removed from the game structure. While somewhat inconclusive, these results suggest that enforcement upheld by external incentives rather than internalized norms might risk increasing social distrust.

Whether assisted by punishment or rewards, enforcement of rules may not always be welcome, even if the rules are socially beneficial. In laboratory settings, punishment may lead to resentment between participants, especially when they perceive it as unfair or self-

interested (Irwin, Mulder, and Simpson 2014; Fehr and Rockenbach 2003). Such findings raise concerns about whether norm enforcement by other people is seen as legitimate, or as a threat to others. When perceived to be the latter, it can lead to social backlash, making enforcement costly for the person doing it.

Antisocial punishment

However, punishment can also backfire: participants in many lab experiments sanctioned high cooperators or cooperation enforcers – a behavior called antisocial punishment. More specifically, this study focuses on a specific subtype of this behavior: punishment directed at those who attempt to enforce rules or promote compliance, such as by reporting a violation. Herrmann et al. (2008) provided one of the most significant studies about antisocial punishment, having conducted public good experiments in 16 countries, effectively showing behavioral differences stemming from each country's social norms. Their findings challenge the idea that punishment can reliably increase cooperation, as they found high levels of antisocial punishment in roughly half of the countries (Herrmann, Thöni, and Gächter 2008). This suggests that different factors in each of the countries lead to different outcomes in cooperation, especially in presence of punishment mechanisms.

Herrmann et al. (2008) propose several mechanisms that could explain variations in antisocial punishment, most prominently revenge: participants often punished others back, regardless of whether it was justified. In a reanalysis of the same data combined with their own experiment, Suleiman and Samid (2021) argue that revenge can only be considered a sufficient explanation for a small minority of the countries - instead favoring inequality aversion, a dislike of unequal outcomes. This explanation is also disputed: Thöni (2014) experimentally tested its explanatory appropriateness but found little support in the results. Status-related concerns were also proposed as an alternative, with participants punishing

contributors who are perceived as showing-off or being self-promoting (Pleasant and Barclay 2018; Herrmann, Thöni, and Gächter 2008). These results might be diverging not based on the theories' appropriateness, but because they explain individual-level behavior instead of cross-societal norm differences.

Beyond individual motives, structural and/or social contexts appear to shape the prevalence of antisocial punishment instead of cooperation. This becomes apparent in field experiments: during their experiment in Athens, Balafoutas and Nikiforakis (2012) observed that people hesitated to confront norm-breakers as they were afraid of receiving no support in the case of retaliation. Similarly, Vollan and Pröpper (2019) found significant antisocial punishment during an experiment regarding forest-use in rural Namibia, owing to weak institutions and status competitions. In a different experiment, Nikiforakis (2008) showed how different game structures, acting as proxies for the strength of institutions, could affect the emergence of antisocial punishment. Overall, these studies suggest that, in certain contexts, antisocial punishment does not thrive solely because of individual-level motives, but also because a weak institutional setting creates ambiguity regarding the social enforceability of rules.

Recent research has explored how the social interpretation of norm enforcement depends on the clarity and consensus of the underlying norm. Irwin and Horne (2013) argue that descriptive social norms can increase the likelihood of antisocial punishment when enforcement contradicts typical behavior, even if overall beneficial. In this framework, antisocial punishment reveals a conflict in second-order beliefs, as the morality of the norm itself is not the only factor judged. Gross et al. (2025) similarly show that resistance to norms can stem from misconceptions about what they actually entail, or from a perceived lack of social consensus. This is further supported by Tankard and Paluck (2016), who argue that the perceived popularity of a rule is shown to greatly influence how much people comply. As such, when a popular rule is enforced, the enforcer might be left socially unharmed. However,

when the rules themselves are unclear or even controversial, then the enforcer could suffer reputational loss (Li and Mifune 2023; Arai, Tooby, and Cosmides 2023), or be less likely to receive help when they need it (Balafoutas, Nikiforakis, and Rockenbach 2014).

As a whole, these studies suggest that antisocial punishment of enforcers cannot be strictly blamed on individual responses, but must be seen through an institutional lens. In places where trust in the state or in other people is low, ambiguity might emerge regarding whether one should enforce a rule by reporting the violators. In combination with a lack of protections for the enforcing person, compliance can fall significantly. However, the studies above research such interactions without the full involvement of the state as a factor; Greece offers an interesting experiment setting with weaker institutions and where the state has recently made attempts to utilize citizen enforcement.

The Greek case

Greece stands out in the literature, being the country with arguably the worst antisocial punishment outcomes in Herrmann et al.'s (2008) experiment: it had the second highest rate of antisocial punishment, and was the only country in the sample where it outweighed prosocial punishment. The observations made in the Greek part of the dataset fit empirical expectations about the importance of the institutional setting and social trust in the emergence of significant antisocial punishment, which was further corroborated by Balatafoutas and Nikiforakis' (2012) field experiment in Athens. This would mean that people who would want to act prosocially, might either not attempt to enforce rules, or become victims of retaliation.

The relatively weak (as perceived to be) institutional setting is confirmed in extended yearly surveys from Public Issue, demonstrating how Greek society has displayed low trust in many important institutions, including governments (18% trust in 2024), the parliament (18%), political parties (9%) and the judicial system (27%) (PublicIssue 2024). Research by the Dianeosis Institute (2024) corroborated the findings on low trust in most institutions; it

further showed that 'family' was the most trusted institution (84.5%), while only 12.8% agreed that most other people are worthy of trust. Furthermore, only 24.7% agreed with the statement that "The judicial system treats all citizens as equals". This would suggest that people in Greece trust only those close to them, and are suspicious towards strangers and towards the state.

Recent policy-making in the country has increasingly attempted to involve citizens in enforcing state laws. Following previous unsuccessful attempts to curb indoor-smoking in public spaces, a 2019 attempt to do so included a new complaint hotline alongside a significant public campaign to encourage its usage. However, despite an encouraging starting period, enforcement has been fizzling out (Kitsantonis 2024). Similarly, an app was recently developed by Greece's Independent Agency for Public Revenue, where people can scan tax receipts to verify their authenticity, receiving rewards for reporting fake ones (*To Vima* 2025). With both of these policies having received negative attention for 'incentivizing snitching', citizen enforcement clearly is somewhat divisive in Greece. Even when framed as prosocial or promoted through possible rewards, reporting violations can still carry negative reputational associations.

By drawing inspiration from these policy examples, this thesis situates itself within the academic conversation about antisocial punishment, institutional and social trust, and the enforcement of norms. Cross-societal variation in the prominence of antisocial punishment has been highlighted in previous studies, including the importance of institutional settings and social norms (Herrmann, Thöni, and Gächter 2008; Suleiman and Samid 2021; Gächter and Herrmann 2009). However, these findings emerged from a laboratory setting where specific decision-making structures existed, and participants were mostly students. As such, their real-world relevance is limited. This has left a notable gap in the literature, particularly in cases where people can punish their peers for violating norms and rules, but where that decision may be socially controversial.

3. Methodology

This thesis explores how individuals from Greece respond to norm enforcement, particularly how individuals react when others report violations. Drawing upon established literature on the concept of antisocial punishment, the focus is upon how contextual factors including incentives for reporting, the type of violation and its severity, and the perceived social norms, influence disapproval of the reporting person. The core aim of the research is to understand what conditions may lead to disapproval of a person attempting to enforce commonly beneficial rules, especially in low-trust social settings.

To examine those questions, this study utilizes a vignette-based survey experiment. This method allows for the manipulation of key factors between each vignette in order to measure their effect, all the while having ecological relevance by incorporating real-world elements modeled on Greek policy contexts. As such, it is a good option for capturing the respondents' normative evaluation of behaviors in realistic but rather controlled conditions (Aguinis and Bradley 2014; Hughes and Huby 2004).

At the same time, vignette experiments also exhibit some notable limitations: Firstly, as they are hypothetical scenarios, they can only measure the respondents' stated attitudes, and not actual behaviors. Respondents might be unwilling to share their actual reactions if they are not considered to conform to social standards. Secondly, even though real world elements are introduced, the complex interpersonal dynamics that characterise them cannot be accounted for. Finally, as the survey within which the vignettes are introduced is not able to have a sample representative to the population, the generalizability of the study must not be overrepresented. Nevertheless, this vignette-based survey experiment can offer insights into the factors influencing antisocial punishment of rule enforcers among Greek respondents.

Sampling and recruitment

Participants in the survey were recruited through Prolific, a platform that supports online participant recruitment for research purposes, and is increasingly used in academia (Palan and Schitter 2018). Several useful features for researchers were identified, including the possibility of choosing 'screens' for participants, setting quotas, and linking to externally-made studies. Furthermore, they have an adequately rigorous approach for ensuring participant quality by requiring IDs to register and banning inconsistent respondents. Experimental research by Peer et al. (2022) further confirmed Prolific's high quality data, in comparison to other similar platforms.

For the purposes of the study, three filters were chosen: location in Greece, an approval rate between 95-100, and Greek as a fluent language. The initial sample size target was set to 600, in order to have sufficient statistical power to analyze all four conditions (vignettes). In the end, 488 responses were collected. Eligible participants could see an inplatform ad about the survey with a short description, were told it would last approximately 4 minutes, and were paid £0.60 for their participation. Furthermore, they were informed in the ad that they would become eligible for a lottery of €25 by participating in the survey. The overall procedures for the recruitment of participants, the methods of obtaining informed consent, and the handling of the data were approved by the DPP Research Ethical Committee.

Experimental Design

This study employs a 2 x 2 between-subjects experimental design. After answering demographic questions, participants were randomly assigned to one of the four vignette scenarios, describing a situation where a person reported a legal violation. The vignettes are the study's independent variable, and varied in two ways. Firstly, they concerned either 1) a smoking ban violation or 2) tax evasion. Secondly, the presence or absence of a reward for reporting the violation was manipulated across the two scenarios.

In the tax evasion scenario, the vignettes describe a situation where a small business issued a fake receipt, as determined by the reporting person who scanned it with an app. In the smoking ban violation, participants read about a person reporting a smoking ban violation, as other people were smoking in the interior space of a cafeteria. In the reward condition, the reporting person is described as receiving a reward if the violation is confirmed, while in the no-reward condition they explicitly do not have a reward. The reporting method in both scenarios is explicitly mentioned to be an app to reduce assumptions.

To ensure they were realistic and relevant, the vignettes were carefully constructed in Greek and kept relatively concise (around 50 words each). The allocation of participants into the 4 vignettes was done through Qualtrics' randomization option, ensuring balanced covariates between them. Furthermore, it should be noted that each respondent was only shown one vignette, as showing them more than one could potentially introduce order effects (Jäckle and Auspurg 2012). Following the random vignette, participants had to respond to a number of questions regarding the evaluation of the decision to report, as well as the reporting person himself.

Collected Variables

This study includes several dependent variables to measure the respondents' evaluation of the person reporting the violation. The primary variable of interest is measured by asking respondents to evaluate the decision of the reporting person to report the violation: this 'Disapproval' variable is captured through a four-point scale ranging from 1 = 'very acceptable' to 4 = 'very unacceptable'. It serves as a proxy for enforcer backlash, a type of antisocial punishment, where social disapproval is a very important mechanism.

¹ The order of the likert-scale type of answers was randomized between participants, so that each saw one version, to minimize potential priming effects and prevent systematic response bias.

Exploratorily, respondents were also asked to describe the likelihood that they would have reported the violation in the scenario themselves, what they perceive to have motivated the reporting person to report the violation, and prompted to say how they would have reacted in a scenario where a friend of theirs makes derogatory comments about the reporting person. These may be explored outside of the context of this thesis due to concerns with the word limit.

In addition to the usage of the vignettes as independent variables, participants were asked to evaluate how serious they considered the violation in their perspective scenario to be this. This was measured on a four-point scale from 'very serious' to 'not at all serious'.

Previous experiments on punishment have theorised that the severity of a 'bad' behavior might play a role on whether people will punish the person committing it, and how strongly so (Balafoutas, Nikiforakis, and Rockenbach 2016; Balafoutas and Nikiforakis 2012).

The second key independent variable concerns the perceived social norms, as they can guide people's attitudes and behaviors within social contexts. The Krupka-Weber method of norm elicitation was used to measure second-order beliefs (Krupka and Weber 2013): participants were asked to rate how most others in their area would view the decision to report the violation, rather than their own opinion on the matter. This was answered on a four point scale ranging from 'very socially acceptable' to 'very socially unacceptable'. To incentivize the second-order beliefs about this norm, participants were told that they would enter a lottery for €25 if their answers matched the modal (most common) answer given by others.

Finally, data was collected for a number of control variables to account for subject-level differences that might influence answers: their birth year, gender, educational attainment, location, and subjective income. Some additional measurements of politically and socially relevant data were collected: 'Trust in the state to design fair laws' acts as a proxy for institutional trust, while 'Trust in other people to do what is right even if it goes against their interests' represents social trust. Both of these data points represent factors considered

important in understanding antisocial punishment. Finally, participants were asked to place themselves on the left-to-right political scale to account for ideology. The full survey structure is available in the appendix.

Research Hypotheses

Although reporting rule-breakers aligns with established legal norms, it is not always met with approval by other people. Various factors can influence how people judge those who report others; with some of them tested in this study including perception of violation severity and the perceived norm. As such, it is expected that disapproval will differ statistically between the two violation scenarios:

H1: Disapproval of the reporting person will differ based on the type of violation².

At the same time, the way the violation is interpreted socially, especially with regard to its severity, should be a significant factor in determining responses towards the people reporting it. As previously established, the severity of a negative behavior affects attitudes towards it (Balafoutas and Nikiforakis 2012). As such, it is expected that disapproval will be higher if the violation is not seen as sufficiently serious:

H2: Respondents will exhibit higher disapproval of the reporting person, the less serious the offense is considered to be.

Another important factor that could moderate the respondents' attitudes is the presence or absence of incentives pushing people towards reporting violations. Prior research shows that incentivizing a behavior might create specific social signals suggesting self-interested motives rather that moralistic concerns (Mellström and Johannesson 2008; Irwin, Mulder, and Simpson 2014):

² The previous pre-registered version of H1 stated: Across all respondents, the average disapproval of the reporting-person is above the scale midpoint (2.5 with an 1-4 scale). Upon further reflection, choosing a specific baseline does not make theoretical sense, especially one that would indicate more than half disapproval. The new version was adopted before data collection was finished. This hypothesis would have been rejected.

H3: Respondents will exhibit higher disapproval of the reporting person in the reward condition, than in the no-reward condition.

Finally, people's judgement of a behavior might reflect not only their personal attitudes, but what they perceive to be accepted by other members of their group (Bicchieri 2005; Krupka and Weber 2013). As such, if they think that others will not agree with reporting law-breaking behavior, then they themselves will also disapprove more:

H4: Respondents will exhibit higher disapproval when they believe that most others disapprove of reporting.

Correspondingly, the null hypotheses state that disapproval between the two violation scenarios will not differ [H1], that a higher perceived severity of the offense will not be associated with lower disapproval [H2], that the presence of reward incentives will not increase disapproval [H3], and that the perception that others disapprove will not be associated with higher own disapproval [H4].

4. Sample characteristics

Following the data collection period, a total of 488 responses were collected in Qualtrics. However, one respondent did not formally finish the survey despite answering all substantive questions³, therefore being removed out of caution. Following collection, the data was processed in R Studio. As a first step, because the post-vignette questions were stored separately for each vignette, they were consolidated into new variables for each question type. In a similar vein, new variables were created for the reward condition, the violation scenario (smoking vs. tax evasion), and the combination of the two.

³ Only the responses about the survey's lottery were left unanswered.

Data Checks

To ensure that participants paid attention to the survey, a manipulation check was introduced to the survey. It was placed directly after the randomized scenario was read, but in a different page⁴. Based on the scenario that each participant read, they had to choose which of the multiple choices presented best described it, with 2 out of 5 choices being correct. Of the 488 total respondents, only 2 failed the manipulation check, thus being removed from the dataset (Table 1). The extremely high success rate reflects positively both on the choice of Prolific as the survey platform, and on the study's internal validity, as respondents were able to understand and remember the scenario. The short time required to complete the survey is another likely factor.

Four additional checks were performed to ensure data quality. First, survey completion times were considered: according to the study's pre-registration, anyone having completed the survey in less than a third (1/3) of the mean completion time would be dropped from the sample⁵. For robustness reasons, 1/3 of the median was also introduced as an alternative metric, but no respondent fell below either number⁶. Secondly, responses were checked for duplicate Prolific IDs, but none were detected. Thirdly, unlikely birth years (under 18 and over 90), and impossible combinations of birth years and education (e.g. 19 year old with a Master's/PhD) were checked for, but none were identified. Lastly, I checked for respondents who gave the exact same answer on all the post-vignette Likert-scale questions⁷, but none were identified either. Overall, the quality-check controls performed identified 2 respondents who did not meet the quality standards.

⁴ Participants did not have the ability to go to the previous page to re-read the scenario.

⁵ While ½ might seem low, it should be kept in mind that Prolific participants are essentially trained to answer fast yet accurately. This is because they are paid to complete surveys, and have every reason to be fast with them. Furthermore, despite the completion time, they did manage to pass the manipulation check.

⁶ A similar method was considered for respondents on the high end of response time. However, as neither Prolific nor Qualtric offer the possibility to check where respondents took the most time, there is no way to prove that they simply did not leave the survey open for some time, before finally starting it.

⁷ This means respondents who always chose e.g. the first or last possible answer.

Table 1: Manipulation check success rate

Result	N	Success Rate
Failed	2	0.41
Passed	486	99.59

Group Balance Checks

To ensure that Qualtrics' randomization process performed as designed, a number of group balance checks were conducted. These checks verify that the random allocation into the conditions was successful, which would be disproved if the respondents of each condition had statistically significant differences between them on the collected control variables.

Firstly, respondents were successfully split evenly among the four conditions: three of them had 121 responses, and one had 122. A group balance check for gender (Table 2) shows that the gender allocation across the four conditions is relatively balanced: in each condition, women made up 43% - 53% of responses. The group balance for education (Table 3) was similarly tight across all four conditions. University-level graduates made up 42% - 51% of each condition, and Master's/PhD holders made up 28% - 36%. Smaller shares of respondents reported high-school or vocational qualifications, with each of those mid-range categories varying by no more than 3% - 4% across conditions. When it comes to location (Table 4), there is a slightly larger imbalance among the conditions: there is a variation of around 10% for respondents from Athens, Thessaloniki, and 'Other city' across conditions, and a smaller one of about 4% for respondents from 'Towns and villages'. However, these differences do not suggest any systematic failure in the randomization process.

Table 2: Group balance check for Gender

			ng_no_reward								_		Total ::	1
Female	ı	58	(47.54%)	ı	60	(49.59%)	ı	64	(52.89%)	52	(42.98%)	234	(48.25%)	ı
Male	1	63	(51.64%)	1	61	(50.41%)	I	56	(46.28%)	68	(56.20%)	248	(51.13%)	I
Other	1	1	(0.82%)	1	0	(0.00%)	ı	1	(0.83%)	1	(0.83%)	3	(0.62%)	ı

Table 3: *Group balance check for Education*

```
| smoking_no_reward | tax_no_reward | smoking_reward | tax_reward | Total
   | 0 (0.00%) |1 (0.21%)
                     0 (0.00%)
                                 0 (0.00%)
          1 (0.82%)
|3
         19 (15.57%)
                     | 18 (14.88%) | 18 (14.88%)
                                                | 21 (17.36%) | 76 (15.67%)
                                     7 (5.79%)
|4
          9 (7.38%)
                          (6.61%)
                                                | 9 (7.44%) | 33 (6.80%)
          56 (45.90%)
                        51 (42.15%) | 62 (51.24%)
                                                | 54 (44.63%) |223 (45.98%)
|5
          37 (30.33%)
                        44 (36.36%) | 34 (28.10%)
                                                | 37 (30.58%) |152 (31.34%)
|6
```

Key: 1 = Primary school, 2 = Lower high-school (no responses), 3 = Upper high-school, 4 = Vocational training, 5 = University (AEI/TEI), 6 = Master's/PhD.

Table 4: *Group balance check for location*

location_f	smc	kin	g_no_rewa	rd 1	ax_	no_reward	1	smok	ing_reward	1	tax	_reward	Tota	1	1
:	:			: :-			: :-			: [:		: :		۱-
1	I	62	(50.82%)	- 1	61	(50.41%)	1	52	(42.98%)	1	63	(52.07%)	238	(49.07%)	I
2	ı	20	(16.39%)	ı	26	(21.49%)	ı	26	(21.49%)	ı	15	(12.40%)	87 (17.94%)	ı
3	I	33	(27.05%)	- 1	26	(21.49%)	I	36	(29.75%)	ı	40	(33.06%)	135	(27.84%)	I
4		7	(5.74%)	- 1	8	(6.61%)	ı	7	(5.79%)	ı	3	(2.48%)	125	(5.15%)	ı

The variables for political orientation, age, and how much they distrust others to do what is right are well balanced in the sample. The distrust in the state variable is slightly less balanced (Figure 1), but retains a median of around 4 despite the 'Tax - No reward' condition

having more outliers. Subjective income (Figure 2) also shows similar medians across conditions, but visual inspection suggests some imbalance in the distribution.

Figure 1: *Trust in state box plot by group*

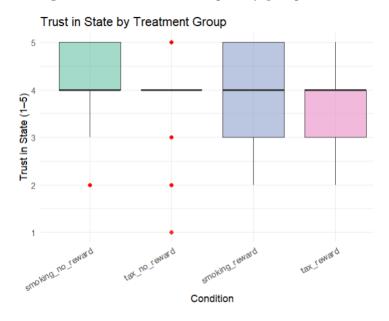
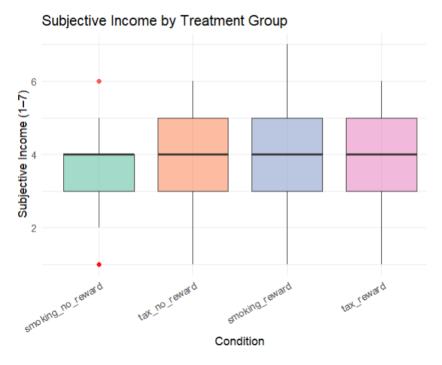


Figure 2: Subjective income box plot by Treatment Group



To assess whether the randomization process produced balanced control variables across the four conditions, two types of tests were conducted. A Pearson's Chi-squared test (Table 5) was used for categorical variables: Gender (p-value = 0.7472), Education (p-value =

0.905), and Location (p-value = 0.299). These results suggest that the balance of these variables is likely due to chance. To assess baseline balance in the study's continuous and ordinal variables, one-way ANOVAs were conducted across the groups (Table 6). No significant differences were found for age, political orientation, distrust in the state, or distrust in others (all p > 0.4). However, subjective income had statistical differences across the four conditions (F(3, 481) = 3.86, p = 0.0096). While the box plots suggested similar medians across conditions, this result indicates that the mean subjective income varied more than would be expected by chance. Post-hoc comparisons (Tukey's HSD) showed that this difference was driven primarily by the 'Smoking - Reward' and 'Tax - No reward' conditions (p = 0.0065). Although this imbalance is modest and limited to a single pairwise comparison, the variable will nonetheless be included as a control to ensure comparability across conditions.

Table 5: Pearson's chi-squared test

Variable	X²	df	p-value
Gender	3.48	6	0.747
Education	6.22	12	0.905
Location	10.67	9	0.299

Table 6: One-way ANOVAs for group balance

Variable		Df	Sum Sq	Mean Sq	F value	p-value
:	-	: -	:	: -	: -	:
birth_year		3	127.5	42.50	0.42	0.74200
politics		3	0.1	0.03	0.02	0.99600
distrust_state		3	2.1	0.70	0.91	0.43500
distrust_others	1	3	0.3	0.10	0.14	0.93900
income		3	12.9	4.31	3.86	0.00956

Descriptive statistics

In the final post-exclusions sample (N = 485), 51.1% of the respondents were male, 48.2% were female, and 0.6% selected 'Other'. This balance was achieved through Prolific's gender quota, being chosen due to the higher number of eligible male participants. The sample included respondents aged 20 to 71, with the mean age being 35.2. Respondents were generally highly-educated, with only around 75 participants (15.7%) having high-school as the highest level of educational attainment; the vast majority of respondents had university-level (46%) education or were holders of Master's/Phd degrees (31.3%)⁸. For the location of the participants, most of them live in either the two largest cities (Athens: 49.1%, Thessaloniki: 17.9%) or smaller ones (Other city: 27.8%); rural areas are notably underrepresented in the sample (5.2%).

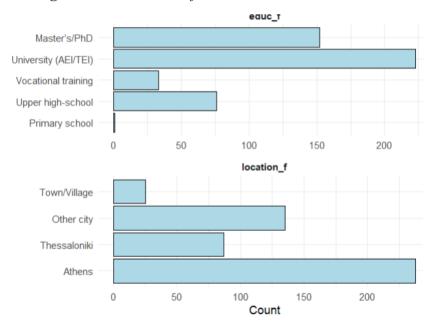


Figure 3: Distribution of education and location

Furthermore, respondents generally reported low levels of trust in both other people and the state, though trust in the state skewed more strongly toward distrust. Most respondents

⁸ No participants reported not having finished primary school, or to have only finished education up to lower high-school.

rated their income as 'Average', with fewer placing themselves at the extremes (Figure 5).

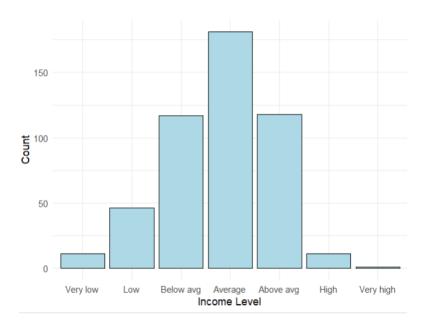
The distribution shows a slight skew towards lower incomes, as high-income individuals likely do not have incentives to use Prolific. Lastly, when it comes to political ideology, most respondents located themselves on the left half of the political spectrum. Responses became less frequent toward the right half of the scale, with very few identifying as far-right.

Trust in Others **Trust in State** Count Trust (1-5)

Figure 4: *Distribution of respondents' trust*

Key: 1 = 'Trust a lot', 5 = 'Do not trust at all'.

Figure 5: Distribution of respondents' subjective income



5. Data Analysis

To test the study's pre-registered hypotheses 2 - 4, the main method of analysis used is Ordinary Least Squares (OLS) Multiple Linear Regressions. Within that context, three main regression models have been developed to analyse each dependent variable. The first model (M1) only includes the independent variables of interest for each hypothesis: the violation type, the presence of a reward, the perceived seriousness of the violation, or/and the perceived norm belief. These predictors are regressed on the main dependent variable, the disapproval of the decision to report. The second model (M2) adds the main demographic variables (age, education, location, subjective income) as controls to account for the part of the variation in disapproval that may be explained by them. Model 3 (M3) includes three more abstract control variables, namely distrust in the state, distrust in others, and political ideology. More robust specifications of Model 3 (M3), including HC3 robust standard errors and an ordinal logistic regression model were also utilized.

To make the models more stable and easier to interpret, the answers to two categorical variables were combined into fewer categories. The political ideology variable, which was on a scale of 1-7 with a non-committal answer, was re-coded into 'Left' (1-3), 'Center' (4), 'Right' (5-7), and Refused for non-committed responses. These were then included as dummy variables in the appropriate models⁹. Similarly, education was also re-coded into three levels, which were included as dummies: 'High school or less' (Primary, Lower and Upper secondary education), 'Vocational education', and University+ (Bachelor, Master's or PhD). This decision was made following technical problems in some models due to sparse categories, including ones with a single or no answer (e.g. Primary School: N = 1). Grouping

⁹ Creating dummy variables is the chosen way to handle non-committed answers for the political ideology question, as it permits keeping these observations in the data, while also accounting for the fact that only a few respondents were placed on the extremes.

these categories ensures that each level has enough observations to produce more stable and interpretable results.

Disapproval of Enforcers by Violation Type

The first hypothesis concerns whether the type of the violation reported affects the disapproval of the decision to report it. On the 1-4 scale (1 = Very acceptable, 4 = Very unacceptable), the decision to report a smoking-ban violation received a higher mean disapproval (M = 1.94, SD = 0.95, n = 243) than the decision to report tax-evasion (M = 1.73, SD = 0.78, n = 242). A Welch t-test confirmed that this difference is statistically significant t(465.15) = 2.67, p = 0.008. To account for the ordinal nature of the outcome and potential non-normality, a Wilcoxon rank-sum test (Mann–Whitney U) was also conducted, confirming a significant difference between scenarios (p = 0.032). These results suggest that, among respondents, the observed difference in disapproval between the two violation types is unlikely to be by chance.

To assess whether the difference in disapproval between the smoking-ban and tax-evasion scenarios holds, despite the random difference in the demographic characteristics of the respondents, three OLS models were employed (Table 7). Model 1 - without any controls - confirms the results of the Welch t-test (p = 0.008, SE = 0.079). The statistical significance of these findings holds in both Model 2 (p = 0.009), which utilized demographics as control variables, and Model 3 (p = 0.014), which further added political ideology and measures of trust.

In Model 3, the 'Scenario: tax evasion' variable (b = -0.192, p = 0.014) shows that respondents in the tax evasion scenario displayed 0.195 less disapproval on the 1-4 scale, in comparison to respondents in the smoking ban scenario, even when accounting for the controls. The robustness of the statistical significance in Model 3 provides evidence in support of the hypothesis (H1), within the limits of this sample.

When examining the covariates 10 , we see that gender emerges as a statistically significant predictor of disapproval. More specifically, in Model 3 men in this sample disapprove of the decision to report significantly less than women do(b = -0.194, p =0.015). This means that male respondents have on average 0.194 lower disapproval in the 1-4 scale. This effect is comparable to the effect of the different violation type on disapproval (b = -0.194 > b = -0.192). While this may be consistent with previous research showing that men are more likely to engage with punitive behavior (Balafoutas and Nikiforakis 2012), interpretation of this result should still be treated with caution. As the reporting person was a man in all four vignettes, this could simply reflect in-group bias based on gender among male respondents (Rudman and Goodwin 2004). Conversely, previous research has suggested that people are more likely to punish in-group members, but this was explored on an ethnic level (Rabellino et al. 2016). Further research is required to understand if this effect reflects differing behaviors due to gender norms, or simply different levels of identification with the reporting person.

Further statistical significance was detected with respondents in the grouped 'Politics: Left' category (b = 0.322, p = 0.001). This suggests that people in that political category are more likely to disapprove of a decision to report a violation than people placing themselves in the 'Center', by 0.322 points on the 1-4 disapproval scale. This might be explainable by the Greek political left's generally anti-authoritarian attitudes, including mistrust towards the police and memories of persecution during the civil war and Military Junta (Katsambekis 2015). Similarly, respondents who refused to place themselves on the political scale also exhibited higher disapproval (b = 0.349, p = 0.034). This means that those who refused disapprove more than centrists by 0.349 points on the 1-4 scale. However, that group made up

 $^{^{10}}$ Being from a Village or Town had a weakly statistically significant (p = 0.080) effect on disapproval. Low significance aside, given that these respondents made up only around 5% of the total sample, this result should not be interpreted as substantively meaningful. Further research into urban/rural splits may be warranted through more representative sampling methods.

a smaller percentage of total respondents (<10%) and should be treated with caution due to its heterogeneity

 $\textbf{Table 7:} \ \textit{Models for the Effect of Scenario on Disapproval}$

Variables		Mod	el 1	·	Mode	12		Model	. 3
	b	SE	p	b	SE	p	b	SE	p
(Intercept)	1.942	0.056	0.000***	2.384	0.220	<0.001***	1.609	0.367	0.000***
Scenario: Tax evasion	-0.211	0.079	0.008**	-0.207	0.079	0.009**	-0.192	0.078	0.014*
Birth year				-0.006	0.004	0.131	-0.002	0.004	0.596
Male				-0.224	0.081	0.006**	-0.194	0.080	0.015*
Other gender				-0.088	0.509	0.862	-0.163	0.506	0.747
Education: Vocational				0.049	0.182	0.788	0.047	0.181	0.796
Education: University+				-0.084	0.113	0.459	-0.105	0.112	0.346
Location: Thessaloniki				-0.057	0.110	0.602	-0.063	0.109	0.564
Location: Other city				-0.027	0.094	0.775	-0.023	0.093	0.807
Location: Town/Village				-0.274	0.184	0.137	-0.319	0.181	0.080.
Subjective Income				-0.006	0.039	0.873	0.032	0.039	0.423
Distrust_state							0.121	0.049	0.015*
Distrust_others							-0.060	0.048	0.208
Politics: Left							0.322	0.100	0.001**
Politics: Right							0.181	0.131	0.169
Politics: Refused							0.349	0.164	0.034*
	Adj. R²		p	Adj. R²		p	Adj. R²		p
tion	0.012	_	0.008	0.0221	_	0.0235	0.0548	_	0.0002

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' '1; higher b equals more disapproval

In Model 3, 'distrust in the state' has a statistically significant association (p = 0.015, b = 0.121) on disapproval at the 5% level. This suggests that for every 1 unit increase in the 'distrust in state' variable, disapproval increases by 0.121 units on the 1-4 scale. This is consistent with previous literature suggesting that institutional trust is inversely related to antisocial punishment (Herrmann, Thöni, and Gächter 2008; Nikiforakis 2008). As expected, people who express greater distrust in the state are more likely to disapprove of reporting someone for breaking the rules. Interestingly, distrust in others does not have a statistically significant association with disapproval (p = 0.205), despite the theory highlighting the importance of cooperative norms. One possibility is that this variable does not accurately capture these norms. Nonetheless, the two trust measures are only weakly correlated (r = 0.20), and variance inflation factors show no evidence of problematic multicollinearity (GVIF < 1.1), suggesting the observed results are not due to overlap between them.

The adjusted R^2 value increases as more controls are added into the main model. Model 1 had an adjusted- R^2 of 0.012 while Model 3 had an adjusted- R^2 of 0.0548, which suggests that 5.48% of the variation in the disapproval of the decision to report a violation is accounted for by the variables included in that model (Table 7). All three main models are statistically significant at the 1% level, although the p-value decreases when controls are added (p = 0.0002 for Model 3).

The inclusion of the study's other independent variables (perceived seriousness, perceived norm beliefs) into the main models as controls was considered, but rejected. As the vignettes were short and did not include needless information, these independent variables were the main pathways through which respondents differentiate between the violation types when evaluating them. Including such mediator variables in the models would likely obscure the actual effect of the violation type, as they are on its causal path. This is seen in Table 8.

 Table 8: Model 3 with Mediators

Variables	Model	3 with M	Iediators
	b	SE	p
(Intercept)	2.24	0.368	<0.001***
Scenario: Tax evasion	0.01	0.071	0.888
Seriousness	-0.518	0.048	<0.001***
Norm	0.218	0.041	<0.001***
Birth year	0.005	0.004	0.165
Male	-0.127	0.069	0.067.
Other gender	-0.47	0.437	0.283
Education: Vocational	0.145	0.156	0.353
Education: University+	-0.022	0.097	0.817
Location: Thessaloniki	-0.003	0.094	0.972
Location: Other city	0.034	0.08	0.673
Location: Town/Village	-0.166	0.157	0.292
Subjective Income	0.027	0.034	0.435
Distrust_state	0.084	0.043	0.050*
Distrust_others	-0.057	0.041	0.170
Politics: Left	0.201	0.087	0.022*
Politics: Right	0.051	0.114	0.656
Politics: Refused	0.15	0.143	0.292
	R ²		p
	0.296	<	2.2e-16

Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' ' 1; higher b equals more disapproval

Diagnostics and Robustness

While the main analysis relied on using OLS regression, several diagnostics were run to assess robustness. The dependent variable in all main models, namely disapproval, was measured as a 1-4 Likert-type item. Although Likert-type data is technically ordinal, is it commonly treated as interval under the assumption of smooth transitions, allowing OLS analysis (Carifio and Perla 2008). This analysis has been shown to generally be robust when the sample is large and the category distances similar but it remains controversial due to the potential for bias or heteroscedasticity (Norman 2010). To address these potential concerns of statistical violations, more robust models were also run.

Inspection of residual plots revealed a curious structure, with residuals forming four sloped lines corresponding to the response levels of the disapproval variable. This suggests heteroscedasticity, likely driven by structural differences between the four randomly assigned vignette types. To address this, the model was re-estimated with HC3 Robust Standard Errors which is designed to correct for heteroscedasticity (Table 9). In this adjusted model, all variables that were statistically significant in the original model remained significant, indicating that the findings are robust to this potential violation.

Finally, to further test whether treating the dependent variable as interval led to issues, an ordinal logistic model was run (Table 9). The results were largely consistent with the original OLS model: the scenario variable, distrust in the state, the male gender, and political orientation (left and refused) remained statistically significant. This suggests that treating the data as interval did not meaningfully affect results.

 Table 9: Alternative Robust Model Specifications for Model 3

Variables		Model	. 3	Model	3 – HC3 R	Robust SEs_	Mo	odel 3 – O	rdinal Logist	ic Regression
	b	SE	p	b	SE	p	b	SE	t-values	p
(Intercept)	1.609	0.367	0.000***	1.609	0.370	0.000***	-	-	-	-
Scenario: Tax evasion	-0.192	0.078	0.014*	-0.192	0.079	0.016*	-0.362	0.175	-2.07	0.038*
Birth year	-0.002	0.004	0.596	-0.002	0.004	0.610	-0.004	0.009	-0.40	0.690
Male	-0.194	0.080	0.015*	-0.194	0.080	0.015*	-0.444	0.177	-2.51	0.012*
Other gender	-0.163	0.506	0.747	-0.163	0.799	0.838	-0.282	1.132	-0.25	0.803
Education: Vocational	0.047	0.181	0.796	0.047	0.197	0.813	0.095	0.399	0.24	0.812
Education: University+	-0.105	0.112	0.346	-0.105	0.117	0.367	-0.215	0.245	-0.88	0.381
Location: Thessaloniki	-0.063	0.109	0.564	-0.063	0.120	0.600	-0.194	0.246	-0.79	0.430
Location: Other city	-0.023	0.093	0.807	-0.023	0.093	0.807	0.004	0.205	0.02	0.984
Location: Town/Village	-0.319	0.181	0.080.	-0.319	0.139	0.023*	-0.621	0.394	-1.58	0.115
Subjective Income	0.032	0.039	0.423	0.032	0.040	0.434	0.076	0.088	0.86	0.389
Distrust_state	0.121	0.049	0.015*	0.121	0.053	0.022*	0.282	0.113	2.50	0.013*
Distrust_others	-0.060	0.048	0.208	-0.060	0.054	0.268	-0.169	0.108	-1.57	0.117
Politics: Left	0.322	0.100	0.001**	0.322	0.099	0.001**	0.817	0.232	3.52	0.000***
Politics: Right	0.181	0.131	0.169	0.181	0.119	0.129	0.495	0.296	1.67	0.095.
Politics: Refused	0.349	0.164	0.034*	0.349	0.176	0.048*	0.900	0.370	2.43	0.015*
	Adj. R²		p	Adj. R²		p	Resid. Dev.			AIC
	0.0548		0.0002	NA		NA	1095.864			1131.86

Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' ' 1; higher b equals more disapproval

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Perceived Seriousness of the Violation

The second hypothesis concerns whether a higher perceived seriousness of the violation is associated with a higher disapproval of the reporter. The data show a clear negative relationship between perceived seriousness and disapproval (Table 10). Among respondents who rated the violation as 'Not at all serious' (1), the average disapproval was highest (M = 3.50, n = 12). Disapproval steadily decreased as seriousness increased, reaching a mean of 1.32 among those who rated the violation as 'Very serious' (Seriousness = 4, n = 76). This association between the perceived seriousness and disapproval is seen as statistically significant (p < 2e-16) according to an ANOVA test. Furthermore, the difference in the perceived seriousness is not statistically meaningfully affected by the reward condition (ANOVA test: p = 0.328; Table 11).

Table 10: *Seriousness – Disapproval Comparison*

Seriousness Rating	Mean Disapproval	n
1.0	3.50 (Highest)	12
2.0	2.29	158
3.0	1.62	239
4.0 (Highest)	1.32	76

Table 11: Seriousness by Vignette Scenario

Vignette Scenario	Seriousness	n	
1 Smoking – No Reward	2.66	122	
2 Smoking – Reward	2.74	121	
3 Tax – No Reward	2.84	121	
4 Tax – Reward	2.89	121	
	_,,,,		

To assess whether the association between perceived seriousness and disapproval holds, despite the random differences in the characteristics of the respondents, three OLS models were employed (Table 12). Perceived seriousness consistently correlates with lower

disapproval across all specifications, with a strong and statistically significant negative association (Model 1: b = -0.58, p < 0.001). This means that for each increased level of seriousness on a 1-4 scale, disapproval drops by 0.58 in the 1-4 disapproval scale. The association remains stable when demographic variables are added (b = -0.581, p < 0.001), and when additional covariates such as trusts and political orientation are included (b = -0.561, p < 0.001). Notably, seriousness remains a consistent control variable across all models, with a stronger predictive value than most others¹¹. In Model 3, the adjusted R² increases to 0.2543, which means that the model correctly explains 25.43% of the variation in disapproval

¹¹ These results also hold in HC3 and ordinal logistic regression model specifications.

 Table 12: Perceived Seriousness And Disapproval

Variables		Mod	el 1		Mode	12		Mode	13
	b	SE	p	b	SE	p	b	SE	p
(Intercept)	3.462	0.136	<2e-16***	3.507	0.217	<2e-16***	2.99	0.348	<2e-16***
Perceived Seriousness	-0.584	0.047	<2e-16***	-0.581	0.048	<2e-16***	-0.561	0.048	<2e-16***
Birth year				0.000	0.003	0.92	0.003	0.00	0.381
Male				-0.18	0.071	0.01*	-0.160	0.070	0.0240*
Other gender				-0.367	0.450	0.41	-0.386	0.449	0.390
Education: Vocational				0.175	0.161	0.27	0.164	0.160	0.307
Education: University+				0.027	0.099	0.78	0.002	0.099	0.982
Location: Thessaloniki				-0.014	0.096	0.87	-0.016	0.096	0.862
Location: Other city				0.042	0.083	0.61	0.045	0.082	0.583
Location: Town/Village				-0.100	0.163	0.54	-0.138	0.161	0.393
Subjective Income				-0.001	0.033	0.97	0.026	0.034	0.443
Distrust: State							0.075	0.044	0.089 .
Distrust: Others							-0.054	0.042	0.201
Politics: Left							0.252	0.089	0.005*
Politics: Right							0.071	0.116	0.538
Politics: Refused							0.204	0.146	0.163
	Adj. R²		p	Adj. R²		p	Adj. R²		p
tion	0.237		< 2.2e-16	0.2372		< 2.2e-16	0.2543		< 2.2e-16

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' '1; higher b equals more disapproval

Effect of Reward on Disapproval

The third hypothesis concerns whether the presence of a reward increases disapproval of the reporter. A simple comparison of the disapproval levels between the two conditions (reward vs. no-reward) shows no large differences between them (Figure 6), despite a very small increase in total disapproval in the no-reward condition. The average disapproval rating is nearly identical between groups (M = 1.84, SD = 0.861 for reward; M = 1.84, SD = 0.889 for no reward), with only minimal variation in standard errors. However, upon further disaggregation of disapproval by scenario type (Figure 7), a more complex pattern emerges. We can see that disapproval increases from the 'Smoking - No Reward' condition to the Smoking - Reward' condition, but decreases when changing from the 'Tax Evasion - No Reward' condition to the 'Tax Evasion - Reward Condition'. This could be because people find a reward more acceptable for financial crimes, compared to ones like smoking ban violations.

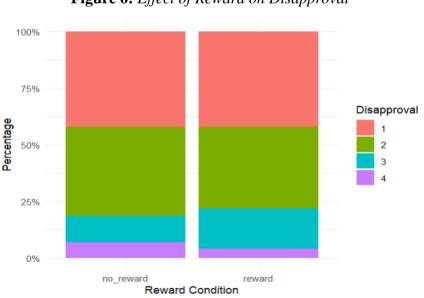


Figure 6: Effect of Reward on Disapproval

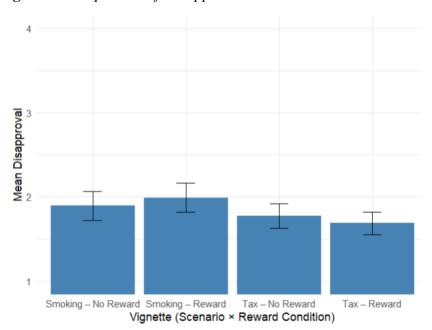


Figure 7: Comparison of Disapproval across Scenario and Reward

To assess whether the similarity of the two reward conditions holds, despite the random differences in the characteristics of the respondents, three OLS models were employed (Table 13). Across the three models, the coefficient for the reward condition remains near zero and statistically insignificant (b = 0.003, p > 0.964). This effect holds even while controlling for several demographics, trust measures, and political orientation. While other controls such as gender, distrust in the state, and political orientation remain significant, the reward variable consistently shows no effect on disapproval¹². The adjusted R² in Model 3 here is only 0.042, which means the model only predicts 4.2% of the variation in disapproval.

 $^{^{12}}$ Robustness checks using HC3 and ordinal logistic regression models produced very similar results: reward remained non-significant, while gender, political orientation, and trust in the state retained significance.

 Table 13: Models for Effect of Reward on Disapproval

Variables		Mod	el 1	-	Model	2		Mode	el 3
	b	SE	p	b	SE	p	b	SE	p
(Intercept)	1.835	0.056	<2e-16***	2.316	0.223	< 0.001***	1.54	0.371	< 0.001***
Reward	0.003	0.079	0.965	-0.003	0.08	0.968	0.003	0.079	0.966
Birth year				-0.006	0.004	0.143	-0.002	0.004	0.640
Male				-0.229	0.081	0.005**	-0.198	0.08	0.014*
Other gender				-0.071	0.513	0.890	-0.15	0.51	0.768
Education: Vocational				0.052	0.184	0.776	0.049	0.182	0.786
Education: University+				-0.075	0.114	0.509	-0.098	0.112	0.383
Location: Thessaloniki				-0.046	0.11	0.676	-0.053	0.109	0.630
Location: Other city				-0.019	0.095	0.842	-0.015	0.093	0.869
Location: Town/Village				-0.265	0.186	0.153	-0.311	0.183	0.089.
Subjective Income				-0.019	0.039	0.628	0.02	0.04	0.606
Distrust: State							0.122	0.05	0.015*
Distrust: Others							-0.063	0.048	0.188
Politics: Left							0.331	0.101	0.001**
Politics: Right							0.182	0.132	0.169
Politics: Refused							0.357	0.165	0.031*
	Adj. R²		p	Adj. R²		p	Adj. R²		p
tion	-0.002		0.9654	0.008		0.181	0.042		0.0019

Signif. codes: 0 '***' 0.06 '**' 0.01 '*' 0.05 '.' 0.1 ' '1; higher b equals more disapproval

To assess the potentially different effect of the reward condition across the two violation types, Model 3 was altered to include an interaction term (reward x scenario). While the earlier graph suggested such a difference (Figure 7), the interaction term was not statistically significant¹³ (Table 14), indicating insufficient evidence that reward had different effects for each violation type¹⁴. This would suggest that other factors are responsible for these differences.

Table 14: Reward X Scenario Interaction Model

Variables	Model 3	Interac	tion Term
, 32-14 0-2 0 0	b	SE	p
(Intercept)	1.554	0.372	<0.001***
Scenario (Tax)	-0.092	0.110	0.404
Reward	0.102	0.110	0.357
Birth Year	-0.002	0.004	0.599
Gender (Male)	-0.189	0.080	0.018*
Gender (Other)	-0.149	0.507	0.769
Education (Vocational)	0.047	0.181	0.797
Education (University+)	-0.107	0.112	0.337
Location (Thessaloniki)	-0.074	0.109	0.495
Location (Other City)	-0.022	0.093	0.812
Location (Town/Village)	-0.332	0.182	0.069.
Income	0.031	0.040	0.433
Distrust in State	0.124	0.050	0.012*
Distrust in Others	-0.061	0.048	0.202
Politics (Left)	0.317	0.101	0.002**
Politics (Right)	0.177	0.131	0.179
Politics (Refused)	0.351	0.164	0.033*
Scenario X Reward (interaction	-0.201	0.156	0.199
term)			
	R ²		p
	0.0541		0.0004

 $^{^{13}}$ The p-value decreased a lot; from 0.966 in Model 3, to 0.199 for the interaction term. 14 This holds even when HC3 or ordinal logistic regression models are utilized.

Perceived Norm of Disapproval

The fourth and final hypothesis concerns whether a perceived social norm 15 against reporting others is associated with greater disapproval of the reporter. The data shows a clear pattern: the more people perceive the social norm to be disapproving, the more their own disapproval increases. Mean disapproval (in the 1-4 scale, where higher is more disapproval) increases from 1.3 when the norm is perceived as fully approving, to 2.17 when the norm is perceived as fully disapproving (Table 15). An ANOVA test confirms the significance of this relationship (p < 0.001). Perceptions of the social norm also varied by scenario, with others being perceived as more disapproving of reporting smoking ban violations than tax evasion (Table 16). Interestingly, when a reward is added for reporting tax evasion, other people are perceived to be more accepting of the decision to report.

Table 15: *Disapproval by Norm Perception*

1 (least disapproving) 1.3 0.54 56 2 1.6 0.67 135 3 2 0.88 219	No	rm perception	mean_disapproval	sd_disapproval	n
	1	(least disapprovin	g) 1.3	0.54	56
3 2 0.88 219	2		1.6	0.67	135
	3		2	0.88	219
4 (most disapproving) 2.17 1.1 75	4	(most disapproving) 2.17	1.1	75

Table 16: Norm Perception by Vignette Scenario

vignette_label 1 Smoking - No Reward 2 Smoking - Reward	mean_norm 2.89 2.93	sd_norm 0.77 0.77	n 122 121
3 Tax - No Reward	2.53	0.88	121
4 Tax - Reward	2.22	0.9	121

To assess whether the association between perceived social norm and disapproval holds, despite the random differences in the characteristics of the respondents, three OLS models were employed (Table 17). In the baseline Model 1, a norm perceived as more disapproving is associated with higher disapproval from the respondent (b = 0.314, p <

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¹⁵ (1 - 4 scale, where 1 is a strongly approving and 4 is a strongly disapproving perceived norm)

0.001). This relationship holds even in Model 2 which adds basic demographics as controls (b = 0.302, p < 0.001).

Finally, even with the distrust and political ideology variables in Model 3, the perceived norm remains statistically significant (b = 0.288, p < 0.001)¹⁶. This means that every 1 point of norm disapproval in the 1-4 scale (where 1 = least disapproving norm, and 4 = very disapproving norm) is associated with 0.288 points increase in a respondents' own disapproval. In Model 3, the adjusted R² increases to 0.1246, which means that model correctly explains 12.46% of the total variation in disapproval.

¹⁶ This relationship holds in the HC3 and Ordinal Logistic Regression models

 Table 17: Disapproval by Perceived Norms Models

Variables		Mod	el 1		Model	2		Mode	13
	b	SE	p	b	SE	p	b	SE	p
(Intercept)	1.007	0.12	<0.001***	1.37	0.251	<0.001***	0.704	0.374	0.061
Perceived Norm	0.314	0.043	<0.001***	0.302	0.044	<0.001***	0.288	0.043	<0.001***
Birth year				-0.002	0.004	0.516	0.001	0.004	0.820
Male				-0.174	0.078	0.026*	-0.15	0.077	0.053
Other gender				-0.229	0.489	0.641	-0.284	0.487	0.560
Education: Vocational				0.047	0.175	0.788	0.036	0.174	0.838
Education: University+				-0.097	0.108	0.371	-0.121	0.107	0.261
Location: Thessaloniki				-0.024	0.105	0.817	-0.032	0.104	0.760
Location: Other city				-0.025	0.09	0.783	-0.024	0.089	0.784
Location: Town/Village				-0.288	0.177	0.104	-0.331	0.175	0.059.
Subjective Income				-0.015	0.037	0.692	0.022	0.038	0.563
Distrust: State							0.129	0.048	0.007**
Distrust: Others							-0.065	0.046	0.156
Politics: Left							0.254	0.097	0.009**
Politics: Right							0.142	0.126	0.261
Politics: Refused							0.27	0.159	0.090 .
	Adj. R²		p	Adj. R²		p	Adj. R²		p
tion	0.0972	_	1.275e-12	0.09866	_	4.27e-09	0.1246	_	1.471e-16

Signif. codes: 0 '***' 0.00 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1; higher b equals more disapproval

Full Model

So far, the individual statistical effect of the study's three main predictors was shown, with a higher perceived seriousness of a violation, and a more disapproving norm, being associated with a higher disapproval from the respondent. Conversely, the reward condition was not shown to have a consistent and statistically significant effect. To fully evaluate the relevant Hypotheses (2 to 4), it is important to include all three variables in a single model.

The final model tests whether disapproval is jointly predicted by reward presence, perceived seriousness of the violation, and perceived social norm, while controlling for demographics, trust, and political orientation (Table 18). The results align closely with earlier findings in the individual hypothesis models 17 . Perceived seriousness of the violation emerges as the strongest predictor variable (b = -0.519, p < 0.0001): As the perceived seriousness of the violation increases by 1 in the 1-4 scale, disapproval decreases by 0.519 on the same scale. This is likely because enforcement is considered more legitimate when the law is perceived as meaningful. Similarly, the perception that others will disapprove of the decision to report is (the norm) also associated with higher disapproval (b = 0.220, p < 0.0001). This suggests that second-order beliefs might shape how people interact with the law. Consistently with the previous models, the reward condition seems to have no statistically discernible effect on disapproval.

Among the covariates, men seem slightly less likely to disapprove of the decision to report (b = -0.126), although that association is only weakly statistically significant in this model (p = 0.069). Distrust in the state still emerges as an important potential mechanism (b = 0.069).

¹⁷ These results remain overall consistent in the HC3 and Ordinal Logistic Regression models.

0.086, $p = 0.045)^{18}$, demonstrating that people need to trust the law-making process to enforce it. Finally, those politically on the left were more likely to disapprove (b = 0.200, p = 0.022), which could be traced back to political prosecution in the past, or to dissatisfaction with the political status quo. Overall, this model achieved the higher adjusted R^2 (0.298) indicating a much better model fit. The model is also statistically significant at the 1% level.

Table 18: Full Model with Reward, Seriousness, and Norm

Variables		Full Mo	del
	b	SE	p
(Intercept)	2.202	0.367	0.000***
Reward	0.071	0.068	0.297
Perceived Seriousness	-0.519	0.048	0.000***
Perceived Norm	0.220	0.040	0.000***
Birth year	0.005	0.004	0.150
Male	-0.126	0.069	0.069 .
Other gender	-0.485	0.437	0.268
Education: Vocational	0.147	0.156	0.348
Education: University+	-0.023	0.097	0.815
Location: Thessaloniki	-0.002	0.094	0.983
Location: Other city	0.028	0.080	0.731
Location: Town/Village	-0.162	0.157	0.304
Subjective Income	0.025	0.034	0.468
Distrust: State	0.086	0.043	0.045*
Distrust: Others	-0.056	0.041	0.171
Politics: Left	0.200	0.087	0.022*
Politics: Right	0.057	0.114	0.616
Politics: Refused	0.149	0.142	0.296
	Adj. R²		p
	0.298		< 2.2e-16

Higher b equals more disapproval

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¹⁸ Every 1 point of distrust in the 1-5 scale (where higher equals more distrust), is associated with a 0.086 increase in disapproval.

6. Discussion

This thesis contributes to the comparative literature on antisocial punishment by providing new evidence from Greece, a society where the phenomenon is thought to be widespread (Herrmann, Thöni, and Gächter 2008). This study takes a fresh angle, by examining how various social factors (reward, perceived seriousness, perceived social norm) interact with the acceptability of reporting law violations, using concise vignettes on smoking-ban and tax-evasion reporting, both drawn from current Greek policy. This is achieved by randomly assigning respondents into one of two scenarios, each with or without a reward, for a 2×2 design.

The analysis of the data is generally supportive of H1, which predicted that disapproval of reporting would vary by the type of the violation. Disapproval in the smoking scenario was found to be significantly higher than in the tax evasion one. This is in line with previous studies showing similar differences, where fare-dodgers were confronted more frequently by the subjects than litterers (Balafoutas and Nikiforakis 2012). However, the result is slightly unexpected, as it was considered that disapproval would have been lower in the smoking-ban scenario where people would be directly affected (Khan et al. 2022), in comparison with the more indirect effects of the tax-evasion scenario. Because both the perceived seriousness and perceived social norms are directly measured, they can offer insights into these differences, rather than leaving them as a black box.

Accordingly with Hypothesis 2, the perceived seriousness of a violation was found to have a statistically significant inverse association with disapproval. This is consistent with previous research suggesting that the way a violation is perceived influences how it is judged socially (Fehr and Fischbacher 2004; Bicchieri 2005). It also complements previous research where more severe violations were found more likely to be punished (Kriss, Weber, and Xiao 2016). However, since seriousness was measured and not experimentally manipulated, this result should not be treated as causal. Nevertheless, combined with the statistical significance

of the 'trust in the state' variable, it suggests that citizen enforcement is better encouraged when it has been socially established that a violation is severe enough.

The results for Hypothesis 4 show that the perception that others disapprove is associated with a higher own disapproval. This supports the idea that such decisions are not shaped only by personal convictions, but also by social expectations (Bicchieri, Muldoon, and Sontuoso 2018; Kimbrough and Vostroknutov 2016). Perceived norms act essentially as reference points for assessing the appropriateness of reporting others, and can heavily discourage that, if not communicated as accepting. While, similarly to perceived seriousness, the perceived norm was not manipulated, the Krupka-Weber method of norm elicitation is considered robust and not influenced by the respondents' own opinion about the behavior (König-Kersting 2024). Norms can therefore further explain why even well-intentioned reporting can be met with suspicion in social settings that describe it as an act of betrayal. For policy, this finding emphasizes the importance of addressing the perceptions of what other people also think, and not just individual attitudes.

Lastly, the reward condition was not found to have a statistically significant effect on disapproval across any of the models (H3), leading to a failure to reject the null hypothesis. This stands somewhat in contrast with previous expectations that extrinsic incentives can undermine moral legitimacy (Bowles 2008; Bénabou and Tirole 2006) and even affect social trust when removed, thus causing cooperation to collapse despite having an initially positive effect (Irwin, Mulder, and Simpson 2014). One possible explanation is that the study's reward condition might have been viewed more pragmatically than morally, owing to the general distrust in institutions in Greece. Alternatively, due to Prolific's recruitment method where participants are paid to participate in studies, the sample population might have viewed rewards differently. The null result highlights the need for future exploration to determine whether the absence of a reward effect holds under different settings, methodologies, and recruitment methods.

Overall, these findings suggest that social and moral factors play a large role in shaping disapproval of rule enforcers, with disapproval varying more by the perceived seriousness and norm rather than the presence of a material reward. When citizen enforcement is necessary, policy-makers should prioritise public campaigns stressing both the importance of enforcing any given law, and also attempting to prove that social consensus is largely in favor. If similar representative studies are done, the heterogeneity in responses can even be used to micro-target public messaging. This approach might even prove more fruitful than simply incentivizing citizen enforcement through various rewards. Furthermore, policy transfer in such policy scenarios must be approached with caution, as different social norms can lead to different outcomes.

In addition to the findings, this thesis also shows the potential of survey platforms for conducting timely and relatively cost-effective research. These platforms can be used to reach wide audiences in diverse samples in little time, while retaining a significant degree of control over participant eligibility (Palan and Schitter 2018). It also further reinforces that survey experiments can be used for policy purposes. They provide a flexible and replicable setting where people's responses and attitudes can be observed under different manipulated mechanisms.

These results should be interpreted in light of their structural limitations. Firstly, the sample as collected through Prolific cannot be considered representative demographically of Greece as a whole. Furthermore, participation in such survey platforms involves a degree of self-selection, which may limit generalizability. Secondly, the key predictors were measured and not directly manipulated, although how respondents answered was influenced by the shown vignettes. Lastly, the elements of the survey capture attitudes and not actual behaviors, meaning that people might actually behave differently in a more complex real-world setting.

Future research can build on these results by addressing both their methodological and conceptual limitations. The experimental design could explore different randomized factors

that could theoretically shape attitudes, or go deeper into the social effects of disapproval. In addition, while this study has a sample from Greece, other research could focus on different cultural or societal contexts, or address different types of violations. More qualitative-focused questions, or even follow-up interviews, could also help better understand why participants reach the conclusions they do, regarding the perceived seriousness and norms. Furthermore, this study can also inform future field research, which can measure behavioral responses rather than attitudes.

7. Conclusion

The aim of this thesis was to understand when and why people disapprove of others who report the violations of rules, even when those are beneficial to society. Drawing on previous research on antisocial punishment, social norms and enforcement legitimacy, four hypotheses were tested by utilizing a survey-based vignette experiments with Greek participants recruited through Prolific. The study manipulated the violation type (smoking ban vs. tax-evasion), and the presence of a reward while also measuring the perceived seriousness of the violation and the perceived social norm. This design allowed us to understand how these factors affect or are associated with different levels of disapproval.

The analysis provided support for three of the four hypotheses: Disapproval was found to differ by scenario (H1), being higher in the case of a smoking ban violation. Both the perceived seriousness (H2) and the perceived norm (H4) were strongly correlated with the disapproval levels of the respondents, suggesting that they might be key factors in shaping attitudes towards reporting violations. However, the reward condition (H3) was found to not have a statistically significant effect on disapproval. This might suggest that social factors can outweigh legally predicted incentives, especially in low-trust environments.

This thesis contributes to the growing literature on antisocial punishment and informal norm enforcement, by offering insights into how people react to rule enforcements in everyday scenarios. It establishes that, especially in weak institutional environments, policy-makers should first address social concerns and attitudes around laws requiring citizen enforcement. Understanding local norms and other key social factors is crucial in achieving compliance with laws and reducing social friction, especially in light of an exceedingly complex world. Understanding the importance of other key factors and cross-societal differences offers ground for future research seeking to align formal and informal rules.

Bibliography

- 1. Abatsibasis, Apostolos Alexandros. 2023. 'Ο Θεσμός Του Μάρτυρα Δημοσίου Συμφέροντος. Από Τις Απαρχές Του "Whistleblowing" Μέχρι Τη Σημερινή Νομοθετική Κατοχύρωση, Εφαρμογή Και Προστασία'. *Aristotle University of Thessaloniki Institutional Repository IKEE*. Aristotle University of Thessaloniki. https://doi.org/10.26262/heal.auth.ir.348528.
- 2. Acemoglu, Daron, and Matthew O. Jackson. 2017. 'Social Norms and the Enforcement of Laws'. *Journal of the European Economic Association* 15 (2): 245–95. https://doi.org/10.1093/jeea/jvw006.
- 3. Aguinis, Herman, and Kyle J. Bradley. 2014. 'Best Practice Recommendations for Designing and Implementing Experimental Vignette Methodology Studies'. *Organizational Research Methods* 17 (4): 351–71. https://doi.org/10.1177/1094428114547952.
- 4. Alam, Raihan, and Tage Rai. 2025. 'Profitable Third-Party Punishment Destabilizes Cooperation'. OSF. https://doi.org/10.31234/osf.io/547rb_v4.
- 5. Andreoni, James, William Harbaugh, and Lise Vesterlund. 2003. 'The Carrot or the Stick: Rewards, Punishments, and Cooperation'. *The American Economic Review* 93 (3): 893–902.
- 6. Arai, Sakura, John Tooby, and Leda Cosmides. 2023. 'Why Punish Cheaters? Those Who Withdraw Cooperation Enjoy Better Reputations than Punishers, but Both Are Viewed as Difficult to Exploit'. *Evolution and Human Behavior* 44 (1): 50–59. https://doi.org/10.1016/j.evolhumbehav.2022.10.002.
- 7. Balafoutas, Loukas, and Nikos Nikiforakis. 2012. 'Norm Enforcement in the City: A Natural Field Experiment'. *European Economic Review* 56 (8): 1773–85. https://doi.org/10.1016/j.euroecorev.2012.09.008.
- 8. Balafoutas, Loukas, Nikos Nikiforakis, and Bettina Rockenbach. 2014. 'Direct and Indirect Punishment among Strangers in the Field'. *Proceedings of the National Academy of Sciences* 111 (45): 15924–27. https://doi.org/10.1073/pnas.1413170111.
- 9. Balafoutas, Loukas, Nikos Nikiforakis, and Bettina Rockenbach. 2016. 'Altruistic Punishment Does Not Increase with the Severity of Norm Violations in the Field'. *Nature Communications* 7 (1): 13327. https://doi.org/10.1038/ncomms13327.
- 10. Balliet, Daniel, Laetitia B. Mulder, and Paul A. M. Van Lange. 2011. 'Reward, Punishment, and Cooperation: A Meta-Analysis'. *Psychological Bulletin* 137 (4): 594–615. https://doi.org/10.1037/a0023489.
- 11. Baumard, Nicolas. 2010. 'Has Punishment Played a Role in the Evolution of Cooperation? A Critical Review'. *Mind & Society* 9 (2): 171–92. https://doi.org/10.1007/s11299-010-0079-9.
- 12. Bénabou, Roland, and Jean Tirole. 2006. 'Incentives and Prosocial Behavior'. *American Economic Review* 96 (5): 1652–78. https://doi.org/10.1257/aer.96.5.1652.
- 13. Bergemann, Patrick. 2024. 'How Social Influence Affects Reporting: Toward an Integration of Crime Reporting, Whistleblowing, and Denunciation'. *Annual Review of Sociology* 50 (Volume 50, 2024): 209–28. https://doi.org/10.1146/annurev-soc-030222-013736.
- 14. Bicchieri, Cristina. 2005. *The Grammar of Society: The Nature and Dynamics of Social Norms*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511616037.
- 15. Bicchieri, Cristina, Ryan Muldoon, and Alessandro Sontuoso. 2018. 'Social Norms'. In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta and Uri Nodelman, Winter 2018. Metaphysics Research Lab, Stanford University. https://plato.stanford.edu/archives/win2018/entries/social-norms/.

- 16. Bowles, Samuel. 2008. 'Policies Designed for Self-Interested Citizens May Undermine "the Moral Sentiments": Evidence from Economic Experiments'. *Science* (*New York, N.Y.*) 320 (5883): 1605–9. https://doi.org/10.1126/science.1152110.
- 17. Bruhin, Adrian, Kelly Janizzi, and Christian Thöni. 2020. 'Uncovering the Heterogeneity behind Cross-Cultural Variation in Antisocial Punishment'. *Journal of Economic Behavior & Organization* 180 (December):291–308. https://doi.org/10.1016/j.jebo.2020.10.005.
- 18. Carifio, James, and Rocco Perla. 2008. 'Resolving the 50-Year Debate around Using and Misusing Likert Scales'. *Medical Education* 42 (12): 1150–52. https://doi.org/10.1111/j.1365-2923.2008.03172.x.
- 19. Cheliatsidou, Anastasia, Nikolaos Sariannidis, Alexandros Garefalakis, Ioannis Passas, and Konstantinos Spinthiropoulos. 2023. 'Exploring Attitudes towards Whistleblowing in Relation to Sustainable Municipalities'. *Administrative Sciences* 13 (9): 199. https://doi.org/10.3390/admsci13090199.
- 20. Chen, Jianing, Zeng Lian, and Jie Zheng. 2023. 'Self-Serving Reward and Punishment: Evidence from the Laboratory'. *Scientific Reports* 13 (1): 13997. https://doi.org/10.1038/s41598-023-41256-5.
- 21. Cooter, Robert. 2000. 'Three Effects of Social Norms on Law: Expression, Deterrence, and Internalization'. *Oregon Law Review*. https://lawcat.berkeley.edu/record/1117324.
- 22. Deffains, Bruno, and Claude Fluet. 2020. 'Social Norms and Legal Design'. *The Journal of Law, Economics, and Organization* 36 (1): 139–69. https://doi.org/10.1093/jleo/ewz016.
- 23. Dianeosis. 2024. 'Τι Πιστεύουν οι Έλληνες 2024'. *Dianeosis* (blog). 2024. https://www.dianeosis.org/research/ti-pistevoun-oi-ellines-2024/.
- 24. Egas, Martijn, and Arno Riedl. 2008. 'The Economics of Altruistic Punishment and the Maintenance of Cooperation'. *Proceedings of the Royal Society B: Biological Sciences* 275 (1637): 871–78. https://doi.org/10.1098/rspb.2007.1558.
- 25. Falk, Armin, Ernst Fehr, and Urs Fischbacher. 2005. 'Driving Forces Behind Informal Sanctions'. *Econometrica* 73 (6): 2017–30. https://doi.org/10.1111/j.1468-0262.2005.00644.x.
- 26. Fehr, Ernst, and Urs Fischbacher. 2004. 'Social Norms and Human Cooperation'. *Trends in Cognitive Sciences* 8 (4): 185–90. https://doi.org/10.1016/j.tics.2004.02.007.
- 27. Fehr, Ernst, and Simon Gächter. 2000. 'Cooperation and Punishment in Public Goods Experiments'. *American Economic Review* 90 (4): 980–94. https://doi.org/10.1257/aer.90.4.980.
- 28. Fehr, Ernst, and Bettina Rockenbach. 2003. 'Detrimental Effects of Sanctions on Human Altruism'. *Nature* 422 (6928): 137–40. https://doi.org/10.1038/nature01474.
- 29. Fischbacher, Urs, Simon Gächter, and Ernst Fehr. 2001. 'Are People Conditionally Cooperative? Evidence from a Public Goods Experiment'. *Economics Letters* 71 (3): 397–404. https://doi.org/10.1016/S0165-1765(01)00394-9.
- 30. Flogaitis, Spyridon. 2020. 'Greece: A State with Weak Institutions, in Continuous Crisis'. In , 399–406. https://doi.org/10.1007/978-3-030-50780-0_22.
- 31. Fowler, James H., Tim Johnson, and Oleg Smirnov. 2005. 'Human Behaviour: Egalitarian Motive and Altruistic Punishment'. *Nature* 433 (7021): 1–32. https://doi.org/10.1038/nature03256.
- 32. Gächter, Simon, and Benedikt Herrmann. 2009. 'Reciprocity, Culture and Human Cooperation: Previous Insights and a New Cross-Cultural Experiment'. *Philosophical Transactions of the Royal Society B: Biological Sciences* 364 (1518): 791–806. https://doi.org/10.1098/rstb.2008.0275.

- 33. Glover, Scott, and Peter Dixon. 2017. 'The Role of Predictability in Cooperative and Competitive Joint Action'. *Journal of Experimental Psychology. Human Perception and Performance* 43 (4): 644–50. https://doi.org/10.1037/xhp0000362.
- 34. Grimalda, Gianluca, Andreas Pondorfer, and David P. Tracer. 2016. 'Social Image Concerns Promote Cooperation More than Altruistic Punishment'. *Nature Communications* 7 (1): 12288. https://doi.org/10.1038/ncomms12288.
- 35. Gross, Jörg, Martin Götz, and Johannes Ullrich. 2025. 'Why Do People Oppose New Rules? Policy Change, Norm Change, and Public Outrage'. *Current Opinion in Psychology* 64 (August):102041. https://doi.org/10.1016/j.copsyc.2025.102041.
- 36. Hechter, Michael, and Karl-Dieter Opp. 2001. Social Norms. Social Norms.
- 37. Herrmann, Benedikt, Christian Thöni, and Simon Gächter. 2008. 'Antisocial Punishment Across Societies'. *Science* 319 (5868): 1362–67. https://doi.org/10.1126/science.1153808.
- 38. Hughes, Rhidian, and Meg Huby. 2004. 'The Construction and Interpretation of Vignettes in Social Research'. *Social Work and Social Sciences Review* 11 (1): 36–51. https://doi.org/10.1921/17466105.11.1.36.
- 39. Irwin, Kyle, and Christine Horne. 2013. 'A Normative Explanation of Antisocial Punishment'. *Social Science Research* 42 (2): 562–70. https://doi.org/10.1016/j.ssresearch.2012.10.004.
- 40. Irwin, Kyle, Laetitia Mulder, and Brent Simpson. 2014. 'The Detrimental Effects of Sanctions on Intragroup Trust: Comparing Punishments and Rewards'. *Social Psychology Quarterly* 77 (3): 253–72. https://doi.org/10.1177/0190272513518803.
- 41. Jäckle, Annette, and Katrin Auspurg. 2012. 'First Equals Most Important? Order Effects in Vignette-Based Measurement'. *ISER Working Paper Series*, ISER Working Paper Series, , January. https://ideas.repec.org//p/ese/iserwp/2012-01.html.
- 42. Katsambekis, Giorgos. 2015. 'The Rise of the Greek Radical Left to Power: Notes on Syriza's Discourse and Strategy'. https://www.academia.edu/15178672/The_Rise_of_the_Greek_Radical_Left_to_Power_Notes_on_Syriza_s_Discourse_and_Strategy.
- 43. Khan, Jawad, Imran Saeed, Muhammad Zada, Amna Ali, Nicolás Contreras-Barraza, Guido Salazar-Sepúlveda, and Alejandro Vega-Muñoz. 2022. 'Examining Whistleblowing Intention: The Influence of Rationalization on Wrongdoing and Threat of Retaliation'. *International Journal of Environmental Research and Public Health* 19 (3): 1752. https://doi.org/10.3390/ijerph19031752.
- 44. Kimbrough, Erik O., and Alexander Vostroknutov. 2016. 'Norms Make Preferences Social'. *Journal of the European Economic Association* 14 (3): 608–38.
- 45. Kitsantonis, Niki. 2024. 'Greeks Are Defying an Indoor Smoking Ban The New York Times', 2024. https://www.nytimes.com/2024/12/28/world/europe/greece-indoor-smoking-ban.html.
- 46. König-Kersting, Christian. 2024. 'On the Robustness of Social Norm Elicitation'. *Journal of the Economic Science Association* 10 (2): 531–43. https://doi.org/10.1007/s40881-024-00178-2.
- 47. Kriss, Peter H., Roberto A. Weber, and Erte Xiao. 2016. 'Turning a Blind Eye, but Not the Other Cheek: On the Robustness of Costly Punishment'. *Journal of Economic Behavior & Organization* 128:159–77. https://doi.org/10.1016/j.jebo.2016.05.017.
- 48. Krupka, Erin L., and Roberto A. Weber. 2013. 'IDENTIFYING SOCIAL NORMS USING COORDINATION GAMES: WHY DOES DICTATOR GAME SHARING VARY?: Identifying Social Norms Using Coordination Games'. *Journal of the European Economic Association* 11 (3): 495–524. https://doi.org/10.1111/jeea.12006.
- 49. Levi, Margaret. 1988. *Of Rule and Revenue*. University of California Press. https://www.jstor.org/stable/10.1525/j.ctt1pngtk.

- 50. Li, Yang, and Nobuhiro Mifune. 2023. 'Punishment in the Public Goods Game Is Evaluated Negatively Irrespective of Non-Cooperators' Motivation'. *Frontiers in Psychology* 14 (June). https://doi.org/10.3389/fpsyg.2023.1198797.
- 51. Mackie, Gerry, Francesca Moneti, Holly Shakya, and Elaine Denny. 2015. 'What Are Social Norms? How Are They Measured?'
- 52. Mellström, Carl, and Magnus Johannesson. 2008. 'Crowding Out in Blood Donation: Was Titmuss Right?' *Journal of the European Economic Association* 6 (4): 845–63. https://doi.org/10.1162/JEEA.2008.6.4.845.
- 53. Milinski, Manfred, Dirk Semmann, and Hans-Jürgen Krambeck. 2002. 'Reputation Helps Solve the "Tragedy of the Commons". *Nature* 415 (6870): 424–26. https://doi.org/10.1038/415424a.
- 54. Nikiforakis, Nikos. 2008. 'Punishment and Counter-Punishment in Public Good Games: Can We Really Govern Ourselves?' *Journal of Public Economics* 92 (1–2): 91–112. https://doi.org/10.1016/j.jpubeco.2007.04.008.
- 55. Norman, Geoff. 2010. 'Likert Scales, Levels of Measurement and the "Laws" of Statistics'. *Advances in Health Sciences Education* 15 (5): 625–32. https://doi.org/10.1007/s10459-010-9222-y.
- 56. Palan, Stefan, and Christian Schitter. 2018. 'Prolific.Ac—A Subject Pool for Online Experiments'. *Journal of Behavioral and Experimental Finance* 17 (March):22–27. https://doi.org/10.1016/j.jbef.2017.12.004.
- 57. Peer, Eyal, David Rothschild, Andrew Gordon, Zak Evernden, and Ekaterina Damer. 2022. 'Data Quality of Platforms and Panels for Online Behavioral Research'. *Behavior Research Methods* 54 (4): 1643–62. https://doi.org/10.3758/s13428-021-01694-3.
- 58. Pleasant, Aleta, and Pat Barclay. 2018. 'Why Hate the Good Guy? Antisocial Punishment of High Cooperators Is Greater When People Compete To Be Chosen'. *Psychological Science* 29 (6): 868–76. https://doi.org/10.1177/0956797617752642.
- 59. PublicIssue. 2024. 'Εμπιστοσύνη Στους Θεσμούς'. *Public Issue* (blog). 11 April 2024. https://www.publicissue.gr/?p=18261.
- 60. Rabellino, Daniela, Rosalba Morese, Angela Ciaramidaro, Bruno G. Bara, and Francesca M. Bosco. 2016. 'Third-Party Punishment: Altruistic and Anti-Social Behaviours in in-Group and out-Group Settings'. *Journal of Cognitive Psychology* 28 (4): 486–95. https://doi.org/10.1080/20445911.2016.1138961.
- 61. Rudman, Laurie A., and Stephanie A. Goodwin. 2004. 'Gender Differences in Automatic In-Group Bias: Why Do Women Like Women More Than Men Like Men?' *Journal of Personality and Social Psychology* 87 (4): 494–509. https://doi.org/10.1037/0022-3514.87.4.494.
- 62. Suleiman, Ramzi, and Yuval Samid. 2021. 'Punishment Strategies across Societies: Conventional Wisdoms Reconsidered'. *Games* 12 (3): 63. https://doi.org/10.3390/g12030063.
- 63. Sylwester, Karolina, Benedikt Herrmann, and Joanna J. Bryson. 2013. 'Homo Homini Lupus? Explaining Antisocial Punishment'. *Journal of Neuroscience, Psychology, and Economics* 6 (3): 167–88. https://doi.org/10.1037/npe0000009.
- 64. Tankard, Margaret E., and Elizabeth Levy Paluck. 2016. 'Norm Perception as a Vehicle for Social Change'. *Social Issues and Policy Review* 10 (1): 181–211. https://doi.org/10.1111/sipr.12022.
- 65. Thomson, Jr., Barton H. 2000. 'The Continuing Innovation of Citizen Enforcement'. *Illinois Law Review*, 185–236.
- 66. Thöni, Christian. 2014. 'Inequality Aversion and Antisocial Punishment'. *Theory and Decision* 76 (4): 529–45. https://doi.org/10.1007/s11238-013-9382-3.

- 67. *To Vima*. 2025. 'Greece Tax Violations Nearly 75,000 Complaints Filed by via App', 23 January 2025. https://www.tovima.com/society/greece-tax-violations-nearly-75000-complaints-filed-by-greeks-via-app/.
- 68. Troyer, Lisa, and C. Wesley Younts. 1997. 'Whose Expectations Matter? The Relative Power of First- and Second-Order Expectations in Determining Social Influence'. *American Journal of Sociology* 103 (3): 692–732. https://doi.org/10.1086/231253.
- 69. Tyler, Tom R. 1990. *Why People Obey the Law*. Why People Obey the Law. New Haven, CT, US: Yale University Press.
- 70. Vollan, Björn, Michael Pröpper, Andreas Landmann, and Loukas Balafoutas. 2019. 'Self-Governance and Punishment: An Experimental Study among Namibian Forest Users'. *Economic Development and Cultural Change* 67 (4): 935–67. https://doi.org/10.1086/700098.
- 71. Webster, Murray, and Joseph M. Whitmeyer. 1999. 'A Theory of Second-Order Expectations and Behavior'. *Social Psychology Quarterly* 62 (1): 17–31. https://doi.org/10.2307/2695823.
- 72. Wu, Junhui, Daniel Balliet, and Paul A. M. Van Lange. 2016. 'Gossip Versus Punishment: The Efficiency of Reputation to Promote and Maintain Cooperation'. *Scientific Reports* 6 (1): 23919. https://doi.org/10.1038/srep23919.

Appendix A: Survey Overview in English

The whole survey is originally in Greek. Below is a translation of the survey in English

Table 19: Survey		
Question	Answer Scale	Possible Answers
Welcome! Thank you for your	-	Inform Consent
interest in participating in my study,		
which is part of a Master's thesis at		
the Department of Public Policy at		
the Central European University.		
This research has received approval		
from the ethics committee of the		
Central European University. The		
objective of this research is to		
understand how people feel about		
real-life rule-breaking scenarios.		
Please answer honestly. By		
participating in the survey, you can		
enter a lottery for €25.		
The survey is expected to take		
around 5 minutes and participation		
is entirely voluntary. You may		
choose to withdraw at any time.		
Your answers will be treated		
confidentially and will remain		
completely anonymous. Due to		
academic requirements, the data		
collected in the survey will be		
available online at the Archive of		
the Central European University		
following the completion of the		
thesis. No personal information will		
be published or made otherwise		
available. Should you have any		
questions about the study, you may		
contact me at		
mastersthesis.ceumapp@gmail.com.		
By clicking the "Agree" button to		
enter the survey, you confirm that		
you have read and understand the		
above consent form and are at least		
18 years old.	Single ahoige	Agrae Disagrae
Do you agree?	Single choice	Agree, Disagree
1) In which year were you born?	Dropdown menu	Years (, 1920–2025)
2) What's your gender?	Multiple choice	Male, Female, Other, Prefer not to say
3) What is the highest level of	Multiple choice	Did not graduate Primary School,
education that you have completed?	_	Primary, Lower Secondary, Higher
		Secondary, Vocational School,
		Bachelor's Degree, Master's/PhD
4) Which part of Greece do you live	Multiple choice	Athens, Thessaloniki, Other City,
in?		Town/Village
5) In general, how well do you trust	Likert scale	Trust a lot, Trust somewhat, Neither
the state to design fair laws and		trust nor distrust, Somewhat distrust,
rules?		Distrust

6) In general, how do you trust the	Likert scale	Trust a lot, Trust somewhat, Neither
people in your community to do		trust nor distrust, Somewhat distrust,
what's right, even if it goes against		Distrust
their personal interest?		
7) Thinking of income levels in	1–7 scale	1, 2, 3, 4, 5, 6, 7
Greece, where would you place		
your household on a scale where 1		
is the lowest, and 7 the highest?		
8) In politics, we often use terms	1–7 scale + open option	1 = Far left, 7 = Far right, I prefer not to
such as "left" and "right". Where		answer
would you place yourself		
politically?		
Vignette scenario presented		
randomly		
9) Manipulation check: After	Multiple choice, 5 offered	Depending on vignette
reading the hypothetical scenario in		
the previous page, which of the		
follwing sentences best describe the		
situation? (Choose 2)		
10) Think of how other people in	Likert scale 1 - 4	Very socially acceptable, Somewhat
your area would evaluate the		socially acceptable, Somewhat socially
decision to report the violation in		unacceptable, Very socially
the previous scenario. You will		unacceptable.
enter the lottery for €25 if your		
answer is the same as the most		
common answer given by other		
participants. How socially		
acceptable or unacceptable do you		
think they would consider it?		
11) Personally speaking, do you	Likert scale 1 - 4	Very acceptable, Somewhat acceptable,
think the decision to report the		Somewhat unacceptable, Very
violation was acceptable or		unacceptable
unacceptable?		
12) How would you rate the offense	Likert scale 1 - 4	Very serious, Somewhat serious, Not
in the scenario?		that serious, Not at all serious
13) How likely would you be to	Likert scale 1 - 4	Very likely, Somewhat likely,
report the violation yourself?		Somewhat unlikely, Very unlikely
14) Why did the man report the	Likert scale 1 - 4	Because it was right, Mostly because it
person?		was right, Mostly for selfish reasons,
		For selfish reasons
15) A friend calls the reporter a	Multiple choice	a. Add my own negative comments, b.
'roufianos'. What is your response?	_	Agree, c. Stay neutral, d. Reluctantly
Which of the following stances		disagree, e. Defend the reporter
would best describe your reaction?		
Thank you for taking the time to	-	Exit form
participate in my survey! The aim		
of this research is to identify how		
participants react to others who		
report people for breaking rules.		
Participants were shown one of		
several short scenarios, where		
specific details were changed each		
time. Please note that the scenarios		
do not reflect the researcher's		
personal views or those of the		
department and are solely created to		
understand their impact on attitudes.		
I reassure you that all your		
responses will remain anonymous		

and will only be used for research purposes. If you have any questions, please contact me at mastersthesis.ceumapp@gmail.com. What is your Prolific ID? If not automatically added, please add it yourself.	Prolific ID	
As a show of my gratitude, you have the opportunity to enter the lottery for 25 Euros. The winner will be chosen randomly and informed through Prolific. Please ensure your Prolific ID was correctly inserted in the previous question.	Continue	
If you do not wish to personally participate, please choose one of the following charities to receive the reward	Single choice	Doctors without Borders, The Smile of the Child, Lifeline Hellas, Elpida (Hope), ELEPAP, Arcturos, WWF Hellas