

# Does enforcement style influence citizen trust in regulatory agencies? An experiment in six countries

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## Abstract

Establishing and maintaining citizen trust is vital for the effectiveness and long-term viability of regulatory agencies. However, limited empirical research has been conducted on the relationship between regulatory action and citizen trust. This article addresses this gap by investigating the influence of various regulatory enforcement styles on citizen trust. We conducted a pre-registered and representative survey experiment in six countries ( $n = 5,765$ ): Belgium, Denmark, Germany, Israel, the Netherlands, and Norway. Our study focuses on three key dimensions of enforcement style: formalism, coerciveness, and accommodation. We hypothesize that a strict and punitive enforcement style with minimal accommodation will enhance citizen trust. Surprisingly, we found no overall effect of enforcement on trust. However, specifically high levels of formalism (strictness) and coerciveness (punitiveness) exhibited a small positive effect on trust. Furthermore, we observed no discernible impact of an accommodative enforcement style. Additional analyses revealed that the effects of enforcement style were not consistent across country and regulatory domains. This suggests we need to reconsider assumptions underlying enforcement theory, as our findings imply that public trust seems less conditional on heavy-handed enforcement than initially anticipated.

**Key words:** enforcement; regulatory agencies; trust; survey experiment; comparative research.

## Introduction

Public trust in regulatory agencies is increasingly recognized as a crucial factor in enabling regulatory legitimacy and effectiveness (Murphy 2016; Murphy, Tyler, and Curtis 2009). First, citizens' willingness to engage in market transactions largely depends on public trust in the regulatory agencies monitoring these markets (Maman, Feldman, and Levi-Faur 2022; Six and Verhoest 2017). The confidence of citizens in the ability and integrity of regulatory agencies may contribute indirectly to their trust in the regulations enforced by these agencies and in the safety and quality of the products and services provided by regulated entities (Lodge and Wegrich 2022). Second, citizen trust in regulatory agencies may also contribute to regulatees' perceptions of the legitimacy of these agencies and thus encourage voluntary compliance. Third, insofar as public trust engenders, or reflects, an agency's positive reputation this may also contribute to agency autonomy vis-à-vis both markets and political principals (Carpenter 2010; Chen, Christensen, and Ma 2022; Salomonsen, Boye, and Boon 2021).

Establishing public trust, however, is not an easy task for regulators. Risk regulation is an activity surrounded by

uncertainty, especially given the complexity and technical nature of risks in modern society (Engdal and Lidskog 2014). Risks that become harms or scandals are often framed as regulatory failures, whereas positive outcomes of regulatory agencies' activities—the reduction of risk and prevention of harm—can seldom be directly observed (Lodge and Wegrich 2022). Public trust in regulatory agencies is also highly dependent on how media represent regulatory activities, as most citizens do not have personal interactions with regulatory agencies (Peci 2021). Given the negativity bias in the coverage of regulatory agencies (Salomonsen, Boye, and Boon 2021), affecting citizens' trust positively via their media reputation is not a straightforward task.

While a flourishing scholarship has investigated strategies to foster citizen trust at the institutional level, including strengthening their accountability, transparency, independence, stakeholder engagement, and media communication strategies (e.g., Braun and Busuioc 2020; Maman 2022), surprisingly little is known about the effects of core regulatory decision-making, such as *actual regulatory enforcement*, on citizen trust. Regulatory enforcement actions are agency

**Table 1.** Overview of dimensions of enforcement style.

Authors	Reported dimensions
May and Winter (1999, 2000)	Formalism, Coercion
May and Wood (2003)	Formalism, Facilitation
Lo, Fryxell, and Van Rooij (2009)	Accommodation, Prioritization, Educational, Formalism, Coercion
McAllister (2010)	Formalism, Coercion, Autonomy, Capacity
Carter (2016)	Strictness, Sanctions, Flexibility, Technical assistance
De Boer (2019)	Legal, Facilitation, Accommodation

responses to violations by regulatees aiming to ensure compliance, such as fines, revoking licenses, or shutting down a facility (Kagan 1989; Scholten 2022). As enforcement actions are the most directly observable manifestations of regulatory intervention (Coslovsky, Pires, and Silbey 2011), they carry the potential to have a strong impact on citizen trust. Yet, research on the relation between regulatory output, such as enforcement action, and societal outcomes, such as citizen trust, is scarce (Guidi, Guardiancich, and Levi-Faur 2020). In this article, we address this gap in regulatory theory by asking how citizen trust is affected by regulatory enforcement and enforcement styles towards non-compliant regulatees. The concept of enforcement style captures the aspect of enforcement that is directly in the sphere of influence of a regulatory agency and is used to differentiate various approaches that different regulatory agencies use to respond to rule violations (Ayres and Braithwaite 1992; Bardach and Kagan 1982; Black 2017; Braithwaite 1985; May and Winter 1999, 2000).

The current paper makes two theoretical contributions. First, it innovates theory on citizen trust in regulators, by extending explanations for citizen trust from institutional characteristics of regulators to their enforcement style. Second, it extends insights on the impact of enforcement style from compliance motivations by regulatees (May and Wood 2003), to trust by the general population. The main factor we explore here is citizen perceptions on how strictly business should be regulated. Based on research in criminology we assume that the public prefers the regulator to be strict and severe toward non-compliance. Criminological research has found a so-called “punitiveness gap,” in the sense that the public finds judicial sentencing too lenient, and that there is a gap between what citizens prefer and the actual sentencing by judges (De Keijser and Elffers 2009; Gerber 2021). We might assume, therefore, that a heavy-handed approach to enforcement will strengthen citizen trust in regulatory agencies. There may be several reasons why citizens may appreciate a strict and heavy-handed approach to enforcement. Citizens may believe that strong enforcement is more effective in deterring offenders and therefore prevents business offenses (e.g., Etienne 2015). Also, strong enforcement may satisfy punitive sentiments: a desire for authoritative punishment of transgressions and a tough approach towards violations (Gerber and Jackson 2016). On the other hand, citizens might find a more collaborative enforcement style more trustworthy, as it involves working with regulated entities to identify and address regulatory issues (May and Wood 2003) which they may view as more reasonable and responsive.

In sum, we seek to answer the following question:

*How does enforcement style affect citizens’ trust in regulatory agencies?*

Based on the literature on regulatory enforcement, we identify and test how variation in the three central dimensions of enforcement style affects citizen trust: the degree of formalism (strict or lenient application of the rules), the degree of the coerciveness of sanctions (punitive or more educational approach to sanctions), and the degree of accommodation (are regulatees’ interests and opinions considered or not). We test the effect of each dimension in large-scale, pre-registered, and representative survey experiments in six countries: Belgium, Denmark, Germany, Israel, the Netherlands, and Norway (total  $n = 5,765$ ) and in three regulatory domains (food safety, financial security, and data protection).

Our empirical contribution lies in carrying out the first cross-national experiment to assess and compare how regulatory enforcement styles towards regulated businesses affect *citizens’* trust. Beyond its academic relevance, our study is relevant for regulatory agencies, because recent research acknowledges citizen trust as a prerequisite for regulatory performance (Verhoest, Redert, and Six 2020). Hence, it is important to discern trust-enhancing factors that regulators can influence. More specifically, regulators may feel compelled to pursue citizen’s trust by engaging in formalistic or punitive enforcement styles in response to the perceived tension between punitive and collaborative enforcement styles. Our results challenge common assumptions about the role of punitiveness in building trust, as we found limited evidence of a positive effect of a heavy-handed enforcement approach on citizen trust.

## Enforcement styles in regulation

Whereas enforcement as such encompasses the specific actions regulators undertake in response to rule violations and to the decisions they make, enforcement *style* refers to the character of the interactions with regulatees surrounding these decisions (Lo, Fryxell, and Van Rooij 2009). This analytical distinction is relevant as enforcement is, to a large extent, defined by legal mandate, whereas agencies usually have considerable discretion within these mandates to adopt regulatory styles with varying emphases (De Boer 2019; May and Winter 2000). Furthermore, the term enforcement style has been used to describe individual inspector attitudes (e.g., De Boer 2019; Hutter 1989), but also to designate agency-level strategies for enforcement (e.g., May and Burby 1998). In this study, we refer to agency-level style, which we define as *the consistent and institutionalized approach of the agency to enforce on the lines of coercion, accommodation, or formalism*.

Enforcement style is generally considered to be a multidimensional concept (De Boer 2019; May and Winter 2000;

McAllister 2010). Table 1 provides a selection of studies and the dimensions that they have identified so far in the literature. Two dimensions are consistently mentioned, although sometimes under different labels: coercion and formalism. Formalism refers to the degree of rigidity versus flexibility in applying the rules in interactions with regulatees (May and Winter 2000; McAllister 2010). This idea of formalism is sometimes labeled as “strictness” (Carter 2016; May and Burby 1998) or the “legal” dimension (De Boer 2019). Lo, Fryxell, and Van Rooij (2009) provide more specific expressions of high formalism, for instance, the reluctance to consider mitigating circumstances when a firm fails to meet administrative requirements.

The second dimension that is commonly agreed upon is “coercion,” or the way an agency responds to identified violations (McAllister 2010). May and Winter (1999, 2000) describe coercion in terms of the type of sanctions that an inspector or agency imposes. For instance, once a rule violation has been identified (depending on the degree of formalism), the actions or threats of actions can differ: an agency can issue either a warning or impose a penalty. Carter (2016) labels this as “sanctions.” Agencies that stress the “force of law” by either imposing or announcing penalties for rule violations score high on the coercive dimension (Lo, Fryxell, and Van Rooij 2009).

There is less consensus on other dimensions of enforcement style. While some have introduced new dimensions, such as “facilitation,” “assistance,” or “educational,” there is no consensus that these are substantively different than for instance, “coercion.” These dimensions are focused on educating regulatees on what constitutes good behavior or even giving recommendations to assist them in becoming compliant. However, if coercion is conceptualized as the types of actions that follow non-compliance, then punitive, educational, or facilitating approaches are all alternative responses to non-compliance at the regulator’s disposal. So, in this study, we consider “coercion” as a dimension of regulatory enforcement style that regards the degree of punitiveness of the regulatory response that follows non-compliance. This can be a high degree (e.g., prosecuting, fines) or a low degree of punitiveness (warning, education).

A final dimension that is discussed in the literature is “accommodation.” According to Lo, Fryxell, and Van Rooij (2009), accommodation refers to reconciling the demands of important stakeholders in enforcing the rules, which are, for instance, political leaders and their constituents. De Boer (2019) also identifies accommodation as a dimension of enforcement style but highlights a different set of stakeholders, such as colleagues, supervisors, and regulatees themselves. Overall, scholars seem to agree that accommodation is part of enforcement style, yet that it can refer to a wide range of possible interests and stakes that are considered in an enforcement decision, such as colleagues, supervisors, and regulatees themselves. In this study, we place the focus on whether the perspective of the regulatee is taken into consideration by the regulator.

In sum, we identified formalism and coercion as two central dimensions of enforcement style in the literature. Some recent work has also suggested accommodation as a third dimension. We thus incorporate three dimensions of enforcement style in this study:

- Degree of formalism: do agencies use a strict or flexible interpretation of the rules?
- Degree of coerciveness of sanctions: do agencies react with punitive or mild sanctions to identified violations?

- Degree of accommodation: do agencies consider the perspective of the regulatee in their decisions?

In the next section, we discuss how these dimensions could relate to citizen trust in regulatory agencies.

## Trust and enforcement styles

Before discussing the potential relationship between enforcement styles and citizen trust, we discuss how trust can be conceptualized concerning regulatory agencies. Trust has been studied across all social science disciplines. In this article, we employ a broad interdisciplinary and much-cited definition of trust by Mayer, Davis, and Schoorman (1995) and then apply this definition to citizen trust in regulatory agencies. Mayer et al. define trust as “*the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party*” (Mayer, Davis, and Schoorman 1995, 712).

In our research, we look at citizens as trustors and citizen expectations that regulatory agencies will perform important regulatory tasks. Ineffective regulatory enforcement may result in unsafe products, unfair business practices, or other harmful consequences affecting public safety and security. As citizens neither possess the capacity to assess business compliance, nor to assess regulatory effectiveness directly, citizens are the “trustor” and the regulator is the party entrusted with that task. Therefore, some degree of vulnerability is inherent to the relationship between citizens and regulatory agencies (Six 2013), as citizens must trust the regulator to ensure business compliance.

In addition, the citizen-regulator trust relationship entails the expectation of citizens that a regulator effectively monitors and enforces compliance in markets (Six and Verhoest 2017). These expectations are based on the perceptions that people have of the “other.” In other words: are the intentions and behaviors of the regulatory agency to enforce compliance perceived to be trustworthy? Various literature reviews on organizational trust have shown that perceived competence/ability, benevolence, and integrity are central dimensions of organizational trustworthiness (Grimmelikhuijsen and Knies 2017; Mayer, Davis, and Schoorman 1995; McEvily and Tortoriello 2011). For our study, this refers to the extent to which a citizen perceives the agency to be capable and effective (i.e., competent), to act in the public’s interest (i.e., benevolent); and to fulfill their promises and be truthful (i.e., integrity).

## Linking enforcement styles with citizen trust

So far, research has mainly focused on how enforcement styles affect compliance motivations of regulatees. Yet, regulatory actions likely also shape citizen trust, although this relation is much less theorized (Six and Verhoest 2017). Our study draws from previous empirical research. In one experimental study, Grimmelikhuijsen et al. (2021) found that *any* form of communication about enforcement, regardless of enforcement style, elicits citizen trust, including communicating a penalty, compared to a control group that received general information about the mission and purpose of a regulatory agency. Another experimental study found

that informing people about the enforcement ability of regulators elicits more citizen trust than a regulation with no such information (Maman, Feldman, and Levi-Faur 2022). Our first hypothesis, therefore, predicts an overall enforcement effect on citizen trust, regardless of the specific style of enforcement:

*Enforcement hypothesis: An information cue about enforcement (in general) has a positive effect on trust in the regulatory agency.<sup>1</sup>*

Next, we develop our hypotheses concerning the enforcement styles: formalism, coerciveness, and accommodation. As a reminder, formalism refers to a strict application of rules without taking mitigating circumstances into account, and coerciveness is the degree of punitiveness, as compared to a lenient approach. Literature suggests that citizens prefer both formalism and coerciveness over flexibility and leniency. Scholten (2022, also see Etienne 2015), for example, argues that high-profile cases getting headlines in the news can be beneficial for trust in the regulator. In the previously mentioned experiment (Grimmelikhuisen et al. 2021), participants were first exposed to a vignette in which a regulatory agency officially finds non-compliance, yet the agency is at first lenient and provides the regulatee with recommendations and time to improve the situation. In the second part of the experiment, the agency reports persistent non-compliance and issues a penalty. On average, the initial (non-coercive) decision was less acceptable to respondents than the decision to issue a penalty.

The causal mechanism behind citizen preferences for a coercive and formal enforcement style may be their “punitive attitudes,” a concept derived from criminology. Criminological insights on the punitive attitudes of citizens toward judicial sentencing of street crime (Cullen, Chouhy, and Jonson 2019; De Keijser and Elffers 2009) may also explain how citizens view regulatory enforcement. Punitive attitudes are formed by utilitarian and retributive considerations (Gerber 2021). From a utilitarian perspective, punishment is seen to reduce future wrongdoing through deterrence. In the case of regulatory enforcement, citizens might view a non-compliant company as harmful to society and may believe harsh punishment by regulators could deter it from future wrongdoing. The retributive perspective emphasizes the symbolic role punishment has as a form of retaliation for wrongdoing: offenders deserve punishment. We expect that, compared to criminal punishment, retaliation plays less of a role in regulatory non-compliance. However, preferences for retaliation may be present when companies deliberately transgress and/or put people’s lives at risk.

When we translate these insights on punitive attitudes and enforcement style, to the relation between enforcement style and trust, we would expect that more formal and coercive enforcement styles will more closely match citizen’s punitive attitudes (e.g., Etienne 2015). For the formalism dimension, this means that a stricter, more formalistic approach to applying the rules is considered more punitive and therefore increases trust. Concerning the coerciveness dimension, we would expect that stronger punishment corresponds with the

desire for punitive enforcement amongst the public, which will increase trust.

Based on this, we formulate the following hypotheses:

*Formalism hypothesis: High formalism (strictness) has a positive effect on trust in the regulatory agency, compared to low formalism.*

*Coerciveness hypothesis: High coerciveness (punitiveness) has a positive effect on trust in the regulatory agency, compared to low coerciveness.*

With regard to the accommodation dimension (de Boer 2019; Lo, Fryxell, and Van Rooij 2009), we expect that a more accommodative style of enforcement, in which the views of the regulatees are considered in the enforcement decision, could make the regulatory agency appear less independent or even “captured” in the eyes of citizens. Making impartial decisions is considered to be a core component of good governance (Rothstein and Teorell 2008) and is also at the heart of the classic idea of Weberian bureaucracy (Olsen 2006). At the same time, the “regulatory frontline” accommodation may help to foster trust between inspectors and regulated entities (May and Wood 2003). One could argue that accommodation could also increase citizen trust: regulatory agencies that employ an accommodating enforcement style take situational conditions into account and citizens may perceive this as more benevolent and reasonable and thus more trustworthy.

Still, we assume the general public has limited knowledge of regulatory agencies. Laypersons may have less political sophistication (cf. Luskin 1990; Proszowska, Jansen, and Denters 2023) and not see the nuances and advantages of such an accommodative style. Thus, we hypothesize that accommodating regulatees in agency enforcement may be viewed as the opposite of impartial, which may impede citizen trust. We, therefore, formulate the following hypothesis:

*Accommodation hypothesis: High accommodation has a negative effect on trust in the regulatory agency, compared to low accommodation.*

We test these generic hypotheses that cover six countries (Belgium, Denmark, Germany, Israel, the Netherlands, and Norway) and three salient regulatory domains (food safety, finance, and data protection). We do not formulate country or domain-specific hypotheses and expect that—theoretically—the effect of enforcement style will be similar. Yet, the comparative design allows us to test differences between countries and domains. The countries in our study are comparable in the sense that they are advanced liberal economies with established regulatory agencies and enforcement practices. Yet, the six countries in our study vary in political economy, administrative culture, and attitude toward risk regulation (Borraz et al. 2022; Rothstein 2019), which could influence how enforcement styles are perceived by the public. In particular, the countries vary in levels of trust in regulatory agencies in general, with a relatively low level of trust in Israel, and the highest levels of trust found in the Netherlands and Norway, and the other countries in between and more mixed (Maggetti et al. 2023).

The three regulatory domains in this study were selected as areas that citizens could relate to. Yet, variations exist between the food safety regime leaning more on command-and-control regulation, and the financial and data protection

<sup>1</sup>All hypotheses have been pre-registered at OSF: <https://doi.org/10.17605/OSF.IO/Z38UG>

regimes more oriented toward principles-based and self-regulation, factors that were confirmed to influence trust in a more recent study (Maman, Feldman, and Levi-Faur 2022). Nevertheless, earlier research found that levels of citizen trust do not differ significantly between these three sectors in the countries in this study (Maggetti et al. 2023).

So, although there undoubtedly are differences in the overall level of enforcement and enforcement style of regulatory agencies between domains and across countries, we have found no theory to support domain- or country-specific expectations about whether citizens actually respond differently to enforcement styles. Therefore, we formulated generic hypotheses and tested if the potential effect of enforcement style generalizes across domains and countries.

## Research design

The effect of enforcement style on citizens' trust was tested using a cross-national vignette experiment. The experiment was fielded between June 21 and July 6, 2021, on representative samples of citizens (see Supplementary Appendix B.3 for information on quotas). The experiment was fielded with the assistance of the company Kantar using an online surveying method. Kantar distributed our survey experiment to their opt-in online panels of respondents in the six countries of interest. The respondents were invited to take part in the experiment on the basis of their characteristics, in line with the pre-defined quotas. Kantar's panelists are recruited through advertising, as well as internal and external affiliate networks. Kantar deploys quality control checks on its panels, ensuring, among other things, the uniqueness of respondents, and privacy regulation compliance.

The structure of the experiment is provided in figure 1. Participants were first informed about the general goals of the study and were asked to provide consent for the processing of their data. They were then asked about their gender, age, and highest educational attainment. Next, three vignettes, one for each studied regulatory domain: finance, food safety, and data protection, were displayed in a randomized order. After each vignette, the participants were asked to report their trust in the relevant regulatory agency. Within each of the three vignettes, the participants were either assigned to one of the two treatment conditions of the three dimensions of enforcement style or were assigned to the control condition which did not contain information on enforcement. This assignment was randomized too. After the third vignette, the participants were asked three questions aiming to test the effectiveness of the enforcement style manipulations in the last displayed vignette ("Materials" section explains vignette development and additional manipulation checks). Finally, participants were asked about their general trust in other people, their preferred regulation strictness, their knowledge of the work of the three regulators, and their attentiveness was tested, before they were debriefed.

This experimental design provides for eight treatment groups and a control group within each vignette (two formalism  $\times$  two coerciveness  $\times$  two accommodation + control group). Each respondent had an equal chance to be randomly allocated to one of the nine experimental groups. The sample size per treatment condition in each country is provided in Supplementary Appendix B.2.

## Materials

The core of the experiment consisted of three vignettes describing fictional situations relevant to each of the three regulatory domains: food safety, finance, and data protection (Table 2). The vignettes present realistic situations in which a regulated organization has displayed negligence. This description of the situation is followed by the response of the regulator, which contains the experimental treatment of the three dimensions of enforcement style (Table 3). The latter is omitted in the control group.

The vignettes were designed as the joint effort of researchers from the following seven universities: Utrecht University, Hebrew University of Jerusalem, University of Oslo, German University of Administrative Sciences Speyer, Aarhus University, Institut Barcelona Estudis Internacionals (IBEI), and University of Antwerp. We designed a procedure aimed at strengthening the ecological validity of the experiment and ensuring its relevance across comparative settings. First, each university team proposed a set of regulatory issues considered highly salient and visible for citizens in their country, which were often related to past scandals and events. We then narrowed down the proposed issues to three per regulatory domain, for which we developed vignettes: we selected vignettes that were recognizable in each country in the project, according to the researchers involved.

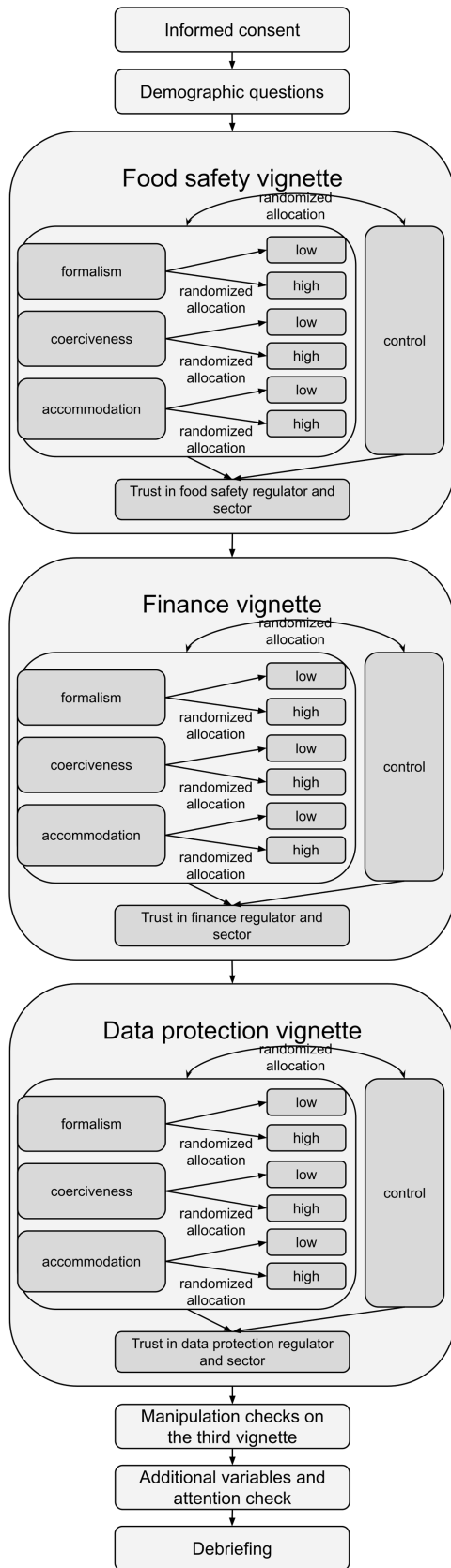
The precise formulation of the vignettes was then discussed between all partners, which allowed us to account for national context and language differences. To select one vignette per domain out of the developed three, a small-scale survey of approximately 100 participants was launched in each of the six countries. The goal of the survey was to help select vignettes depicting issues that are perceived as highly and similarly important in all countries. Thus, respondents were asked to rate the relevance and urgency of the issues presented in the nine vignettes. Four criteria were used in the selection of the vignettes for the final experiment:

1. Salience: the perceived importance of the issues, expressed in high ratings.
2. Low variance: convergent views in the population on how important the issues are.
3. Country equivalence: similar ratings between countries.
4. Issue equivalence: similar ratings between issues.

Based on the results, we selected the descriptions in Table 2. More details on the testing of the vignettes can be found in Supplementary Appendix A.1

The second part of the vignette contained the experimental manipulations. As discussed in the theory section, three elements of regulatory enforcement were of interest: formalism, coerciveness, and accommodation. Each of the three dimensions had a high or a low value, as displayed in Table 3. The control condition provided information on the role of the regulator, but not on the enforcement approach of the regulator in the given situation.

As recommended by Ejelöv and Luke (2020), we tested the efficacy of our experimental treatments using a small-scale survey of approximately 100 respondents per country, prior to fielding the full survey experiment. We tested whether the respondents perceived the three manipulations in the way we intended. As the results from this test indicated that the experimental



Randomized order in the display of the regulatory sector vignettes

Figure 1. The flow of the survey experiment.

manipulations were effective, we proceeded with implementing them in the main study. More details about this manipulation check are available in Supplementary Appendix A.2.

The main study also included a manipulation check. However, to avoid overburdening the respondents, revealing the goal of the experiment, and making the experiment lengthy, we opted for placing the manipulation checks only after the last vignette, rather than after each of the three vignettes. Since the order of the vignettes was randomized, the manipulation checks were applied to a random selection of the scenarios from the three domains. The detailed results from the manipulation checks are provided in Supplementary Appendix B.5. The results highlight that the respondents in the high and low treatment conditions of the three dimensions of enforcement interpreted the manipulations as intended: their answers on the manipulation check items are significantly different, and in the predicted direction in all six countries.

### Measurement

While it is common practice to measure trust in government in general using single-item measures of political trust (e.g., Hooghe 2011: 275), this practice is also criticized for its lack of construct validity (Bouckaert and van de Walle 2003; Grimmelikhuijsen and Knies 2017). Furthermore, studies measuring trust in a specified organization of government (i.e., a specified regulatory agency) are scarce. Van de Walle (2004: 146) notes that it is important to trace specific objects of trust to determine the causes of trust in government organizations more precisely. The current scale strongly builds on the widely used ABI (ability, benevolence, integrity) model. The ABI model highlights the multidimensional nature of perceived trustworthiness: ability, benevolence, and integrity (Mayer, Davis, and Schoorman 1995; McEvily and Tortoriello 2011). These three factors appear most regularly in the literature and together, these dimensions provide a “solid foundation for the empirical study of trust for another party” (Mayer, Davis, and Schoorman 1995: 717). In addition, we highlight why we think such a measure is more suitable than a single-item measure of trust. In doing so, we follow the recommendation by Mutz (2011: 100–101) to avoid single-item measurements as dependent variable in population-based survey experiments to be able to isolate treatment effects with a heterogeneous population.

Therefore, to measure citizens’ trust in regulatory agencies, we rely on a widely accepted three-dimensional conceptualization of trust: distinguishing between the dimensions of *ability* (capturing the perceptions of the ability of the actor to perform its tasks professionally and successfully), *benevolence* (capturing the perceptions regarding the motivation of the actor to take the public interest into account), and *integrity* (capturing perceptions regarding the actor’s honesty) (Grimmelikhuijsen and Knies 2017; Mayer, Davis, and Schoorman 1995; McEvily and Tortoriello 2011).

For the brevity of the survey, we used a shortened version of a validated trust scale based on the three dimensions of trust (Grimmelikhuijsen, de Vries, and Bouwman 2024). The dependent variable of trust was constructed by taking the average of the responses on the three items, as they were all measured on a 7-point scale. The internal consistency of the constructed trust variable is assessed using Cronbach’s alpha. The values of Cronbach’s alpha range between .88 and .94 for all countries and sectors, which indicates a very good level of internal consistency of the composite measure (Bland and Altman 1997).

**Table 2.** Descriptive vignettes.

Food safety	Finance	Data protection
A large vegetable grower in the country treated its vegetables with too much organic phosphorus over the past 4 months, because employees were not trained to work with this type of pesticide. The products were marketed to consumers, even though organic phosphorus in large quantities is toxic to the human body	A large bank failed to appropriately monitor money laundering schemes on their accounts. The bank used an inaccurate information technology system to flag suspect transactions. Consequently, profits made from criminal activities were laundered	After a hacker attack, hundreds of citizens' sensitive personal health data was stolen from a large hospital. The hackers were able to access the sensitive data as the hospital stored it on a non-secure web server

Source: Authors' elaboration.

**Table 3.** Experimental manipulations.

Dimension of enforcement	Low	High
Introduction text	The [regulatory agency] is a supervisory institution [in the food sector/in the finance sector/for data protection]. A main task of [regulatory agency] is therefore to assess compliance with existing rules for [food safety in the food sector/client protection in the financial sector/data protection and privacy]	
Formalism	The [regulatory agency's real name] adopts a <i>flexible</i> interpretation of the rules for this kind of violation	The [regulatory agency's real name] adopts a <i>strict</i> interpretation of the rules for this kind of violation
Coerciveness	The [regulatory agency's real name] decided to issue a <i>formal warning</i> to the [regulatee]. If the issue is not fixed soon, the [regulatory agency] can give a fine	The [regulatory agency] decided to issue a <i>high fine</i> to the [regulatee]
Accommodation	The [regulatory agency's real name] inspectors investigated the issue and reached their decision. They <i>did not give the [regulatee] an opportunity to react and explain what happened</i> before concluding their assessment	The [regulatory agency's real name] inspectors investigated the issue and reached their decision. They <i>gave the [regulatee] an opportunity to react and explain what happened</i> before concluding their assessment

Source: Authors' elaboration.

Supplementary Appendix A.5 provides reliability metrics for the composite measure of trust for all countries and sectors.

*Do you think that the [regulatory agency] generally...*

- *...performs its tasks in a very competent way.* (Competence)
- *...takes the public interest into account.* (Benevolence)
- *...is acting honestly.* (Integrity)

In addition to the measurement of trust in the regulator, we also measured the trust citizens place in each of the three regulated sectors, as well as citizens' generalized trust in other people, views on regulation, and knowledge regarding the work of the regulator in question. The items used to measure these additional variables have been provided in Supplementary Appendix A.3.

### Ethical and privacy considerations

The project received ethical approval from all participating universities. Details are provided to the journal editor and have been left out in this manuscript for the purpose of anonymity. In addition, several steps were taken to protect the privacy of the respondents. Further information is provided in Supplementary Appendix A.6.

### Data quality

To ensure the quality of the collected data, we excluded responses that were completed in 90 seconds or less, as we consider that to be insufficient time to read the questionnaire

attentively. This exclusion rule has been pre-registered. For robustness purposes, however, we have analyzed the data with the respondents who have completed the questionnaire in under 90 seconds as well. These results are reported in Supplementary Appendix D.2. The results do not differ substantively from the results obtained in the main analysis. Based on this we conclude that the risk of post-treatment bias in our study is very limited (Montgomery, Nyhan, and Torres 2018). In total, 6,077 respondents completed the survey, of which 5,765 responses were retained for analysis after exclusion<sup>2</sup>. The sample descriptives are provided in Table 4.

## Results

This section reports the results of the experimental analysis (further details are presented in Supplementary Appendix C). We first report an overview of the trust means per regulatory domain in each country and then assess the effects of the three dimensions of enforcement style on citizens' trust in the regulator in the three regulatory domains of interest: food safety, finance, and data protection.

From figure 2 we can observe that the levels of trust in the regulator in the three domains are slightly above the neutral midpoint of 4 on the scale, for most countries. Citizens' trust appears to be the highest in the Netherlands and Norway, while the lowest in Israel. Finally, from the three sectors, we can see that the data protection and food

<sup>2</sup>29 respondents were excluded because they did not belong to the pre-defined population (they were below the age of 18) and 283 were excluded for completing the questionnaire too fast (less than 90 seconds).

**Table 4.** Sample descriptives.

	Germany	The Netherlands	Belgium	Denmark	Norway	Israel
Gender						
Male	466	465	467	483	493	505
Female	477	487	456	480	483	471
Other	0	2	2	2	0	2
Prefer not to say	2	0	1	2	0	1
Age group						
18–24	53	75	73	68	67	176
25–34	151	150	132	126	137	221
35–44	128	136	144	126	162	278
45–54	200	206	194	227	213	156
55–64	209	162	202	173	150	91
65–74	174	176	159	185	155	45
75–84	28	49	33	58	87	9
85 or older	4	2	2	4	6	2
Educational attainment						
Primary education not completed	3	13	7	6	3	2
Completed primary education	35	30	36	129	65	10
Completed secondary education	111	265	290	144	302	248
Vocational qualification	578	237	230	496	140	299
University degree (BA)	128	275	243	125	294	259
Postgraduate degree (MA)	67	114	109	40	133	129
PhD/Doctorate	13	18	15	7	12	19
Other	11	4	5	20	28	11
<i>n</i>	947	956	939	967	978	978

safety sectors enjoy higher levels of citizens' trust than the finance sector.

We first examine the evidence with regard to the enforcement hypothesis. To do so, we compare trust in the three examined regulatory agencies for the respondents who were assigned to the control condition, to the reported trust of the respondents who were assigned to one of the enforcement treatment conditions. The results from the analysis per country and sector are presented in figure 3.

In figure 3 we see that the provided information about regulatory enforcement led respondents to express higher levels of trust towards the finance regulator in the German sample and the data protection regulator in the Israel sample. In contrast, we find that the information cue hurt trust in the data protection regulator in the Norwegian sample. A robust regression analysis of the pooled sample including all countries and sectors (reported in Supplementary Appendix C.4) indicates that the information cue about the enforcement actions of the regulator does not lead to differences in how the experimental respondents evaluate the trustworthiness of the regulator in the pooled sample ( $\beta = .05$ ,  $t(df = 1,871.263) = 1.59$ ,  $p = .11$ ).

Now, we report the experimental results on the effect of the three dimensions of enforcement style on citizens' trust in regulatory agencies. We report the statistical analysis of the pooled data in Table 6, while more detailed results per country and sector are visually presented in figures 4–6.

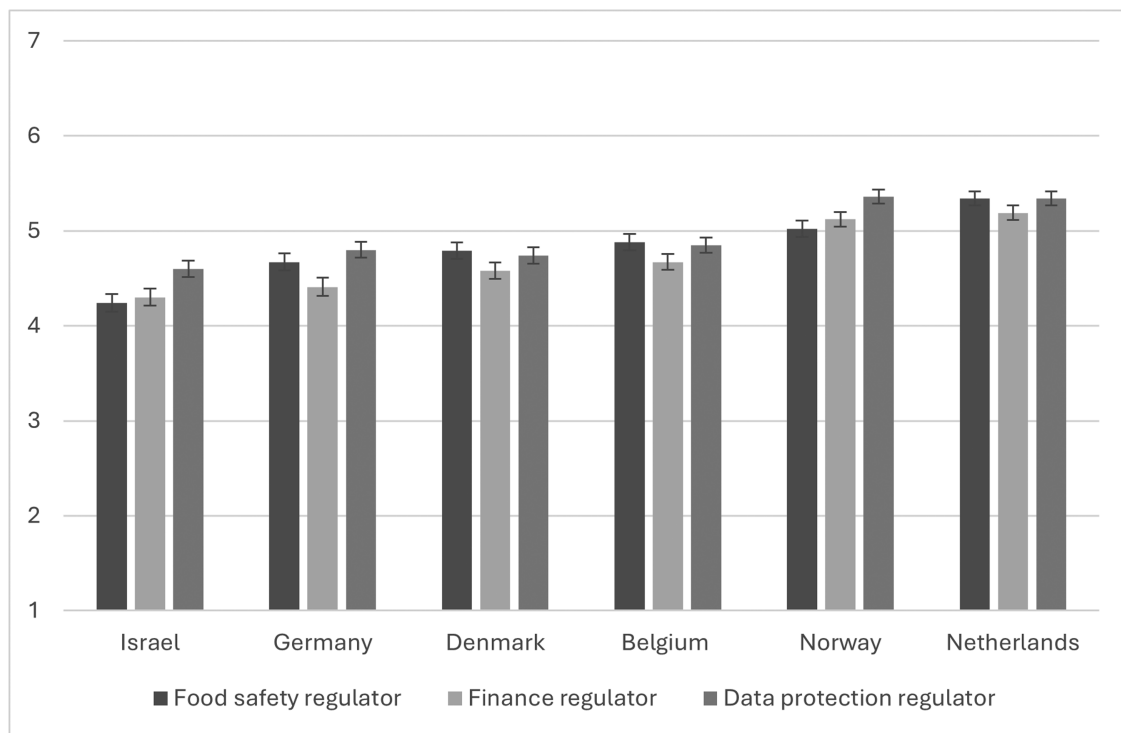
Table 5 presents four regression models: the first model is fitted on the pooled data from all countries and sectors, while the following three models analyze the three sectors separately.

The regression analysis indicates that both high coerciveness and formalism (as opposed to low) lead to higher citizen trust in regulatory agencies in all three sectors.

However, despite being statistically significant, these positive effects of coerciveness and formalism are small. The change from low to high coerciveness, or from issuing a formal warning to a high penalty to the regulatee, results in an overall 0.14 points increase in citizens' trust in the regulator, on a 7-point trust scale (or 0.10 points when the dependent variable is standardized, see Supplementary Appendix C.5). This effect is somewhat larger for the food safety and finance sectors (0.17 points on a 7-point scale, 0.12 points on a standardized scale) than for the data protection sector (0.07 points on a 7-point scale and 0.05 points on a standardized scale).

The effect of formalism is similar in size to that of coerciveness, so a change in the regulator's enforcement style from a flexible to a strict interpretation of the rules contributes to 0.13 points increase in citizens' trust in the regulator, on a 7-point scale (0.10 points on a standardized scale). The positive effect of formalism is a bit higher in the context of the food safety and data protection sectors (0.15 points on a 7-point scale and 0.11 points on a standardized scale) than in the finance sector (0.10 points on a 7-point scale, or 0.07 points on a standardized scale).

The effect of accommodation on citizens' trust in the regulator is inconsistent between domains and only reaches statistical significance in the context of the financial sector. Here we see that a change from low to high accommodation of the financial regulator, or from unwillingness to willingness to



**Figure 2.** Mean trust in regulators per country and sector with 95% confidence intervals. The trust scale in the figure ranges from 1—very low trust to 7—very high trust.

consider the views of the regulatee when making a decision, leads to 0.08 points increase in citizens' trust in the regulator, on a 7-point scale (0.06 points on a standardized scale).

To gain further insight into the robustness of the observed effects of enforcement styles on citizens' trust in regulators, we visually present the results disaggregated per country and sector in figures 4–6. Figure 4 presents the levels of citizens' trust in the food safety regulator in conditions of low versus high formalism, coerciveness, and accommodation, respectively, in each of the six-country samples. To estimate whether the differences in citizens' trust between the high and low conditions of the three dimensions of enforcement are statistically significant, we perform an analysis of variance (ANOVA) in each of the country and sector (sub-)samples.

From figure 4 we observe that in the context of the food safety sector, with regards to formalism, citizens in the high formalism group indicated significantly higher levels of trust in the regulator, compared to the citizens in the low formalism group in the Danish and Israeli samples. Higher coerciveness, in turn, increased the reported levels of trust in the regulators in Germany and Israel. Finally, higher levels of accommodation are associated with lower levels of citizens' trust in the food safety regulator only in Denmark. Thus, we find statistically significant effects on citizens' trust in the food safety regulator only in some aspects of enforcement style in Denmark, Israel, and Germany.

The results from the finance sector are presented in figure 5. Here we see that the level of formalism does not affect citizens' levels of trust in the finance regulator in any of the six countries. Coerciveness, however, appears to affect the levels of trust in Denmark, Norway, and the Netherlands, where higher levels of coerciveness lead to higher levels of trust in the finance regulator. Finally, the level of accommodation only affected the levels of trust of the citizens of Norway, and

contrary to our expectations, higher levels of accommodation led to higher levels of trust.

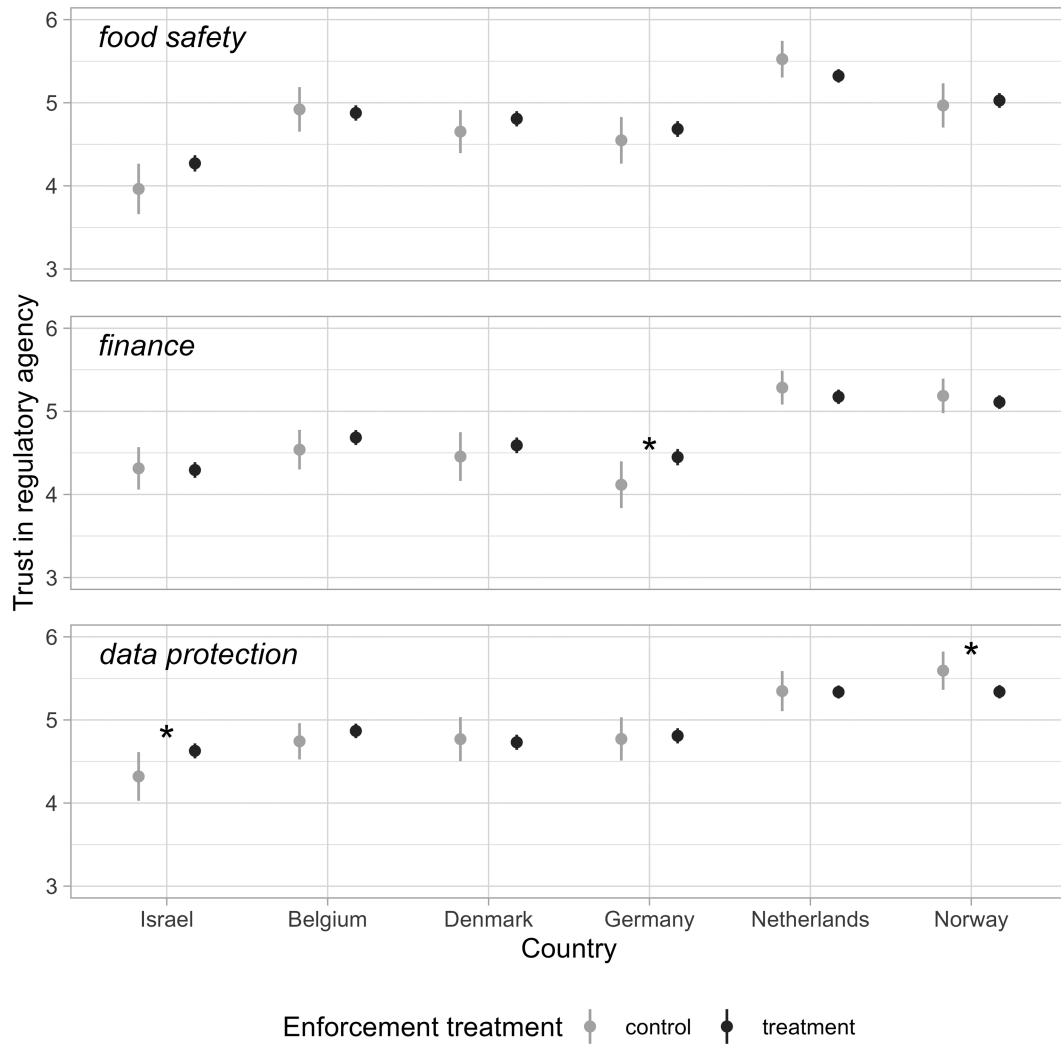
Figure 6 presents the analysis of the effects of enforcement style on the trust in the data protection regulator. From figure 6 we observe that the level of formalism has an effect on citizens' trust in the data protection regulator in Israel and the Netherlands, and concurrent with our hypothesis, higher levels of formalism also lead to higher levels of trust. Only in Norway the level of coerciveness was found to affect the levels of trust in the data protection regulator, and again in line with our hypothesis, higher levels of coerciveness lead to higher levels of trust. The level of accommodation affected the levels of trust in the data protection regulator in the German and Israel samples, but while the effect in Israel was in line with our hypothesis: higher levels of accommodation led to lower levels of trust, the opposite effect was observed in Germany.

As the previous section points out, the findings from the pooled analysis regarding the effects of different enforcement styles on citizens' trust in the regulator do not replicate neatly when looking at the individual countries and sectors. The positive effects on the trust of high formalism and coerciveness (compared to low) maintain statistical significance in only a handful of countries and sectors, while the effect of accommodation when reaching statistical significance, appears to take different directions depending on the examined country and sector.

To systematically examine the outcomes of the analysis, we present an overview of our hypotheses and whether our findings support them in Table 6.<sup>3</sup>

The *overall enforcement effect hypothesis*—enforcement in general positively affects trust—at best receives partial support. The pooled analysis did not provide support for this

<sup>3</sup>Additional exploratory analysis is presented in Supplementary Appendix D.



**Figure 3.** Trust in data protection agency per country, sector, and enforcement experimental treatment. Statistically significant differences are marked at the .05 level with an asterisk (\*).

hypothesis. Looking at the different sectors, for the finance sector we only find support for Germany, and for data protection, we see that enforcement increases trust in regulators in Israel. However, the opposite effect is displayed in the data protection sector in Norway. For food safety, we clearly cannot reject the null hypothesis: the effects are null in all of the countries. So, in general, enforcement (regardless of the enforcement style) has a minimal effect on citizen trust in regulators, and, in balance, we should reject the hypothesis.

When we zoom in on the specific dimensions of enforcement style (formalism, coerciveness, and accommodation) we find some support for our hypotheses. With regard to the *formalism hypothesis*, or the strict interpretation of rules in enforcement, we find a statistically significant, yet small positive effect in the pooled analysis. Looking at the different countries and sectors, high formalism led to more citizen trust in Denmark and Israel in the food safety sector and more trust in the Netherlands and Israel in the data protection sector. No effects of formalism were found in the finance sector. Again, we see some support for the hypothesis, but the effect is small and does not appear robust across countries and regulatory sectors.

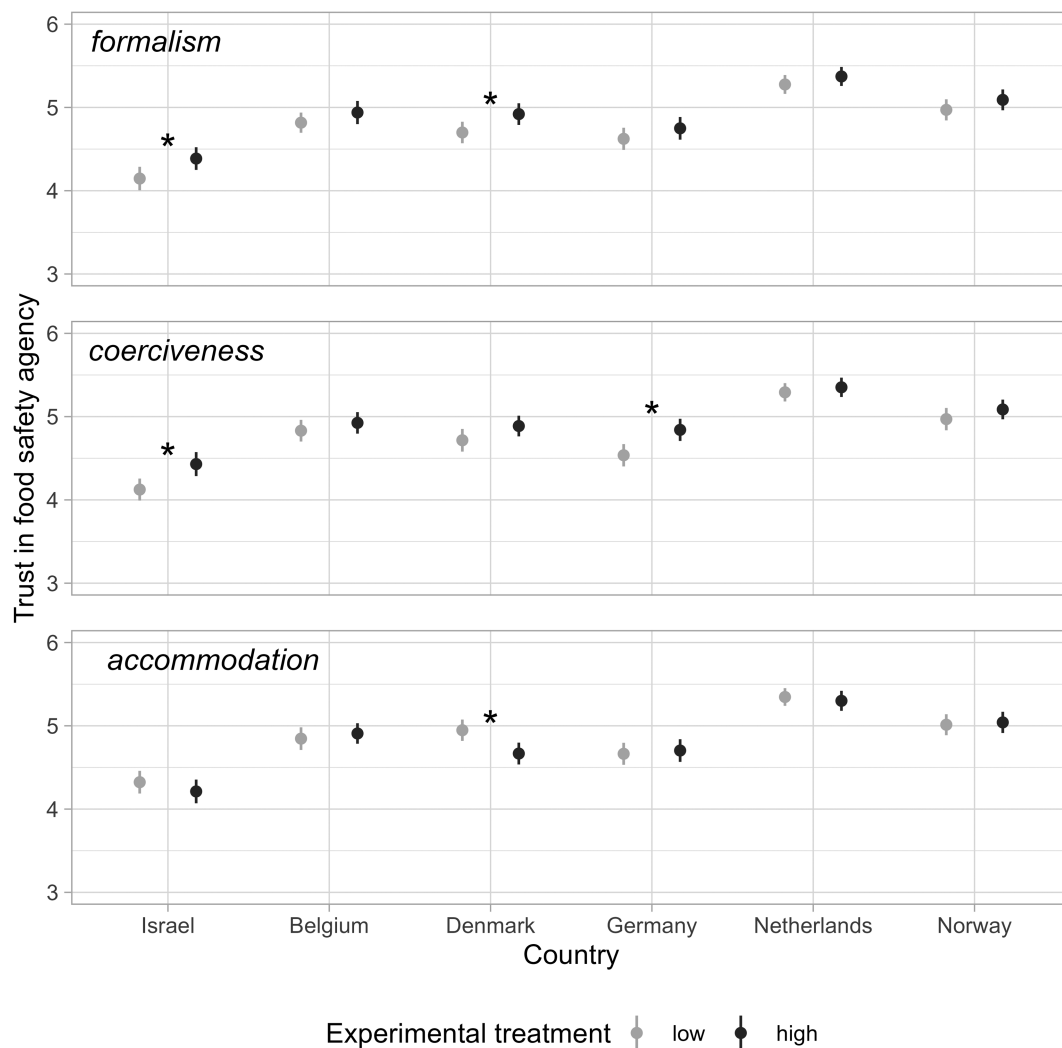
The *coerciveness hypothesis* finds slightly more support in our findings, although the results are still mixed. We find a positive effect of coerciveness, or the tendency to more

strongly punish regulatees, in the pooled analysis, and in all sectors separately. For the food safety sector, we find positive effects specifically in Germany and Israel. For the finance sector, this effect can be found in Denmark, Norway, and the Netherlands. For data protection a positive effect was only found in Norway. Overall, there is some limited support for the hypothesis.

Finally, the *accommodation hypothesis* finds very little support in our data. We expected that when regulatory agencies take into account the regulatees’ perspectives in their enforcement decision it would hurt citizen trust. However, the effects were in the expected direction only in the food safety sector (in Denmark) and in data protection (in Israel). Remarkably, we also find evidence that accommodation had a positive effect on citizen trust (finance sector in the pooled analysis, finance sector in Norway, and data protection sector in Germany). The null hypothesis cannot be rejected and the mixed findings call for further theoretical reflection on this dimension of enforcement.

### Discussion and conclusion

Overall, we find that information about enforcement and different enforcement styles has a limited effect on citizen



**Figure 4.** Trust in food safety agency per country and experimental treatment. Statistically significant differences at the .05 level with Tukey correction for multiple comparisons are marked with an asterisk (\*).

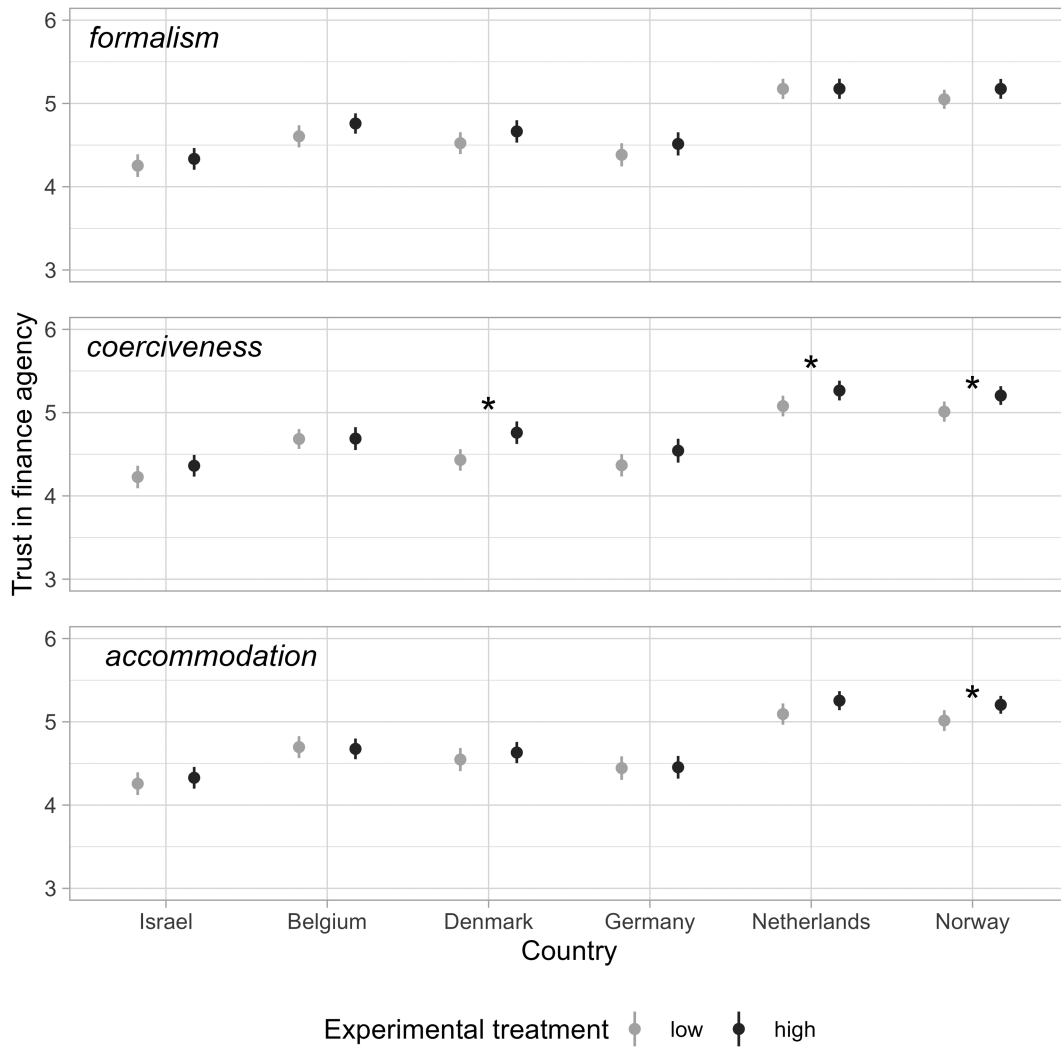
trust in regulatory agencies. This conclusion emerges from data encompassing six different countries and three different regulatory domains. First, we find no overall “enforcement effect” on citizen trust. Second, while we find statistically significant positive effects of high formalism and coerciveness, these effects are small and not consistent across countries. It is only in contexts where trust is low that more coercive interventions and higher formalism, appear to increase trust somewhat. Third, the results for accommodation are highly ambiguous: there are mostly null effects, and some effects are in the opposite direction to what we expected. In contrast with the common assumption that citizens generally prefer more punitive enforcement styles, we find results are mixed and not robust across countries and sectors.

These mixed conclusions have theoretical and practical implications. Theoretically, the weak relation between enforcement style and citizen trust in regulators suggests we should consider alternative explanations than enforcement style. In this section we discuss alternative explanations for our findings, accounting for the fact that “trustworthiness” is conceptually complex and is affected by many individual, organizational, and environmental determinants (McEvily and Tortoriello 2011). Future research could

further elaborate on the relationship between individual enforcement acts; enforcement styles; and general outcomes such as trust, in various regimes (Guidi, Guardiancich, and Levi-Faur 2020).

First, an individual’s level of trust in the regulator may strongly depend on that individual’s general propensity to trust (see Supplementary Appendix D.1). An individual’s propensity to trust other people, in turn, is formed through life experiences and environmental factors. In this sense, a large portion of the variance of an individual’s likelihood to trust a regulatory agency may be pre-determined by this individual generalized trust (see also Grimmelikhuijsen and Meijer 2014). Thus, regulators’ one-off or short-term style of enforcement may have a limited effect on most citizens’ trust.

Second, at the organizational level, there is a possibility that institutional characteristics of a regulator, such as regulatory independence (cf. Salomonsen, Boye, and Boon 2021), accountability, and transparency, are more important (Grimmelikhuijsen et al. 2021) than enforcement styles for citizens’ trust. Enforcement actions may also institutionalize public perceptions and reputations of trustworthiness over time, rather than incidentally. Hence, even though



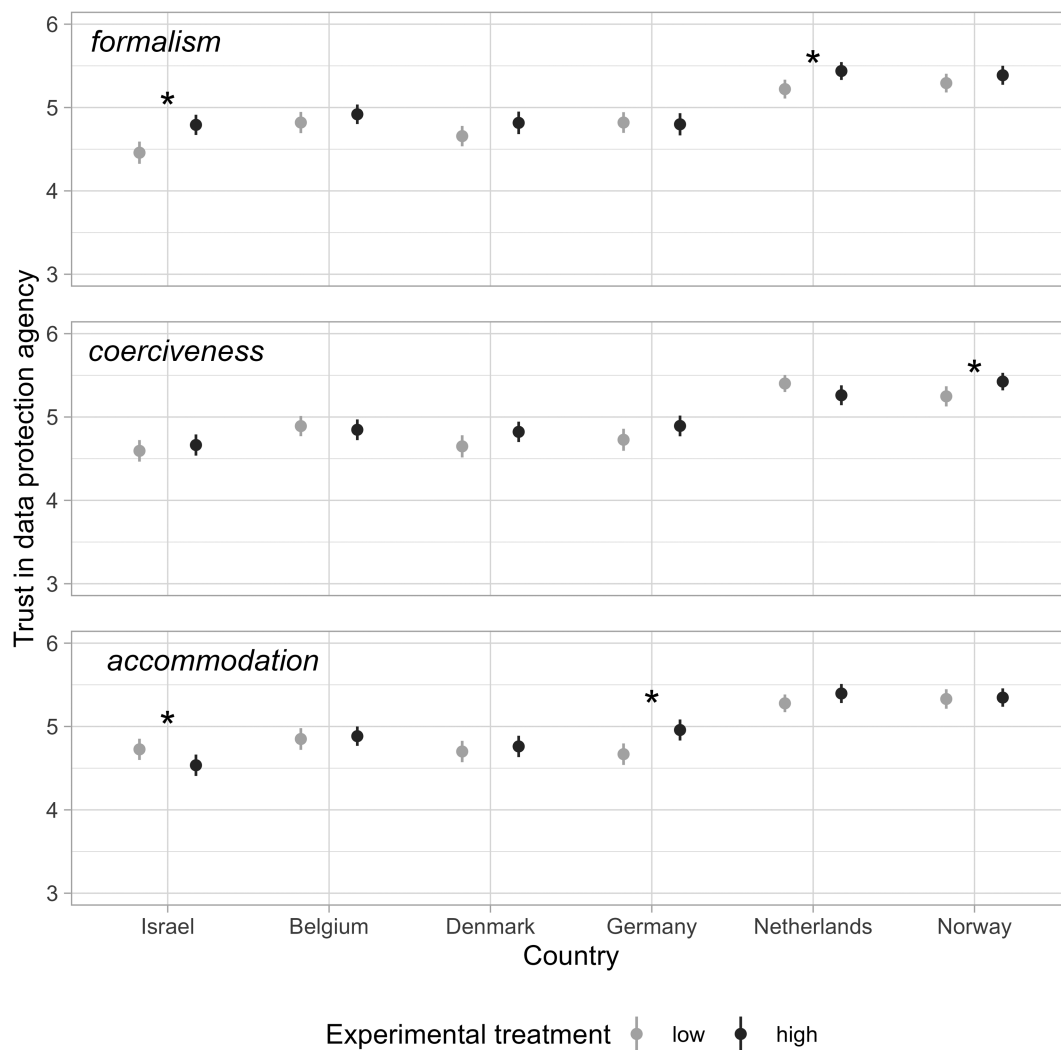
**Figure 5.** Trust in finance agency per country and experimental treatment. Statistically significant differences at the .05 level with Tukey correction for multiple comparisons are marked with an asterisk (\*).

enforcement ultimately can be unpacked in single enforcement acts, the question of how these acts aggregate into public trust remains a puzzle for regulatory scholars who wish to “make a forest out of the trees” (Coslovsky, Pires, and Silbey 2011: 324). If seen in isolation, enforcement acts may not hold implications for citizen trust, yet they may contribute to the more general impression citizens have of agencies and hence over time and seen in context with other enforcement acts contribute to trust and reputational perceptions.

Third, at the national level, while the overall effect of agency enforcement style was subdued in all participating countries, differences in political economies and legal and administrative cultures (e.g., Peci 2021; Rothstein 2019) could play a role in the explanation of differences in citizen trust in regulators between countries. It is possible that what shapes trust in a regulator is not its enforcement style, but the generally collaborative or adversarial relations between the state and market actors. National political philosophies concerning risk regulation as well as general trust in the legal system may form the cultural background against which differentiations in enforcement style are interpreted (Borraz et al. 2022; De Keijser and Elffers 2009).

The (perceived) strength of the underlying regulation, or extant trust in regulated sectors, may also matter. While our study departed from the idea that the confidence of citizens in regulatory agencies, may contribute to their trust in regulated sectors, the relation may also be inverse, as extant trust in regulated sectors may spill over to regulators of these sectors. Differences between regulated domains within countries and how these relate to enforcement styles have been explored in this study, but need more systematic testing. We opted for generic hypotheses without differentiating because of the pioneering nature of connecting enforcement styles with citizen trust. Yet, our findings provide fresh input for further systematic testing between regulatory domains. For instance, there may be differences between the regulated sector (public or private), the level of risk, or the level of trust in regulatees (Grimmelikhuijsen, de Vries, and Bouwman 2024; Maman, Feldman, and Levi-Faur 2022).

A fourth possible explanation points to a ceiling effect of trust. In general, we found that trust in regulatory agencies was relatively high in most countries. Perhaps there is just limited room for an increase in trust. A ceiling effect beyond which trust cannot be further enhanced, is arguably a good thing, as some skepticism towards government can be perceived as healthy (cf. Maggetti et al. 2023; Norris 2022).



**Figure 6.** Trust in data protection agency per country and experimental treatment. Statistically significant differences are marked at a .05 level with Tukey correction for multiple comparisons with an asterisk (\*).

Methodologically speaking, a score of 4 to 5 on a 7-point scale is “as good as it gets” for most regulators. There is some support for the existence of such a ceiling effect in our data. The strongest treatment effects were found in Israel, which was the one country with relatively low levels of trust. This may mean that when baseline trust levels are relatively low, it is also somewhat easier to improve trust by using particular—more punitive and formal—enforcement styles. This is in line with Grimmelikhuijsen and Meijer (2014) who found that providing local policy information only increased trust amongst those with a lower predisposition to trust.

Our findings also have practical implications. While regulatory agencies may find flexible and accommodative stances towards regulatees more effective to achieve voluntary compliance, they are often concerned about how such a “soft” approach will be perceived by the public. Our findings show that generally speaking, regulators do not face a conflict between attaining citizens’ trust and acting responsively towards regulated entities to maximize their compliance. At the same time, our findings seem to suggest that citizen trust is not easily forged by how regulators respond to specific violations.

Finally, the findings also suggest that in situations where trust in regulators is the highest (Norway and the Netherlands),

a lenient enforcement style does not seem to *lower* trust either. For regulators in high-trust countries, this means that regulators may choose a less formal, more accommodating, or less coercive enforcement intervention if considered more effective in realizing compliance by regulatees (e.g., Bardach and Kagan 1982; May and Wood 2003), without risking jeopardizing citizen trust immediately.

The experimental study reported here has some limitations. First, the experiments employ hypothetical vignettes. Even though they have been carefully modeled to capture likely and realistic situations, vignettes present only an abstraction of reality. This might affect the participants’ perceptions of the experiments as realistic, and potentially their involvement in them as well. Having said that, respondents were asked to rate the relevance and urgency of the issues presented in the vignettes in a pre-test. We decided to pick cases that received the highest salience rating to increase the relevance of the experimental setting and to improve external validity. Based on this selection one could argue that even in these highly salient scenarios limited effects are found and that effects in low-salience scenarios are even less likely.

Second, and more substantively, due to the nature of experiments of this kind, it is difficult to separate regulatory

**Table 5.** Linear regression models testing the effect of the three dimensions of enforcement on citizens' trust in regulatory agencies.

	Model 1: All sectors	Model 2: Food safety	Model 3: Finance	Model 4: Data protection
Intercept	4.13*** (0.04) [<0.001]	4.13*** (0.06) [<0.001]	4.11*** (0.06) [<0.001]	4.49*** (0.05) [<0.001]
Coerciveness (ref = low)	.14*** (0.02) [<0.001]	.17*** (0.04) [<0.001]	.17*** (0.04) [<0.001]	.07* (0.03) [0.060]
Formalism (ref = low)	.13*** (0.02) [<0.001]	.15*** (0.04) [<0.001]	.10*** (0.04) [0.006]	.15*** (0.03) [<0.001]
Accommodation (ref = low)	.03 (0.02) [0.225]	-.05 (0.04) [0.146]	.08** (0.04) [0.028]	.05 (0.03) [0.168]
Belgium (ref = Israel)	.41*** (0.05) [<0.001]	.61*** (0.06) [<0.001]	.39*** (0.06) [<0.001]	.24*** (0.06) [<0.001]
Denmark	.31*** (0.05) [<0.001]	.53*** (0.06) [<0.001]	.30*** (0.06) [<0.001]	.11* (0.06) [0.072]
Germany	.25*** (0.05) [<0.001]	.42*** (0.06) [<0.001]	.16** (0.06) [0.012]	.18*** (0.06) [0.003]
Netherlands	.88*** (0.05) [<0.001]	1.05*** (0.06) [<0.001]	.88*** (0.06) [<0.001]	.71*** (0.06) [<0.001]
Norway	.76*** (0.05) [<0.001]	.76*** (0.06) [<0.001]	.82*** (0.06) [<0.001]	.71*** (0.06) [<0.001]
Food safety (ref = Finance)	.11*** (0.02) [<0.001]	/	/	/
Data protection	.23*** (0.02) [<0.001]	/	/	/
R <sup>2</sup>	0.06	0.06	0.06	0.05
R <sup>2</sup> adjusted	0.06	0.06	0.06	0.05
F-statistic	66.23*** (df = 10; 5,757) [<0.001]	41.70*** (df = 8; 5,124) [<0.001]	41.62*** (df = 8; 5,089) [<0.001]	34.38*** (df = 8; 5,136) [<0.001]
n observations	15,376	5,133	5,098	5,145
n individuals	5,758	5,133	5,098	5,145

Source: Authors' elaboration.

Note: The table reports the regression coefficients, standard errors in parentheses, and the *P* values in square brackets. Model 1 reports robust standard errors in parentheses to account for the clustering of responses among participants; The treatment variables of the three dimensions of enforcement include only the high and low conditions; The low condition for all three enforcement dimensions is taken as the baseline. For the country variable Israel is the baseline, while for the sector variable, the finance sector is the baseline; Significance codes: \*\*\*<.01, \*\*<.05, \*<.1.

**Table 6.** Summary of findings.

	Overall effect (Control vs. treatments)	Formalism (High vs. low)	Coerciveness (High vs. low)	Accommodation (High vs. low)
Food safety	No effect	Positive effect in Denmark and Israel	Positive effect in Germany and Israel	Negative effect in Denmark
Finance	Positive effect only in Germany	No effect	Positive effect in Denmark, Norway, and the Netherlands	Contrary (positive) effect in Norway
Data protection	Positive effect in Israel; Contrary (negative) effect in Norway	Positive effect in Israel and the Netherlands	Positive effect in Norway	Contrary (positive) effect in Germany; negative effect in Israel

enforcement from regulatory context. In part, the “slimness” of the vignettes may fail to capture the complexity of citizens’ judgments of regulatory trustworthiness. The effect of regulators’ enforcement styles on citizens’ trust may be contingent on the rich circumstances of individual cases. Rather than having a general preference for high formalism and coercion, and for low accommodation, citizens may expect regulators to match their enforcement style to the case at hand. Namely, to be formalistic and punitive vis-à-vis regulatees who willfully or successively infringe the law, and lenient towards first-time negligent offenders. If so, citizens’ judgments may be more sophisticated and nuanced than our hypotheses suggest. This limitation of our study calls for further research regarding the interactive effect of enforcement styles and case-specific characteristics on citizens’ trust.

Third, some variation between countries and sectors could come from the presence of recent incidents related to one or more of the three sectors of concern, which could have a strong influence on the citizens’ perception of a particular set of regulators or regulatees. This type of variation complicates the comparative analysis of the effects of enforcement style on citizens’ trust in regulators and regulatees between sectors and countries. Nonetheless, the broad sample and variety of sectors covered decrease the likelihood that single incidents systematically bias the results.

Finally, while we employed a validated measure of perceived trustworthiness, this has its limitations. First, the inclusion of ability, benevolence, and integrity in the measure may partially conflate with constructs such as perceived performance. In addition, such specific dimensions might be hard for the general public to assess, as they know relatively little about regulatory agencies’ existence and functioning. Future research could potentially look into alternative measures of trust and also explore alternative concepts, such as distrust in regulatory agencies (Verhoest et al. 2024).

We conclude that, based on experiments in six countries and across three different regulatory domains, a heavy-handed approach to enforcement may increase public trust somewhat, but that this effect is weak and contextual. This unexpected finding provides leeway for replications of the experimental approach covering jurisdictions with weaker institutional regulatory safeguards and further in-depth qualitative comparative research on the role of regulatory behavior in low and high-trust contexts.

## Supplementary material

Supplementary material is available at *Journal of Public Administration Research and Theory* online.

## Acknowledgments

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## Data availability

The data and code underlying this article are available in DANS Data Station Social Sciences and Humanities: “Replication Data for: Regulatory Enforcement Style and Citizen Trust,” <https://doi.org/10.17026/SS/EEDXTY>.

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