

How Do International Organizations Elicit Compliance? Evidence from a Survey Experiment*

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Abstract

Despite the growing importance and influence of international organizations (IOs) in world politics, IOs seldom wield such powers as to force states into compliance with their decisions. Rather, they can try to influence incentives and thereby elicit states' voluntary compliance. Building on recent IO scholarship, we focus on two prominently discussed sources of compliance—IO authority and legitimacy—that are reflected in institutional features of IOs. In particular, concerning authority, we focus on the knowledge generation, formal monitoring instruments, and formal enforcement mechanism. For assessing IO legitimacy, we consider the fairness of decision-making procedures. While these institutional features figure prominently as drivers of compliance, less is known about their relative effect on compliance by member states. We therefore ran a survey experiment of more than 900 officials from 35 different IOs to ask them about their assessments of the effects these institutional features have on compliance. We find that enforcement mechanisms with bite and fair decision-making procedures elicit, according to IO staff, more compliance than more authoritative monitoring instruments or knowledge generation procedures.

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1 Introduction

Because international organizations (IOs) typically lack the power and resources to force member states to follow IO rules and policies, IOs crucially depend on voluntary compliance. But what specific institutional features of IOs are conducive to member state compliance? Building on recent IO scholarship, we focus on how IO features related to two potential sources of compliance affect whether member states follow the rules—the formal authority of IOs (Barnett & Finnemore, 2004; Cooper, Hawkins, Jacoby, & Nielson, 2008; Hooghe, Lenz, & Marks, 2019; Lake, 2010; Zürn, Binder, & Ecker-Ehrhardt, 2012) and their legitimacy (Binder & Heupel, 2015; Dellmuth, Scholte, & Tallberg, 2019; Dellmuth & Tallberg, 2015; Gronau & Schmidtke, 2016). This scholarship has been mainly concerned with measuring and explaining IO authority and legitimacy. Less systematic empirical attention has been given, however, to their consequences for state compliance with IO policies and rules, although prominent arguments theorized how legitimacy (Franck, 1988b) and institutional authority (Hurd, 1999) motivate states to comply with international law and follow rules in world politics.

To begin fill this gap, we designed and implemented a survey experiment with IO staff of more than 30 IOs operating in six distinct issue areas to examine whether and how IO features relating to their authority as well as their legitimacy increase prospects of member state compliance. Specifically, we focus on four such features, of which the generation of knowledge and expertise, the monitoring of compliance, and the type of sanctions pertain to institutional authority, while the fairness of decision-making procedures reflects legitimacy. Our goal is to examine whether and how these features affect member state compliance with IO policies. We do so by asking IO staff that have exclusive knowledge about the practice and de facto functioning of their IOs and state behavior with them.

We find that two features increase prospects for compliance with IO policies and rules—fair decision-making procedures and the ability to impose material sanctions on states that violate rules. This suggests that—at least in the eyes of IO officials—IOs elicit compliance if they make sure that all member states have an opportunity to partake in IO decisions on substantive policies and if the IO can substantially slap states on the

wrist that don't follow the rules. By contrast, authoritative knowledge generation mechanisms or intrusive monitoring tools do not contribute by themselves to more optimistic compliance assessments.

Our paper contributes to the literature on IOs by investigating a potential effect of IO authority—compliance—that has not been considered thus far. Previous experimental work found that authoritative IOs do not matter much in climate change governance (Anderson, Bernauer, & Kachi, 2019). However, by differentiating between different features reflective of IO authority, we show that authoritative sanctioning mechanisms do change the odds of state compliance. Examining specific features and leveraging variation in their ‘authoritativeness’ is particularly conducive to cumulative research (see also Ghassim, Koenig-Archibugi, & Cabrera, 2022). Prior experimental studies showed that the presence of formal enforcement mechanisms supports international treaty-making (Hafner-Burton, LeVeck, Victor, & Fowler, 2014). Our study adds to this finding new insights about the effects different types of sanctions have on compliance by showing that material sanctions are more consequential than reputational retributions.

Our study also contributes to the literature on IO legitimacy where the “folk wisdom” has been that legitimacy is important for IOs because it leads to compliance and support. However, while scholars have established a link between legitimacy and various forms of compliance at the domestic level (Levi, 1997; Tyler & Fagan, 2006), whether legitimacy leads to compliance with IOs has not been studied in systematic ways so far. As such, our paper begins to fill an important gap in the literature by examining whether an important dimension of IO legitimacy – the fairness of IO decision-making procedures – generates higher levels of member state compliance than do IOs that lack fair decision making.

Our study also complements existing scholarship on compliance. Whereas most studies focus on state-level characteristics to account for compliance (Börzel, Hofmann, Panke, & Sprungk, 2010; Koliev, Sommerer, & Tallberg, 2021; Simmons, 2010; Vreeland, 2008), we examine the effects of institutional features and how they may affect the prospects of state compliance, see also Heinzl and Liese (2021, p. 628). Moreover, we move beyond the analysis of observational data to exploit the well-known advantages of survey experi-

ments that have evolved into a promising methodological approach to study the (otherwise confounded) effects of institutions and their design (Anderson et al., 2019; Dellmuth & Tallberg, 2021; Ghassim et al., 2022; Hafner-Burton, LeVeck, & Victor, 2017a; Hahm, Hilper, & König, 2019; Hahm, König, Osnabrügge, & Frech, 2019). Finally, our survey experiment involves more than 900 officials with policy-making competences, adding a cross-IO examination of officials' perceptions and assessments to the nascent literature on IO staff (Heinzel, 2022). Officials at IOs are one important part of international policy-making elites (Dietrich, Hardt, & Swedlund, 2021) that hold intimate knowledge, insights, and experience into how IOs operate. Moreover, they are directly involved in the implementation of IO policies and are as such in a unique position to judge the impact IO features have on member state compliance with IO policies and rules.

2 State of the Art and Hypotheses

The authority of IOs and their legitimacy represent two important concepts for understanding compliance with IO rules and policies. In line with much of the previous literature, we see these concepts as tied to formal (and thus observable) institutional features of IOs (Hooghe et al., 2017; Zürn, Tokhi, & Binder, 2021). As such, institutional features and their varying design have been shown to influence citizens' legitimacy beliefs about IOs (Anderson et al., 2019; Dellmuth et al., 2019), their preferences for institutional reform (Ghassim et al., 2022; Hahm et al., 2019), or policymakers' beliefs about international cooperation (Hafner-Burton et al., 2017a). While important works in International Relations studied the impact of international law on states' compliance decisions (Simmons, 2000; von Stein, 2005), much of compliance research focused on state motives and characteristics without investigating the causal effect of different institutional features on the prospects for rule adherence.¹ This is noteworthy as early theoretical works have highlighted the importance of authority and legitimacy for compliance with IO rules (Franck, 1988a; Hurd, 1999).

¹A notable exception is the study by Tallberg (2002) that analyzed formal procedures of the European Union and their role for compliance.

The goal of this study is therefore to systematically examine whether institutional features tied to authority and legitimacy make a difference with respect to compliance. In particular, we examine the effect of institutional features as it is understood by the staff of IOs. That is, we focus on staff assessments of the prospects for member state compliance. We believe that surveying IO officials helps us to understand compliance processes for the following reasons. Although states hold significant powers in delegating authority to IOs and making policies within them, it is IO staff that implement these rules and policies (Chwieroth, 2013; Eckhard & Ege, 2016; Eckhard & Parizek, 2022; Heinzel, 2022; Stone, 2011). Staff in IOs are international policymaking elites (Dietrich et al., 2021) whose individual beliefs and preferences represent a valuable source of information to judge the effects of institutions on compliance. Staff not only have extensive knowledge of institutional features, but also how policies are actually implemented on a day-to-day basis. Their profound experience can therefore lead to a deeper understanding and more accurate assessments of the prospects of state compliance than if non-elites were asked.

Ideally, we would contrast the assessments of state and IO elites to fully understand the conditions of compliance. However, we believe that considering at this stage IO staff has its own merits. Because of their position as international bureaucrats, staff is impartial, and reflexive about their role (von Billerbeck, 2020) in and effects of their institutions. Staff represents the IO, with its own norms, internal culture, interests. We can thus learn something about how the IO as an institution believes to elicit compliance by its member states and its understanding and interpretation of problems and advantages in fostering rule adherence. Moreover, staff's inside (and informal) knowledge on actual practices of implementing rules and policies and their familiarity with state behavior feed into their assessments. We leverage this unique expertise and experiences to learn something about how IOs—and in particular their authority and legitimacy—work to induce compliance.

Hypotheses

We focus on the authority and legitimacy of IOs as prominent sets of factors conducive to state compliance. What are the sources of IO authority and legitimacy? Concerning

authority, various theoretical traditions answer this question by focusing on different features of IOs (Barnett & Finnemore, 2004; Hooghe et al., 2017; Zürn et al., 2012). On the one side of the spectrum, there are those who emphasize their epistemic roles and functions, while others highlight political factors such as IOs' varying ability to impose sovereignty costs upon states through organizational autonomy or constraining decisions. We consider three features that reflect these different notions of IO authority. Formal rules and procedures of knowledge generation that inform substantive policies is related to IOs' epistemic authority. Next, we focus on a key function of international institutions that is exercised with different degrees of formal authority: the production and exchange of information on member states' compliance through monitoring mechanisms. Then, we discuss the type of formal enforcement mechanisms available to IOs. Monitoring and enforcement reflect features that are tied to the political authority of IOs as they may give IOs the competence to intervene with state sovereignty and even impose costs upon states.

Regarding legitimacy, recent contributions have tied questions of institutional legitimacy to observable institutional features and practices (Dellmuth et al., 2019; Dellmuth & Tallberg, 2015). Building upon this research, the fourth institutional feature captures decision-making procedures in IOs. Specifically, we focus on whether decision-making provides for a fair representation and participation of all member states or whether it is skewed in favor of powerful states.

We now discuss each of the four institutional features in turn and present testable hypotheses. Concerning epistemic authority, IOs typically claim authority as representatives of impartial and scientific knowledge (Busch, Heinzl, Kempken, & Liese, 2022; Liese, Herold, Feil, & Busch, 2021). Knowledge derived from scientific methods and perspectives is regarded as the gold standard of credible information. Scientific knowledge is not only considered credible but also the most appropriate basis for making decisions concerning people. As such, science has moral authority. In this context, IOs derive authority from science as they are regarded as the carriers of this type of knowledge through their knowledge producing and distributing functions. This refers to IOs' role

in collecting, evaluating, and turning scientific knowledge into policies and prescriptions of best practices. In doing so, they are considered mediums of distributing impartial knowledge, not representatives of certain interests. They embody scientific knowledge and are hence considered authoritative. It is then more likely for an IO to be considered more authoritative when it is seen as more impartial. However, the authoritativeness of knowledge produced by IOs can vary depending on the actors involved in that process. As research on the staff expertise in international financial institutions suggests, allowing only dedicated in-house experts to produce knowledge and feed their expertise into the design of policies, can favor some ideas and types of knowledge over others, dominate policies by specific knowledge frames, and thereby mitigate perceived impartiality (e.g., Chwieroth, 2007). By contrast, involving external experts in addition to in-house staff diversifies the relevant knowledge for addressing governance challenges (Heinzel, 2022) and may thus enhance the perceived impartiality of the produced knowledge. This leads to the following hypothesis.

Hypothesis 1. *Knowledge generation in cooperation with external experts will increase member state compliance with IO policies and rules compared to knowledge produced by in-house experts*

Information is essential for maintaining international cooperation (Axelrod & Keohane, 1985). Therefore, a central task of institutions, particularly when incentives to renege are strong, is to produce and share information in a reliable way about whether state parties kept and will keep their commitments (Abbott, 1993; Fearon, 1998; Jervis, 1978). Regular and reliable information about state behavior stabilizes cooperative equilibria by creating opportunities for rewarding compliance or punishing non-compliance. When they are able to detect past violations and provide early warnings about future violations, formal monitoring systems can increase incentives for compliance as they reassure state parties of each other's compliance and thus generate confidence (Schelling, 1984).

International organizations offer a particularly efficient way to organize the monitoring of state compliance (Dai, 2002; Koremenos, 2016; Mitchell, 1998). Their neutrality in

collecting and evaluating compliance-related information (Abbott & Snidal, 1998), their expertise in assessing it, and their promise of confidentiality (Carnegie & Carson, 2019) provide strong motives for states to endow IOs with monitoring authority. However, because states are mindful about their informational sovereignty, the tools and instruments to collect and evaluate pertinent information on state compliance vary across IOs (see Zürn et al., 2021), and with them the reliability of compliance information that IOs can generate. We distinguish between two monitoring mechanisms that provide for different levels of intrusiveness and access to information sources about state behavior. The first mechanism is states' self-reporting. Being the default monitoring mechanism of many IOs, states are the authors of their own compliance assessments with institutional rules and policies, while IOs distribute these reports to other state parties. While self-reporting can matter in some cases for compliance or the mobilization of domestic constituencies (Creamer & Simmons, 2019; Koliev et al., 2021), IOs are greatly limited in their ability to independently and reliably evaluate compliance as they lack more diverse information. To accomplish this task, IOs need access to different sources of information about state behavior and use also their own tools of information collection and processing (Abbott, 1993; Brown, 2010; Dai, 2007; Mitchell, 1997). States' self-reports thereby serve as benchmarks against which to evaluate their compliance, contrasting it with independently collected and verified information. On-site missions where IO staff can visit relevant sites (e.g., International Atomic Energy Agency) or national bureaucracies (e.g., International Monetary Fund) allow the IO to source its own data and thus contribute to more reliable information about member state compliance record. This leads to the following hypothesis.

Hypothesis 2. *IOs that use various sources of compliance information, including their own, will lead to more compliance with IO policies and rules than IOs that rely on states' self-reports*

While monitoring instruments may uncover violations, they are often not enough to elicit state compliance. It is therefore not surprising that questions about the enforcement of international rules and obligations play a central role in institutionalist scholarship.

Because few intergovernmental arrangements are truly self-enforcing, state compliance is far from guaranteed and therefore a recurrent challenge for international cooperation. Accordingly, a substantial body of literature argues that the path to compliance (Tallberg, 2002) depends on the formal enforcement procedures of international institutions. To re-establish rule-consistent behavior and/or compensate victims of non-compliance (e.g., WTO arbitration), institutions should provide for formal sanctioning mechanisms that impose costs upon non-complying state parties (Downs, 1998; Downs, Rocke, & Barsoom, 1996; Fearon, 1998; Hafner-Burton, LeVeck, & Victor, 2017b; Hafner-Burton et al., 2014; von Stein, 2005).

Formal enforcement mechanisms of IOs attempt to make rule defections costly by providing for different sanctioning instruments. Depending on the enforcement mechanisms available, IOs can therefore help discourage violations and foster state compliance. While few IO secretariats decide on their own about the authorization of sanctions,² they do act as facilitators, coordinators, and implementing agents of different enforcement tools (Abbott & Snidal, 1998; Brown, 2010). Upon a finding of noncompliance, the formal enforcement procedures and sanctioning instruments influence the extent to which IOs can shift state incentives toward compliance. Consequently, the types of sanctions available matter a lot for determining whether and how IOs can elicit compliance by states. In that regard, the relevant literature suggests two mechanisms by which sanctions can affect states' cost/benefit calculations. The first, and by now classic one, argues that enforcement procedures need to impose material costs on rule violators in the form of economic fines or even military action to deter or re-establish compliance (Downs et al., 1996). By contrast, another perspective suggests that enforcement mechanisms that target states' reputation may also alter incentives to comply (Guzman, 2008; Simmons 2000). Many governments care for their international standing as trustworthy partners that comply with international law and policies (Chayes, Handler-Chayes, & Mitchell, 1998). As a result, exposing their noncompliance through public reports or naming and shaming strategies (Ausderan, 2014; Guzman, 2008; Hafner-Burton, 2008), would lower their reputation and

²One of the few exceptions is the European Commission, deciding on the imposition of sanctions in case of rule violations and even providing for automatic sanctioning procedures.

provide states that care for their standing with the necessary incentives to correct their behavior. This debate leads to the following hypothesis.

Hypothesis 3. *Material sanctions will lead to more member states compliance with IO policies and rules than reputational sanctions*

Legitimacy has been prominently defined as the “generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (Suchman, 1995, p. 547). Drawing on Weber’s work (Weber, 1968, p. 212-216), legitimacy is important for IOs – and matters for international politics more generally (Hurd, 1999; Reus-Smit, 2007)—because it is widely believed to lead to compliance, and, that way, helps stabilize the international order. While compliance may be obtained by the threat or use of coercion or by the provision of material incentives (bribes), legitimacy is a less costly, more effective way to generate compliance (Schmelzle, 2012). Legitimacy is considered particularly important for international organizations. This is because IOs typically lack the competences and resources to implement their decisions let alone enforce them. Therefore, IOs crucially depend on the voluntary compliance of their member states. Specifically, scholars have emphasized the importance of procedural legitimacy – or fair procedures – as the main component of the “compliance pull” (Franck, 1990). On this view, actors accept and comply with decisions and outcomes if these result from participative, democratic, and transparent procedures.

Social psychologists have identified at least three mechanisms linking procedural fairness to compliance. (1) Fair procedures give actors voice and provide them with the opportunity to introduce inputs into the decision-making process, to assume shared responsibility, and to exercise control (Esaiasson, Gilljam, & Persson, 2012; Thibaut & Walker, 1975). (2) Fair procedures allow actors to construct their identity as respected and equal members of a community extending to them self-esteem and prestige (Lind & Tyler, 1988; Tyler, 1997). (3) Fair procedures are a heuristic for actors that are uncertain about decisional outcomes. Specifically, actors use information about the fairness of procedures as an informational shortcut for the trustworthiness of decision-makers (Bøg-

gild & Petersen, 2016; van den Bos, Wilke, Lind, & Vermunt, 1998). Building on this research, we expect states to comply with IOs that feature fair (legitimate) decision-making procedures, that is, procedures that give all states an opportunity to participate in the decision making. Conversely, IOs in which decision making is dominated by few member states will elicit lower levels of member state compliance. This leads to our final hypothesis.

Hypothesis 4. *Fair decision-making procedures in IOs will increase member state compliance with IO policies compared to decision-making procedures dominated by powerful states*

3 Research Design

We designed and implemented a survey experiment to examine our hypotheses about institutional features and their causal effect on staff assessment of compliance. The experiment was embedded in a large survey that developed from an international collaborative research project asking IO officials about the state and future of global governance, see Jordana, Holesch, and Schmitt (2022). The survey, which was administered online, was fielded between May and November 2021.

Survey experiments have become a promising avenue for the comparative study of international organizations (e.g., Dellmuth & Tallberg, 2021; Dellmuth et al., 2019) because they effectively address confounding bias due to observed and unobserved factors that so often bedevils observational studies of institutional effects. Assigning units randomly to treatment or control conditions is particularly important when studying the causal effect of institutional features as these often depend on each other and on a number of other factors, many of which are often unobservable. Because survey experiments allow us to purposefully manipulate treatments, we can orthogonalize our four institutional features and examine their independent effect on our outcome, uncluttered by endogeneity and omitted variable biases. In addition to enhancing internal validity, our survey allows us

to draw broader conclusions on the conditions of compliance with IO rules and policies by inquiring a heterogeneous and substantial pool of IO staff, drawn from different IOs.

3.1 Survey of IO officials

The survey was conducted among IO officials, drawn from 35 different international organizations (Jordana et al., 2022). This set of IOs includes formal intergovernmental organizations from six distinct issue areas of global governance, namely trade, development, finance, migration, security, and climate change. For each issue area, we selected the core organizations in this field (e.g., WTO in Trade) as identified by project partners. To avoid a sample of only large and well-known organizations, however, we selected also smaller and less prominent organizations.³ To be consistent with the institutional particularities of each issue area, and most notably climate change that lacks one focal independent IO (e.g., Coen, Kreienkamp, & Pegram, 2020), we sampled also large sub-organizations of IOs, such as the UN’s secretariat for the Framework Convention on Climate Change and the EU Commission’s Directorate General for Climate. Even if they emerge from or are part of a larger IO, such sub-bodies often have their own staff and specific competences to implement and promote IO policies and are therefore relevant for assessing the effect of institutional features on compliance expectations. Our sample of IOs does not mirror the entire universe of IOs. However, the selected organizations represent a considerable diversity in terms of their geographic scope (regional vs. global), mandate (multi-issue vs. single-issue), levels of formal authority, membership composition, and organizational form. We can thus analyze staff assessments of compliance across a range of different organizations and issue areas, enhancing external validity of findings.

Having determined the set of organizations, we proceeded to sample IO staff. We focus on permanent IO staff working in secretariats and on the IO’s policies (e.g., design, implementation, review). Permanent staff with policy-relevant responsibilities have day-to-day experiences in putting their IO’s mandate into practice and thus exclusive knowledge of what institutional features work or do not work. These segments of IO staff

³For an overview of included IOs, see Table A.1.

are therefore most appropriate for obtaining information to assess the relative effects of our four institutional features. The focus on permanent staff excludes people working in the administrative support or the technical management of the organization, local employees as well as short-term staff and consultants. We also excluded staff working for country representatives at IOs. However, identifying relevant respondents is not without difficulties because there exists no single registry of IO officials to serve as the population from which to sample and because staff, even permanent staff, fluctuates frequently. We thus researched publicly available sources (e.g., LinkedIn, IOs' organigrams, EU registries), identified as far as possible respondents' institutional position, and composed a list of 12,000 permanent staff at 35 IOs, relevant for our survey. We send invitations to participate to all institutional emails we had in our list, accompanied by an endorsement of the EU Commission. Personalized follow-up emails were written in case the respondents did not answer. Full confidentiality and anonymity were ensured throughout the process. The online survey was implemented by the Spanish survey company Netquest (Barcelona) and consisted of five thematic entities with the fourth one being our experiment (see below).⁴ The response rate is 8.4%. The average duration of taking the survey is 16 minutes.

In our sample, consisting of 1,011 respondents, 54% were male, 44.4% female, and 1.4% preferred to not answer this question. Concerning age categories, most of the respondents are between 36 and 45 years old (31.4%), followed by the 46-55 years category (27%). Around 16% of respondents are older than 56 years and almost a quarter is below 35 years. In terms of leadership roles, 38% of respondents supervise one official. Around 33% of our respondents supervise two persons and roughly a third supervises three or more employees. While there is no clearly identifiable population to compare the sample distribution to, the next best estimate we can obtain is the demographic distribution of staff in the entire UN-system. Around 54.9% of men and 45.1% of women work in the UN system, which is close to our sample proportion. Similar findings hold also for the age distribution (Jordana et al., 2022).

⁴The first thematic entity comprised demographic questions.

3.2 Factorial survey experiment

We designed a factorial survey experiment because it allows us to vary several institutional features at the same time and examine their individual effects. Specifically, we showed respondents a vignette of an IO with five distinct institutional features, four of which we manipulated. The vignette text describes the profile of a generic IO rather than the official’s IO, because we want to avoid officials potentially refusing to assess their own organization, which is a serious concern when surveying policy-making elites (see Dietrich et al., 2021; Tomz & Weeks, 2013). Concerning institutional features, we included, in addition to our four treatments, a permanent item in the vignette. That item informs respondents about the type and resources of the IO and serves to control for officials’ background beliefs that may be correlated with our treatments. For example, respondents’ judgments about the effect of intrusive monitoring may vary with the resources available to an IO or its membership size. We therefore fix these background characteristics by including the permanent item on basic IO characteristics for all respondents.

To test our four hypotheses, we formulated four institutional features, each with a control and treatment level, which we randomly assigned to respondents. The wording of the treatment and control conditions sought to reduce the effort of abstraction for respondents, while ensuring that the features presented correspond to real-world scenarios for the institutional make-up of IOs. Our choice of the treatment and control levels is informed by formal data on IOs and their institutional procedures (Zürn et al., 2021) as well as prior surveys on the effects of institutional features (Dellmuth et al., 2019; Ghassim et al., 2022; Hahm et al., 2019). The measures used in this literature were helpful for systematically identifying features that are associated with varying degrees of institutional authority. Similarly, we drew on the social-psychological and organizational literatures to capture variation in legitimate procedures.

In the following, we discuss the four institutional features that we manipulated and present the wording of the treatment conditions as shown to respondents. The first institutional feature, related to hypothesis 1, describes different institutional procedures of knowledge generation. The epistemic authority of IOs depends on the type of knowledge

they produce and the involved experts. Concerning the type of knowledge, IOs can make a difference when the information, data, and analyses they produce feed into the policy-making process and public debates, eventually resulting in novel solutions to persistent governance challenges in their field of activity. With respect to the experts, the epistemic authority of IOs grows when these can cooperate with external and known *authorities* outside their organization. Choosing its pool of experts, IO staff can broaden the appeal and relevance of its produced knowledge and thus enhance its perceived impartiality. While we hold the type of knowledge constant, by focusing on the knowledge that informs IO policies and public debates, we vary the involved experts. Specifically, we compare the situation where specialized in-house staff generates relevant governance knowledge (control) to the situation where staff in cooperation with external experts contribute to the IO's knowledge production (treatment).

The second institutional feature, pertaining to hypothesis 2, asks about the monitoring mechanisms available to an IO. The monitoring authority of IOs depends on their ability to independently collect and analyze information on state compliance, which is, in turn, influenced by the degree of centralization, the frequency of monitoring, and the intrusiveness of monitoring instruments (Abbott, 1993; Abbott & Snidal, 1998; Dai, 2002). We fix the centralization and frequency of monitoring mechanisms and randomly vary the monitoring instruments. Specifically, our control condition focuses on self-reporting by states as the default instrument available to many IOs to collect compliance-relevant information. Self-reports are a very mild monitoring tool, offering opportunities for insincere governments to hide relevant information. By contrast, IOs' monitoring authority is higher when they can use their own information sources to collect compliance information, including through on-the-ground inspections, and corroborate states' reports with their own independent sources of information. Holding the centralization and regularity of monitoring constant, we compare IOs that can use only states' self-reports to assess compliance (control) to IOs that can use various sources of information, including their own in the form of inspections (treatment).

The third institutional feature—relevant to assessing hypothesis 3—relates to the sanctioning instruments available to an IO. The enforcement authority of IOs depends on the degree to which organizations can impose costs on non-complying members. While IO secretariats rarely decide whether or not to punish states, IOs typically implement sanctions against non-complying state parties. The sanctions vary in their strength and type and with them the associated sovereignty costs for states. Material sanctions are expected to impose grater costs on states than non-material punishments and therefore serve as a deterrent and corrective against rule violators. As IOs cannot coerce compliance in each and every instance, the threat and imposition of sanctions has to be targeted to those states that ignore their obligations. Accordingly, we ask about the effect of different sanctions after rule violations have been detected. Because few IOs have the ultimate sanction at their disposal—military intervention⁵—we focus on two different types of sanctions: reputational and material ones. Specifically, we compare staffs’ compliance assessments to the situation when IOs can only use naming and shaming to punish violators vs. the situation where IOs can impose economic sanctions.

Finally, we focus on the fairness of decision-making procedures to tap onto variation in legitimacy. As an abstract concept, legitimacy is notoriously difficult to measure directly. We therefore build on an established tradition in social psychology (Gangl, 2003; Tyler & Fagan, 2006) to employ a widely used indirect measure of legitimacy – fairness – (Esaiasson et al., 2012, p. 790-791) that we apply to international decision-making arrangements. Intuitively, decision-making arrangements that are highly skewed and that favor certain states over others are often perceived as unfair and therefore can lack legitimacy. By contrast, when procedures for arriving at substantive policies are open to all states, each state can contribute to the debate, design, and adoption of consensual policies. This increases the perceived fairness of institutional decision-making procedures. More specifically, we capture fairness assessments of IO staff with respect to the institutional processes by which substantive policies are adopted for the entire membership of an IO. By focusing on the policy-making procedures, we contrast situations

⁵The United Nations and the African Union are two notable exceptions.

in which decision making is dominated by few powerful states (control) with situations in which every state has the opportunity to partake in decision making (treatment).

The text of the treatment condition is as follows:

{ First screen: General instruction }

“Next, we are describing an IO with certain features. It does not relate to any specific existing organization. Please read the description very carefully. Some features might seem more important to you than others in your process of evaluation. After describing the organization, we would like to ask you one question about it.”

{ Second screen: institutional features }

- The IO is a formal organization with several member states, a secretariat, and sufficient personnel and budgetary resources to fulfill its mandate.
- *IO staff generates substantive knowledge in cooperation with external experts* that informs IO policies and public debates.
- The IO secretariat regularly monitors compliance of its member states. To this end, *in addition to self-reporting by IO member states, it uses various sources of information, including its own inspection missions.*
- In cases of rule violations, the IO can *impose economic sanctions upon* non-compliant member states.
- The IO decides on substantive policies that affect its member states. *All member states have an opportunity to participate in the decision making of the IO.*

And the control conditions were formulated as follows:

{ First screen: as above. Second screen: institutional features }

- The IO is a formal organization with several member states, a secretariat, and sufficient personnel and budgetary resources to fulfill its mandate.
- *Dedicated in-house staff generates substantive knowledge* that informs IO policies and public debates.
- The IO secretariat regularly monitors compliance of its member states. To this end, *it only uses information obtained through self-reporting by its member states.*
- In cases of rule violations, the IO can *name and shame* non-compliant member states.
- The IO decides on substantive policies that affect its member states. *Decision making in the IO is dominated by few powerful member states.*

At the end of the vignette, surveyed IO staff were asked to respond to one question. The question read: “To what extent do you believe that member states will comply with the rules and policies of this IO?” We registered the compliance assessments on a four-point scale: ‘fully comply’, ‘comply’, ‘barely comply’, ‘not comply’ (including ‘don’t know’ as a fifth possible response item).

Our factorial survey experiment resulted in 15 different treatment groups and one control group.⁶ Each respondent was randomly assigned to one of these groups (between-subject design), ensuring thereby the allocation of an equal number of respondents per combination. In addition to randomizing each institutional feature (except the permanent item), we also randomized the order of the bullet points for each respondent, minimizing the risk of ordering effects. While several combined effects of institutional features can be analyzed with this design, we focus on the relative strength of the individual effects of the four institutional features relating to our hypotheses. We compare the marginal effects of our main institutional features—knowledge, monitoring, enforcement, fairness—to the control condition. The latter describes a formal IO with sufficient resources, but with limited competences in producing knowledge, monitoring states, enforcing compliance, and where decision making is skewed in favor of the powerful.

4 Findings

Before we discuss the findings on our four hypotheses, we describe the distribution of our dependent variable: staff assessments of compliance.

In total, 1,011 respondents took part in the survey. Because some respondents terminated the survey before reaching the experiment section, we randomly assigned the remaining 999 respondents to the experimental conditions. Out of these, 978 saw the vignettes and answered the corresponding question. Figure 1 shows the percent share of responses for each level of our dependent variable.⁷ As shown, more than half of the respondents believe that states comply with IO policies and rules, perhaps reflect-

⁶With four treatments and two levels each, we obtain $2^4 = 16$ groups.

⁷The number of respondents per level of the dependent variable can be found in Table B.2 in the Appendix.

ing Chayes' & Chayes' (1993) dictum that almost all states comply almost most of the time.⁸ However, one third of respondents believe that states are barely complying with IO policies and rules.

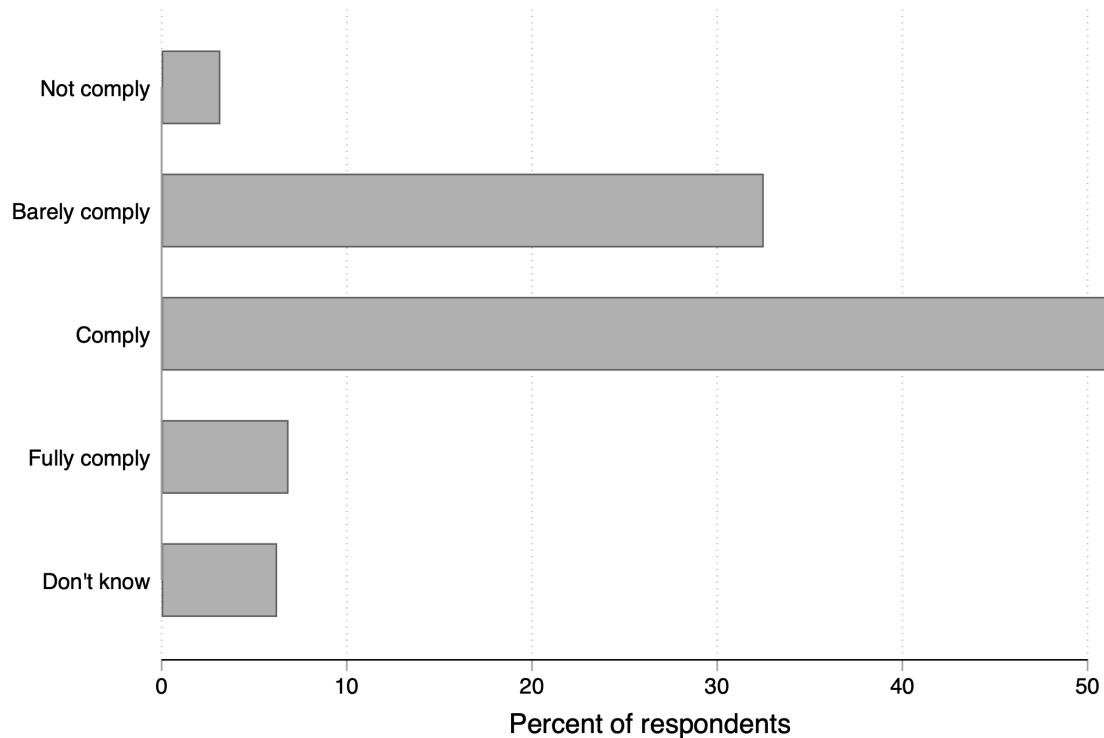
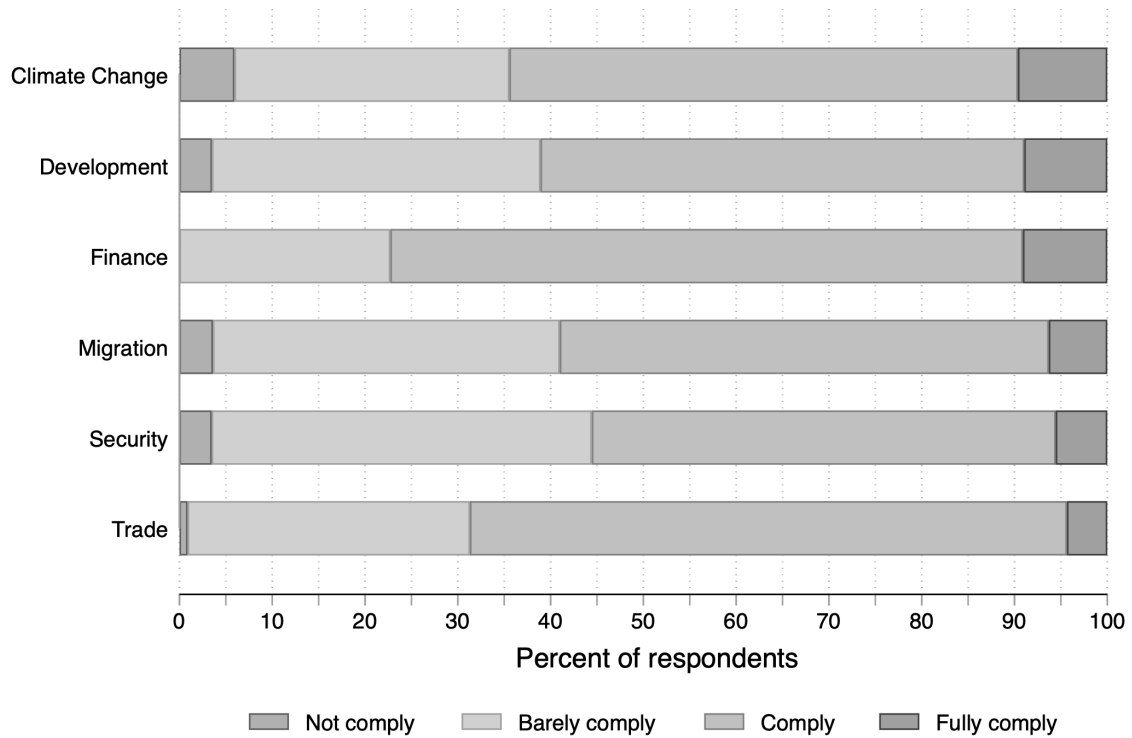


Figure 1: Distribution of dependent variable

While three percent of respondents believe that states are not at all complying, around seven percent of respondents have indicated that states fully comply with IO policies and rules. This suggests that instances of outright noncompliance or full rule adherence are rare in the surveyed IOs. Around six percent of respondents that were exposed to experimental conditions answered that they don't know whether or not states would comply with IO rules and policies.

Concerning variation across issue areas, we see that almost 70% of officials working in trade-related IOs (e.g., WTO or UNDP) believe that states are complying and fully complying. This sizable share is only topped by financial IOs (e.g., IMF, BIS) where almost 80% of staff believe that states comply or fully comply with IO policies. The issue

⁸A similar finding holds when asking academic experts about their assessment of whether IOs are effective in inducing compliance, see Coen, Kreienkamp, Tokhi, and Pegram (2022).



area with the most pessimistic staff regarding their compliance assessments is security. Here, 45% of surveyed staff believe that states do not or only barely comply with IOs obligations and policies. The highest proportion of respondents who indicated that states are not meeting their obligations is found among IOs working in the area of climate change governance (more than six percent). Within the same issue area, however, about 10% of staff believe that states are fully meeting their international commitments, suggesting that staff assessments of the prospects for compliance vary significantly in climate change.

For testing our hypotheses, we rescaled our dependent variable to range between -2 to 2, with the value zero denoting the don't know answers. Negative values indicate less compliance, while positive values indicate more compliance. In the appendix, we run our analyses with the original ordinal coding of the response variable and exclude the don't know answers. Substantive results remain the same.

We focus on the average treatment effect of our four institutional features and therefore include only indicator variables that reflect the treatment and control levels as defined above in our baseline specification.⁹

Table 1 shows five different model specifications where we vary in each the set of included controls to check the consistency of our main effect estimates and increase precision. Model 1 has only our four main effects included. Model 2 adds variables on respondents’ demographic features, notably gender and their age category, and their educational background (e.g., law, political science, business, or natural sciences). Model 3 adds to this set indicator variables for the six issue areas. Model 4 includes also two further variables: an indicator for whether the IO is global or regional as well as a further indicator for multi- vs. single-purpose IO. Finally, Model 5 includes indicator for the (randomized) ordering of the features in our vignette experiment. We do so to rule out that ordering effects may bias our effect estimates.¹⁰

Table 1: Main results

	(1) Baseline	(2) Demography	(3) Issue area	(4) IO features	(5) Question order
Knowledge	0.060 (0.06)	0.044 (0.06)	0.055 (0.06)	0.053 (0.06)	0.041 (0.07)
Monitoring	0.076 (0.06)	0.086 (0.06)	0.090 (0.06)	0.084 (0.06)	0.063 (0.08)
Enforcement	0.170** (0.07)	0.186*** (0.07)	0.187*** (0.07)	0.189*** (0.07)	0.187*** (0.06)
Fairness	0.145** (0.07)	0.159** (0.07)	0.162** (0.07)	0.159** (0.07)	0.145** (0.06)
Constant	0.035 (0.06)	0.509+ (0.26)	0.526+ (0.30)	0.415 (0.31)	1.013+ (0.53)
R ²	0.008	0.036	0.040	0.039	0.043
N	978	964	964	964	964

Note: OLS regression. Dependent variable re-coded to range between -2 and 2 , with 0 denoting the ‘don’t know’ answers. Standard errors, clustered by IO, in parentheses. *Significance:* + $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

⁹Covariate balance is ensured through randomization and the balance diagnostics in the Appendix (section) show that our treatments are orthogonal to each other and other covariates, such as issue area indicators, or demographic factors.

¹⁰Descriptive statistics on the variables used can be found in the Appendix in Table B.7.

Across all specifications, we find that enforcement and fairness significantly improve compliance assessments. When an IO provides for economic sanctions to punish rule violators instead of naming and shaming, this increases compliance assessments by 0.17 points in the baseline model and almost 0.19 points in Model 4. The findings consistently and robustly support the expectation formulated in hypothesis 3. According to IO staff, strong enforcement provisions in international institutions elicits compliance by member states, significantly more so than naming and shaming provisions that target state reputation.¹¹ Our finding adds to the existing experimental evidence on the role of strong enforcement for the effective design of international treaties (Hafner-Burton et al., 2014). It is not only college students that favor strong enforcement provisions, but, more importantly, IO staff considers costlier sanctioning mechanisms as the most important feature (among the four tested in our study) to elicit state compliance.

Next to enforcement, fair decision-making procedures lead to more compliance in the eyes of IO staff. Across all specifications, including in the robustness tests in the Appendix, we find decision-making procedures that are open to all states significantly improve compliance assessments when compared to unfair and skewed decision-making on substantive policies. The evidence supports thus hypothesis 4. Compared to decision-making arrangements dominated by one state, fair procedures increase the compliance assessments by 0.15 points. This is similar in effect size to enforcement. Our findings show that legitimacy – understood as fair procedures – leads to member state compliance. This challenges the widely held belief that legitimacy isn’t a driver of compliance, especially when it comes to compliance with international institutions. For example, based on a review of the scholarship on compliance, Renate Mayntz concludes that “Max Weber never claimed that compliant behavior presupposes the belief in the legitimacy of an order” and argues that “[a]n empirical investigation of the bases of observable compliance would quickly show that the functional importance of legitimacy is easily overestimated.” (2010, p. 13) The findings of our analysis suggest otherwise.

¹¹On the weak effect of naming and shaming on compliance with human rights norms, see also Ausderan (2014).

Concerning knowledge and monitoring, we do not find a systematic relation to staffs' compliance assessments. At least when judged by the average treatment effects, these two institutional feature seem to not affect expectations about compliance. However, the effect may be conditional or appear only in subgroups of our sample. We will explore this and related questions in a future iteration.

Finally, in the appendix we show estimates from linear models where the dependent variable excludes the don't know answers. Findings are substantively similar to our main models. Moreover, we estimated also ordered logit models to control for possible model dependence of our findings. Again, the substantive findings from the latter regressions are in line with the findings from our main analysis in Table 1.

Conclusion

To be written ...

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Appendices

Appendix A Descriptive information

Table A.1: List of surveyed IOs

Abbreviation	Full name
AIIB	Asian Infrastructure Investment Bank
ASEAN	Association of Southeast Asian Nations
AU	African Union
BIS	Bank for International Settlements
C40	C40 Cities Climate Leadership Group
CAN	Climate Action Network
Comesa	Common Market for Eastern and Southern Africa
EBRD	European Bank for Reconstruction and Development
EU-Climate	EU Directorate General for Climate
EU-Home	EU Directorate General for Migration and Home Affairs
EU-Trade	EU Directorate General for Trade
FAO	Food and Agriculture Organization
FSB	Financial Stability Board
GCC	Gulf Cooperation Council
IAEA	International Atomic Energy Agency
ICMPD	International Centre for Migration Policy Development
IDB	Inter-American Development Bank
ILO	International Labor Organization
IMF	International Monetary Fund
IOM	International Organization for Migration
IOSCO	International Organization of Securities Commissions
Mercosur	Southern Common Market
NATO	North Atlantic Treaty Organization
ND	New Development Bank
OAS	Organization of American States
OSCE	Organization for Security and Cooperation in Europe
UN-Habitat	United Nations Human Settlements Programme
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	UN Framework Convention on Climate Change (UN climate)
UNHCR	United Nations High Commissioner for Refugees
WB	World Bank
WTO	World Trade Organization

Appendix B Survey information

B.1 Distribution of dependent variable

Table B.2: Distribution of dependent variable

	Frequency	%	Cum. %
Not comply	31	3.17	3.17
Barely comply	318	32.51	35.69
Comply	501	51.23	86.91
Fully comply	67	6.85	93.76
Don't know	61	6.24	100
Total	978	100	
<i>N</i>	978		

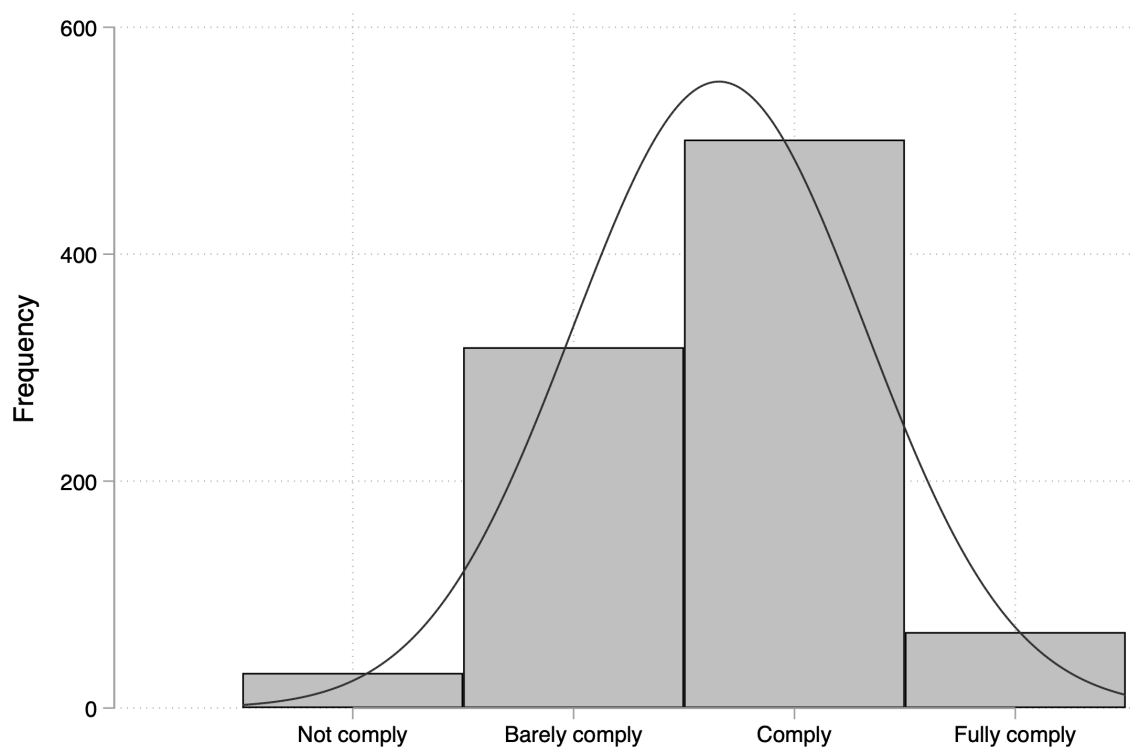


Figure B.1: Histogram of dependent variable without “Don't know” category

B.2 Balance statistics

B.3 Descriptive statistics for analyses

Table B.3: Balance of knowledge treatment

	Mean in treated	Mean in Untreated	Std. difference
Monitoring	0.51	0.48	0.055
Enforcement	0.50	0.50	-0.002
Fairness	0.50	0.51	-0.018
Climate	0.14	0.16	-0.063
Development	0.28	0.28	-0.001
Finance	0.04	0.05	-0.038
Migration	0.26	0.23	0.070
Security	0.17	0.15	0.060
Trade	0.11	0.13	-0.063
Gender	0.44	0.45	-0.018
Education	3.16	3.30	-0.083
Age category	3.32	3.34	-0.020
Global IO	0.67	0.66	0.010
Multi-purpose IO	0.45	0.42	0.047

Table B.4: Monitoring

	Mean in treated	Mean in Untreated	Standardised diff.
Knowledge	0.51	0.49	0.055
Enforcement	0.52	0.47	0.099
Fairness	0.50	0.52	-0.038
Climate	0.16	0.14	0.055
Development	0.31	0.26	0.106
Finance	0.05	0.05	-0.017
Migration	0.23	0.25	-0.046
Security	0.15	0.17	-0.057
Trade	0.11	0.13	-0.071
Gender	0.43	0.46	-0.064
Education	3.30	3.16	0.075
Age category	3.41	3.25	0.153
Global IO	0.70	0.63	0.148
Multi-purpose IO	0.44	0.42	0.042

Table B.5: Enforcement

	Mean in treated	Mean in Untreated	Std. difference
Monitoring	0.52	0.47	0.099
Knowledge	0.50	0.50	-0.002
Fairness	0.47	0.54	-0.128
Climate	0.13	0.16	-0.081
Development	0.29	0.27	0.033
Finance	0.05	0.05	-0.017
Migration	0.24	0.24	0.010
Security	0.16	0.16	-0.001
Trade	0.13	0.11	0.041
Gender	0.43	0.46	-0.056
Education	3.29	3.17	0.066
Age category	3.36	3.30	0.057
Global IO	0.66	0.66	-0.007
Multi-purpose IO	0.42	0.45	-0.048

Table B.6: Fairness

	Mean in treated	Mean in Untreated	Std. difference
Enforcement	0.47	0.53	-0.128
Monitoring	0.49	0.51	-0.038
Knowledge	0.50	0.51	-0.018
Climate	0.15	0.15	-0.004
Development	0.28	0.28	0.004
Finance	0.05	0.05	-0.024
Migration	0.25	0.24	0.030
Security	0.15	0.16	-0.015
Trade	0.12	0.12	-0.008
Gender	0.43	0.46	-0.061
Education	3.17	3.30	-0.072
Age category	3.38	3.28	0.101
Global IO	0.68	0.64	0.085
Multi-purpose IO	0.44	0.43	0.030

Table B.7: Summary statistics

Variable	Mean	Std. Dev.	Min.	Max.	N
Compliance (rescaled)	0.26	1.08	-2	2	978
Knowledge	0.5	0.5	0	1	978
Monitoring	0.5	0.5	0	1	978
Enforcement	0.5	0.5	0	1	978
Fairness	0.5	0.5	0	1	978
Global	0.66	0.47	0	1	978
Multipurpose	0.43	0.5	0	1	978
Climate	0.15	0.36	0	1	978
Development	0.28	0.45	0	1	978
Finance	0.05	0.22	0	1	978
Migration	0.24	0.43	0	1	978
Security	0.16	0.36	0	1	978
Trade	0.12	0.33	0	1	978
Men	0.55	0.5	0	1	964
Women	0.45	0.5	0	1	964
< 25	0.01	0.11	0	1	964
26-35	0.24	0.43	0	1	964
36-45	0.31	0.46	0	1	964
46-55	0.27	0.45	0	1	964
56-65	0.16	0.36	0	1	964
> 66	0.04	0.06	0	1	964
Law	0.12	0.32	0	1	964
Economics	0.27	0.45	0	1	964
Social science	0.33	0.47	0	1	964
Humanities	0.08	0.27	0	1	964
Medicine	0.02	0.16	0	1	964
Natural science	0.08	0.27	0	1	964
Engineering	0.06	0.24	0	1	964
Other	0.02	0.15	0	1	964

Appendix C Additional analyses

Table C.8: Robustness checks 1 – Excluding *don't know* answers

	(1) Base	(2) Demography	(3) Issue area	(4) IO features	(5) Order
Knowledge	0.042 (0.04)	0.026 (0.04)	0.032 (0.04)	0.030 (0.04)	0.048 (0.05)
Monitoring	0.038 (0.04)	0.044 (0.04)	0.044 (0.04)	0.041 (0.04)	0.023 (0.05)
Enforcement	0.119** (0.04)	0.124** (0.04)	0.125** (0.04)	0.126** (0.04)	0.124** (0.04)
Fairness	0.083 ⁺ (0.04)	0.095** (0.04)	0.097** (0.04)	0.096** (0.04)	0.080 ⁺ (0.04)
Constant	2.517** (0.04)	2.747** (0.14)	2.765** (0.17)	2.685** (0.17)	2.951** (0.16)
R ²	0.009	0.036	0.039	0.038	0.014
N	917	904	904	904	917

Robust standard errors, clustered by IO, in parentheses

⁺ $p < 0.10$, ** $p < 0.05$

Table C.9: Robustness checks 2 – Ordered logistic regression

	(1) Baseline	(2) Demography	(3) Issue area	(4) IO features	(5) Question order
Knowledge	0.101 (0.11)	0.062 (0.11)	0.081 (0.11)	0.078 (0.11)	0.100 (0.11)
Monitoring	0.143 (0.12)	0.171 (0.12)	0.171 (0.12)	0.160 (0.13)	0.152 (0.12)
Enforcement	0.336** (0.13)	0.380** (0.13)	0.385** (0.13)	0.387** (0.13)	0.320** (0.13)
Fairness	0.263** (0.13)	0.304** (0.13)	0.311** (0.13)	0.307** (0.13)	0.244 ⁺ (0.13)
χ^2	12.60**	314.77**	641.20**	736.93**	49.74**
N	917	904	904	904	917

Note: Estimates from ordered logistic regression. Robust standard errors, clustered by IO, in parentheses. *Significance:* ⁺ $p < 0.10$, ** $p < 0.05$.