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## TITLE PAGE

# Title:

# Trust and Power as Determinants of Tax Compliance across 44 Nations

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Trust and power as determinants of tax compliance across 44 nations

Abstract

The slippery slope framework of tax compliance emphasizes the importance of trust in

authorities as a substantial determinant of tax compliance alongside traditional enforcement

tools like audits and fines. Using data from an experimental scenario study in 44 nations from

five continents (N = 14,509), we find that trust in authorities and power of authorities, as defined

in the slippery slope framework, increase tax compliance intentions and mitigate intended tax

evasion across societies that differ in economic, sociodemographic, political, and cultural

backgrounds. We also show that trust and power foster compliance through different channels:

trusted authorities (those perceived as benevolent and enhancing the common good) register

the highest voluntary compliance, while powerful authorities (those perceived as effectively

controlling evasion) register the highest enforced compliance. In contrast to some previous

studies, the results suggest that trust and power are not fully complementary, as indicated by a

negative interaction effect. Despite some between-country variations, trust and power are

identified as important determinants of tax compliance across all nations. These findings have

clear implications for authorities across the globe that need to choose best practices for tax

collection.

Keywords: trust, power, slippery slope framework, tax compliance, tax evasion

4

### 1 Introduction

Throughout the history of human civilization, the collection of taxes has been a characteristic of almost all societies that create and share public goods (Adams, 2001). Accordingly, explaining tax noncompliance and identifying determinants of compliance in order to ensure citizens' contribution to the public good are of utmost importance (Andreoni, Erard, & Feinstein, 1998). Research on tax behavior can be approached from many substantially different perspectives. For instance, from a classical economic perspective that focuses on profit maximization, a social dilemma view where individual interests are in conflict with community interests, or a purely ethical perspective, to name just a few (see for instance, Alm et al., 2012; Andreoni et al., 1998; Hasseldine & Li, 1999; Kirchler, 2007).

During the past decades, empirical research has repeatedly shown that citizens' perceptions of authorities' monitoring and administration actions influence tax behavior (Australian Taxation Office, 2000; Baldry, 1987; Cowell 1992). Traditionally, policy makers have based their tax collection strategies on enforcement and deterrence (Seligman, 2012), as formalized in the most influential economic models of tax compliance and criminal behavior in general (Allingham & Sandmo, 1972; Becker, 1968; Yitzhaki, 1974). However, institutional deterrence entails higher costs of administration, is susceptible to corruption (Muthukrishna et al., 2017), and may even reduce tax compliance (Bergman & Nevarez, 2006; Slemrod, Blumenthal, & Christian, 2001) when citizens perceive a violation of their general fairness concerns (Fehr & Rockenbach, 2003). As a result, alternative determinants of tax behavior, as, for instance, fairness considerations, social norms, attitudes, and trust in authorities have gained increased attention in recent years (e.g., Alm & Torgler, 2011; Feld & Frey, 2002; van Dijke & Verboon, 2010; Wenzel, 2004).

The slippery slope framework of tax compliance (Kirchler, 2007; Kirchler, Hoelzl, & Wahl, 2008) serves as a conceptual tool in tax research that allows an integration of different

perspectives on tax behavior. The key assumption of this framework is that tax compliance is influenced by two major determinants, i.e. *trust in authorities* and *power of authorities*. Trust in authorities represents taxpayers' perception that tax authorities act benevolently and work for the common good. Power of authorities represents taxpayers' perception of tax authorities' capacity to detect and sanction tax evasion. Accordingly, a high level of tax compliance can be achieved either by (1) high trust in the authorities or (2) high perceived power of the authorities (Kirchler et al., 2008).

With regard to compliance behavior, the slippery slope framework differentiates between voluntary and enforced tax compliance as different qualities of cooperation with the authorities. Accordingly, increasing trust in authorities results in voluntary compliance, whereas enhancing the power of authorities yields enforced compliance. Importantly, citizens' voluntary tax compliance – on the basis that it is dutiful, right, and moral to pay taxes – may provide tax systems with wide-ranging long-term benefits: taxpayers register with authorities for tax purposes, due dates for tax return filing and taxpaying are met, and tax liabilities are accurately disclosed (OECD, 2014). As a consequence, administrative costs incurred by monitoring compliance and auditing honest taxpayers are notably decreased. Consequently, authorities can support voluntary compliance by building a good reputation for delivering on promises, assisting citizens in tax related matters by providing efficient services, treating them with respect, making legislation transparent, and spending tax money wisely (Alm et al., 2010; Braithwaite, 2003). In contrast, enhancing the power of authorities may serve as an alternative means to raise revenues through enforcement (Clark, Friesen, & Muller, 2004). However, in a climate with prevailing high power, most taxpayers defer to the law out of fear of detection or due to a perceived risk of high fines despite motives for noncompliance (Fischer, Wartick, & Mark, 1992). Leveraging enforced compliance requires the presence of a powerful authority that ensures equitable tax regulation, conformity with the law, and effective levying by curtailing noncompliance and tax cheating.

Existing empirical studies testing the assumptions of the slippery slope framework support the assumed impact of trust in authorities and power of authorities on tax behavior in experimental studies applying hypothetical scenarios (Kaplanoglou & Rapanos, 2015; Kogler et al., 2013; Wahl, Kastlunger, & Kirchler, 2010), in studies based on large cross-sectional data sets (Lisi, 2012), as well as in representative samples of self-employed taxpayers (Kogler, Muehlbacher, & Kirchler, 2015).

Despite this support for the main assumptions of the slippery slope framework, one important aspect of the relation between trust and power seems unclear given both the theoretical assumptions, as well as the existing empirical evidence. The original version of the framework sketches trust and power as two independent factors, but the authors acknowledge that trust and power might influence and reinforce each other in different ways. For instance, increasing the power of authorities through hiring qualified tax inspectors, setting higher audit rates, and imposing steeper penalties may be interpreted as an efficient and justifiable way to mitigate tax evasion by compliant taxpayers, leading them to trust and comply to a greater degree (e.g., Bergman, 2003; Wenzel, 2003). However, relying too much on power, especially if not used properly to identify free riders, may be perceived as unjustifiable or even as a sign of distrust, resulting in resistance to the tax system and ultimately in noncompliance (e.g., Cialdini, 1996; Frey, 2003). On the other hand, when citizens exhibit higher trust, their support of tax officers (e.g., through whistleblowing) enables authorities to intensify auditing and heighten sanctions. In this vein, a meta-analysis on the effects of deterrence finds specifically that punishment is more effective when trust levels are high (Balliet & Van Lange, 2013), so that trust acts as a moderator when it comes to the effectiveness of authorities' power.

The results from empirical studies on potential interaction effects of trust and power do not provide conclusive evidence. Studies that empirically tested the assumptions of the slippery slope framework did not find evidence for an interaction effect of trust and power with respect to tax compliance (Kogler et al., 2013; Kogler et al., 2015; Wahl et al., 2010).

The present study provides empirical evidence from a large-scale scenario-based experiment by testing the slippery slope framework in 44 nations from five continents. To test the predictions of the framework across varying environments, the countries were chosen to cover the broadest range of economic, sociodemographic, political, and cultural characteristics (see Tables S1 and S2). As a result, we illustrate the impact of trust and power and their dynamics on four central dimensions of taxpaying: intended tax compliance in general, voluntary tax compliance, enforced tax compliance, and intended tax evasion.

In line with the slippery slope framework, we formulate two main hypotheses: (1) high trust in the tax authorities induces a higher level of intended compliance, stronger voluntary compliance intentions, and a lower level of tax evasion than low trust in the tax authorities; and (2) high power of authorities induces a higher level of intended compliance, stronger enforced compliance intentions, and a lower level of tax evasion than low power of authorities. Furthermore, the large-scale setting allows us to investigate the potential interaction of trust and power in great detail by comparing different patterns between countries. Based on related previous research, we expect that (3) trust moderates the role of power, namely that the effect of high power versus low power is stronger under the condition of high trust compared to a situation of low trust. Besides the experimental manipulations of trust in authorities and the power of authorities, and their effects on different measures of tax compliance intentions, we consider country differences in exploratory analyses.

## 2 Method

# 2.1 Participants

The sample included 14,509 undergraduate and graduate students in 44 nations from five continents. Sample homogeneity regarding demographics within and between countries increases the comparability of results in multi-country research studies (Barker & Bausell, 2015; Čutura, 2013; Herrmann, Thöni, & Gächter, 2008). We therefore aimed at achieving a homogeneous respondent sample pool with regard to demographics and exposure to the topic of taxation, irrespective of the nature of the tax systems implemented in participants' home countries. The vast majority of the sample (87.5%) consisted of students majoring in Economics and Business Administration. To further promote the homogeneity of the sample, we targeted students aged 18 to 25 (92.5% of the sample), resulting in a mean age of 21.48 (*SD* = 3.2). Women account for 52.5% of the participants. The sample attributes by country are presented in Table 1.

Table 1: Sample characteristics

Continent	Nation	Data collection	Language	N	Gender	Age
		location			(female %)	M(SD)
Africa	Egypt	Cairo	English	397	56.2	21.32 (3.8)
	Ghana	Accra	English	334	51.5	21.40 (1.3)
	Morocco	Agadir	French	320	55.0	21.03 (2.1)
	South Africa	Cape Town; Pretoria	English	633	47.6	20.75 (2.5)
Americas	Brazil	São Paulo	Portuguese	319	49.2	21.17 (2.1)
	Canada	Guelph	English	278	58.6	20.30 (2.0)
	Colombia	Medellín	Spanish	178	41.6	20.24 (3.3)
	Mexico	Puebla	Spanish	305	44.9	20.70 (2.0)
	United States	Bridge Water	English	315	35.9	21.46 (3.5)
Asia	Bhutan	Thimphu	English	311	53.1	21.59 (3.1)
	China	Shanghai	Chinese	352	57.1	20.56 (2.0)
	Hong Kong SAR	Hong Vong	Chinese;	309	50.2	24.40 (4.1)
	China	Hong Kong	English	309	50.2	24.49 (4.1)
	India	Dharamshala;	English	316	57.6	20.84 (1.5)
	Iliula	Hamirpur	English	310	31.0	20.84 (1.5)
	Indonesia	Jakarta	English	312	53.5	19.66 (1.4)
	Iran	Tehran	Persian	306	48.0	24.24 (3.3)

Mean				330	52.5	21.48 (3.2)
Total	Australia	Diisoane	Liigiisii	14,509	39.2	20.07 (0.7)
Oceania	Australia	Sheffield; York Brisbane	English	355	59.2	20.89 (6.7)
	United Kingdom	Exeter; Leeds;	English	163	52.8	20.05 (2.0)
	Turkey	Izmir	Turkish	301	59.8	22.09 (2.1)
	Switzerland	Fribourg	Comman	427	42.6	21.07 (2.2)
	5 weden	Bern;	German	307	77.0	22.17 (3.0)
	Sweden	Gothenburg	Swedish	389	44.0	22.74 (3.8)
	Spain	Murcia	Spanish	319	49.2	21.07 (3.4)
	Slovenia	Celje	Slovenian	336	64.0	22.54 (4.9
	Russia	Ciuj-Napoca Moscow	Russian	324	54.9	21.73 (1.4 18.85 (2.0
	Portugal Romania	Porto Cluj-Napoca	Portuguese Romanian	275 400	52.4 62.5	23.01 (5.4
	Poland	Warsaw	Polish	324	59.9 52.4	22.32 (1.9
	Norway	Bergen	Norwegian	339	46.3	23.66 (2.5
	Malta	Msida	English	335	53.4	20.32 (2.3
	Lithuania	Vilnius	Lithuanian	319	72.1	20.94 (1.0
	Italy	Trento	Italian	310	54.2	20.35 (1.5
	Ireland	Limerick	English	404	46.8	21.05 (4.4
	Iceland	Reykjavík	Icelandic	290	49.0	24.29 (4.2
	Hungary	Debrecen	Hungarian	280	68.6	21.11 (2.1
	Greece	Athens	Greek	297	55.9	20.83 (2.4
	Germany	Cologne	German	312	43.3	21.21 (2.3
	France	Reims	French	320	47.2	21.46 (2.0
	Finland	Kuopio; Tampere	Finnish	398	50.8	23.27 (4.9
Europe	Austria	Vienna	German	321	58.6	21.97 (3.5
	United Arab Emirates	Sarjah	English	323	54.5	20.27 (1.5
Thailand	Chiang Mai	Thai	350	64.6	20.26 (1.7	
	South Korea	Seoul	Korean	325	45.5	22.48 (2.3
	Pakistan	Lahore	Urdu	320	59.7	21.29 (1.3
	Japan	Sapporo	Japanese	346	27.2	20.04 (1.1
	Israel	Ramat-Gan	Hebrew	322	52.8	24.02 (2.8

# 2.2 Materials

Participants were randomly assigned to one of four scenarios, developed to manipulate trust and power in a hypothetical country named Varosia, resulting in the following combinations: low trust and low power; low trust and high power; high trust and low power; high trust and low power; high trust and high power. All scenarios started with general information about Varosia. Furthermore, Varosia's size and population were matched with the official statistics of each

participating country. A hypothetical country was used to avoid the influence of general perceptions and consequent attitudes toward the home country on the experimental manipulations of trust and power. At the same time, it was important that participants could relate to Varosia and perceptions should be caused by the manipulation alone, which is why described country size and population were matched to the respective home country (see also Kogler et al., 2013).

Every scenario comprised a combination of trust-related and power-related information. In the first part, authorities in Varosia were described either as highly trusted by citizens, transparent, providing free counseling on taxation matters, service-oriented, and concerned about citizens' opinion (*high trust condition*) or not trusted by citizens, lacking transparency, not providing free counseling on taxation matters, little service-oriented, and not concerned about citizens' opinion (*low trust condition*). In the second part, authorities were described as being either highly effective in prosecuting tax crimes, having a large budget to fight tax evasion, and imposing substantial monetary penalties for detected evasion (*high power condition*) or highly ineffective in prosecuting tax crimes, having a low budget to fight tax evasion and imposing low monetary penalties for detected evasion (*low power condition*).

After being asked to imagine living and paying taxes in this country as a self-employed business owner, participants filled in a 27-item questionnaire comprising manipulation checks for perceived trust and perceived power, scales on four different types of tax compliance intentions and motivations, items measuring perceived similarity between experimental scenarios and participants' home countries, and socio-demographics. All rating items used a nine-point Likert-type scale where low values denoted strong disagreement with statements and high values strong agreement.

The first items comprised the manipulation check scales regarding perceived trust in authorities (three items; e.g., "The governmental authorities in Varosia act fairly towards their

citizens";  $\alpha = .82$ ) and perceived power of authorities (three items; e.g., "The governmental institutions in Varosia are very effective in the suppression of tax criminality";  $\alpha = .85$ ). The two check scales were adapted from the literature (Wahl et al., 2010).

Subsequently, several items constituting four measures of tax compliance intentions and motivations were administered. The scale for estimating intended tax compliance consisting of three items (e.g., "How likely would you be to pay your tax completely honestly?";  $\alpha = .77$ ) was also adapted (Wahl et al., 2010). Its reliability was increased to  $\alpha = .86$  when leaving out one of the three items. Thus, the scale used for calculating the intended tax compliance models was based on two items only (including the example item above). It can be defined as individuals' general intentions to pay taxes. Voluntary tax compliance (e.g., "When I pay my taxes in Varosia as required by the regulations, I do so to support the state and other citizens.";  $\alpha = .84$ ) was assessed with a five-item scale introduced in the literature by a tax compliance inventory termed TAX-I (Kirchler & Wahl, 2010). This scale measures to what extent individuals feel it is their moral obligation to pay taxes. The five items measuring enforced tax compliance (e.g., "When I pay my taxes in Varosia as required by the regulations, I do so because the punishments for tax evasion are very severe";  $\alpha = .89$ ) were also from the TAX-I. They measure to what extent individuals self-report to pay taxes out of fear of punishment. The voluntary tax compliance and enforced tax compliance scales should be interpreted as different self-stated motivations to comply with tax laws. Finally, five vignettes presenting instances of tax noncompliance appraised respondents' propensity for tax evasion (e.g., "A customer paid in cash and did not require an invoice. You could intentionally omit this income on your tax return. How likely is it that you would omit this income?";  $\alpha = .85$ ). This scale can be seen as the opposite of the intended tax compliance scale, but measures intentions through realistic vignettes, rather than attitudinal questions.

In addition, perceived similarity between the scenario and the situation in home countries was measured with three items (e.g., "How similar do you perceive the country of Varosia to be in comparison to your own country?";  $\alpha = .87$ ). These items were not used in the present paper. Demographics concluded the questionnaire.

The exact wording of the scenarios and items can be found in the supplementary materials. The material originates from the literature (Wahl et al., 2010) and the reported study design was previously used in a four-country comparison (Kogler et al., 2013). The same design was later applied in three other countries (Carvalho Wilks, & Pacheco 2014; Kaplanoglou & Rapanos, 2015; Lemoine & Roland-Lévy, 2013). The data from these seven countries were incorporated in this extension to reach a total of 44 countries.

The following OSF repository contains the data file and supplementary materials: https://osf.io/2zqnp/.

### 2.3 Procedure

The study entailed the use of 25 languages in applying the instrument. 19 of these represented official languages spoken in as many distinct countries, as follows: Finnish (Finland), Greek (Greece), Hebrew (Israel), Hungarian (Hungary), Icelandic (Iceland), Italian (Italy), Japanese (Japan), Korean (South Korea), Lithuanian (Lithuania), Norwegian (Norway), Persian (Iran), Polish (Poland), Romanian (Romania), Russian (Russia), Slovenian (Slovenia), Swedish (Sweden), Thai (Thailand), Turkish (Turkey), and Urdu (Pakistan). Chinese was employed for the sub-samples in China (Simplified Chinese) and Hong Kong SAR (Traditional Chinese), Portuguese for respondents from Brazil and Portugal, while sub-samples from France and Morocco were surveyed in French. In the cases of participants from Austria, Germany, and Switzerland we used German, while for participants from Colombia, Mexico, and Spain the working language was Spanish, with some adjustments required by the specificity of the

country vernacular. English was employed both for countries listing it as an official language (Australia, Canada, Ireland, Malta, South Africa, United Kingdom, United States) and for countries represented by participants enrolled in English-teaching university programs (Bhutan, Egypt, Ghana, Hong Kong, India, Indonesia, United Arab Emirates). Successful translation was secured through the standard translation-back translation procedure, designed to eliminate potential inconsistencies. Furthermore, collaborators received guidelines to change country-specific information in the material (i.e., population and area description of the fictitious country Varosia).

A standard research protocol was developed to ensure the use of standardized instructions by experimenters in all countries, targeted sample size and composition, as well as sampling method. In some countries (Australia, Brazil, Canada, Egypt, Ireland, Pakistan, South Africa, UK, United Arab Emirates, USA) it was mandatory for co-authors to obtain their own research ethics committee clearance prior to data collection.

The data collection time span was summer 2011 through winter 2013. The average task completion time for participants was roughly 15 minutes. The vast majority of observations (95%) were collected in paper-pencil format, and the remaining online (Hong Kong, partially Norway and UK). Respondents took part in the study on a voluntary basis and anonymity was guaranteed. With a few exceptions (i.e., course credit in Canada; small lottery in Norway and the UK), respondents did not benefit from any incentives to complete the study.

## 3 Results

The data of the current study are structured on two different hierarchical levels, therefore multilevel analyses were appropriate to test our hypotheses (Finch, Bolin, & Kelley, 2014). Individuals were randomly assigned to one of four conditions, which, in addition to demographics, represent the individual level (level 1, individual). Furthermore, each participant

is a member of a country sub-sample and thereby nested within a class level (level 2, country). On level 1, predictors (trust, power, interaction of trust and power, and demographics) were treated as fixed effects, expressing the average effect of an independent variable over all countries. Additionally, random effects of trust, power, and their interaction provided the possibility to explore country specific differences with regard to the experimental manipulation. We could thereby quantify the manipulation's variation across the 44 countries. There were no predictors on level 2.

Prior to running the multilevel models, it was essential to check which proportion of the total variance could be observed on the two separate levels, by examining intraclass correlations (ICC). In order to compute the ICC, the variance between the classes was divided by the sum of variance between and within the classes for each dependent variable. A high ICC (maximum value of 1) indicates little variance within the class level and high variance between classes, denoting more homogenous groups within each class. In return, a low ICC (minimum value of 0) reveals high variance within each class, while different classes are similar, thus indicating heterogeneous classes which are comparable with each other. Table 2 displays the variance components by levels and the ICCs for the two manipulation check scores and the four tax-related dependent variables. The table demonstrates that, as a result of a successful experimental manipulation, the proportion of total variance accounted for by the countries alone is small in the case of all dependent variables, with large variance within each country and little variance between countries. Thus, based on variance components, one could expect similar patterns of responses across the participating countries.

Table 2: Variance components and ICC coefficients

Variance components	Check trust	Check power	Intended tax compliance	Voluntary tax compliance	Enforced tax compliance	Tax evasion
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Level 1 – Individual	5.80	6.74	5.08	3.33	5.36	4.00
Level 2 – Country	0.04	0.02	0.25	0.16	0.11	0.26
ICC	.007	.003	.047	.045	.019	.061

*Note.* N = 14,509.

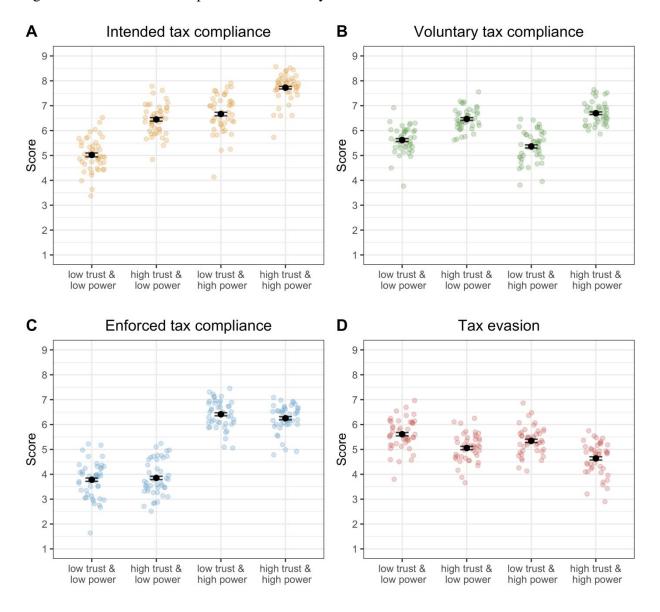
Correlations between the four tax-related dependent variables are depicted in Table 3. The four dependent measures were moderately correlated, ranging from r = .45, p < .001, between intended and voluntary tax compliance to r = -.38, p < .001, between intended tax compliance and tax evasion. Overall unadjusted means by condition are presented in Figure 1.

Table 3: Intercorrelations between all four dependent variables

	1	2	3
1. Intended tax compliance			
2. Voluntary tax compliance	.450***		
3. Enforced tax compliance	.242***	037***	
4. Tax evasion	377***	338***	.089***

*Note.* N = 14,509. \*\*\*p < .001

Figure 1. Means of tax compliance measures by condition.



*Note*. Black dots represent overall unadjusted means. Error bars indicate 95% confidence intervals. The shaded points represent various country means.

Each of the four dependent variables measuring different aspects of tax compliance was analyzed with three multilevel models. In the first model, the demographic variables gender and age were considered as predictors on level 1, while income was excluded from the main analyses because of country-specific scales used that were not directly comparable. Age was the only continuous variable and was group-centered (Enders & Tofighi, 2007).

In the second model, trust, power, and their interaction were added as fixed effects on level 1, which represent the effect of the experimental manipulations over all countries. Trust and power were dummy coded with 0 = low and 1 = high. Thus, the simple effects express the effect of one variable (e.g., high trust) at the zero-coded level of the other variable (e.g., low power). The interaction term tests the combination of both trust and power described as high.

We opted for dummy coding for two reasons: First, using dummy coding, the regression coefficients describe what happens when moving from one of the four conditions to the next one. This is in line with Figure 1 and makes it easier to understand the pattern of results. Second, it is in line with the theoretical assumptions of the slippery slope framework, where a minimum of trust and power represent the initial starting point (intercept) and an increase in either trust or power leads to voluntary or enforced compliance, respectively.

Finally, in the third model, random effects of trust, power, and their interaction were added to the model, expressing the extent of an effect's variation between countries. Random effects are reported as effect variance. This means that we still estimate a fixed effect over all countries, but at the same time estimate how much this effect varies between countries (i.e., random slope). Additional tables and figures for each dependent variable illustrate country-specific results that underlie the random effects. An extended explanation of how to interpret random effects is provided in the supplementary materials (see the manipulation check trust section).

For each series of models, we present the Akaike information criterion (AIC), which is an indicator of statistical model quality for given data. In model comparison, a lower AIC evidences a better fit of a model to the data.

A measure of total variance explained ( $R^2$ ) is reported for level 1, because our models only include variance explaining variables on this level. The proportion of explained variance refers to 1-ICC, which constitutes the total variance observed on the individual level.

## 3.1 Manipulation checks

The first and second sequence of models with perceived trust and power scale scores as dependent variables serve to confirm that our manipulations of trust in authorities and power of authorities were successful. Here we only report model 3 for both manipulation check scales. See Tables S3 through S6 and Figures S1 and S2 of the supplementary materials for details, including an explanation of how to interpret random effects.

**3.1.1 Manipulation check trust.** Describing authorities as untrustworthy versus trustworthy under conditions of low power was found to be a significant predictor for participants' level of perceived trust, B = 3.04, p < .001. Increasing power under conditions of low trust also influenced perceived trust positively, B = 0.25, p < .001. Additionally, there was a significant positive interaction term, B = 0.79, p < .001, implying that a combination of high trust and high power led to higher perceived trust than the additive effect of the two single effects. With respect to random effects, the highest variation was observed for trust,  $\sigma^2 = 0.35$ ,  $\chi^2(4) = 189.10$ , p < .001, indicating that the effect of the trust manipulation, which was the strongest fixed effect, had the largest effect variation regarding between-country comparisons. Irrespective of these variations in effect size, the manipulation of trust was successful in all 44 countries. The random effect of power,  $\sigma^2 = 0.09$ ,  $\chi^2(4) = 28.60$ , p < .001, and of the interaction,  $\sigma^2 = 0.18$ ,  $\chi^2(4) = 35.80$ , p < .001, were significant, but less pronounced.

**3.1.3 Manipulation check power.** Perceived power was most strongly predicted by portraying the authorities as powerful, B = 3.66, p < .001, under conditions of low trust. Both trust under conditions of low power, B = 0.29, p < .001, and the interaction of power and trust, B = 0.31, p < .001, were positive predictors of perceived power, but had less impact.

There was a relatively high variation for the effect of power,  $\sigma^2 = 1.28$ ,  $\chi^2(4) = 792.20$ , p < .001. While the effect was significant in the same direction in all 44 countries, the most prominent deviations were the UAE on the low end, where the change from low power to high power increased perceived power only by 1.17 units; and Germany on the high end, where the same manipulation impacted on perceived power by 5.68 units, whereas the overall fixed effect was B = 3.66. The random effect of trust was not significant,  $\sigma^2 = 0.04$ ,  $\chi^2(4) = 8.80$ , p = .070). With respect to the interaction effect,  $\sigma^2 = 0.28$   $\chi^2(4) = 68.10$ , p < .001, the variation was significant, although rather small in relative comparison with the random effect of power. Hence, despite evident deviations in impact, these results clearly show that the manipulation of power was successful in all countries.

# 3.2 Compliance measures

**3.2.1 Intended tax compliance.** For *intended tax compliance* (Table 4), model 1 revealed that women had higher intended tax compliance, B = 0.29, p < .001. Age had no significant effect, B = 0.01, p = .091.

In Model 2, the experimental manipulations were added. Results show significant positive effects of the trust dummy and the power dummy, qualified by a significant negative interaction term (B = -0.37, p < .001). The pattern indicates that high versus low trust increased intended tax compliance under conditions of low power, B = 1.43, p < .001. The effect of trust was smaller, but still significant in the high power condition, B = 1.06, p < .001. High versus low power increased intended tax compliance under conditions of low trust (B = 1.64, p < .001). Again, the effect of power was smaller but still significant under conditions of high trust (B = 1.28, p < .001). This pattern shows that, as hypothesized, both trust and power increased intended tax compliance. However, the combination of high trust and high power was less

effective in increasing intended tax compliance than the summation of both simple effects would predict.

Model 3 introduced random effects of trust, power, and their interaction. The most pronounced random effect was observed for power with  $\sigma^2 = 0.51$ ,  $\chi^2(4) = 164.10$ , p < .001. However, as depicted in Figure 2 (also see Table S7), the conditional effect of power was significant in all but one country (i.e., Pakistan). In the other countries, the effect varied from B = 0.70 in India to B = 3.08 in Japan. Thus, the range of effects was large, but in all significant cases the conditional effect of power was positive. The pattern of effect deviations was more stable for trust,  $\sigma^2 = 0.17$ ,  $\chi^2(4) = 36.50$ , p < .001. Without exception, coefficients for all countries were positive and significant, with only four countries deviating from the overall fixed conditional effect. The interaction random effect,  $\sigma^2 = 0.31$ ,  $\chi^2(4) = 36.90$ , p < .001, revealed that in 13 cases the country-specific results followed the negative overall fixed effect, in 30 cases the effect can be regarded as non-significant, and in one case (i.e., Pakistan) as positively significant.

Overall, power was the strongest predictor of intended tax compliance, although with relatively large deviations between countries. The effect of trust was similarly pronounced but more stable. AIC indicated best model fit for the third model. The explained variance of the model on level 1 was 21%.

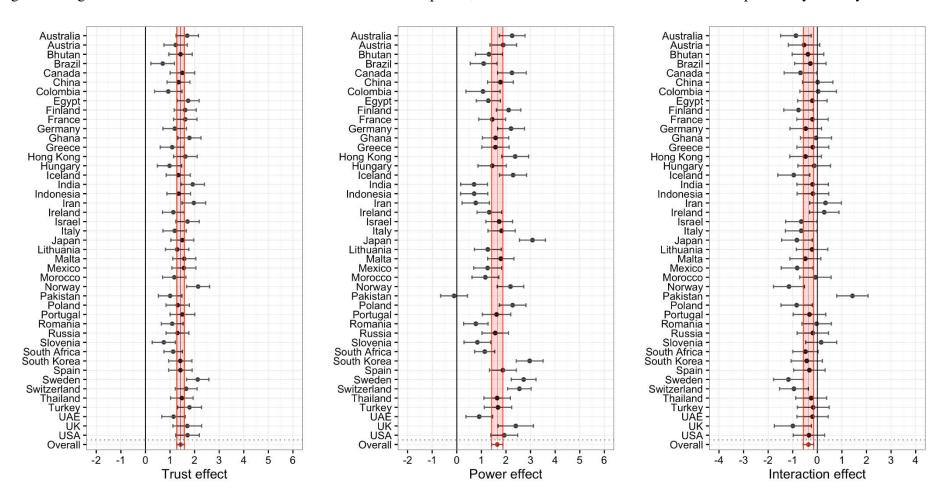
Table 4: Multilevel model for the dependent variable intended tax compliance

	Model 1		Model 2		Mode	13
Fixed effects	В	SE	В	SE	В	SE
Intercept	6.31***	0.08	4.86***	0.08	4.86***	0.10
Gender	$0.29^{***}$	0.04	$0.30^{***}$	0.03	$0.29^{***}$	0.03
Age	0.01	0.01	0.01	0.01	0.01	0.01
Trust			1.43***	0.05	1.43***	0.08
Power			1.64***	0.05	1.65***	0.12
Interaction			-0.37***	0.07	-0.36***	0.11

Random effects	$\sigma^2$	$\sigma^2$	$\sigma^2$
Intercept	0.25	0.25	0.37
Trust			0.17***
Power			0.51***
Interaction			0.31***
Residual	5.08	4.13	4.00
Variance explained			
Level 1	0.00 of 0.953	0.19 of 0.953	0.21 of 0.953
AIC	64831	61892	61634

*Note.* N = 14,509. Trust and power were coded with 0 = low and 1 = high. The variable gender was coded with 0 = male and 1 = female. \*p < .05; \*\*p < .01; \*\*\*p < .001.

Figure 2. Regression coefficients of conditional effects of trust and power, and their interaction for intended tax compliance by country.



Note. For each subfigure, the black vertical line represents a null effect. The thin vertical line illustrates the overall fixed effect parameter, which is augmented by two red lines representing the limits of the 95% confidence interval of the fixed effect, further highlighted by red shading. Black dots indicate country-specific effects, with 95% confidence intervals. If a country-specific interval does not include the null effect line, the country-specific effect is significant. If a country-specific interval does not overlap with the red shaded area, the country-specific effect significantly deviates from the overall fixed effect.

**3.2.2 Voluntary tax compliance.** With regard to *voluntary tax compliance* (Table 5), model 1 suggested significant effects of gender, B = 0.25, p < .001, and age, B = 0.01, p = .027, indicating higher voluntary tax compliance for women. The impact of age was positive, but negligibly small.

Model 2 revealed significant results for all fixed effects, with the conditional effect of trust being most prominent, B = 0.85, p < .001. The conditional effect of power was also significant, with a negative effect of B = -0.26, p < .001, while the interaction term was significant, with B = 0.48, p < .001. Together this means that a combination of high power with low trust lowered voluntary contributions, but when combined with high trust it increased voluntary compliance levels. Numerically, power decreased voluntary compliance by B = -0.26, p < .001, when trust was low, but led to an increase of B = 0.22, p < .001, when trust was high. Furthermore, the simple effect of trust was smaller when power was low, B = 0.85, p < .001, compared to when power was high, B = 1.33, p < .001. As hypothesized, the description of trustworthy authorities generally increased voluntary compliance.

In model 3, the random effect of trust,  $\sigma^2 = 0.14$ ,  $\chi^2(4) = 69.30$ , p < .001, revealed that trust increased voluntary compliance in a total of 42 countries (Figure 3; also see Table S8). The two countries without a significant conditional simple effect of trust were Austria and Germany. Among the 42 countries, effects ranged from B = 0.45 in Pakistan and Slovenia to B = 1.82 in Iran. The variance of power,  $\sigma^2 = 0.12$ ,  $\chi^2(4) = 46.10$ , p < .001, resulted from 13 countries with significant negative conditional effects of power, as expressed by the overall fixed effect, and 31 countries with no significant effect. The interaction random effect,  $\sigma^2 = 0.06$ ,  $\chi^2(4) = 14.30$ , p = .006, was negligible, expressing a relatively stable positive interaction effect for the majority of countries.

Summing up, trust had the largest influence on voluntary tax compliance. High power paired with low trust decreased voluntary contributions, while a combination of high power

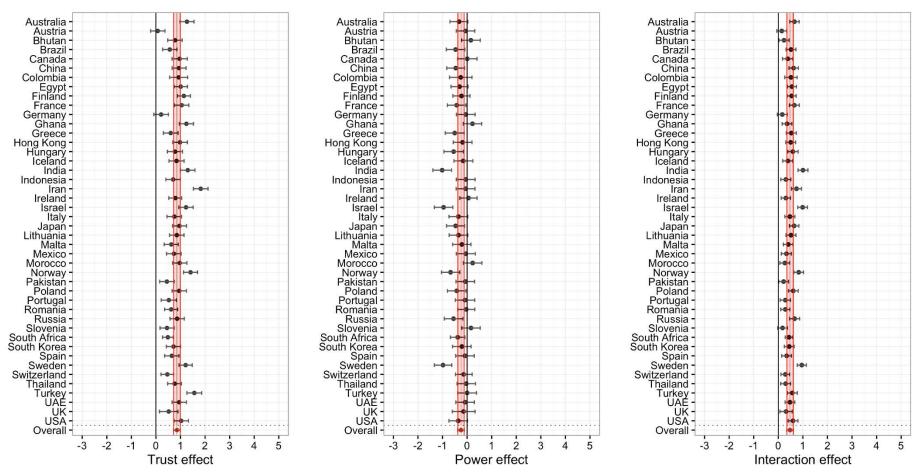
and high trust led to an increase in voluntary compliance. The best model fit was observed for model 3 with an explained variance of 12% on the individual level.

Table 5: Multilevel model for the dependent variable voluntary tax compliance

	Model 1 Model 2		Mode	13		
Fixed effects	В	SE	В	SE	В	SE
Intercept	5.90***	0.06	5.48***	0.07	5.47***	0.08
Gender	0.25***	0.03	$0.27^{***}$	0.03	$0.28^{***}$	0.03
Age	$0.01^{*}$	0.01	$0.01^{*}$	0.00	$0.01^*$	0.00
Trust			0.85***	0.04	$0.86^{***}$	0.07
Power			-0.26***	0.04	-0.25***	0.07
Interaction			$0.48^{***}$	0.06	0.48***	0.07
Random effects	$\sigma^2$		$\sigma^2$		$\sigma^2$	
Intercept	0.15		0.15		0.24	
Trust					$0.14^{***}$	
Power					$0.12^{***}$	
Interaction					$0.06^{**}$	
Residual	3.32		3.01		2.93	
Variance explained						
Level 1	0.00 of 0	0.955	0.10 of 0	0.955	0.12 of 0	.955
AIC	5871	0	5728	2	5708	0

*Note.* N = 14,509. Trust and power were coded with 0 = low and 1 = high. The variable gender was coded with 0 = male and 1 = female. \*p < .05; \*\*p < .01; \*\*\*p < .001.

Figure 3. Regression coefficients of conditional effects of trust and power, and their interaction for voluntary tax compliance by country.



Note. For each subfigure, the black vertical line represents a null effect. The thin vertical line illustrates the overall fixed effect parameter, which is augmented by two red lines representing the limits of the 95% confidence interval of the fixed effect, further highlighted by red shading. Black dots indicate country-specific effects, with 95% confidence intervals. If a country-specific interval does not include the null effect line, the country-specific effect is significant. If a country-specific interval does not overlap with the red shaded area, the country-specific effect significantly deviates from the overall fixed effect.

**3.2.3 Enforced tax compliance.** As for *enforced tax compliance* (Table 6), model 1 revealed that men, B = 0.16, p < .001, and older participants, B = -0.01, p = .039, felt slightly less forced to comply.

In Model 2, the experimental manipulations were added. The results show a significant positive effect of the power dummy but no effect of the trust dummy. Additionally, there was a significant negative interaction, B = -0.22, p < .001. The pattern indicates that high versus low power increased enforced tax compliance under conditions of low trust, B = 2.63, p < .001. The effect of power was similarly strong in the high trust condition where it increased enforced compliance by B = 2.41, p < .001. High versus low trust had no effect on enforced tax compliance under conditions of low power, B = 0.07, p = .128. However, there was a significant negative effect of trust under conditions of high power, B = -0.15, p < .001. This pattern shows that, as hypothesized, power generally increased enforced tax compliance. Trust, on the other hand, had no influence on enforced compliance under conditions of low trust, but lowered such motivations under conditions of high power.

The random effects suggested relatively large effect variations, especially for the conditional effect of power,  $\sigma^2 = 1.02$ ,  $\chi^2(4) = 442.80$ , p < .001 (Figure 4; also see Table S9). While all country-specific effects were positive and significant, the coefficients ranged from B = 0.54 in Morocco to B = 4.85 in India, suggesting that power increased enforced tax compliance in all countries, though to a differing extent. The random effect of trust was smaller,  $\sigma^2 = 0.30$ ,  $\chi^2(4) = 82.60$ , p < .001. The underlying pattern shows that while the overall fixed effect of trust was not significant, there were six countries where trust positively influenced enforced compliance. The random effect of the interaction term,  $\sigma^2 = 0.52$ ,  $\chi^2(4) = 79.60$ , p < .001, was largely influenced by results from the Indian sub-sample, where the interaction coefficient was B = -3.15 compared to a fixed effect of B = -0.25. After addressing this variation

in terms of a random effect, the overall interaction effect of trust and power was no longer significant, B = -0.25, p = .056.

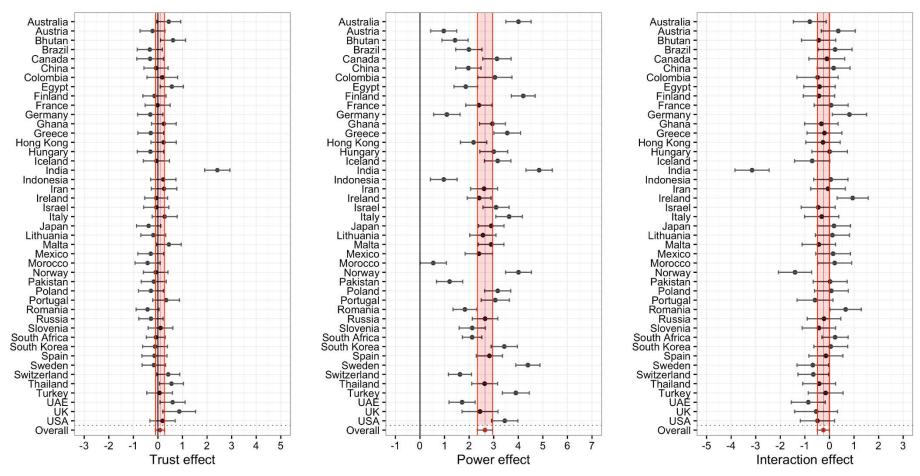
Overall, power was the main determinant of enforced tax compliance in all countries. The final model explained 34% of total variance on level 1 and had the best model fit based on AIC.

Table 6: Multilevel model for the dependent variable enforced tax compliance

	Mode	11	Mode	Model 2		Model 3	
Fixed effects	В	SE	В	SE	В	SE	
Intercept	4.99***	0.06	3.70***	0.06	3.69***	0.11	
Gender	0.16***	0.04	0.15***	0.03	0.15***	0.03	
Age	-0.01*	0.01	-0.02***	0.01	-0.02***	0.01	
Trust			0.07	0.05	0.09	0.09	
Power			2.63***	0.05	2.65***	0.16	
Interaction			-0.22***	0.06	-0.25	0.13	
Random effects	$\sigma^2$		$\sigma^2$		$\sigma^2$		
Intercept	0.10		0.11		0.47		
Trust					0.30***		
Power					1.02***		
Interaction					$0.52^{***}$		
Residual	5.36		3.76		3.51		
Variance explained							
Level 1	0.00 of 0	.981	0.30 of 0	.981	0.34 of 0	.981	
AIC	6561	9	60528		59781		

*Note.* N = 14,509. Trust and power were coded with 0 = low and 1 = high. The variable gender was coded with 0 = male and 1 = female. \*p < .05; \*\*p < .01; \*\*\*p < .001.

Figure 4. Regression coefficients of conditional effects of trust and power, and their interaction for enforced tax compliance by country.



Note. For each subfigure, the black vertical line represents a null effect. The thin vertical line illustrates the overall fixed effect parameter, which is augmented by two red lines representing the limits of the 95% confidence interval of the fixed effect, further highlighted by red shading. Black dots indicate country-specific effects, with 95% confidence intervals. If a country-specific interval does not include the null effect line, the country-specific effect is significant. If a country-specific interval does not overlap with the red shaded area, the country-specific effect significantly deviates from the overall fixed effect.

**3.2.4 Tax evasion.** Tax evasion (Table 7) was significantly influenced by participants' gender, B = -0.45, p < .001, as suggested by model 1. Specifically, men reported higher intentions of evading taxes.

In Model 2, the experimental manipulations were added. The results show significant negative effects of the trust dummy and the power dummy, further pronounced by a significant negative interaction term, B = -0.15, p < .001. The pattern indicates that high versus low trust decreased tax evasion intentions under conditions of low power, B = -0.56, p < .001. The effect of trust was even slightly larger in the high power condition, B = -0.71, p < .001. High versus low power decreased tax evasion under conditions of low trust, B = -0.27, p < .001. Again, the effect of power was even larger under conditions of high trust, B = -0.42, p < .001. This pattern shows that, as hypothesized, both trust and power decreased tax evasion intentions. In the case of high trust combined with high power, evasion was even lower than the summation of the two single effects would predict.

Concerning the random effects in model 3 (Figure 5; also see Table S10), the analysis revealed a variation in the conditional trust effect of  $\sigma^2 = 0.15$ ,  $\chi^2(4) = 42.20$ , p < .001. Trust lowered tax evasion significantly in 32 countries, whereas there was no effect in the remaining countries. The random effect of power was less pronounced,  $\sigma^2 = 0.09$ ,  $\chi^2(4) = 22.49$ , p < .001, and there was no substantial variation in the interaction effect,  $\sigma^2 = 0.09$ ,  $\chi^2(4) = 5.67$ , p = .200.

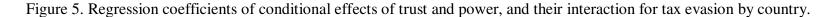
The best model fit was observed for model 3 and total explained variance on the individual level was 6%. Comparing all dependent variables measuring tax compliance intentions, this final model analyzing tax evasion explained the least variance.

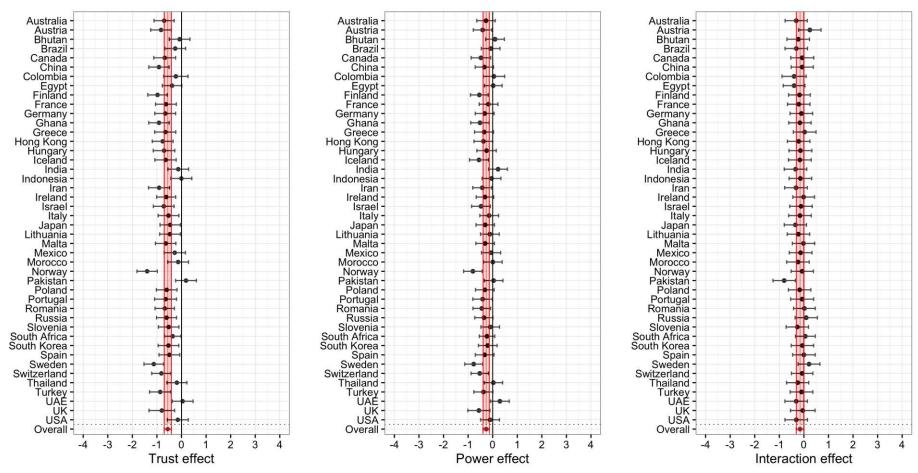
Table 7: Multilevel model for the dependent variable tax evasion

	Mode	Model 1		Model 2		13
Fixed effects	В	SE	В	SE	В	SE
Intercept	5.40***	0.08	5.86***	0.09	5.86***	0.09

Gender	-0.45***	0.03	-0.46***	0.03	-0.45***	0.03
Age	0.00	0.01	0.00	0.01	0.00	0.01
Trust			-0.56***	0.05	-0.56***	0.07
Power			-0.27***	0.05	-0.27***	0.07
Interaction			-0.15***	0.06	-0.16*	0.08
Random effects	$\sigma^2$		$\sigma^2$		$\sigma^2$	
Intercept	0.26		0.26		0.33	
Trust					0.15***	
Power					$0.09^{***}$	
Interaction					0.09	
Residual	3.95		3.82		3.77	
Variance explained						
Level 1	0.01 of 0	0.938	0.05 of 0	.938	0.06 of 0	.938
AIC	6126	4	60778		60708	

*Note.* N = 14,509. Trust and power were coded with 0 = low and 1 = high. The variable gender was coded with 0 = male and 1 = female. \*p < .05; \*\*p < .01; \*\*\*p < .001.





Note. For each subfigure, the black vertical line represents a null effect. The thin vertical line illustrates the overall fixed effect parameter, which is augmented by two red lines representing the limits of the 95% confidence interval of the fixed effect, further highlighted by red shading. Black dots indicate country-specific effects, with 95% confidence intervals. If a country-specific interval does not include the null effect line, the country-specific effect is significant. If a country-specific interval does not overlap with the red shaded area, the country-specific effect significantly deviates from the overall fixed effect.

### 4 Discussion

By providing results for 44 nations from five continents, our study is the first large-scale investigation of the slippery slope framework. Our results provide support for its main assumptions in a vast range of countries. Both trust in authorities and power of authorities were identified as important determinants of tax compliance intentions around the world, irrespective of demographic coordinates, economic systems, social climates, political regimes, or cultural backgrounds.

The multilevel analyses confirmed the assumptions of the slippery slope framework about intended tax compliance. As postulated in Hypothesis 1, increasing trust led to higher intended tax compliance in all 44 countries. As postulated in Hypothesis 2, higher power had a positive effect on intended compliance in all but one country (i.e., Pakistan). However, these two effects are not fully complementary, as there was a (small) negative interaction effect. This is the exact opposite of what we postulated in Hypothesis 3 and is especially interesting in comparison to previous studies that found no significant interaction effect (e.g., Kogler et al., 2013, Wahl et al., 2010) or a positive one (e.g., Balliet & van Lange, 2013). Given that the interaction of trust and power had the most pronounced negative effect on compliance intentions in countries with a generally rather high level of trust in authorities and wellorganized tax administrations (i.e., Australia, Sweden, Switzerland; see, for instance, Kirchler, 2007), this finding can be interpreted as a sign that too strict enforcement under the form of high audit rates and severe fines may in fact result in reactance and resistance provoking noncompliance, and might be problematic within a system where high compliance is already established. Nevertheless, intended tax compliance was most pronounced when both trust and power were high, illustrating that the simple effects are not offset by the described substitution effect. This implies that revenue bodies should combine the predominantly applied deterrence

approach with services that increase trust in the authorities in order to increase general tax compliance.

As assumed in Hypothesis 1, voluntary tax compliance was dependent on trust in authorities. The effect was observable in all but two countries (i.e., Austria and Germany). While the overall effect of power was negative, the underlying country-pattern was rather mixed. In 13 countries power reduced voluntary compliance, whereas in the remaining 31 countries power showed no significant effect. If, however, high power was paired with high trust, the effect of both trust and power on voluntary compliance was positive in the majority of countries (41 out of 44) (see Figure 3 and Table S8). Thus, authorities should consider increasing power together with trust if they aim to raise levels of voluntary compliance among taxpayers.

In line with our Hypothesis 2, high power increased enforced tax compliance. We observed the effect in all participating countries, although to clearly different extents. As a general result, trust had no significant influence on enforced tax compliance, apart from six countries where trust showed an effect. The overall results implied that, in the case of both high trust and high power, the feeling of being forced to pay taxes decreased in comparison with high power alone. In general, authorities can presume that increased deterrence measures will impact upon taxpayers' enforced compliance within the tax system. However, as we observed high variance in this effect, our results suggest that revenue bodies should carefully adjust deterrence measures so that they target prevalent problems in the respective country.

Regarding tax evasion, the assumptions of the slippery slope framework were confirmed. Supporting Hypotheses 1 and 2, high trust and power both reduced tax evasion. The significant negative interaction indicates that the level of tax evasion was reduced even further when high trust and high power were combined, in this case providing support for Hypothesis 3. However, the overall explained variance was relatively low in comparison with the other

reported models. As stated before, the results imply that governments should aim at increasing both trust and power in order to increase tax compliance and reduce tax evasion.

The magnitude of effect variance was rather heterogenous between predictor variables and dependent variables. From the perspective of predictors, the effect variance of the conditional effect of trust was quite stable ( $\sigma^2$  of 0.17, 0.14, 0.30, 0.15) whereas in the case of power there was much more variation ( $\sigma^2$  of 0.51, 0.12, 1.02, 0.09). At the same time, effect variations were rather low for voluntary compliance and tax evasion, but larger for general tax compliance intentions, and clearly substantial in the case of enforced tax compliance. In terms of the two interaction climates that are postulated in the slippery slope framework, these differences could suggest that the mechanisms underlying voluntary compliance are more universal cross-culturally than those influencing compliance motivations through enforcement.

We are aware that the study comprised student samples, which are not representative of the countries in question and might have rather little real-life experience with paying taxes. Nevertheless, the literature shows that student and non-student participants (e.g., self-employed taxpayers) tend to reason and act similarly, both in representative and non-representative samples (Alm, Bloomquist, & McKee, 2011; Exadaktylos, Espín, & Brañas-Garza, 2013; Plott 1987; Wahl et al., 2010). As our study referred to hypothetical scenarios of a fictitious country – and not explicitly to participants' home countries – it is more likely that the rather low between-country variance is also informative for more representative samples.

Recalling results of the manipulation check scores, the manipulations of trust and power were both successful. However, we also observed that power influenced trust perceptions and trust influenced power perceptions. Such crossover effects could signal that the two manipulations were not achieved completely independent from another and could cause interaction effects of trust and power on the dependent variables. However, since these crossover effects were quite small in comparison to the interaction effects of interest, we are

confident that our interpretations of the interaction effects are not caused by a non-independence of the trust and power manipulations, but represent meaningful effects.

Our results provide clear suggestions to governments in terms of appropriate strategies to improve compliance, while adapting them to national circumstances. In nations where trust and power are perceived as weak, disregarding taxpayers' demands and expectations concerning assistance, equity, and welfare will result in evasion. However, providing support and services for taxpayers (e.g., fiscal incentives to run businesses, media facilities to monitor policy accountability and transparency, resources to voice a say in major decisions), while fighting free riders in a goal-directed manner may enhance compliance. In countries already registering high trust and power levels, maintaining business-friendly regulatory environments, streamlining taxpaying systems, and enhancing public dialogue when developing fiscal reforms will serve to maintain and propagate high levels of tax compliance.

Taken together, our findings call for a shift in the conversation about taxation, replacing one-sided deterrence approaches with multifaceted strategies encompassing economically based as well as socio-psychologically driven determinants. The central implication of our study is that at the base of a nation's endeavors to enhance tax compliance there are two pervasive dimensions: citizens' trust in authorities and their perceptions of authorities' power. Considering both dimensions is vital, because facilitating enhanced tax compliance within the economy reverberates across many other societal areas like education, health care, social welfare, and the judiciary. On a broader scale, our study is in line with recent developments in the international arena suggesting that authorities should answer attempts to breach tax laws with both trust and power-based strategies rather than relying solely on power strategies to positively influence taxpayers' compliance behavior (Australian Taxation Office, 2000; Balliet & Van Lange, 2013; OECD, 2014).

#### References

- Adams, C. (2001). For good and evil: The impact of taxes on the course of civilization.

  Lanham: Madison Books.
- Allingham, M., & Sandmo, A. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics*, 1(3-4), 323-338.
- Alm, J., Bloomquist, K. M., & McKee, M. (2011). Comparing student and non-student reporting behavior in tax compliance experiments. In A. Plumley (Ed.), *Recent research on tax administration and compliance* (pp. 93-98). Washington, DC: Internal Revenue Service.
- Alm, J., Cherry, T., Jones, M., & McKee, M. (2010). Taxpayer information assistance services and tax compliance behavior. *Journal of Economic Psychology*, *31*(4), 577-586.
- Alm, J., Kirchler, E., Muehlbacher, S., Gangl, K., Hofmann, E., Kogler, C., & Pollai, M. (2012). Rethinking the research paradigms for analysing tax compliance behaviour. *CESifo Forum*, 13(2), 33-40.
- Alm, J., & Torgler, B. (2011). Do ethics matter? Tax compliance and morality. *Journal of Business Ethics*, 101(4), 635-651.
- Andreoni, J., Erard, B., & Feinstein, J. S. (1998). Tax compliance. *Journal of Economic Literature*, 36(2), 818-860.
- Australian Taxation Office (2000). *Cooperative compliance: Working with large business in the new tax system*. Canberra: Australian Taxation Office.
- Baldry, J. C. (1987). Income tax evasion and the tax schedule: Some experimental results. *Public Finance*, 42(3), 357-383.
- Balliet, D., &, Van Lange, P. A. M. (2013). Trust, punishment, and cooperation across 18 societies: A meta-analysis. *Perspectives on Psychological Science*, 8(4), 363-379.
- Barker Bausell, R. (2015). The design and conduct of meaningful experiments involving human participants: 25 scientific principles. Oxford: Oxford University Press.

- Becker, G. S. (1968). Crime and punishment: An economic approach. *Journal of Political Economy*, 76(2), 169-217.
- Bergman, M. S. (2003). Tax reforms and tax compliance: The divergent paths of Chile and Argentina. *Journal of Latin American Studies*, *35*(3), 593-624.
- Bergman, M., & Nevarez, A. (2006). Do audits enhance compliance? An empirical assessment of VAT enforcement. *National Tax Journal*, *59*(4), 817-832.
- Braithwaite, V. (Ed.) (2003). *Taxing democracy. Understanding tax avoidance and tax evasion*. Aldershot: Ashgate.
- Carvalho Wilks, D., & Pacheco, L. (2014). Tax compliance, corruption and deterrence: An application of the slippery slope model. In A. A. C. Teixeira, A. Maia, J. A. Moreira, & C. Pimenta (Eds.), *Interdisciplinary insights on fraud* (pp. 87-104). Newcastle upon Tyne: Cambridge Scholars Publishing.
- Cialdini, R. B. (1996). Social influence and the triple tumor structure of organizational dishonesty. In D. M. Messick, & A. E. Tenbrunsel (Eds.), *Codes of conduct: Behavioral research into business ethics* (pp. 44-58). New York: Russell Sage Foundation.
- Clark, J., Friesen, L., & Muller, R. A. (2004). The good, the bad, and the regulator: An experimental test of two conditional audit schemes. *Economic Inquiry*, 42(1), 69-87.
- Cowell, F. A. (1992). Tax evasion and inequality. *Journal of Economic Psychology*, 13(4), 521-543.
- Čutura, M. (2013). Consumer ethnocentrism: Possibilities for marketing implication improvements. In H. R. Kaufmann, & M. F. A. Khan Panni (Eds.), *Customer-centric marketing strategies: Tools for building organizational performance* (pp. 17-35). Hershey: Business Science Reference.
- Enders, C. K., & Tofighi, D. (2007). Centering predictor variables in cross-sectional multilevel models: A new look at an old issue. *Psychological Methods*, *12*(2), 121-138.

- Exadaktylos, F., Espín, A. M., & Brañas-Garza, P. (2013). Experimental subjects are not different. *Scientific Reports*, *3*, 1-6.
- Fehr, E., & Rockenbach, B. (2003). Detrimental effects of sanctions on human altruism.

  Nature, 422(6928), 137-140.
- Feld, L. P., & Frey, B. S. (2002). Trust breeds trust: How taxpayers are treated. *Economics of Governance*, 3(2), 87-99.
- Finch, W. H., Bolin, J. E., & Kelley, K. (2014). *Multilevel modeling using R*. Boca Raton, FL: CRC Press.
- Fischer, C. M., Wartick, M., & Mark, M. M. (1992). Detection probability and taxpayer compliance: A review of the literature. *Journal of Accounting Literature*, 11(1), 1-46.
- Frey, B. (2003). Deterrence and tax morale in the European Union. *European Review*, 11(3), 385-406.
- Hasseldine, J., & Li, Z. (1999). More tax evasion research required in new millennium. *Crime, Law and Social Change*, *31*(2), 91-104.
- Herrmann, B., Thöni, C., & Gächter, S. (2008). Antisocial punishment across societies. Science, 319(5868), 1362-1367.
- Kaplanoglou, G., & Rapanos, V. T. (2015). Why do people evade taxes? New experimental evidence from Greece. *Journal of Behavioral and Experimental Economics*, 56, 21-32.
- Kirchler, E. (2007). *The economic psychology of tax behaviour*. Cambridge: Cambridge University Press.
- Kirchler, E., Hoelzl, E., & Wahl, I. (2008). Enforced versus voluntary tax compliance: The "slippery slope" framework. *Journal of Economic Psychology*, 29(2), 210-225.
- Kirchler, E., & Wahl, I. (2010). Tax compliance inventory TAX-I: Designing an inventory for surveys of tax compliance. *Journal of Economic Psychology*, *31*(3), 331-346.

- Kogler, C., Batrancea, L., Nichita, A., Pantya, J., Belianin, A., & Kirchler, E. (2013). Trust and power as determinants of tax compliance: Testing the assumptions of the slippery slope framework in Austria, Hungary, Romania and Russia. *Journal of Economic Psychology*, *34*, 169-180.
- Kogler, C., Muehlbacher, S., & Kirchler, E. (2015). Testing the "slippery slope framework" among self-employed taxpayers. *Economics of Governance*, *16*(2), 125-142.
- Lemoine, J., & Roland-Lévy, C. (2013). Are taxpayers, who pay their taxes, all cooperative citizens? *Citizenship Teaching & Learning*, 8, 195-213.
- Lisi, G. (2012). Testing the slippery slope framework. *Economics Bulletin*, 32(2), 1369-1377.
- Muthukrishna, M., Francois, P., Pourahmadi, S., & Henrich, J. (2017). Corrupting cooperation and how anti-corruption strategies may backfire. *Nature Human Behaviour*, 1(7).
- OECD (2014). Measures of tax compliance outcomes: A practical guide. Paris: OECD.
- Plott, C. R. (1987). Dimensions of parallelism: Some policy applications of experimental methods. In A. E. Roth (Ed.), *Laboratory experimentation in economics: Six points of view* (pp. 193-219). New York, NY: Cambridge University Press.
- Seligman, E. S. A. (2012). The income tax: A study of the history, theory, and practice of income taxation at home and abroad. London: Forgotten Books.
- Slemrod, J., Blumenthal, M., & Christian, C. (2001). Taxpayer response to an increased probability of audit: Evidence from a controlled experiment in Minnesota. *Journal of Public Economics*, 79(3), 455-483.
- van Dijke, M., & Verboon, P. (2010). Trust in authorities as a boundary condition to procedural fairness effects on tax compliance. *Journal of Economic Psychology*, 31(1), 80-91.

- Wahl, I., Kastlunger, B., & Kirchler, E. (2010). Trust in authorities and power to enforce tax compliance: An empirical analysis of the "slippery slope framework". *Law & Policy*, 32(4), 383-406.
- Wenzel, M. (2003). Tax compliance and the psychology of justice: Mapping the field. In V. Braithwaite (Ed.), *Taxing democracy. Understanding tax avoidance and tax evasion* (pp. 41-69). Aldershot: Ashgate.
- Wenzel, M. (2004). An analysis of norm processes in tax compliance. *Journal of Economic Psychology*, 25(2), 213-228.
- Yitzhaki, S. (1974). A note on 'Income tax evasion: A theoretical analysis'. *Journal of Public Economics*, 3(2), 201-202.

## **Supplementary materials for**

#### Trust and power as determinants of tax compliance across 44 nations

#### 1 Coordinates of chosen countries

Prior to data analyses, cases with essential missing data were discarded from the sample, resulting in 14,509 observations available for analyses (98% of cases). The main goal of the present study was to investigate the influence of trust in authorities and power of authorities on intended, voluntary, and enforced tax compliance as well as on tax evasion in an experimental scenario study using a sample from an extremely broad range of environmental contexts. Thus, we ensured a high degree of country diversity by including states that differ significantly in relation to economic, sociodemographic, political, and cultural coordinates, as can be seen in Table S1 and Table S2. In the following section we describe these differences between countries. However, because we want to show the general effect of trust and power as predictors of tax compliance across diverse country characteristics, the following coordinates will not be entered into the statistical models as potential moderators or mediators. The coordinates were retrieved from established international rankings and databases produced on representative samples by the Heritage Foundation, Hofstede Center, International Monetary Fund, Legatum Institute, Population Reference Bureau, Portland State University, Social Progress Imperative, United Nations, World Bank, World Economic Forum, and the World Justice Project.

Because our sample pool was surveyed during the period summer 2011-winter 2013, we regarded 2012, the middle of our collecting period, as a benchmark year for the majority of coordinates retrieved. Therefore, we endeavored to retrieve information that refers to the year 2012.

Table S1 depicts 12 coordinates classified in two categories, i.e., economic, sociodemographic, and cultural coordinates, on one side, and tax compliance related coordinates on the other side.

Table S1 Economic, sociodemographic, cultural, and tax compliance related coordinates

			ECOII	onne, sociouemograpi	hic, and cultural coor	Tax compliance related coordinates								
Continents	Nations	Population (mil.)	Geographical position (Centroid latitude)	Geographical position (Centroid longitude)	GDP per capita (\$1,000; current prices)	Foundations of well-being	Expected years of schooling	Power distance	Shadow economy	Fiscal freedom	Governance	Freedom from corruption	Favoritism in decisions of government officials	Irregular payments and bribes
Africa	Egypt	82.3	27	30	3.11	68.98	12.10	70	39.53	89.70	-1.19	31	3.00	3.40
	Ghana	25.5	8	-2	1.61	65.63	11.40	80	61.09	81.90	-0.08	41	3.00	3.10
	Morocco	32.6	32	-5	2.99	62.57	10.40	70	40.69	69.70	-1.01	34	3.60	4.20
	South Africa	51.1	-30	26	7.64	66.76	13.10	49	30.06	70.70	0.25	45	2.60	4.60
Americas	Brazil	194.3	-10	-55	12.34	75.78	14.20	69	37.52	69.10	-0.08	37	2.90	4.00
	Canada	34.9	60	-96	50.83	80.31	15.10	39	16.66	79.20	3.69	89	4.20	6.00
	Colombia	47.4	4	-72	7.84	75.72	13.60	67	29.18	76.00	-0.16	35	2.60	3.50
	Mexico	116.1	23	-102	10.12	67.37	13.70	81	32.91	80.70	-0.72	31	3.00	3.70
	USA	313.9	40	-99	49.8	75.96	16.80	40	8.63	69.80	3.53	71	3.20	4.80
Asia	Bhutan	0.7	28	91	2.29	n/a	12.40	94	33.04	83.80	n/a	57	n/a	n/a
	China	1350.4	35	105	6.09	63.78	11.70	80	13.93	70.40	-0.49	35	3.80	4.00
	Hong Kong	7.1	22	114	35.96	n/a	15.50	68	21.81	93.10	2.01	84	3.90	6.10
	India	1259.7	20	77	1.59	56.84	10.70	77	22.25	76.10	0.10	33	2.80	3.40
	Indonesia	241.0	-5	120	3.66	69.42	12.90	78	19.25	83.50	-1.11	28	3.80	3.20
	Iran	78.9	32	53	6.36	58.36	14.40	58	16.84	80.60	-2.40	22	3.60	4.10
	Israel	7.9	32	35	32.06	71.57	15.70	13	19.82	64.10	1.58	61	3.50	5.40
	Japan	127.6	36	138	46.90	79.25	15.30	54	15.50	67.10	2.16	78	4.80	6.20
	Pakistan	180.4	30	70	1.29	47.75	7.30	55	34.28	80.60	-2.01	23	2.40	3.10
	South Korea	48.9	37	128	23.02	76.26	17.20	60	34.15	72.80	1.22	54	2.80	4.40
	Thailand	69.9	15	100	5.85	71.97	12.30	64	63.68	75.10	-0.37	35	2.80	3.70
	UAE	8.1	24	54	65.38	76.74	12.00	90	21.27	99.90	0.62	63	5.00	6.40
Europe	Austria	8.5	47	13	46.33	86.35	15.30	11	10.18	50.50	3.23	79	3.80	5.40
	Finland	5.4	64	26	45.54	84.17	16.90	33	22.44	65.40	3.70	92	5.10	6.60
	France	63.6	46	2	40.69	79.37	16.10	68	14.98	53.80	2.42	68	3.70	5.40
	Germany	81.8	52	11	41.17	84.96	16.40	35	15.91	61.30	2.59	79	4.50	5.90
	Greece	10.8	39	22	22.76	74.85	16.30	60	43.67	65.30	0.11	35	2.50	3.40
	Hungary	9.9	47	20	12.93	71.91	15.30	46	24.37	78.60	0.93	47	2.60	4.30
	Iceland	0.3	65	-18	41.15	88.19	18.30	30	15.42	73.50	2.22	85	3.80	6.40
	Ireland	4.7	53	-8	44.78	75.89	18.30	28	16.65	73.90	3.17	80	4.10	6.10
	Italy	60.9	43	13	32.52	77.48	16.20	50	32.02	55.00	0.77	39	2.50	3.90
	Lithuania	3.2	56	24	12.87	77.96	15.70	42	21.85	93.60	0.41	50	3.10	4.50
	Malta	0.4	36	14	19.74	n/a	15.10	56	21.50	67.80	2.29	56	3.00	4.50
	Norway	5.0	62	10	99.32	86.94	17.50	31	20.52	52.50	3.20	86	4.90	6.30
	Poland	38.2	52 40	20	12.30	81.10	15.20	68	26.87	74.40	0.91	53	3.30	4.90
	Portugal	10.6	40 46	-8 25	19.77	76.11	16.00	63	25.97 32.13	59.00	1.00 -0.77	60 37	3.00 2.40	5.10
	Romania	21.4			8.03	74.54	14.50	90		87.40				3.70
	Russia	143.2 2.1	60 46	100 25	13.76 22.46	63.66	14.30 16.90	93	44.94 29.97	82.50 64.80	-2.11 1.26	21	2.40	3.10 4.90
	Slovenia					83.60		71				64	2.60	
	Spain	46.2 9.5	40 62	-4 15	28.98	76.90	16.40	57	27.62	61.30	1.66	61	3.30	4.80
	Sweden			15 8	54.88	84.71	16.00	31	18.65	39.10	3.77	92 87	5.30	6.20
	Switzerland Turkey	8.0 74.9	47 39	35	77.84 10.46	89.78 64.36	15.70 12.90	34 66	9.18 41.38	67.90 77.70	4.28 0.23	87 44	4.90 3.00	6.20 4.30
	UK	63.2	54	33 -4	38.59	79.47	16.40	35	13.84	56.40	3.66	76	4.20	5.90
Occari-	Australia	22.0	-25	135	67.98	80.27	19.60	36	13.84	63.40	3.65		4.20	5.80
Oceania		22.0	-23	133	27.08	74.48	19.60	56.59	26.24	71.80	1.12	56.02	3.48	5.80 4.77
	Sample mean				1.29	47.75			8.63	39.10		36.02 21	2.40	3.10
	Sample min Sample max				99.32	47.73 89.78	7.30 19.60	11 94	63.68	99.90	-2.40 4.28	92	5.30	6.60
					13.34	67.53	12.50	64	35.21	76.89	-0.30	40.44	3.23	4.16
	Global mean				0.24	41.34	4.50	04 11	8.63	0.00	-0.30 -3.65	40.44 5	1.80	2.20
	Global min				0.24	41.34	4.30	11	0.03	0.00	-5.05	93	1.80	2.20

In the following we present an overview of the coordinates in Table S1 to demonstrate that the countries in our sample represent a diverse selection with observable variance in the coordinates considered.

#### 1.1 Economic, sociodemographic, and cultural coordinates

The 44 countries in our study contain more than 70% of the world *population*, ranging from several hundred thousand (e.g., Bhutan, Iceland, Malta) to over one billion inhabitants (e.g., China, India). In fact, eight of the ten most populous countries in the world are represented in our sample pool (Population Reference Bureau, 2015). Regarding geographical position, our sample includes countries stretching to the four cardinal directions with South Africa furthest south and Iceland furthest north, as well as Japan furthest east and Mexico furthest west. In order to check the distribution of wealth levels of the countries included (Zak & Knack, 2001), the per capita Gross Domestic Product (GDP) as estimated by the International Monetary Fund for October 2012 was considered (International Monetary Fund, 2014). Our sample comprises countries ranging from low income levels (e.g., Ghana, India, Pakistan) to high income levels (e.g., Norway, Switzerland, UAE). The coordinate foundations of wellbeing encompasses aspects regarding access to basic knowledge, access to information and communications, health and well-being or ecosystem sustainability, is summarized in the Social Progress Index 2014 (Porter, Stern, & Artavia Loría, 2014), and rates circumstances enabling life satisfaction within a society. Our sample includes nations ranging from weak (e.g., India, Pakistan) to strong (e.g., Iceland, Switzerland) foundations of well-being. Education level is considered by the 2011 values of the expected years of schooling, as reported in the Human Development Report 2013 (United Nations Development Programme, 2013). Our sample comprises countries reporting a low number of years of schooling (e.g., India, Morocco, Pakistan) to countries indicating a high number of years (e.g., Australia, Iceland, Ireland). As one of the six constituents endorsing Hofstede's theory of cultural dimensions (Hofstede, 2014), power distance captures the willingness of less powerful individuals to accept pervasive inequalities and hierarchies within societies. In other words, individuals residing in high power distance countries believe that power and authority are "facts of life" (Samovar et al., 2013), while individuals from low power countries assume they have the right to challenge and curtail disparities, and require explanations for power inequalities. The values of power distance range from 11

(very low power distance) to 100 (very high power distance) (Hofstede, 2001). In our sample values of power distance range from 11 (Austria) to 94 (Bhutan).

## 1.2 Tax compliance related coordinates

The concept of shadow economy (Hassan & Schneider, 2016) comprises all legal economic activities generating revenues otherwise taxable if declared according to the law (Alm, Martinez-Vazquez, & Schneider, 2004; Smith, 1997). The present sample pool is extensive, as it includes both countries with single-digit estimations of the shadow economy (Switzerland, USA) as well as countries where more than 60% of the GDP goes untaxed (Ghana, Thailand), according to the 2012 estimates (Hassan & Schneider, 2016). The 2013 Index of Economic Freedom (The Heritage Foundation & The Wall Street Journal, 2013) constituted the source for the fiscal freedom coordinate, which rates the level of tax burden established by authorities. It encompasses top marginal tax rates levied on individual and corporate income, but also the tax-to-GDP ratio. Our sample pool comprises jurisdictions where tax systems range from mostly unfree (Austria, France, Norway, Spain) to free (Bhutan, Egypt, Lithuania, UAE) in terms of fiscal freedom. Governance is one of the eight sub-indices determined by the 2012 Legatum Prosperity Index (Legatum Institute, 2013). It pinpoints the governmental institutions and functions linked to higher per capita income and higher levels of well-being. Our sample pool encompasses both countries that score lower on the governance scale (Indonesia, Iran, Morocco, Russia) and countries where governments secure high levels of economic growth and well-being (Australia, Canada, Sweden, Switzerland). Freedom from corruption as reported in the 2013 Index of Economic Freedom (The Heritage Foundation & The Wall Street Journal 2013) assesses the level of corruption among civil servants. The countries represented in our study feature a high variance in scores, registering from extensive corruption (Iran, Pakistan, Russia) to low corruption (Finland, Norway, Sweden). Favoritism in decisions of government officials as indicated in the Global Competitiveness Report 2012-2013 (World Economic Forum, 2012) ranks countries based on answers to the query: "To what extent do government officials in your country show favoritism to well-connected firms and individuals when deciding upon policies and contracts?". Our study includes nations characterized by extensive (Greece, Italy, Romania, Russia) to limited favoritism in such decisions (Finland, Norway, Sweden). The variable irregular payments and bribes also originates from the Global Competitiveness Report 2012-2013 (World Economic Forum, 2012) and captures experts' perceptions regarding the willingness of public officials to accept extra payments. The countries in our sample span from registering bribery acts quite often (Ghana, Indonesia, Pakistan) to somewhat rarely (Finland, Iceland, United Arab Emirates).

Considering all these economic, sociodemographic, and cultural variables it becomes evident that the countries in the present sample show a wide variation and represent the global spectrum in a convincing fashion, since means, minima and maxima for sample countries are highly similar to the respective global parameters. In the subsequent paragraphs, we additionally characterize our country sample pool by means of several proxies related to trust in authorities and power of authorities, i.e., the two main variables defining the slippery slope framework. To this end, Table S2 presents 12 more variables, with the first half considered as proxies for trust in authorities (trust related coordinates) and the latter half as proxies for power of authorities (power related coordinates), in order to emphasize that the experimental scenarios used yield a robust effect independent of the different situations in the respective countries.

Table S2 Trust and power related coordinates

				Trus	st related coordina			Power related coordinates						
Continents	Nations	Political instability	Diversion of public funds	Public trust in politicians	Transparency of government policymaking	Government provision of services for improved business performance	Wastefulness of government spending	Rule of law (WGI)	Rule of law (WJP)	Reliability of police services	Judicial independence	Efficiency of legal framework in challenging regulations	Willingness to delegate authority	
Africa	Egypt	5.40	2.60	2.80	3.80	3.50	2.50	-0.45	0.45	3.50	4.10	3.20	4.00	
	Ghana	5.90	3.20	2.60	4.00	3.60	3.30	-0.03	0.57	4.60	4.10	3.50	3.30	
	Morocco	5.60	3.70	3.20	4.40	4.00	3.40	-0.19	0.51	4.30	3.50	3.80	n/:	
	South Africa	7.00	3.00	2.40	4.80	3.10	3.40	0.08	0.55	3.80	5.30	4.80	4.30	
America	Brazil	5.40	2.50	2.00	4.00	3.60	2.10	-0.11	0.54	4.40	3.80	3.80	4.20	
	Canada	2.80	5.60	4.40	5.40	4.10	4.40	1.75	0.78	6.20	6.30	5.10	5.2	
	Colombia	7.00	2.30	2.30	4.10	3.70	2.80	-0.38	0.49	4.20	3.20	3.30	3.8	
	Mexico	6.10	2.90	2.30	4.40	3.80	3.30	-0.56	0.45	2.80	3.40	3.40	3.8	
	USA	5.30	4.60	3.10	4.40	4.20	3.20	1.60	0.71	5.50	4.90	4.20	5.1	
Asia	Bhutan	5.30	n/a	n/a	n/a	n/a	n/a	0.19	n/a	n/a	n/a	n/a	n/	
	China	4.80	3.70	4.10	4.50	4.30	3.70	-0.49	0.45	4.50	3.90	3.90	3.80	
	Hong Kong	4.00	5.70	4.10	5.90	4.70	4.50	1.56	0.76	6.20	6.00	5.40	4.6	
	India	4.50	2.80	2.20	4.30	3.60	3.40	-0.10	0.48	4.30	4.50	3.90	3.9	
	Indonesia	6.80	3.40	3.00	4.20	4.50	3.80	-0.60	0.52	3.90	3.60	3.80	4.1	
	Iran	6.20	3.50	3.70	3.60	3.30	3.50	-0.90	0.44	4.50	4.00	3.10	3.1	
	Israel	5.50	4.90	3.00	4.40	4.20	3.40	0.92	n/a	4.80	5.90	3.90	4.7	
	Japan	3.80	5.30	3.10	5.10	3.60	2.90	1.32	0.78	5.70	5.80	4.00	4.5	
	Pakistan	7.80 5.10	3.00 3.50	2.30 2.10	3.80 3.30	3.00 4.00	2.90 2.70	-0.91 0.97	0.36 0.77	3.00 5.00	4.10 3.70	3.20 3.20	3.4 4.0	
	South Korea Thailand			2.10			3.20		0.77					
	UAE	7.00 4.10	3.00 5.70	5.80	4.00 5.10	3.80 5.70	5.70	-0.17 0.56	0.52	3.60 6.10	4.00 5.40	3.60 4.50	3.7 4.8	
F		3.60	4.50	3.00	5.10	3.60	3.70	1.84	0.82	6.00	5.20	4.60	4.6	
Europe	Austria Finland	3.20	6.20	5.10	6.10	4.80	4.80	1.64	0.82	6.60	6.50	5.90	5.5	
	France	5.30	4.80	3.40	4.60	3.60	3.10	1.43	0.74	5.30	4.90	4.50	3.5	
	Germany	3.80	5.50	3.70	5.00	4.50	4.00	1.43	0.74	5.90	6.20	5.00	4.9	
	Greece	6.30	2.50	1.50	3.70	2.30	2.00	0.39	0.59	3.90	3.10	2.60	3.2	
	Hungary	6.10	2.60	1.80	3.80	3.00	2.60	0.60	0.61	4.20	3.70	2.50	3.0	
	Iceland	5.30	5.30	2.80	5.00	3.40	4.10	1.67	n/a	6.20	5.70	4.50	5.1	
	Ireland	4.60	5.60	3.20	5.00	4.10	3.20	1.73	n/a	6.00	6.30	4.50	5.0	
	Italy	5.00	2.90	1.80	3.10	2.90	2.30	0.36	0.63	5.10	3.80	2.60	3.3	
	Lithuania	6.10	3.00	2.10	4.60	3.70	3.00	0.81	n/a	4.30	3.50	4.00	3.8	
	Malta	4.70	4.10	3.20	4.40	4.10	3.60	1.34	n/a	5.00	5.00	3.70	3.6	
	Norway	1.20	5.90	5.70	5.10	4.20	4.50	1.95	0.88	6.00	6.20	5.30	5.7	
	Poland	4.50	4.00	2.40	3.80	3.10	2.90	0.74	0.67	4.30	4.20	3.20	3.7	
	Portugal	4.80	3.90	2.80	4.30	3.70	2.20	1.04	0.66	5.20	3.90	3.20	3.4	
	Romania	6.40	2.50	1.80	3.30	2.70	2.50	0.02	0.59	3.40	2.70	2.70	3.2	
	Russia	6.50	2.40	2.50	3.60	3.00	2.80	-0.82	0.45	2.80	2.60	2.70	3.2	
	Slovenia	3.80	3.40	2.10	4.70	3.10	2.40	0.98	0.65	4.70	3.80	2.90	4.0	
	Spain	5.50	3.70	2.60	4.20	3.40	2.70	1.04	0.67	6.00	4.00	3.80	3.8	
	Sweden	3.20	6.00	5.50	5.50	4.30	4.90	1.93	0.85	6.10	6.20	5.50	6.0	
	Switzerland	3.40	6.00	5.20	5.90	4.50	5.20	1.81	n/a	6.40	6.30	5.60	5.2	
	Turkey	6.80	3.60	3.40	4.70	4.50	3.80	0.04	0.50	4.00	3.50	3.90	3.3	
	UK	4.60	5.70	3.80	5.30	4.10	3.80	1.69	0.78	5.90	6.20	5.10	4.9	
Oceania	Australia	3.60	5.50	4.00	4.90	3.90	3.60	1.75	0.80	6.10	6.00	4.70	5.0	
	Sample mean	5.08	4.06	3.12	4.49	3.79	3.39	0.63	0.64	4.89	4.63	3.97	4.1	
	Sample min	1.20	2.30	1.50	3.10	2.30	2.00	-0.91	0.37	2.80	2.60	2.50	3.0	
	Sample max	7.80	6.20	5.80	6.10	5.70	5.70	1.95	0.88	6.60	6.50	5.90	6.0	
	Global mean	5.89	3.56	3.01	4.31	3.67	3.30	0.00	0.57	4.29	3.89	3.69	3.7	
	Global min	1.20	1.60	1.50	2.60	1.70	1.80	-2.45	0.35	2.00	1.30	1.70	1.9	
	Global max	8.80	6.50	6.30	6.20	6.00	6.00	1.95	0.89	6.60	6.70	5.90	6.2	

#### 1.3 Trust related coordinates

Political instability as reported in the Political Instability Index 2009-2010 estimates the likelihood that governments face social unrest. The present country sample includes a variety of environments, from the more susceptible in the face of economic and civil turmoil (Colombia, Pakistan, South Africa, Thailand) to the more stable (Canada, Finland, Norway, Sweden). Diversion of public funds is taken from the Global Competitiveness Report 2012-2013 (World Economic Forum, 2012) and rates the extent to which tax money is embezzled in a country. Our sample includes countries characterized by recurrent (e.g., Colombia, Russia) to seldom in terms of public funds diversion (e.g., Finland, Switzerland). Public trust in politicians was again provided by the Global Competitiveness Report 2012-2013 (World Economic Forum, 2012) and estimates perceptions regarding citizens' level of trust in public officials. In our sample pool, some of the most trusted politicians are to be found in countries like Finland, Norway, and Sweden, while very low trust in politicians is indicated for Greece, Italy, and Romania. Once more consulting the Global Competitiveness Report 2012-2013 (World Economic Forum, 2012), transparency of government policymaking measures perceptions about the degree to which governing powers disclose policy related information to the general public. The sample comprises nations reporting from barely (Italy, South Korea) to mostly transparent policymaking (Finland, Hong Kong). The Global Competitiveness Report 2012-2013 (World Economic Forum, 2012) also constitutes the source for the coordinate government provision of services for improved business performance assessing the extent to which authorities financially support the public system. The present study includes countries providing scanty support (e.g., Greece) to extensively improved public goods (e.g., UAE). Wastefulness of government spending captures perceptions regarding a government's efficiency in managing public outlays as evaluated by experts and was also selected from the Global Competitiveness Report 2012-2013 (World Economic Forum, 2012). The countries investigated range from nations registering extremely wasteful (e.g., Brazil, Greece) to others with highly efficient public outlays (e.g., Switzerland, UAE).

#### 1.4 Power related coordinates

We considered the 2012 *Rule of Law* indicator provided by the World Bank Worldwide Governance Indicators (Kaufmann, Kraay, & Mastruzzi, 2010) as well as the World Justice Project *Rule* 

of Law Index 2012-2013. In the present sample, there are countries characterized by weak (e.g., Pakistan, Russia) to strong rule of law (e.g., Norway, Sweden). The Global Competitiveness Report 2012-2013 (World Economic Forum, 2012) provides information on the reliability of police services capturing perceptions regarding the capacity of police forces to enact the rule of law and secure public safety. The jurisdictions within our sample pool that registered the highest degrees of perceived capacity were Finland and Switzerland. At the other end, police officers from Mexico and Russia were perceived as the least capable. Judicial independence was also taken from the Global Competitiveness Report 2012-2013 (World Economic Forum, 2012). From our sample pool, countries like Canada, Finland, Ireland, and Switzerland register the highest level of perceived independence, while Greece, Romania, and Russia score lowest on this scale. Efficiency of legal framework in challenging regulations as indicated in the Global Competitiveness Report 2012-2013 (World Economic Forum, 2012) shows that our sample includes countries having an extremely inefficient (e.g., Greece, Hungary, Italy) to a highly efficient legal framework (e.g., Finland, Sweden, Switzerland). Willingness to delegate authority was also retrieved from the Global Competitiveness Report 2012-2013 (World Economic Forum, 2012) and measures perceptions regarding the degree to which subordinates are granted the power of decision. In the present sample, the Nordic countries (i.e., Finland, Norway, Sweden) have favored decentralization and give their subnational governments significant fiscal authority, while on the other side, governments in countries like Greece, Hungary, and Iran tend to refuse to do so.

Table S2 featuring trust and power related variables displays, among others, the congruence between our sample minimum and maximum values, on the one side, and the global extremes, on the other. Therefore, one can recognize that the 44 countries selected are appropriately widely distributed.

#### 2. Manipulation checks

## 2.1. Manipulation check trust

The first and second sequence of models with perceived trust and power scales as dependent variables serve to confirm that our manipulations of trust in authorities and power of authorities were successful.

With regard to the manipulation of trust (Table S3), in model 1 gender was identified as a significant predictor of perceived trust (B = -0.09, p = .027), indicating that men reported slightly higher trust than women. Age showed no effect on perceived trust (B = 0.00, p = .754), which is not surprising considering our homogeneous sample regarding this variable. In model 2, the fixed effects of trust, power, and their interaction were added. Describing authorities as untrustworthy versus trustworthy was found to be a significant predictor for participants' level of perceived trust (B = 3.07, p < .001). Power (B = 0.24, p < .001) also influenced perceived trust positively. The interaction term was also significant (B = 0.78, p < .001), implying that a combination of high trust and high power led to higher perceived trust than the additive effect of the two main effects. None of the demographics proved to be significant in model 2.

The random effects of trust, power, and their interaction were introduced in model 3. The fixed effects showed no major changes after accounting for random effects. With respect to random effects, the highest variation was observed for trust ( $\sigma^2 = 0.35$ ,  $\chi^2(4) = 189.10$ , p < .001), indicating that the effect of the trust manipulation, which was the strongest fixed effect, had the largest effect variation regarding between-country comparisons. Table S4 and Figure S1 illustrate these country differences. Note that in Table S4 regression coefficients for trust, power, and their interaction are presented for each country, including 95% confidence intervals. The reported random effect of trust with  $\sigma^2 = 0.35$  is based on these between-country variations depicted in Table S4. At a single country level, an effect is regarded as significant if the confidence interval does not include zero. Additionally, Figure S1 illustrates the country-specific effects reported in Table S4, complemented by the overall fixed effects of trust, power, and interaction as a vertical line, extended by a red shaded area that represents respectively the 95% confidence interval of the overall effect. If one of the country-specific confidence intervals does not overlap with the shaded area, we regard the respective country as deviating from the overall fixed effect. Note that this is for exploratory purposes and that we do not expect single countries to deviate. Also,

based on  $\alpha$  = .05, we can expect 5% of countries to deviate from the 95% confidence interval of the overall effect. Furthermore, this would not mean that the effect itself is not significant for this respective country, but first and foremost that there is a significant deviation in effect size from the overall effect. Note also that this test is conservative, as the overall fixed effect includes data also from the country which is compared against the overall effect. For instance, if we compare the effect of trust in the UAE against the overall fixed effect, we actually compare the effect in the UAE against the effect in the UAE plus the remaining 43 countries. In this case this is acceptable, as we do not hypothesize country differences. In case of proper hypotheses testing, one would have to compare the UAE against the remaining 43 countries.

A case in point, the overall fixed effect of trust was B = 3.04, whereas in the case of the UAE it was B = 1.49 with 95% confidence interval [1.09, 1.89] (see Table S4). This interval does not overlap with the overall fixed effect 95% confidence interval [2.86, 3.23]. For exploratory purposes we can thus conclude that the UAE significantly deviates from the overall fixed effect, which is graphically confirmed in Figure S1. Nevertheless, the fixed effect of trust is still significant in the UAE, since the confidence interval [1.09, 1.89] also does not include zero. From an exploratory standpoint, for our example provided, we can conclude that the effect of trust on perceived trust is smaller in the UAE compared with the total average of all countries, yet still observable. Regarding the general pattern of trust, the effect was significant in all 44 countries, as none of the country-specific effect intervals includes zero, although to different extents, as in ten cases the intervals do not overlap with the overall effect interval, which is represented in a significant random effect of trust. The random effect of power was less pronounced, with  $\sigma^2 = 0.09$ ,  $\chi^2(4) = 28.60$ , p < .001. As one can see in Table S4 and Figure S1, at a single-country level power was not significant in predicting perceived trust in a number of countries, while the overall fixed effect was significant. The interaction effect of trust and power had a variation of  $\sigma^2 = 0.18$ ,  $\chi^2(4) = 35.80$ , p < .001.

Model 3 had the lowest AIC with 55,012 indicating best model fit with an explained variance of 56% on level 1. In summary, participants in the high trust conditions perceived authorities in Varosia as more trustworthy in comparison with participants in the low trust conditions, thus revealing that the experimental manipulation of trust was successful.

Table S3: Results from multilevel modeling for the dependent variable manipulation check trust

	Mode	el 1	Model	1 2	Model	3	
Fixed effects	В	SE	В	SE	В	SE	
Intercept	4.60***	0.04	2.73***	0.04	2.73***	0.07	
Gender	$-0.09^*$	0.04	-0.05	0.03	-0.05	0.03	
Age	0.00	0.01	0.00	0.00	0.00	0.00	
Trust			3.07***	0.04	3.04***	0.10	
Power			0.24***	0.04	0.25***	0.06	
Interaction			$0.78^{***}$	0.05	$0.79^{***}$	0.08	
Random effects	$\sigma^2$		$\sigma^2$		$\sigma^2$		
Intercept	0.04		0.05		0.17		
Trust					0.35***		
Power					$0.09^{***}$		
Interaction					0.18***		
Residual	5.80	2.41	2.67	1.63	2.54	1.59	
Variance explained							
Level 1	0.00 of (	).993	0.54 of 0	.993	0.56 of 0	.993	
AIC	6674	66749		5	55012		

Note. N = 14,509. Trust and power were coded with 0 = low and 1 = high. The variable gender was coded with 0 = male and 1 = female. \*p < .05; \*\*p < .01; \*\*\*p < .001.

Table S4: Regression coefficients of trust, power, and their interaction for the manipulation check trust by country

			95%	CI		95%	6 CI		95%	% CI
	Intercept	Trust	LL	UL	Power	LL	UL	Interaction	LL	UL
Australia	2.56	3.55	3.17	3.93	0.19	-0.16	0.53	0.59	0.12	1.05
Austria	2.55	2.64	2.24	3.04	0.08	-0.27	0.43	1.37	0.89	1.86
Bhutan	3.48	2.04	1.64	2.44	0.42	0.07	0.78	0.18	-0.31	0.67
Brazil	2.55	3.27	2.87	3.67	-0.01	-0.36	0.34	0.61	0.12	1.09
Canada	2.89	3.22	2.80	3.64	0.12	-0.25	0.49	0.48	-0.01	0.98
China	2.94	2.97	2.59	3.36	-0.02	-0.36	0.32	0.86	0.39	1.32
Colombia	2.32	3.81	3.33	4.30	0.03	-0.38	0.45	1.14	0.59	1.69
Egypt	2.77	3.36	2.99	3.73	0.24	-0.09	0.57	0.37	-0.08	0.83
Finland	2.50	3.48	3.11	3.85	0.07	-0.26	0.40	1.00	0.54	1.45
France	2.73	2.95	2.55	3.35	0.16	-0.19	0.51	1.13	0.65	1.62
Germany	2.35	3.27	2.86	3.67	0.16	-0.19	0.52	1.06	0.58	1.55
Ghana	2.90	3.42	3.02	3.81	0.28	-0.07	0.63	0.75	0.28	1.23
Greece	2.34	3.51	3.10	3.92	0.19	-0.17	0.55	1.11	0.61	1.60
Hong Kong	3.08	2.45	2.04	2.85	0.16	-0.19	0.51	0.72	0.23	1.20
Hungary	2.64	2.61	2.19	3.03	0.72	0.36	1.09	0.82	0.32	1.32
Iceland	2.26	3.07	2.65	3.49	0.54	0.19	0.90	1.38	0.88	1.88
India	2.95	3.49	3.09	3.89	0.52	0.17	0.87	-0.10	-0.58	0.39
Indonesia	3.44	2.46	2.05	2.86	-0.04	-0.40	0.32	0.60	0.12	1.09
Iran	2.63	3.35	2.95	3.76	-0.07	-0.42	0.29	0.81	0.32	1.29
Ireland	2.87	3.07	2.70	3.44	0.66	0.33	0.99	0.25	-0.20	0.71
Israel	2.86	3.08	2.68	3.48	0.15	-0.20	0.50	0.73	0.25	1.21
Italy	2.36	3.33	2.92	3.73	0.13	0.43	1.14	1.02	0.23	1.51
Japan	2.50	3.07	2.68	3.46	-0.02	-0.36	0.32	0.87	0.33	1.34
Lithuania	2.86	3.11	2.71	3.51	0.20	-0.36	0.55	0.87	0.40	1.25
Malta	2.50	3.11	2.88	3.67	0.20	0.00	0.69	0.77	0.23	1.18
Mexico	2.60	3.50	3.09	3.91	0.33	0.08	0.81	0.71	-0.03	0.94
Morocco	3.84	1.88	1.48	2.28	0.50	0.15	0.86	0.51	0.03	0.99
Norway	2.12	3.51	3.12	3.90	0.22	-0.13	0.57	1.63	1.15	2.10
Pakistan	2.59	3.70	3.30	4.10	0.27	-0.09	0.62	1.07	0.59	1.55
Poland	2.83	2.83	2.43	3.23	0.28	-0.07	0.63	0.71	0.23	1.19
Portugal	2.43	2.67	2.25	3.10	0.30	-0.06	0.67	1.45	0.95	1.95
Romania	2.70	3.00	2.64	3.37	0.20	-0.13	0.53	0.62	0.16	1.07
Russia	2.58	2.87	2.48	3.26	0.15	-0.20	0.50	0.91	0.42	1.39
Slovenia	3.38	1.66	1.27	2.05	0.17	-0.18	0.52	0.56	0.08	1.03
South Africa	2.77	3.41	3.10	3.71	0.08	-0.20	0.37	0.48	0.09	0.88
South Korea	2.61	2.76	2.36	3.15	0.44	0.09	0.79	1.06	0.58	1.53
Spain	2.52	2.91	2.51	3.31	0.74	0.39	1.09	0.90	0.42	1.38
Sweden	1.91	3.89	3.51	4.26	0.20	-0.13	0.53	1.19	0.73	1.64
Switzerland	2.37	3.80	3.43	4.17	0.09	-0.23	0.41	1.03	0.59	1.48
Thailand	3.05	3.17	2.79	3.55	0.18	-0.17	0.53	0.52	0.05	0.99
Turkey	2.69	3.27	2.86	3.68	0.34	-0.02	0.70	0.80	0.31	1.29
UAE	3.70	1.49	1.09	1.89	-0.27	-0.62	0.08	0.65	0.17	1.13
UK	3.00	2.25	1.74	2.77	0.76	0.34	1.17	0.62	0.06	1.17
USA	2.73	3.53	3.13	3.93	0.05	-0.30	0.41	0.27	-0.21	0.75
Overall	2.73	3.04	2.86	3.23	0.25	0.14	0.37	0.79	0.62	0.95

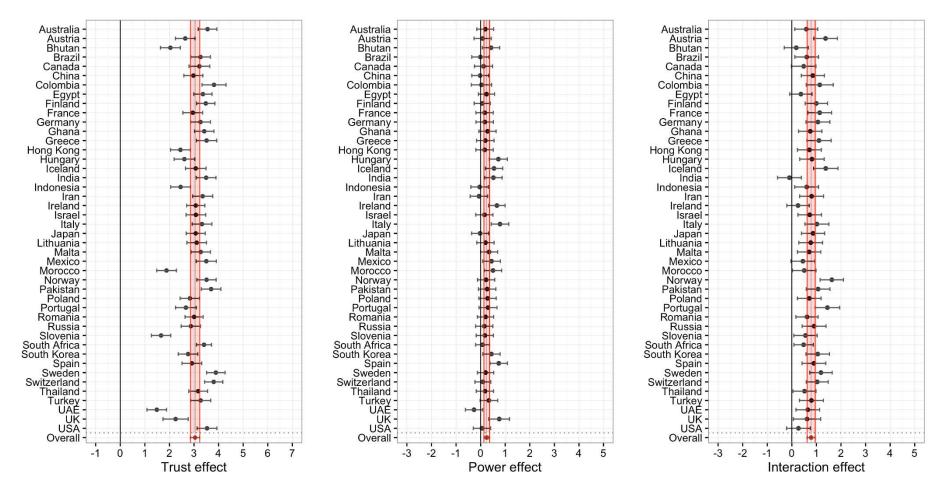


Figure S1. Regression coefficients of trust, power, and their interaction for the manipulation check trust by country. For each subfigure, the black vertical line represents a null effect. The thin vertical line illustrates the overall fixed effect parameter, which is augmented by two red lines representing the limits of the 95% confidence interval of the fixed effect, further highlighted by red shading. Black dots indicate country-specific effects, with 95% confidence intervals. If a country-specific interval does not include the null effect line, the country-specific effect is significant. If a country-specific interval does not overlap with the red shaded area, the country-specific effect significantly deviates from the overall fixed effect.

## 2.2. Manipulation check power

Considering the power manipulation (Table S5), the analysis in model 1 revealed a significant influence of gender on perceived power of authorities (B = 0.09, p = .042), with women showing slightly higher perception of power than men. Age again showed no significant effect (B = 0.01, p = .167). After introducing the experimental manipulation in model 2, the effect of gender remained significant (B = 0.08, p = .009). Perceived power was most strongly predicted by portraying the authorities as powerful (B = 3.67, p < .001). Both trust (B = 0.29, p < .001) and the interaction of power and trust (B = 0.31, p < .001) were positive predictors of perceived power, but had less impact. In model 3, the fixed effects showed no major deviation from model 2.

Introducing random effects (Table S6 and Figure S2) revealed a relatively high variation for the effect of power ( $\sigma^2 = 1.28$ ,  $\chi^2(4) = 792.20$ , p < .001). While the effect was significant in the same direction in all 44 countries, the most prominent deviations were the UAE on the low end, where the change from low power to high power increased perceived power only by 1.17 units; and Germany on the high end, where the same manipulation impacted on perceived power by 5.68 units, whereas the overall fixed effect was B = 3.66. The random effect of trust was not significant ( $\sigma^2 = 0.04$ ,  $\chi^2(4) = 8.80$ , p = .070). With respect to the interaction effect ( $\sigma^2 = 0.28 \chi^2(4) = 68.10$ , p < .001), the variation was significant, although in relative comparison with the random effect of power, rather small. There were two prominent outliers, namely India and Pakistan. India was the only country with a significant negative interaction coefficient (B = -1.22), while both main effects were positive. A closer look revealed that perceived power was highest in the condition of low trust and high power, while in all other countries it was highest in the condition combining high trust with high power. The case of Pakistan revealed an opposite interaction term, where a combination of high trust and high power led to especially high perceived power.

Despite evident deviations in impact, these results clearly show that the manipulation of power was successful in all countries. The highest model fit was observable in model 3 (lowest AIC), where explained variance was 60% on the individual level.

Table S5: Results from multilevel modeling for the dependent variable manipulation check power

	Mode	1 1	Model	1 2	Model	1 3
Fixed effects	В	SE	В	SE	В	SE
Intercept	4.90***	0.04	2.85***	0.04	2.86***	0.09
Gender	$0.09^{*}$	0.04	$0.08^{**}$	0.03	$0.06^{*}$	0.03
Age	0.01	0.01	0.00	0.00	0.01	0.00
Trust			$0.29^{***}$	0.04	$0.29^{***}$	0.05
Power			3.67***	0.04	3.66***	0.17
Interaction			0.31***	0.06	0.32***	0.10
Random effects	$\sigma^2$		$\sigma^2$		$\sigma^2$	
Intercept	0.02		0.03		0.34	
Trust					0.04	
Power					1.28***	
Interaction					$0.28^{***}$	
Residual	6.73		3.02		2.68	
Variance explained						
Level 1	0.00 of 0.997		0.55 of 0	.997	0.60 of 0	.997
AIC	68884		5726	7	5579	3

Note. N = 14,509. Trust and power were coded with 0 = low and 1 = high. The variable gender was coded with 0 = male and 1 = female. \*p < .05; \*\*p < .01; \*\*\*p < .001.

Table S6: Regression coefficients of trust, power, and their interaction for the manipulation check power by country

			95%	· CI		95%	6 CI		959	% CI
	Intercept	Trust	LL	UL	Power	LL	UL	Interaction	LL	UL
Australia	2.59	0.31	0.04	0.57	4.33	3.92	4.74	0.24	-0.22	0.70
Austria	2.65	0.09	-0.19	0.36	4.16	3.73	4.58	0.32	-0.15	0.80
Bhutan	4.02	0.51	0.23	0.78	1.72	1.28	2.15	-0.15	-0.64	0.33
Brazil	3.15	0.32	0.04	0.59	3.59	3.16	4.02	-0.13	-0.61	0.34
Canada	3.02	0.24	-0.04	0.52	3.75	3.29	4.21	0.01	-0.49	0.51
China	2.96	0.15	-0.12	0.42	2.88	2.47	3.29	0.88	0.42	1.34
Colombia	2.42	0.34	0.04	0.63	4.60	4.03	5.16	0.21	-0.37	0.79
Egypt	3.42	0.26	0.00	0.53	2.77	2.38	3.15	0.36	-0.08	0.80
Finland	1.97	0.31	0.04	0.57	5.57	5.18	5.96	0.10	-0.35	0.54
France	3.11	0.47	0.19	0.74	3.27	2.84	3.70	0.16	-0.32	0.63
Germany	1.97	0.11	-0.17	0.38	5.68	5.25	6.11	-0.01	-0.49	0.47
Ghana	3.05	0.37	0.10	0.64	3.56	3.14	3.98	0.21	-0.26	0.68
Greece	2.38	0.27	-0.01	0.55	4.53	4.09	4.97	0.28	-0.21	0.77
Hong Kong	3.08	0.24	-0.04	0.51	2.97	2.54	3.40	0.70	0.22	1.18
Hungary	2.26	0.13	-0.15	0.41	4.19	3.74	4.65	0.92	0.42	1.42
Iceland	2.36	0.20	-0.09	0.48	4.08	3.65	4.51	0.71	0.22	1.19
India	3.43	0.66	0.39	0.94	3.77	3.34	4.20	-1.22	-1.70	-0.74
Indonesia	4.13	0.43	0.15	0.70	1.66	1.23	2.10	0.14	-0.34	0.63
Iran	3.02	0.39	0.11	0.67	2.82	2.38	3.25	0.58	0.10	1.07
Ireland	2.87	0.37	0.11	0.64	2.90	2.50	3.30	1.11	0.65	1.56
Israel	2.78	0.37	0.11	0.65	4.29	3.86	4.71	-0.14	-0.62	0.33
Italy	2.78	0.37	0.10	0.69	5.28	4.84	5.72	-0.14 -0.14	-0.62	0.35
							4.80			
Japan	2.41	0.10	-0.17	0.37	4.39	3.98		0.54	0.08	1.00
Lithuania	3.25	0.23	-0.04	0.51	3.47	3.04	3.90	-0.01	-0.49	0.47
Malta	2.51	0.28	0.00	0.55	4.37	3.95	4.79	0.28	-0.19	0.75
Mexico	2.90	0.20	-0.08	0.48	3.99	3.54	4.43	-0.03	-0.52	0.45
Morocco	4.13	0.43	0.15	0.70	1.47	1.05	1.90	0.06	-0.41	0.54
Norway	2.19	0.14	-0.13	0.41	4.78	4.35	5.20	0.55	0.08	1.02
Pakistan	2.77	0.24	-0.03	0.52	2.22	1.79	2.65	2.04	1.56	2.51
Poland	2.32	0.10	-0.18	0.37	4.84	4.41	5.26	0.29	-0.18	0.77
Portugal	2.72	0.42	0.14	0.70	3.98	3.53	4.43	0.26	-0.23	0.76
Romania	3.28	0.39	0.13	0.66	2.25	1.86	2.64	0.77	0.33	1.21
Russia	3.01	0.13	-0.15	0.40	3.26	2.83	3.69	0.48	-0.01	0.97
Slovenia	3.54	0.25	-0.02	0.52	2.19	1.76	2.61	0.42	-0.05	0.89
South Africa	3.24	0.34	0.10	0.58	3.15	2.84	3.47	0.14	-0.24	0.52
South Korea	2.44	0.18	-0.09	0.45	3.95	3.52	4.38	0.80	0.32	1.27
Spain	2.60	0.30	0.03	0.58	4.00	3.57	4.43	0.52	0.04	1.00
Sweden	2.08	0.19	-0.08	0.45	5.47	5.08	5.86	-0.01	-0.46	0.43
Switzerland	2.28	0.22	-0.05	0.48	5.04	4.68	5.41	0.06	-0.37	0.49
Thailand	2.83	0.40	0.13	0.67	4.14	3.71	4.57	0.02	-0.46	0.49
Turkey	2.22	0.23	-0.05	0.51	4.59	4.15	5.02	0.66	0.18	1.14
UAE	4.24	0.40	0.13	0.68	1.17	0.75	1.60	-0.04	-0.51	0.43
UK	3.17	0.55	0.25	0.85	2.45	1.88	3.02	0.85	0.28	1.43
USA	2.91	0.12	-0.16	0.39	3.67	3.24	4.10	0.29	-0.18	0.77
Overall	2.86	0.29	0.20	0.38	3.66	3.32	4.01	0.32	0.13	0.51

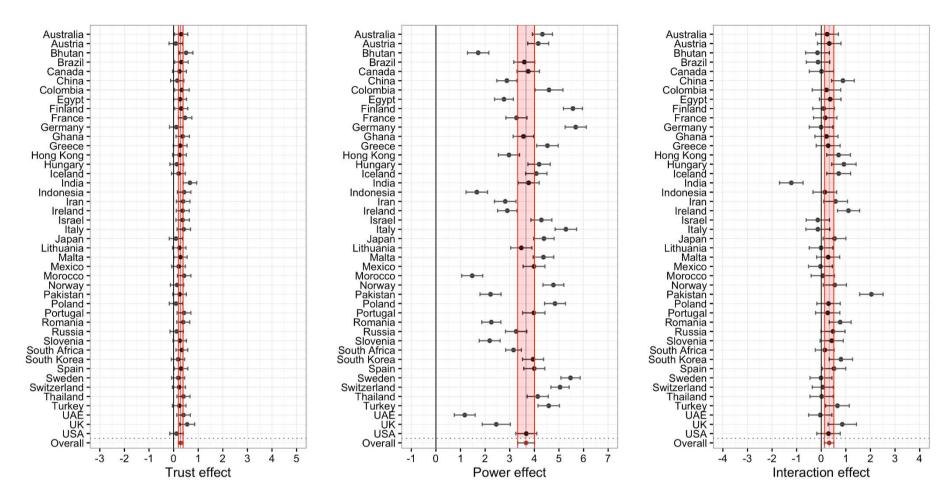


Figure S2. Regression coefficients of trust, power, and their interaction for the manipulation check power by country. For each subfigure, the black vertical line represents a null effect. The thin vertical line illustrates the overall fixed effect parameter, which is augmented by two red lines representing the limits of the 95% confidence interval of the fixed effect, further highlighted by red shading. Black dots indicate country-specific effects, with 95% confidence intervals. If a country-specific interval does not include the null effect line, the country-specific effect is significant. If a country-specific interval does not overlap with the red shaded area, the country-specific effect significantly deviates from the overall fixed effect.

Table S7: Regression coefficients of trust, power, and their interaction for intended tax compliance by country

			95%	CI		95%	CI		95%	CI
	Intercept	Trust	LL	UL	Power	LL	UL	Interaction	LL	UL
Australia	4.82	1.70	1.24	2.16	2.25	1.73	2.78	-0.87	-1.49	-0.25
Austria	4.76	1.23	0.75	1.70	1.89	1.35	2.43	-0.54	-1.18	0.10
Bhutan	4.32	1.43	0.95	1.90	1.31	0.76	1.85	-0.38	-1.02	0.26
Brazil	6.15	0.70	0.22	1.18	1.09	0.55	1.64	-0.28	-0.92	0.36
Canada	4.62	1.50	1.00	2.00	2.24	1.66	2.83	-0.69	-1.35	-0.02
China	4.50	1.35	0.88	1.81	1.78	1.25	2.30	0.01	-0.61	0.63
Colombia	5.84	0.93	0.37	1.49	1.07	0.37	1.76	0.03	-0.71	0.78
Egypt	4.94	1.74	1.29	2.19	1.28	0.79	1.77	-0.20	-0.80	0.40
Finland	5.26	1.62	1.17	2.07	2.11	1.61	2.61	-0.76	-1.36	-0.1
France	4.75	1.62	1.15	2.10	1.44	0.90	1.99	-0.20	-0.84	0.44
Germany	4.79	1.19	0.71	1.67	2.21	1.66	2.75	-0.47	-1.11	0.17
Ghana	4.37	1.79	1.32	2.26	1.58	1.04	2.11	-0.05	-0.68	0.58
Greece	5.42	1.09	0.60	1.58	1.57	1.02	2.13	-0.18	-0.83	$0.4^{\circ}$
Hong Kong	3.93	1.63	1.14	2.11	2.37	1.83	2.92	-0.48	-1.12	0.1
Hungary	5.33	0.98	0.48	1.48	1.44	0.86	2.01	-0.13	-0.79	0.5
Iceland	5.34	1.33	0.84	1.83	2.29	1.74	2.84	-0.96	-1.61	-0.3
India	5.20	1.92	1.44	2.40	0.70	0.16	1.25	-0.19	-0.83	0.4
Indonesia	5.49	1.35	0.87	1.83	0.71	0.15	1.26	-0.18	-0.82	0.4
Iran	3.42	1.97	1.49	2.45	0.77	0.22	1.33	0.33	-0.31	0.98
Ireland	4.74	1.14	0.69	1.58	1.32	0.82	1.82	0.28	-0.32	0.8
Israel	5.27	1.71	1.23	2.19	1.73	1.18	2.27	-0.65	-1.29	-0.02
Italy	5.71	1.71	0.71	1.66	1.73	1.13	2.37	-0.66	-1.30	-0.0
	4.46	1.19	1.04	1.00	3.08	2.55	3.61	-0.83	-1.45	-0.0
Japan Lithuania	5.25	1.30	0.82	1.76	1.26	0.72	1.81	-0.83	-1.43 -0.85	0.4
Malta	3.23 4.71	1.58	1.11	2.05	1.20	1.26	2.32	-0.21 -0.49		0.4
									-1.12	
Mexico	5.66	1.56	1.08	2.05	1.25	0.69	1.82	-0.82	-1.47	-0.1
Morocco	4.56	1.17	0.69	1.65	1.16	0.62	1.71	-0.08	-0.71	0.50
Norway	5.24	2.14	1.67	2.61	2.19	1.65	2.72	-1.15	-1.78	-0.52
Pakistan	5.57	1.01	0.53	1.48	-0.11	-0.66	0.43	1.43	0.79	2.0
Poland	5.04	1.31	0.84	1.79	2.27	1.73	2.81	-0.84	-1.48	-0.2
Portugal	4.99	1.50	1.00	2.01	1.62	1.04	2.20	-0.32	-0.98	0.34
Romania	5.10	1.09	0.64	1.53	0.77	0.28	1.27	-0.03	-0.63	0.5
Russia	4.69	1.30	0.84	1.76	1.56	1.03	2.10	-0.18	-0.82	0.40
Slovenia	4.86	0.75	0.27	1.22	0.84	0.30	1.38	0.16	-0.47	0.79
South Africa	5.72	1.13	0.75	1.51	1.14	0.73	1.54	-0.48	-1.00	0.0
South Korea	3.57	1.42	0.94	1.89	2.96	2.42	3.51	-0.43	-1.07	0.2
Spain	4.23	1.42	0.94	1.90	1.88	1.33	2.42	-0.32	-0.96	0.3
Sweden	4.54	2.13	1.67	2.58	2.72	2.22	3.22	-1.18	-1.78	-0.5
Switzerland	4.27	1.66	1.21	2.10	2.55	2.07	3.02	-0.95	-1.54	-0.3
Thailand	4.69	1.48	1.02	1.94	1.64	1.10	2.18	-0.25	-0.88	0.3
Turkey	4.59	1.79	1.30	2.28	1.68	1.12	2.23	-0.17	-0.81	0.4
UAE	4.08	1.14	0.67	1.62	0.91	0.37	1.45	-0.19	-0.83	0.44
UK	4.75	1.70	1.12	2.29	2.40	1.68	3.12	-1.00	-1.75	-0.24
USA	4.39	1.71	1.23	2.19	1.93	1.38	2.48	-0.34	-0.98	0.30
Overall	4.86	1.43	1.28	1.58	1.65	1.42	1.88	-0.36	-0.57	-0.15

Table S8: Regression coefficients of trust, power, and their interaction for voluntary tax compliance by country

			95%	CI		95%	6 CI		95%	CI
	Intercept	Trust	LL	UL	Power	LL	UL	Interaction	LL	UL
Australia	5.08	1.26	0.98	1.55	-0.33	-0.70	0.03	0.66	0.47	0.85
Austria	5.95	0.08	-0.22	0.37	-0.06	-0.44	0.31	0.14	-0.06	0.34
Bhutan	5.68	0.78	0.48	1.07	0.15	-0.23	0.53	0.23	0.03	0.44
Brazil	5.43	0.57	0.27	0.86	-0.47	-0.85	-0.09	0.52	0.32	0.72
Canada	5.41	0.97	0.66	1.28	0.01	-0.39	0.40	0.38	0.17	0.59
China	5.32	0.94	0.66	1.23	-0.46	-0.83	-0.10	0.62	0.43	0.82
Colombia	5.29	0.93	0.56	1.29	-0.26	-0.71	0.20	0.51	0.26	0.76
Egypt	5.43	1.01	0.74	1.28	-0.31	-0.65	0.04	0.56	0.38	0.74
Finland	5.52	1.14	0.87	1.40	-0.23	-0.58	0.12	0.54	0.36	0.73
France	4.97	1.05	0.76	1.34	-0.42	-0.80	-0.05	0.65	0.45	0.85
Germany	6.10	0.21	-0.09	0.51	-0.05	-0.43	0.33	0.16	-0.04	0.36
Ghana	5.21	1.24	0.95	1.53	0.22	-0.15	0.59	0.35	0.16	0.55
Greece	5.72	0.60	0.30	0.90	-0.50	-0.89	-0.12	0.53	0.32	0.73
Hong Kong	5.03	0.98	0.69	1.28	-0.18	-0.56	0.20	0.50	0.30	0.71
Hungary	5.75	0.77	0.46	1.08	-0.55	-0.94	-0.15	0.60	0.39	0.81
Iceland	6.13	0.84	0.53	1.15	-0.15	-0.53	0.23	0.38	0.18	0.59
India	5.45	1.30	1.00	1.59	-1.02	-1.39	-0.64	1.00	0.80	1.20
Indonesia	5.93	0.70	0.40	0.99	-0.06	-0.44	0.33	0.31	0.10	0.51
Iran	3.88	1.82	1.53	2.12	-0.06	-0.45	0.32	0.74	0.54	0.94
Ireland	5.38	0.79	0.52	1.05	0.05	-0.43	0.32	0.74	0.12	0.50
				1.52						
Israel	4.86	1.23	0.93		-0.96	-1.34	-0.58	0.99	0.79	1.19
Italy	6.03	0.75	0.45	1.04	-0.36	-0.74	0.03	0.47	0.27	0.68
Japan	5.10	0.96	0.67	1.24	-0.47	-0.84	-0.10	0.64	0.45	0.84
Lithuania	5.71	0.85	0.56	1.14	-0.35	-0.73	0.03	0.52	0.32	0.72
Malta	5.36	0.62	0.34	0.91	-0.22	-0.59	0.16	0.40	0.21	0.60
Mexico	5.68	0.73	0.43	1.03	-0.05	-0.44	0.33	0.33	0.12	0.53
Morocco	5.42	0.97	0.68	1.26	0.23	-0.15	0.60	0.26	0.06	0.46
Norway	5.85	1.41	1.13	1.69	-0.67	-1.05	-0.30	0.83	0.63	1.03
Pakistan	6.46	0.45	0.15	0.74	-0.07	-0.45	0.30	0.22	0.02	0.42
Poland	5.24	0.95	0.66	1.24	-0.42	-0.80	-0.05	0.61	0.41	0.81
Portugal	5.77	0.53	0.21	0.84	-0.09	-0.48	0.31	0.28	0.08	0.49
Romania	5.75	0.62	0.35	0.88	-0.04	-0.39	0.31	0.29	0.10	0.47
Russia	5.04	0.86	0.57	1.15	-0.55	-0.93	-0.17	0.66	0.46	0.87
Slovenia	5.16	0.45	0.17	0.74	0.16	-0.22	0.53	0.17	-0.03	0.37
South Africa	5.72	0.49	0.27	0.70	-0.38	-0.68	-0.09	0.43	0.28	0.59
South Korea	5.07	0.71	0.42	1.00	-0.21	-0.59	0.16	0.44	0.24	0.64
Spain	5.48	0.65	0.35	0.94	-0.09	-0.47	0.29	0.34	0.14	0.54
Sweden	5.56	1.21	0.94	1.48	-0.98	-1.33	-0.63	0.95	0.77	1.14
Switzerland	5.93	0.46	0.21	0.72	-0.14	-0.47	0.20	0.28	0.11	0.46
Thailand	6.19	0.76	0.48	1.04	-0.04	-0.41	0.34	0.30	0.10	0.50
Turkey	4.99	1.56	1.26	1.86	0.00	-0.38	0.38	0.57	0.37	0.77
UAE	4.53	0.95	0.66	1.24	-0.08	-0.46	0.29	0.47	0.27	0.67
UK	5.71	0.52	0.14	0.90	-0.14	-0.60	0.32	0.32	0.07	0.57
USA	5.24	1.03	0.73	1.32	-0.36	-0.74	0.02	0.60	0.40	0.80
Overall	5.47	0.86	0.72	0.99	-0.25	-0.38	-0.12	0.48	0.35	0.61

Table S9: Regression coefficients of trust, power, and their interaction for enforced tax compliance by country

			95%	CI		95%	CI		95%	c CI
	Intercept	Trust	LL	UL	Power	LL	UL	Interaction	LL	UL
Australia	2.99	0.44	-0.05	0.92	4.01	3.49	4.52	-0.80	-1.47	-0.13
Austria	5.02	-0.22	-0.73	0.29	0.97	0.44	1.50	0.36	-0.33	1.05
Bhutan	4.27	0.61	0.10	1.13	1.43	0.90	1.96	-0.44	-1.14	0.26
Brazil	4.24	-0.33	-0.84	0.18	1.99	1.46	2.52	0.23	-0.46	0.92
Canada	3.76	-0.32	-0.86	0.22	3.13	2.56	3.71	-0.11	-0.84	0.62
China	4.56	-0.08	-0.57	0.41	1.97	1.46	2.48	0.17	-0.50	0.84
Colombia	3.09	0.18	-0.44	0.80	3.05	2.35	3.74	-0.48	-1.32	0.35
Egypt	3.94	0.57	0.10	1.04	1.86	1.38	2.34	-0.40	-1.04	0.24
Finland	2.95	-0.14	-0.61	0.33	4.20	3.72	4.69	-0.43	-1.07	0.21
France	4.00	-0.01	-0.52	0.50	2.40	1.86	2.93	0.07	-0.62	0.76
Germany	5.00	-0.31	-0.82	0.20	1.09	0.56	1.63	0.81	0.11	1.51
Ghana	3.17	0.24	-0.26	0.74	2.95	2.43	3.47	-0.33	-1.01	0.35
Greece	3.39	-0.29	-0.82	0.23	3.55	3.01	4.10	-0.20	-0.91	0.51
Hong Kong	4.21	0.23	-0.28	0.75	2.18	1.65	2.72	-0.26	-0.96	0.44
Hungary	3.73	-0.30	-0.84	0.23	3.00	2.44	3.57	0.01	-0.72	0.73
Iceland	2.93	-0.06	-0.59	0.47	3.16	2.62	3.70	-0.70	-1.42	0.01
India	1.89	2.42	1.91	2.93	4.85	4.31	5.38	-3.15	-3.84	-2.46
Indonesia	4.85	0.22	-0.30	0.73	0.97	0.43	1.51	0.06	-0.64	0.75
Iran	3.02	0.25	-0.27	0.77	2.61	2.06	3.15	-0.06	-0.76	0.64
Ireland	3.50	-0.07	-0.54	0.40	2.41	1.92	2.89	0.94	0.31	1.58
Israel	3.64	-0.07	-0.58	0.44	3.10	2.56	3.63	-0.46	-1.15	0.23
	2.77	0.27	-0.38	0.44	3.63	3.09	3.03 4.17	-0.40	-1.13 -1.01	0.23
Italy										
Japan	4.14 3.84	-0.38	-0.87	0.12 0.32	2.90	2.38	3.42 3.09	0.18	-0.49	0.86 0.81
Lithuania		-0.19	-0.70		2.56	2.03		0.12	-0.57	
Malta	3.62	0.45	-0.06	0.95	2.90	2.37	3.42	-0.43	-1.11	0.25
Mexico	3.85	-0.29	-0.82	0.23	2.40	1.84	2.96	0.15	-0.56	0.85
Morocco	4.53	-0.42	-0.93	0.09	0.54	0.01	1.07	0.21	-0.48	0.90
Norway	2.61	-0.09	-0.59	0.41	4.01	3.48	4.54	-1.40	-2.08	-0.72
Pakistan	3.95	-0.17	-0.68	0.34	1.21	0.67	1.74	0.03	-0.66	0.72
Poland	3.58	-0.28	-0.79	0.22	3.16	2.63	3.69	0.08	-0.61	0.77
Portugal	3.13	0.33	-0.21	0.88	3.07	2.49	3.64	-0.59	-1.32	0.14
Romania	4.26	-0.42	-0.89	0.05	1.83	1.34	2.31	0.66	0.02	1.29
Russia	3.88	-0.28	-0.78	0.21	2.65	2.13	3.17	-0.22	-0.91	0.46
Slovenia	4.26	0.11	-0.40	0.61	2.13	1.60	2.66	-0.43	-1.11	0.25
South Africa	3.87	-0.09	-0.47	0.30	2.12	1.73	2.52	0.23	-0.30	0.76
South Korea	3.43	-0.12	-0.62	0.39	3.43	2.90	3.96	0.05	-0.63	0.74
Spain	3.60	-0.14	-0.65	0.37	2.83	2.29	3.36	-0.14	-0.84	0.55
Sweden	2.86	-0.16	-0.64	0.31	4.39	3.90	4.88	-0.68	-1.32	-0.03
Switzerland	4.17	0.42	-0.05	0.89	1.63	1.16	2.09	-0.66	-1.28	-0.03
Thailand	3.95	0.55	0.07	1.04	2.63	2.11	3.16	-0.42	-1.09	0.25
Turkey	2.79	0.07	-0.46	0.59	3.90	3.35	4.45	-0.15	-0.86	0.55
UAE	4.17	0.60	0.09	1.11	1.71	1.18	2.25	-0.86	-1.55	-0.17
UK	3.58	0.87	0.20	1.53	2.44	1.71	3.17	-0.54	-1.42	0.33
USA	3.30	0.19	-0.33	0.70	3.45	2.91	3.99	-0.49	-1.19	0.21
Overall	3.69	0.09	-0.10	0.27	2.65	2.33	2.96	-0.25	-0.49	0.00

Table S10: Regression coefficients of trust, power, and their interaction for tax evasion by country

			95%	6 CI		95%	6 CI		95%	6 CI
	Intercept	Trust	LL	UL	Power	LL	UL	Interaction	LL	UL
Australia	5.93	-0.71	-1.12	-0.30	-0.27	-0.65	0.10	-0.31	-0.76	0.14
Austria	6.50	-0.83	-1.25	-0.41	-0.41	-0.79	-0.03	0.24	-0.22	0.70
Bhutan	5.51	-0.08	-0.50	0.34	0.10	-0.28	0.47	-0.23	-0.69	0.23
Brazil	4.91	-0.26	-0.68	0.17	-0.08	-0.46	0.30	-0.31	-0.77	0.15
Canada	6.40	-0.68	-1.13	-0.24	-0.48	-0.88	-0.08	-0.07	-0.53	0.40
China	7.21	-0.92	-1.33	-0.51	-0.34	-0.71	0.03	-0.07	-0.52	0.38
Colombia	5.02	-0.23	-0.73	0.27	0.05	-0.38	0.49	-0.40	-0.89	0.09
Egypt	5.40	-0.38	-0.78	0.01	0.02	-0.34	0.38	-0.40	-0.84	0.04
Finland	5.45	-0.98	-1.37	-0.58	-0.54	-0.90	-0.18	-0.18	-0.62	0.26
France	6.09	-0.63	-1.06	-0.21	-0.17	-0.55	0.21	-0.21	-0.66	0.25
Germany	6.21	-0.66	-1.09	-0.24	-0.33	-0.71	0.06	-0.10	-0.56	0.36
Ghana	5.71	-0.92	-1.33	-0.50	-0.52	-0.89	-0.14	-0.16	-0.62	0.29
Greece	6.03	-0.66	-1.09	-0.23	-0.35	-0.74	0.03	0.03	-0.43	0.49
Hong Kong	6.94 6.41	-0.77	-1.19	-0.34 -0.27	-0.38 -0.25	-0.76	0.00	-0.21	-0.67	0.25
Hungary Iceland	5.34	-0.71 -0.65	-1.15 -1.08	-0.27 -0.22	-0.23 -0.56	-0.64 -0.94	0.14 -0.17	-0.14 -0.16	-0.61 -0.63	0.33
India	5.62	-0.03	-0.56	0.22	0.22	-0.94 -0.16	0.60	-0.16	-0.80	0.30
Indonesia	5.75	-0.13	-0.30	0.29	-0.05	-0.10	0.34	-0.34	-0.60	0.12
Iran	5.68	-0.01	-0.43	-0.48	-0.03	-0.43	-0.04	-0.14	-0.78	0.32
Ireland	6.03	-0.62	-1.01	-0.43	-0.43	-0.67	0.04	-0.32	-0.76	0.14
Israel	5.53	-0.72	-1.01	-0.23	-0.32	-0.86	-0.10	-0.12	-0.43	0.43
Italy	5.03	-0.72	-0.95	-0.30	-0.46	-0.52	0.24	-0.12	-0.62	0.34
Japan	5.49	-0.46	-0.87	-0.04	-0.30	-0.68	0.07	-0.35	-0.80	0.11
Lithuania	5.82	-0.47	-0.89	-0.05	-0.11	-0.49	0.26	-0.22	-0.68	0.24
Malta	6.32	-0.64	-1.06	-0.23	-0.31	-0.68	0.07	-0.01	-0.47	0.44
Mexico	5.94	-0.27	-0.71	0.16	-0.07	-0.46	0.32	-0.13	-0.60	0.33
Morocco	5.46	-0.14	-0.56	0.28	0.01	-0.37	0.39	-0.24	-0.70	0.22
Norway	5.52	-1.40	-1.81	-0.99	-0.81	-1.18	-0.43	-0.07	-0.52	0.39
Pakistan	4.40	0.18	-0.24	0.60	0.04	-0.34	0.42	-0.80	-1.26	-0.34
Poland	5.88	-0.60	-1.02	-0.18	-0.32	-0.70	0.06	-0.17	-0.63	0.28
Portugal	6.27	-0.65	-1.10	-0.20	-0.41	-0.81	-0.01	-0.07	-0.54	0.40
Romania	5.74	-0.68	-1.08	-0.29	-0.44	-0.80	-0.09	0.02	-0.42	0.46
Russia	6.29	-0.61	-1.02	-0.20	-0.36	-0.73	0.01	0.10	-0.36	0.55
Slovenia	6.18	-0.52	-0.94	-0.11	-0.10	-0.48	0.28	-0.27	-0.72	0.19
South Africa	5.40	-0.36	-0.69	-0.02	-0.23	-0.55	0.08	0.06	-0.34	0.46
South Korea	6.74	-0.53	-0.95	-0.11	-0.20	-0.58	0.18	-0.06	-0.52	0.40
Spain	6.21	-0.49	-0.92	-0.07	-0.33	-0.71	0.05	0.00	-0.46	0.46
Sweden	6.08	-1.13	-1.53	-0.73	-0.77	-1.14	-0.41	0.21	-0.24	0.65
Switzerland	6.50	-0.82	-1.21	-0.43	-0.53	-0.88	-0.17	-0.07	-0.51	0.37
Thailand	5.87	-0.19	-0.59	0.22	0.03	-0.34	0.40	-0.25	-0.71	0.20
Turkey	6.09	-0.87	-1.30	-0.43	-0.38	-0.77	0.01	-0.10	-0.56	0.37
UAE	5.04	0.05	-0.37	0.47	0.29	-0.09	0.67	-0.32	-0.77	0.14
UK	6.05	-0.80	-1.32	-0.28	-0.56	-1.01	-0.11	-0.04	-0.54	0.46
USA	5.64	-0.15	-0.57	0.28	-0.11	-0.49	0.27	-0.31	-0.77	0.15
Overall	5.86	-0.56	-0.70	-0.41	-0.27	-0.39	-0.14	-0.16	-0.31	0.00

## 3. Experimental questionnaire

All scenarios started as follows:

## Please read the following description of a country:

In the last census of population in April 2009 Varosia had [number of inhabitants in each participating country] inhabitants and the territory of Varosia occupies [area of each participating country]. The unemployment rate is at an average.

Subsequently, information regarding the manipulation of trust ([low] high) differed from one condition to other:

Since Varosia's autonomy it has been marked with a [low] high political stability and an [oligarchic (authority of few)] democratic government. [Seldom] Regularly referenda are held, in which the citizens of Varosia can co-decide in the legislation.

The government enjoys a [bad] good reputation in the population. It can be concluded from opinion polls that 70% of the citizens are [not] satisfied with the current government.

Varosia's legislation is [not] transparent and the government offers [no] the opportunity of free counselling on judicial subjects and tax issues in information centers. Furthermore, Varosia's public authorities are [little] very service-oriented and [not] interested in supporting Varosia's citizens.

The **budget expenditures** of the state are **[not]** traceable for Varosia's citizens, because they are **[not]** regularly informed about the use of tax money. In an opinion poll in October 2010 78% of Varosia's citizens indicated to **have** the **impression** that their tax **money** is **[not]** used reasonably.

Besides [a lot of] little tax money is embezzled by politicians. According to an international corruption index (CPI), Varosia is one of the countries with the [highest] lowest perceived corruption.

All these factors cause that the citizens of Varosia trust their country a [little] lot.

Afterwards, information concerning the manipulation of power ([low] high) was adapted to each condition:

The **prosecution of tax evaders** is **[not] very effective**. Because of the tax legislation it is [difficult] easy for the government to conduct audits on its citizens and therewith to chase tax evaders.

The government assigns a [low] high budget to the tax office to punish tax evasion. With the means at hand it is [not] possible for the tax office to employ qualified tax inspectors. In addition the members of the tax office of Varosia are perceived as [little] very present.

The chance to be audited for self-employed people is very [low] high. This is to say that self-employed are [not] audited very often. Therefore, [not] very many of the committed tax offences can be detected. Moreover, the fines for tax evasion are [not] very severe in Varosia. When tax evaders are detected, they do [not] have to anticipate severe fines. The tax office does [not] exercise benignity.

All these factors cause that the citizens of Varosia assess their government as [little] very powerful.

## Questionnaire

Imagine that you are living, working and paying taxes in Varosia. You are working as a self-employed and your business is running good. Your tax declaration is due and you have to pay taxes.

Manipulation check trust

The governmental authorities in Varosia act fairly towards their citizens.

In Varosia the interests of a few are considered stronger than the interests of the community.

The governmental institutions of Varosia act upon their citizens' interests.

## Manipulation check power

Chances that tax evasion will be detected in Varosia are high.

It is easy to evade taxes in Varosia.

The governmental institutions in Varosia are very effective in the suppression of tax criminality.

#### Intended tax compliance

How likely would you be to pay your tax completely honestly?

How much of your yearly income would you declare completely honestly?

How likely would you be to retain part of your taxes?

# Voluntary tax compliance

When I pay my taxes in Varosia as required by the regulations, I do so...

- ...because to me it's obvious that this is what you do.
- ...to support the state and other citizens.
- ...because I like to contribute to everyone's good.
- ...because for me it's the natural thing to do.
- ...because I regard it as my duty as citizen.

## Enforced tax compliance

When I pay my taxes in Varosia as required by the regulations, I do so...

- ... because a great many tax audits are carried out.
- ... because the tax office often carries out audits.
- ... because I know that I will be audited.
- ... because the punishments for tax evasion are very severe.
- ... because I do not know exactly how to evade taxes without attracting attention.

Tax evasion in the form of strategic tax paying

A customer paid in cash and did not require an invoice. You could intentionally omit this income on your tax return. How likely is it that you would omit this income?

You bought some of your goods privately. You could resell those goods later to established customers and omit the profit from this sale on your income tax return. How likely is it that you would omit the profit from this sale on your income tax return?

You could intentionally declare restaurant bills for meals you had with your friends as business meals. How likely is it that you would declare those restaurant bills as business meals?

You have been abroad to meet relatives and to have a short meeting with one of your suppliers. Regardless of this you could declare your expenses for the hotel and for the meals you invited your relatives to as business travel and business meal. How likely is it that you would declare your expenses as business travel or business meal?

Recently you took part in a project in an acquaintance's company. Now you could conceal this taxable additional income on your income tax return. How likely is it that you would conceal this additional income?

Perceived similarity of Varosia and the home country

How similar do you perceive the country of Varosia to be in comparison to your own country?

How similar do you perceive the power of authorities in the country of Varosia to be in comparison to your own country?

How similar do you perceive the trust in authorities in the country of Varosia to be in comparison to your own country?

#### References

- Alm, J., Martinez-Vazquez, J., & Schneider, F. (2004). 'Sizing' the problem of the hard-to-tax. In J. Alm, J. Martinez-Vazquez, & S. Wallace (Eds.), *Taxing the hard-to-tax: Lessons from theory and practice* (pp. 11-75). Amsterdam: Elsevier.
- Hassan, M., & Schneider, F. (2016). Size and development of the shadow economies of 157 worldwide countries: Updated and new measures from 1999 to 2013. *Journal of Global Economics*, 4(3), 218-231.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations*. London: Sage Publications.
- Hofstede insights: Culture compass (2014). Retrieved from http://geert-hofstede.com/countries.
- International Monetary Fund (2014). Per capita Gross Domestic Product estimates. Retrieved from http://www.imf.org/external/pubs/ft/weo/2011/02/weodata/weoselco.aspx?g=2001&sg=All+countries.
- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2010). The worldwide governance indicators: Methodology and analytical issues. *World Bank Policy Research Paper No. 5430*.
- Legatum Institute (2013). The 2013 Legatum Prosperity Index.
- Political Instability Index (2004). Retrieved from http://viewswire.eiu.com/site\_info.asp?info\_name=social\_unrest\_table&page=noads&rf=0.
- Population Reference Bureau (2015). 2012 World Population Data Sheet. Retrieved from http://www.prb.org/pdf12/2012-population-data-sheet\_eng.pdf.
- Porter, M. E., Stern, S., & Artavia Loría, R. (2014). 2014 Social Progress Index.
- Samovar, L. A., Porter, R. E., McDaniel, E. R., & Roy, C. S. (2013). *Communication between cultures*. Boston, MA: Wadsworth Cengage Learning.
- Smith, P. M. (1997). Assessing the size of the underground economy: The Statistics Canada perspective.In O. Lippert, & M. Walker (Eds.), *The underground economy: Global evidence of its size and impact* (pp. 11-36). Vancouver: Frasier Institute.
- The Heritage Foundation, & The Wall Street Journal (2013). 2013 Index of Economic Freedom.

- United Nations Development Programme (2013). Human Development Report 2013. The Rise of the South: Human Progress in a Diverse World.
- World Bank Worldwide Governance Indicators (2014). Retrieved from http://data.worldbank.org/data-catalog/worldwide-governance-indicators.
- World Economic Forum (2012). The Global Competitiveness Report 2012-2013.
- World Justice Project Rule of Law Index (2014). Retrieved from http://worldjusticeproject.org/endorsements.
- Zak, P. J., & Knack, S. (2001). Trust and growth. *Economic Journal*, 111(470), 295-321.