

The obligation to obey the law: exploring National Differences

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Abstract

People vary in the extent to which they generally feel obligated to obey the law. The Obligation to Obey the Law (OOL) plays a major role in how people respond to legal rules and whether they comply or violate such rules. Most existing research on OOL has been non-comparative. The present paper explores national differences in OOL by analyzing data from a survey conducted among a convenience sample (n=716) of law students in the Netherlands, the US, Israel, and China. In contrast to what existing research on procedural justice and OOL would lead us to expect, the data do not reveal significant differences in OOL across markedly different national populations. It explores why no such differences have been found and what the implications of these findings are for our understanding of OOL and compliance more broadly.

Keywords Obligation to obey the law \cdot Legitimacy \cdot Procedural justice \cdot Policing \cdot Law enforcement \cdot Compliance

Introduction

People have different views about whether they should follow the law. For some, following the law is conditional, for instance on whether the law is enforced, whether it is fair, and whether others follow it. Yet, others see following the law as an

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obligation that exists regardless of the law's contents, its enforcement, or how other people respond to it. As such, there are differences in how people perceive an Obligation to Obey the Law (OOL; Tyler, 1997, 2006, Fine et al., 2020, Fine et al., 2016, Fine & van Rooij, 2021).

Tom Tyler's original studies of OOL from almost three decades ago linked OOL to how people viewed the legitimacy of the legal system, suggesting that legitimacy is driven by how people perceive the procedural justice of how legal rules were produced and enforced (Tyler, 1997, 2006). He showed that OOL was a major reason why people follow the law. Subsequent research has confirmed these general propositions and has generalized them across criminal justice and other legal domains (reviewed in Walters & Bolger, 2019, Nagin & Telep, 2017, Tyler, 2017), though more causal and experimental work is necessary (Nagin & Telep, 2017).

In the decades following Tyler's original work, while the literature on procedural justice and legitimacy has increased exponentially, there has been comparatively less scholarly interest in analyzing OOL itself. Consistent with Tyler's original work, many scholars have continue to use the terms OOL and legitimacy interchangeably or consider OOL to be an element of the broader concept of legitimacy, and thus did not seek to study OOL itself (Fine & Cauffman, 2015; Gifford & Reisig, 2019). Recently, this has started to change as several studies showed that OOL and legitimacy may be theoretically and empirically distinct (Bottoms & Tankebe, 2012; Gau, 2014; Gau, 2015; Jackson, 2018; Reisig et al., 2007; Tankebe, 2014; Tankebe et al., 2016). In light of this, some scholars have returned to trying to understand variation in OOL by studying OOL directly. This has produced new measures to capture OOL, such as the Rule Orientation scale (Fine et al., 2016; Fine et al., 2020; Fine & van Rooij, 2021) and the normative and non-normative duty to obey obligation to the law scales (Posch et al., 2020). It has also led to a renewed interst into what may explain variation in OOL.

Most research here has focused on understanding how OOL relates to how people experience procedural justice when interacting with criminal justice system actors, finding that when they view the system as acting fairly, they tend to feel more obligated to obey the law or officers' directives (Mazerolle et al., 2013; Moule Jr et al., 2019; Reisig et al., 2012; Tankebe et al., 2016; Walters & Bolger, 2019). A recent series of studies has shown that there are also other influences on OOL, including impulsivity (Fine & van Rooij, 2021), morality and values (Fine et al., 2016), teacher legitimacy (Fine & van Rooij, 2021), and parental influence on children (Fine et al., 2020).

Studies of OOL have used surveys that include a measure of OOL and measures for influences on OOL or measures of crime or compliance. They have done so in distinct national contexts, with most studies focusing on the US or UK, but also increasingly studies focusing on particular other national contexts including for instance those in Africa, the Caribbean, and Asia (cf. Akinlabi & Murphy, 2018; Boateng et al., 2022; Johnson et al., 2014; Kim et al., 2019; Sun et al., 2018). While we may thus get some idea on OOL in different national contexts there has not been a study yet that attempts to directly compare OOL in one study design that allows for a proper comparison. This is a major lacuna in our knowledge of OOL, as we thus do not yet have a proper comparative understanding of OOL. As OOL relates to how people perceive the fairness and legitimacy of the legal system, one would expect that OOL would be different in different national populations who are governed by different legal and political systems. Yet, we do not know whether this is actually the case.

This study presents a first exploration of a comparative analysis of OOL. It compares OOL in a convenience sample of law students in the US, the Netherlands, Israel, and China. We selected these four countries because they allow us to compare OOL in countries that are different in their legal and political systems, and on relevant cultural values including Hofstede's (1984) cultural dimensions, such as power distance, individualism/collectivism, and indulgence/restraint, as well as tight-looseness (Eriksson et al., 2021; Gelfand et al., 2011; Lu et al., 2017). As exploratory study, the present research seeks to see whether OOL is different in different national contexts and to explore what the answer to this question means for future comparative research about OOL.

Studies of the obligation to obey the law

Tom Tyler's original work on why people obey the law showed that apart from moral alignment, people's perceived OOL was a major factor in explaining why people follow or break rules (Tyler, 1997, 2006). This was a major breakthrough as it showed how societies can enhance compliance and decrease crime for rules that may have less moral support and where enforcement does not work well. It showed that legal systems can rely on a general duty people perceive to obey the law generally.

In the same body of research, Tyler argued that the OOL is strongly related to how people perceive the legitimacy of the legal system, and that such legitimacy depends on how people perceive how they have been treated by key actors in the system. The higher their perception of procedural justice (PJ), the higher the legitimacy, and the higher their OOL. Indeed, research consistently indicates that the way people perceive the procedural functioning of legal institutions, such as courts and law enforcement, impacts their views of the justice system's legitimacy and their obligation to obey the law (see Tyler, 2017, Moule Jr et al., 2019; Reisig et al., 2012; Tankebe et al., 2016; Walters & Bolger, 2019, but but see Nagin & Telep, 2017).

After Tyler's original work, for quite some time there was less interest in further exploring OOL itself, as most studies tended to blend it with the broader notion of legitimacy. Recently there has been a renewed interest in OOL specifically. Several scholars started to argue that OOL and legitimacy are distinct yet interrelated concepts that should be studied and measured separately (Bottoms & Tankebe, 2012; Fine et al., 2016; Gau, 2014; Maguire et al., 2017; Tankebe, 2013, 2014; Tankebe et al., 2016). Reviewing the state of the literature, Jackson tentatively concluded that, "we might want to treat obligation as an outcome of legitimacy rather than a component of legitimacy" (Jackson, 2018, p. 152; see also Fine & van Rooij, 2021). While this is still an open question, a body of recent work has developed new measures for OOL (Fine et al., 2016; Posch et al., 2020).

Following this, a series of studies led has sought to understand what may explain variation in OOL. This has led to an understanding that OOL does not solely depend

on how people perceive PJ in their legal system or on deterrence (Fine & van Rooij, 2021), but also on a range of other variables. One study (Fine et al., 2016) found that variation in OOL is closely associated to key moral scales such as mechanisms of moral disengagement (Bandura, 1999; Bandura et al., 1996) and dogmatism (Trohdall & Powell, 1965). Preliminary work suggests that OOL may follow a developmental pattern similar to the age-crime curve, and there may be consistent associations between parental OOL perceptions and those of their children, indicating an intergenerational socialization (Fine et al., 2020). Another study found that OOL is not only associated with how people perceive the legal context (as the pre-existing PJ-focused scholarship consistently found), but also associated with personal characteristics, notably impulsivity, and perceptions of the nonlegal social context, namely teacher legitimacy (Fine & van Rooij, 2021).

We thus have an initial picture of what may explain variation in OOL. When seen together, we may tentatively conclude that people's OOL depends on their views and experiences in the legal system (including PJ and deterrence), their developmental experiences, their personal morals and traits, and their views and experiences outside the legal system (Fine & van Rooij, 2021).

A comparative perspective on OOL

The body of work on OOL was developed solely through analysis of data collected from samples in the US. As such, the core findings about OOL cannot yet be generalized broadly to different national contexts. There are three key issues here.

First is that existing studies, both the recent work on OOL itself or the earlier broader work that combines OOL with legitimacy, find a clear link between OOL and perceptions of the legal system's functioning. Such perceptions are, of course, at least in part derived from the actual functioning of the legal system, and associations are likely bidirectional. Thus, different legal systems should produce different levels of perceived PJ and deterrence, and thus different levels of OOL. Yet we still lack an empirical analysis that directly compares OOL across different national legal contexts.

Second, we see that there is evidence that OOL is associated with people's morals and their socialization. Such morals and socialization may be very different in different national cultural contexts. There is a large body of work showing key national differences in cultural values that may be vital for OOL. Hofstede's (1984) influential work has, for instance, shown that national cultures are distinct in key cultural dimensions. These include how people view power hierarchies (power distance), how they value individual versus collective interests (individualism), whether they strive towards personal achievements and status (masculinity), whether they wish to avoid uncertainty by having clear norms (uncertainty avoidance), whether they have a preference for long-term traditions and norms (long term orientation), and to what extent they see it appropriate to indulge in their impulses (indulgence) (Hofstede, 1984). A recent, but increasingly influential, way to look at national culture was developed by Gelfand and colleagues. This body of work has shown that we can also distinguish national cultures in terms of how loose/tight they are, indicating the extent to which they have strong norms and the extent they accept deviance from such norms (Eriksson et al., 2021; Gelfand et al., 2011).

Third, studies have shown how such national cultural values are associated with illegal behavior and acceptance of such behavior. There have been several studies looking at associations between Hofstede's cultural dimensions and financial and white-collar crime. Their findings show that there is an association, albeit not one that is consistent over different crimes and cultural dimensions. Tsakumis et al. (2007), for instance, find that countries will have higher tax compliance when they have high power-distance, low individualism, and high uncertainty avoidance. Guritno et al. (2020) find that developing countries will have more corruption when they are less individualistic and lower uncertainty avoidance. Another study found that countries that have higher levels of individualism and power distance have a higher justification for tax evasion (Bani-Mustafa et al., 2020). Yamen et al. (2019) found that countries will have higher financial crime rates when they have low individualism, low uncertainty avoidance, and low long-term orientation. Moreover, there have also been some studies linking Gelfand's loose-tight culture measure to rule breaking and illegal behavior. Mejri et al. (2021) found that countries with a looser culture engage more in money laundering. Finally, Stamkou et al. (2019) found that countries with a tight culture, when presented with a norm adherence or norm violation scenario, had a strong preference for rule followers as their leaders.

This is not yet a mature body of work linking national culture to different forms of compliance behavior, as there are only a few studies in this area, findings are inconsistent, and there are no systematic reviews. However, there is indication that national cultural values seem to be associated with criminal behavior and acceptance of rule breaking. As such, it seems that OOL should also be different in different countries with different cultural dimensions and norms. But here also, we still lack an empirical study that compares OOL across different national cultural domains.

The present study

Altogether, there is ample justification to examine the obligation to obey the law across different national settings. OOL may by national setting due to differences in the operation of the legal system and perceptions of it, as well as different moral and social values. The present study offers a first exploration into differences in the OOL in different national contexts. We selected four countries that are diverse in terms of their legal systems as well as cultural domains. This study should in no way be viewed as a comprehensive exploration of national variation in legal systems and cultural values. This would require a much larger multi-country dataset as well as nationally representative samples that also attend to particular social and cultural groups within each nation. The study offers first explorative insights into how differences in national legal systems and cultures may explain variation in the felt obligation to obey the law among each nation's residents.

Drawing on the literatures discussed above that would lead us to believe that OOL would be different across different countries, we selected countries that varied across key metrics. A first difference is in the functioning of their legal systems. In

Table I wor	Id Bank W	oridwide Go	vernance II	idicators (20	17)			
	Governm tiveness	ent Effec-	Voice and ability	l Account-	Rule of Law		Control of Corrup- tion	
	Estimate	Percentile	Estimate	Percentile	Estimate	Percentile	Estimate	Percentile
Netherlands	1.9	97	1.6	99	1.8	97	1.9	95
US	1.6	93	1	82	1.6	92	1.4	89
Israel	1.4	89	0.7	70	1	82	0.8	80
China	0.4	68	-1.5	8	-0.3	44	-0.3	47

 Table 1
 World Bank Worldwide Governance Indicators (2017)

Source: https://databank.worldbank.org/data/source/worldwide-governance-indicators#

Table 1, we have outlined key differences in the functioning of the legal systems of the selected countries by using the 2017 World Bank Worldwide Governance Indicators. The Netherlands clearly scores at the top percentiles in terms of government effectiveness, voice and accountability, rule of law, and corruption control. The US follows with scores in the high 80s and low 90s. Israel ranks third with scores in the 80s for all but voice and accountability, where it scores lower at 70. Finally, China is the clear outlier, as it scores in the 8th percentile on voice and accountability and scores in the 40s for rule of law and corruption control. These World Bank Indicators thus give a picture of key aspects of the functioning of the legal system, in terms of its effectiveness, its voice and accountability, due process, and control of corruption. A second indication that China may be an outlier in its legal system can be found in the World Justice Project Rule of Law Index, 2021,¹ which ranks 139 countries on 8 core aspects and 44 sub-factors of the functioning of its legal system, using data from surveys with general population and experts. Unfortunately, Israel is not included in the dataset. These indicators include key aspects of both PJ and deterrence, including civic participation, equal treatment, due process, impartiality, application and enforcement of the law without improper influence, and effective enforcement. On this overall index. China is ranked 98th (out of 139), while the Netherlands is ranked 3rd and the United States 28th. The difference is even starker for the fundamental rights sub-set of indicators, which contains key PJ aspects, where China is ranked 136 and the Netherlands 8th and the US 42nd. Based on earlier work linking OOL to PJ and deterrence, we would expect China to be an outlier, as its lower national scores would likely be associated with a lower OOL.

A second aspect we considered when selecting the four countries is to capture differences in national cultural values. Here we draw on the empirical data of Hofstede on cultural dimensions (Guritno et al., 2020; Hofstede, 1984) and the data of Gelfand and colleagues on loose/tight cultures (Eriksson et al., 2021; Gelfand et al., 2011). Below in Fig. 1, we map the differences between the four selected countries in Hofstede's core six scales. China is an outlier with a stronger power distance, much lower individualism, lower uncertainty avoidance,

¹ https://worldjusticeproject.org/sites/default/files/documents/WJP-INDEX-21.pdf

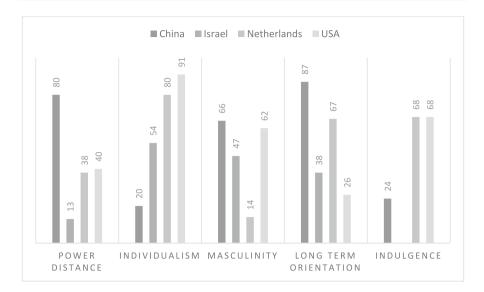


Fig.1 Differences between China, Israel, the Netherlands, and the United States in Hofstede's cultural dimensions. *Source:* https://www.hofstede-insights.com/country-comparison/china,israel,the-netherland s,the-usa/

a stronger long-term orientation, and low levels of indulgence compared to the other three countries. China and the US are similar in their higher levels of masculinity. While the research on how these dimensions link to rule violation, acceptance of rule violation, or OOL itself is sparse, there is a clear expectation that some of the key elements that have been found to associate with rule violating behavior or acceptance of such behavior should also be associated with OOL. And therefore, we would expect China, as an outlier on virtually all of these metrics, to score differently on OOL as compared to the other three countries.

Finally, when we look at the differences between Gelfand's loose-tightness scale, again China is an outlier. Israel is ranked 4th, the Netherlands ranked 5th, the US ranked 11th, and China ranked 25th out of 33 on the tightness scale on the original 2011 study (Gelfand et al., 2011). This again would lead us to expect that China would score differently in OOL than the other three countries.

Altogether, we selected four countries that clearly differ in the functioning of their legal system as well as on relevant cultural values. This allows us to explore whether OOL would vary in countries that have these differences, or whether OOL is similar despite these differences. The present study does not directly measure the functioning of the legal system or the relevant cultural values in these four countries, as existing empirical data, as outlined above already exists that shows well-established differences.

To explore whether OOL is indeed different in these four countries, the present study has conducted a survey amongst a convenience sample of law students. These students do not represent the national population or even the population of all law students. They constitute a convenience sample that allows a first exploration of potential national differences in OOL.

There is a danger in comparing different countries. There may be compounding variables that we cannot account for in our study that may explain differences or similarities in OOL. Our paper is explorative, as it offers a first attempt at direct comparison of OOL across different national contexts, but not one that systematically controls for all relevant differences. The paper does control for two relevant differences that are relevant for OOL perceptions amongst our law students. First, considering previous work suggests that OOL is associated with individuals' moral judgement (Fine et al., 2016; Fine & Van Rooij, 2017), we account for individual differences in moral disengagement (Bandura, 1999). Second, we account for how the participants have been educated in law. The latter measure looks at the extent the law is taught within its underlying moral context, and to what extent there is room for critique of the law professor in class. Students who are taught law without moral context and with less room for critique critical will more likely come to accept the law as it is more easily and thus also develop a higher level of OOL. Altogether, this enables us to assess differences by national context after accounting for legal education characteristics and individual differences in moral disengagement.

On the one hand following the ideas summarized above that link OOL to national legal and cultural differences, we would expect that study participants in China would have different OOL scores from participants in the Netherlands, the US, and Israel. Given the smaller, but still existing differences in governance performance and in cultural values between these last three countries, we also expect some differences in OOL there.

Methods

Participants and procedure

The sample consisted of 716 students attending a total of five highly-ranked law schools from four different countries: Israel (N = 248), China (N = 286), the Netherlands (N = 96, two law schools), and the US (N = 86). Students were approached on campus, in class, or via email to participate, and were given one week to return the completed questionnaire. The sample included 57.2% males, 38.1% females, and 4.6% not stating their gender. The students' ages ranged between 18 and 56 (M = 22.7, SD = 3.9).

Measures

Obligation to obey the law

To study OOL, we used the 12-item Rule Orientation scale (Fine et al., 2016; Fine & Van Rooij, 2017, 2021). This measure was inspired by Tyler's (2006) perceived obligation to obey the law measure, and the two are strongly correlated (Fine

Table 2 Correlation Matrix				
	1	2	3 ^A	4^{A}
1. Age	-			
2. Obligation to obey the law	.04	-		
3. Moral Disengagement	09*	36***	-	
4. Moral Discussion in legal education ^A	20***	02	.07	_
5. Critical Attitude in legal education ^A	.15***	.05	05	.09**

^ACorrelations with these items are Spearman's rho

p* < .05; *p* < .01; ****p* < .001

et al., 2016). Previous studies have conducted numerous psychometric analyses including convergent and divergent validity (e.g., Fine et al., 2016; Fine & Van Rooij, 2021). Answer choices were given on a seven-point Likert scale, ranging from strongly disagree to strongly agree. Items were reverse-scored and meanscored such that higher scores would indicate more OOL (M = 4.48, SD = .98, Range = $1.5, 7, \alpha = .80$).

Moral disengagement

Moral Disengagement (Bandura, 1999) was assessed using an 8-item index that measures the extent to which individuals are able to convince themselves that ethical standards do not apply to them in the situation they are facing. Participants are asked to indicate on a scale from one (strongly disagree) to seven (strongly *agree*) to what extent they agree with statements such as "Taking personal credit for ideas that were not your own is no big deal". Moral disengagement was calculated as the mean of the 8 items (M = 2.36, SD = .89, range = 1, 6.88, $\alpha = .74$).

Legal education

Using a seven-point scale ranging from a strongly disagree (1) to strongly agree (7), students self-reported their agreement with two items. The first assessed Moral Discussion in legal education: In class we often discuss the morality and *justice of law* (M = 4.08, SD = 1.96). This item measures the extent to which the law is viewed critically within its broader moral and ethical context or whether the law is simply accepted as it exists without deeper normative questions. The second item assessed Critical Attitude in legal education: Students frequently challenge views expressed by their law professors (M = 3.96, SD = 1.66). This item assessed the extent to which there is room for the students to challenge those of the professor in the student's legal education. Considering the items were not strongly correlated (Table 2), the items were treated as two independent variables.

Analytic plan

To examine what may predict variation in the obligation to obey the law and to identify potential controls for regression analyses, a correlation matrix was produced to examine relations between age, OOL, moral disengagement, moral discussion in legal education, and critical attitude in legal education. T-tests and analyses of variances were used to assess whether rule orientation varied by gender and nationality, respectively. Finally, a series of stepwise regression analyses were conducted to examine the association between OOL and these independent variables. In model 1, OOL was regressed on gender and age. Nationality was added to model 2, the two legal education questions were added to model 3, and moral disengagement was added to model 4.

Results

Analysis of variation in OOL

A correlation matrix examined relations between OOL and moral disengagement, moral discussion in legal education, and critical attitude in legal education, and age (Table 2). As expected, OOL was negatively correlated with moral disengagement and positively correlated with age. However, OOL was not associated with either legal education variable in the bivariate associations. Results of a t-test suggests males (M=4.55, SD=.97) reported more rule orientation than females (M=4.37, SD=1.01; p=.02).

On OOL, the four countries individually scored as follows: Israel (M=4.69, SD=1.11), Netherlands (M=4.26, SD=.84), China (M=4.35, SD=.87), and USA (M=4.53, SD=.96). Results of an ANOVA in OOL suggest there are significant differences between countries (F (3, 698) = 7.28, p<.001, η^2 =.03). A Tukey posthoc test revealed that Israeli law students reported significantly higher OOL than those in the Netherlands (p=.002) and those in China (p<.001). Israeli law students reported the same amount of OOL as US law students. No other differences were found.

Predicting variation in OOL

A series of regressions was conducted to examine the association between OOL and moral disengagement, moral discussion in legal education, critical attitude in legal education, age, gender, and country (Table 3). In Model 1, OOL was regressed on gender and age. Only gender was related to OOL, with males reporting more OOL than females. Nationality was added to Model 2, and the results suggested that the omnibus was significant (F(3, 663) = 6.07, p < .001). Israeli students reported significantly higher OOL than students in China and the Netherlands, and students in the United States did not report significantly different OOL than students in any other

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Table 3	Critica

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	Model 1			Model 2			Model 3			Model 4		
	<i>q</i>	$SE(b)$ β	β	<i>q</i>	$SE(b)$ β	β	<i>q</i>	SE(b)	$SE(b)$ β	<i>b</i>	SE(b)	β
Age	.02	.02 <.01	.07	.01	.01	40	.01	.01	.04	<.01	<.01 .03	.03
Gender ^a	.23**	.08	.12	.25** .08	.08	.13	.25** .08	.08	.13	60.	.08	.04
Country ^b												
Netherlands												
Israel				.15	.13	.07	.16	.14	.08	.19	.13	60.
China				17	.13	09	16	.15	08	.07	.15	.03
Netherlands				26	.15	-00	25	.16	08	18	.15	06
Moral Discussion in legal education							<01	.02	<01	<01	.02	<01
Critical Attitude in legal education ^A							<.01	.02	.01	.01	.02	.02
Moral Disengagement										38***	.06	34
R^2	.02			.04			.04			.14		
Model R^2 <i>adjusted</i>	.01			.03			.03			.13		
^a Female is reference group												
^b Compared to U.S.A.												
p < .05, p < .01, p < .01, p < .001												

country. The two legal education questions were added to Model 3. Multicollinearity was not an issue (VIFs < 3.89). The results indicated that neither variable was associated with OOL. Finally, moral disengagement was added to Model 4. The results suggest that moral disengagement was inversely associated with OOL.

Discussion

Tyler's original work (1997; 2006) positioned the felt obligation to obey the law as a critical mechanism for explaining why people obey – or break – the law. More recently, the OOL has typically been positioned as a mediator between procedural justice or legitimacy and law-related behavior. While studies are increasingly paying attention to the obligation to obey the law, studies have not begun examining potential national-level differences, despite clear reason to expect they may exist. This study used convenience samples of law students in four different countries – one in North America, two in Europe, and one in Asia – to examine whether there may be national variation in the felt obligation to obey the law. While not comprehensive, it represents an essential first step towards better understanding the felt obligation to obey the law between national contexts.

We had expected that China would be an outlier as it has a markedly different legal system. China is ranked far lower on two major worldwide indicators of the quality of legal institutions, both of which contain key elements of PJ and deterrence. Based on prior research finding a positive association between OOL with PJ and deterrence, we thus expected China to score lower on OOL than the Netherlands, the US, and Israel. Moreover, as the Netherlands, Israel, and the US also had differences on these indices and experiences with the legal system are also dissimilar in these three countries, we would even expect some national differences in OOL between these three. We also expected to find differences in OOL between the four groups of law students from these four countries due to national cultural differences. Here, again we most clearly expected China to be different because of its clear differences in the Hofstede cultural dimensions and on Gelfand's loose/tight scale. And also here, we expected to see differences in OOL between the other three countries as they also had differences on both scales. Contrary to expectations, the study did not find the expected differences in OOL in the four samples of law students from the four countries. Instead, consistent with prior research, the study indicates that differences in moral disengagement, and thus in individual differences in moral attitudes and values, provide the only significant predictor of variation in OOL.

Before we look at the implications of these findings, we must critically evaluate reasons why we may not have found the expected results. One potential explanation may be related to our convenience sample of law students in the four countries. Law students may be socialized and also self-selected to develop similar levels of variation in the OOL. Here, in particular, the globalization of legal education may lead to a convergence of values and perceptions of law students from different national settings (Dezalay & Garth, 2002; Garth, 2016; Garth & Shaffer, 2022). To test this idea, we conducted two short follow-up studies, one in the US (Supplementary Study 1) and one in China (Supplementary Study 2), comparing OOL across

different samples of students across disciplines: law, sciences or social sciences, business or accounting, or other disciplines. In doing so, it tests whether self-selection or socialization in higher education may affect variation in OOL (full methods and results are reported in the supplemental materials). The findings from both studies (in the US and in China) indicated that law students did not report different levels of OOL from students in other disciplines. Therefore, there is no clear indication that the lack of differences in OOL across the four samples of law students is an artifact of our sample of law students. If that were the case, we would expect to find differences between OOL amongst law students and students from other disciplines. Certainly, more research is necessary, but this gives us more confidence in our null findings with these unique, non-representative, and convenience samples.

A second potential explanation for the study's lack of finding cross-national differences in OOL may lie in the complexity of national level influences on people's individual OOL. Here, cultural influences are highly complex. Existing research on the relationship between aspects of national culture and rule breaking and acceptance of rule breaking is still very much in development. As we outlined earlier, the existing research has mixed findings, for instance some studies showing that higher individualism relates to more rule deviance, while others show that lower individualism has such effect. With such complexity, national differences in legal systems and cultural values may balance each other out to negate differences in OOL. At present, we cannot test this given the exploratory nature of our study. However, it seems highly unlikely that this is the case, given how large the differences between some of the countries (most notably China) and how small the differences in OOL are.

We tentatively conclude that we do not find significant national differences in OOL between the samples of students studied in these four countries. Importantly, we do not have a clear explanation of why no differences were found, nor a reason to doubt our null findings as artefacts of our study design. These findings have potential implications for our understanding of OOL and for further research into OOL and its underlying influences. A first implication is that OOL may not be linked to differences in the legal context across nations, as prior research would expect us to believe. A second implication is that people's OOL, and thus their core sense of whether they should obey legal rules, may not be related to broad national cultural values such as whether their society has a tight or loose view of norms or whether the society has preferences on values such as individualism, personal gains and status, risk avoidance, or power hierarchies.

OOL, instead, seems to vary at the individual level. In this study, OOL is related to personal moral views. This is in line with earlier findings about OOL showing how it is connected with morals and impulsivity (Fine et al., 2016; Fine & van Rooij, 2021). Combined with prior studies of OOL, this seems to indicate that people vary individually in how they view their duty to obey rules and do so based on their own traits and early socialization (Fine et al., 2020), and not clearly because of national differences in legal systems or broad cultural norms in their society at large. Of course, we cannot separate the broader macro context from the individual differences and development. People's morals and socializations are, to some extent, shaped by the broader cultural context, and interactions with legal institutions must have some role in impacting their legitimacy views. Our findings do not question

this. What they do indicate is that the relationship between the personalized OOL and the broader legal and cultural context may not always (at least not in our sample) operate in a direct and clear manner. OOL may, instead, be more of an individual-level factor than a societal one.

This study is not without its limitations. First, scholars have recently argued that the obligation to obey the law may consist of two different constructs that require different measures: moral obedience and instrumental obedience (Posch et al., 2020). Moral obedience refers to feeling obligated to obey the law out of active and willing consent, namely because one's morals align with the law (Posch et al., 2020). It is voluntary and consensual in nature, and it is the type of obligation Tyler originally wrote about. In contrast, instrumental obedience is essentially obedience from "pragmatism in the face of powerlessness" (Posch et al., 2020, p. 10). Bottoms and Tankebe have come to a similar conclusion, using the term dull compulsion to indicate that an obligation to obey the law may arise not just from true legitimacy, but also from a powerlessness that forces people to acquiesce with commands and rules (Bottoms & Tankebe, 2012). This points to an alternative instrumental obedience explanation of OOL rooted in powerlessness and coercion and driven by a combination of fear and rational choice. More research is necessary using these alternative measures of assessing the felt obligation to obey the law that can parse cleanly between moral and instrumental obedience.

Second, while we recruited samples in four nations across three continents, the study only represents a first step towards understanding the felt obligation to obey the law between national contexts. Future research should include a wider array of nations and samples that may be more representative of the countries. The convenience samples are neither representative nor generalizable, and we were missing key variables that would enable us to ensure the samples were similar on key metrics before conducting the cross-national comparisons. In addition, it is not even assured that all students hold citizenship in the countries they were studying in, as for instance some students in US law schools are not American citizens. Third, considering the cross-sectional design, the results are neither causal nor deterministic. Finally, we recognize the pluralism within nations. Future researchers should clearly take that into consideration when designing national-level studies.

Conclusion

The obligation to obey the law is critical for understanding how humans respond to law. Existing empirical work has established that it can explain compliance even in a context where there is limited moral alignment and law enforcement. As such, OOL is considered to be vital for the functioning of our legal systems and rule of law. The present paper sought to explore the study of OOL in different national contexts. It sought to do so to gain a better understanding of how different national legal and cultural contexts may explain differences in OOL and to offer a first attempt at generalizing OOL analysis beyond the study of data from US samples. The data show that there is no clear variation in OOL amongst samples studied in different countries, even though in the selected countries there were large differences in the functioning of their legal systems and their cultural values. This indicates that OOL seems to be most closely aligned to people's individual characteristics, morals and early socialization (cf. Fine et al., 2016; Fine et al., 2020; Fine & van Rooij, 2021), and less clearly so to the broader legal system and cultural values.

This study's limitations point to a new research agenda. As it uses a convenience sample of law students and could not correct for all possible relevant differences between the countries, this study cannot claim representativeness in the four countries studied. Future research should use these exploratory findings to develop a systematic study of OOL across a large set of national contexts. In doing so, such research should conduct surveys of OOL amongst representative populations of a systematically selected larger set of countries. The surveys should be designed so that the studies can assess mechanisms through which national legal and cultural contexts come to affect OOL, by including questions for instance on PJ, deterrence, moral reasoning, and socialization, and considering multiple types of OOL (e.g., consensual versus coercive). Such research is of high relevance, not just for questions of policing and crime control where the body of work originated, but also for understanding how societies shape the obligation to obey the law that is so vital for their overall functioning and rule of law.

Appendix

Obligation to obey the law (OOL). We used the 12-item Rule Orientation scale (see Fine et al., 2016; Fine & van Rooij, 2021). The introduction text read, "It is acceptable to break a legal rule if..." Answer choices were given on a seven-point Likert scale, ranging from *strongly disagree* to *strongly agree*.

- (1) The legal rule is clearly against your moral principles
- (2) This legal rule makes unreasonable demands of you
- (3) Obeying this legal rule is very expensive for you
- (4) This legal rule is not enforced
- (5) Most of your direct colleagues and/or friends also break this legal rule
- (6) You are in one way or another unable to do what this legal rule asks of you
- (7) Most of your direct colleagues and/or friends think breaking the legal rule is justified
- (8) You do not know this legal rule
- (9) You do not understand this legal rule
- (10) This legal rule has not been published
- (11) You feel that this legal rule was made without representing your interests
- (12) You think this legal rule is enforced unfairly.

Moral Disengagement. Drawn from Bandura's original work on morality (e.g., Bandura, 1999; Bandura et al., 1996; Bandura et al., 2001), Moore and colleagues (2012) developed an 8-item measure of the mechanisms of moral disengagement. Answers were on a seven-point Likert scale from *fully disagree* to *fully agree*.

- (1) it is okay to spread rumors to defend those you care about
- (2) taking something without the owner's permission is okay as long as you are just borrowing it
- (3) considering the ways people grossly misrepresent themselves, it is hardly a sin to inflate your own credentials a bit
- (4) people should not be held accountable for doing questionable things when they were just doing what an authority figure told them to do
- (5) people cannot be blamed for doing things that are technically wrong when all their friends are doing it too
- (6) taking personal credit for ideas that were not your own is no big deal
- (7) some people have to be treated roughly, because they lack feelings that can be hurt
- (8) people who get mistreated have usually done something to bring it on themselves.

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Data availability The corresponding author can be contacted with questions about the data and access to the data.

Declarations

Competing interests The authors declare no competing interests.

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