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Legitimacy versus morality: Why do the Chinese obey the law?

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Legitimacy versus Morality: Why Do the Chinese Obey the Law?

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This study explored two aspects of the rule of law in China: (1) motivations for compliance with 4 groups of everyday laws and regulations and (2) determinants of the legitimacy of legal authorities. We applied a structural equations model, constructed from Tyler's conceptual process-based self-regulation model with morality added as a motivation, to online questionnaire responses from 1,000 Shanghai drivers. We explored the compliance with four particular groups of laws: public disturbance; conventional traffic laws; illegal downloading; and distracted driving. The results were threefold. First, for all four groups of laws, the perceived morality influenced compliance consistently and more strongly than the perceived legitimacy of the authorities and all other motivations. The influence of perceived legitimacy of authorities was inconsistent across the four groups of laws tested. Second, the influence of perceived severity of punishment was consistent and significant across all four groups of laws, whereas perceived risk of apprehension had no significant impact on compliance. Third, evaluations of procedural fairness, not those concerning the equitable distribution of law enforcement services and effectiveness of law enforcement, were most strongly linked to legitimacy. In addition to showing that China is a law-abiding society governed by morality, these results underscore the importance of examining morality and magnitude of punishment as potential motivations for compliance in addition to legitimacy and certainty of punishment. They also illustrate the necessity to examine different groups of laws separately when studying compliance. Finally, these results challenge the linkage between legitimacy and compliance previously established in the literature.

Public Significance Statement
This study of Shanghai residents underscores the importance of normative motivations in compliance with law. Perceived morality is found to influence compliance consistently and more strongly than all other motivations. In addition, the study identifies procedural fairness as the primary antecedent of legitimacy. These findings show that focusing on moral inculcation and enforcing the law fairly are more important than expending more public resources on enforcement in obtaining compliance with the law and maintaining social order.

It is incumbent on every society to prevent people from undertaking certain types of behavior that are beneficial to the individual but harmful to others or society as a whole (Tyler, 1990). Some societies delegate authority to formal leaders to control people's behavior (Samuelson, Messick, Rutte, & Wilke, 1984), whereas others formulate rules that govern people's behavior, some of which eventually enter formalized law (Fuller, 1971; Posner, 1997). In addition to crafting laws, societies form governments and legal institutions to interpret and enforce the laws and, for a society to function properly, citizens must comply with the rules and obey the decisions of legal authorities. Thus, it is important for those interested in the rule of law, particularly authorities interested in obtaining compliance with the law, to understand motivations for compliance with the law and to identify the attributes of governance that are relevant to compliance. However, motivations to comply with the law may vary from one society to another (Tyler & Darley, 2000), and therefore, in this article, we adopted a behavioral approach to explore motivations for compliance in China, a setting that behavioral researchers have yet to explore. In so doing, we utilized a comprehensive framework of motivations for compliance.

In this study, we examined two overarching research questions: (1) what motivates the Chinese to comply with everyday laws and regulations? (2) what determines perceptions about the legitimacy of legal authorities? In answering these questions, we tested the two-stage process-based self-regulation model (Tyler & Huo, 2002), each stage of which—the motivation-compliance stage and the antecedent-legitimacy stage—answers one of our proposed research questions.

In answering our two research questions, we aimed to describe an aspect of the rule of law in China by comparing the influence of the various psychological forces on compliance and the influ-

ence of various evaluations of authorities on legitimacy. Based on the compliance literature and characteristics specific to Chinese society, we hypothesized that morality would be the strongest motivation on compliance, and that procedural fairness would be the predominant determinant of legitimacy.

Model of Compliance

To answer our first research question, we sought to identify motivations for compliance with the law in China. With respect to motivations for compliance, there are two predominant theories: The instrumental perspective emphasizes extrinsic factors such as rewards and punishments, whereas the normative perspective emphasizes intrinsic factors such as personal morality and perceptions about the legitimacy of authorities. Economists tend to approach an understanding of compliance through the instrumental perspective, whereas psychologists tend to use the normative perspective. As the results of previous literature and this study show, elements from both perspectives play important roles in compliance.

Traditional social theorists approach compliance from the instrumental perspective, which mostly assumes that external rewards and punishments motivate compliance and violations (Becker, 1968). Consequently, authorities influence behavior by allowing or denying access to social resources or by applying or threatening sanctions. In adopting the instrumental perspective to the study of compliance, economists have focused on the capacity of authorities to influence the expected cost of violating the law to the individual by adjusting the probability and magnitude of sanctions (Polinsky & Shavell, 1992; Posner, 1985).

Rewards, costs, and intrinsic motivations all influence compliance to some extent but scholars disagree on their relative importance. Economists tend to focus on extrinsic factors but an overemphasis on extrinsic motivations is counterproductive if it undermines intrinsic motivations. A strict focus on extrinsic motivations is neither desirable for authorities nor empirically sound. If people were largely motivated by rewards and costs, then it would cost the government so much to enforce laws that society would be in constant disarray (Saphire, 1978). In addition to amassing cost to the government, the enforcement of particular laws may bring about public resentment at the government encroachment. Kahan (2000) illustrated many cases where the fear of a public backlash against the enforcement of particular laws may create the "sticky norms problem" in which compliance actually decreases due to the reduced willingness to enforce the given law despite the increased severity of punishment. Moreover, even if the government could acquire the necessary resources through taxation, the transaction cost of obtaining and then expending these resources would make obtaining compliance difficult and potentially uncertain since the government may have limited capacity to collect tax revenues (Levi, Tyler, & Sacks, 2012).

Tyler's (1990) landmark work provides empirical evidence that validates the incorporation of normative, or intrinsic, motivations into the compliance framework (1990). In Tyler's framework, there are four motivations for compliance. There are two types of personal normative motivations: legitimacy and morality. *Morality* refers to the perceived morality of particular laws. *Legitimacy* refers to the perceived legitimacy of legal authorities. The legitimacy of legal authorities, in turn, is potentially influenced by procedural fairness, distributive fairness, and the effectiveness of law enforcement (Tyler, 1990). There is also an instrumental

motivation, risk, which stands for the certainty of punishment. The severity of punishment is not included as Tyler's research. Last, Tyler included peer approval as a motivation. Peer approval addresses social norms.

Tyler established his framework based on the finding that social scientists have identified two sources of motivation that compel people to obey the law: social relations and personal normative values. Posner (1997) and Shavell (2002), for example, referred to the potential feelings of "shame" and "guilt" evoked by social groups and personal values in breaking the law. Social groups can exert instrumental influence on the individual by providing or withdrawing signs of social status and respect (Wrong, 1980); they can also exert normative influence by signaling information about the aggregate social distribution of personal morality. Personal normative values refer to an individual's sense of what is right, and the influence of such is based not on material payoffs but on an assessment of what is appropriate. The independence of normative assessment from self-interest enables people to voluntarily comply even if compliance conflicts with their individual desires. Normative factors compel people to voluntarily comply with the law instead of complying in response to external changes. Psychologists thus refer to normative influences as *internalized obligations*. Hoffman (1977) argued that although norms stem from social influence and may contradict individual desires, they eventually become part of the individual's motives and shape their behavior.

Tyler separates personal norms into legitimacy and morality. Compliance based on legitimacy refers to the idea that people comply because they view the legal authority as legitimately entitled to influence their behavior; that is, people feel an obligation to obey the law because they recognize that they should behave in accordance with the commands of the legal authority (Friedman, 1975). Easton (1958) explicitly established legitimacy as a form of normative motivation for compliance by stating that an authority is legitimate if its people believe that they should voluntarily comply with the dictates of that authority. The other type of normative motivation is based on an individual's desire to act in accordance with his or her own sense of morality. Personal morality is an internalized obligation not to an authority but to one's own sense of moral appropriateness. Compliance based on morality refers to the idea that people refrain from breaking the law because behavior restricted by the law is deemed immoral (Tyler & Darley, 2000). Legitimacy and morality can both contribute to voluntary compliance with the law. Based on survey data ($n = 1,575$) from Chicago residents, Tyler concluded that morality and legitimacy are the most important motivations for compliance. Furthermore, he proposed a two-stage process-based self-regulation model in which compliance is motivated by legitimacy and legitimacy is predominantly determined by procedural fairness on behalf of the police in their interactions with citizens (Sunshine & Tyler, 2003; Tyler & Huo, 2002).

Tyler recognized that the importance of legitimacy and morality in motivating compliance may vary in different contexts (Tyler & Darley, 2000). It is important to consider both motivations when conducting other studies. Although empirical studies have been conducted in Australia (Murphy, Tyler, & Curtis, 2009), the United Kingdom (Jackson et al., 2012), Jamaica (Reisig & Lloyd, 2008), and Ghana (Tankebe, 2009; Tankebe, Reisig, & Wang, 2016), most such studies have excluded morality as a potential motivation for compliance and focused instead on legitimacy and its antecedents.

On the basis of Tyler's model, our model included two potential normative motivations for compliance: legitimacy and morality. From the vantage point of legal authorities, legitimacy is a more reliable source of compliance than morality because the obligation to obey may play a role in compliance with every law (Tyler, 2006). On the other hand, morality is specific to each law. People may voluntarily comply with a law if they feel that it is moral, or disobey to a greater extent than what the tangible evaluation of payoffs would indicate if they feel that the law is immoral. The morality of different laws and regulations will inevitably be evaluated differently and therefore the inclination to voluntarily comply may vary from one law to another. However, legitimacy should uniformly—at least in terms of direction, if not magnitude—influence the extent of voluntary compliance since the evaluation of legitimacy applies to entities that execute all laws: government structures, officials, and processes (Levi, Tyler, & Sacks, 2012). In comparison to morality, legitimacy provides authorities with discretionary power over a wider range of behaviors that they wish to influence. Moreover, legitimacy is more advantageous than morality because of the less expensive, more specific, and more flexible nature of laws in comparison to morality (Shavell, 2002). That is to say, moral inculcation requires years of effort by parents, schools, and potentially religious institutions, whereas laws can be passed and changed relatively quickly. Furthermore, legitimacy induces people to cooperate with and empower the police (Sunshine & Tyler, 2003; Tyler & Fagan, 2008). Beyond the realm of law, legitimacy has been shown to increase the likelihood of voluntary acts such as voting, military service, and participation in community problem solving (Levi & Sacks, 2007).

In particular instances, however, the manifestation of the internalized obligation to obey the law may clash with other internalized values. For example, when the law is inconsistent with a person's beliefs—on abortion, for example—the person may be compelled to behave in ways contrary to the dictates of authority. Another example of such conflict is when a person believes that it would be wrong to inform the authorities of a coconspirator in a crime (Posner, 1997). Yet another example is when a crime has been committed against an individual: The state usually adjudicates and executes the punishment against the offender, but the individual may perceive the punishment as inadequate or inconsistent with his personal beliefs and therefore seek personal vengeance (Tyler & Darley, 2000).

The distinction and potential conflict between legitimacy and morality necessitates the inclusion of morality in investigating the relationship between legitimacy and compliance. Although the obligation to obey is an internalized obligation just like morality, the extent to which legitimacy influences compliance in comparison to morality reflects the ability of authorities to obtain voluntary compliance with any law, as opposed to just those laws that citizens find appropriate.

In this respect, there are cultural and political factors specific to the United States that may enhance the influence of legitimacy in comparison to other societies. For example, Shavell (2002) pointed out that institutions such as the family unit that instill moral values have weakened in the United States. In comparison to the United States, in terms of the strength of institutions of moral inculcation, China seems more predisposed to be influenced by morality—a hypothesis that is to be tested in this article. Moreover, in a society like China where social hierarchy is dominant and egalitarianism is low (Hofstede, 1984; Licht, Goldschmidt, & Schwartz, 2007), respect is given to

individuals in positions of power rather than to laws and regulations (Gudykunst & Matsumoto, 1996). For example, based on a questionnaire to drivers in Beijing and Chengde, Xie and Parker (2002) found that the sense of social hierarchy that is prevalent in every part of Chinese society (Bond & Hwang, 1986) is manifested in drivers' attitudes toward traffic laws and authorities. A sense of the unfairness of traffic law enforcement is also related to violations thereof. The results of Xie and Parker's work would thus suggest that legitimacy manifested in the obligation to obey is low in China and that legitimacy influences compliance to a limited extent.

In this study we explored compliance with four particular categories of laws. The first group consisted of three items that we categorized as public disturbance. These types of laws have been included in Tyler's work (Tyler, 2006; Sunshine & Tyler, 2003). The second group consisted of two items that we categorized as conventional traffic laws, which included drunk driving and red-light running. We included these items after considering Tyler's work and literature on traffic violations. We also added two groups of violations that have arisen in response to recent changes in technology: illegal downloading and distracted driving. We attempted to explore potential differences in motivation for compliance with laws that have existed for long periods (like the first two groups in our study) and laws that have recently emerged to address the evolution of technology.

The lag between the emergence of new technologies and regulations governing their use can result in their unsafe or unethical use becoming social norms (Atchley, Hadlock, & Lane, 2012). In the United States, the policy-technology lag has manifested in driving while distracted by cell phones. Nelson, Atchley, and Little (2009) found that nearly 100% of teen drivers use their cell phones while driving. The rate of texting while driving varies from approximately 70% for writing texts (Nelson, Atchley, & Little, 2009; Atchley, Atwood, & Boulton, 2011) to approximately 92% for reading texts while driving (Atchley, Atwood, & Boulton, 2011). Over a quarter of vehicle crashes in the United States are related to cell-phone related distractions (National Safety Council, 2010) and automobile crashes are the leading cause of death in younger adults (Centers for Disease Control and Prevention, 2008). These statistics are quite worrisome, particularly since observation studies of driver behavior show that driving while texting poses a risk five to six times greater than that of drunk driving (Klauer, Dingus, Neale, Sudweeks, & Ramsey, 2006) and that even just talking on a hands-free phone is at least as mentally impairing as drunk driving (Strayer, Drews, & Crouch, 2006). Given the severity of harm caused by distracted driving and its relatively recent increase, we modeled distracted driving and other traffic violations as distinct groups of violations. The net cost to society and to merchants for downloading pirated material is difficult to estimate due to the lack of sources, the questionable assumptions and methodology of estimation, and ignorance of the potential benefits (Robertson & Boggio, 2014). Nevertheless, we investigated motivations for illegal downloading because it is a recent phenomenon and it poses a unique set of potential issues for government and industry.

Given the differing nature of these four groups of laws, we expected that normative and instrumental factors may influence compliance with each group differently. This modeling approach followed that of Jackson et al. (2012) in which laws and regulations were divided into categories in studying motivations for compliance. In addition, we considered the work of Ramcilovic-Suominen and Epstein (2015) in studying the influence of political

legitimacy and procedural fairness on forest rule compliance in Ghana, in which rules on bushfire, farming, and tree felling were modeled separately and differences in the influence of motivating factors were found among the three rules.

Overview of Present Research and Hypotheses

We applied Tyler's two-stage process-based self-regulation model in this study. Although we recognize that social and psychological processes are not necessarily established in the form of the two stages of our model, our model reflects legitimacy as both a potential motivation for compliance and a consequence of determinants such as procedural fairness. We included a motivation-compliance stage to answer the first overarching research question: What motivates the Chinese to comply with everyday laws and regulations? We also include an antecedent-legitimacy stage to answer the second overarching research question: What determines perceptions about the legitimacy of legal authorities?

The motivation-compliance stage identifies motivations for compliance with the law. We included both legitimacy and morality as potential normative motivations. In addition, we included certainty of punishment ("risk" in our model) and magnitude of punishment ("severity" in our model) as potential instrumental motivations. Our model thus comprised a comprehensive framework that incorporated both normative and instrumental motivations for compliance. We examined whether China is a law-abiding society by comparing the strengths of normative motivations with those of instrumental motivations. We also explored whether legal authorities in China should attempt to obtain compliance by increasing the severity of punishment or increasing its surveillance level to increase the probability of apprehension. In applying the theoretical model to our data, we separately examined four groups of violations (public disturbance, traditional traffic violations, illegal downloading, and distracted driving) as our dependent variables.

Our hypothesis for the first research question was that morality would be the strongest motivation for all four groups of laws and that legitimacy would be less strong than morality but still a significant motivation for all four groups. With respect to instrumental motivations, we hypothesized that the certainty of punishment would be a stronger motivation than the severity of punishment. Because of the lack of literature, we could not make any hypotheses about potential differences among the four groups of laws.

We did not intend for this study to be a comprehensive behavioral study of why people comply with the law. Instead, this study attempted to capture certain features of the legal institutions in China. Therefore, the influence of social norms and instrumental factors unrelated to those controlled by law enforcement were not included among potential motivations for compliance. For example, peer approval, a proxy for injunctive social norms, was absent from our model, as were the potential gains and danger that breaking traffic laws poses to personal safety (Yagil, 1998a, 1998b). We focused exclusively on attributes of governance that potentially influence compliance. Similarly, our exploration of the determinants of legitimacy was limited to state-society interactions only through law enforcement institutions, namely the police. Our model did not account for perceptions of the creation of laws and regulations by political institutions or those in charge of such institutions.

Regarding our second research question, we tried to identify the determinants of legitimacy. In the antecedent-legitimacy stage of the model, we compared the influence of procedural fairness on legitimacy with the influence of distributive fairness and police effectiveness. Procedural fairness refers to the practice whereby the police make decisions and exercise authority in an impartial manner (Sunshine & Tyler, 2003). Distributive fairness refers to the equitable provision of police services to all individuals and communities. Police effectiveness was measured in two parts: keeping neighborhoods safe and effectively responding to requests for help. As noted above, Tyler's previous work (2006; Sunshine & Tyler, 2003) identified procedural fairness as the primary determinant of legitimacy. Procedural fairness provides the means for strengthening legitimacy within the direct control of the authorities. On the other hand, the police can only partially control its performance, which is manifested objectively in the crime rate and subjectively in people's perceptions of police effectiveness, because a lack of resources may limit the effectiveness of the police and consequently of legitimacy.

Our hypothesis for the second research question is based on Tyler's research. We hypothesized that procedural fairness would have a stronger relationship with legitimacy than distributive fairness and the effectiveness of the police. Although this study takes place in context very different from Tyler's studies, the lack of literature in this field in China necessitated that we anticipate somewhat similar results to Tyler's studies.

In each stage of our model, we also explored the relationships between the dependent variable (compliance and legitimacy) and sociodemographic factors. The use of structural equation modeling also allowed us to examine these relationships and to explore potential heterogeneities in the population.

Method

The Committee on the Use of Humans as Experimental Subjects (COUHES) at the Massachusetts Institute of Technology (MIT) approved this study.

Participants

We conducted the survey in March 2016, in collaboration with the professional survey company Suzhou Zhongyan Network Technology Co. Ltd., whose subsidiary Idiaoyan operates the online survey platform www.wenjuan.com. Idiaoyan is a consumer behavior and market research company; it investigates car-related consumer behavior among numerous topics. The sample was selected from a database of approximately 124,956 car owners living in Shanghai. These individuals are registered members of the Idiaoyan online forum, have taken multiple online surveys, and have been verified by phone to be car owners. E-mails containing the survey invitation were sent to 13,000 randomly selected individuals, of whom 4,995 potential respondents visited the link, and 1,000 (20% of those who visited the link) completed the questionnaire. Respondents were offered an incentive of 18 CNY (equivalent to $US2.70) to complete the questionnaire.

We incorporated traffic laws in our study because of the predominant role played by the police in traffic law enforcement, the social and severe nature of traffic law violations, and the rapid motorization of China. However, the inclusion of traffic laws limited our sampling frame: as of 2014, drivers constitute only

approximately 16% of all Chinese people, and there is a strong gender gap in drivers (over 80% of whom are male). We stratified our sample along two sociodemographic dimensions: gender and *Hukou* (whether the respondent holds official local residence or migrant residence status). *Hukou* is a household registration system that identifies every person by name, birth date, gender, and official location of residence (city and province) and type (urban or rural). Governments use *Hukou* to indirectly control the migration of rural workers to cities (Afridi, Li, & Ren, 2015) by differentiating the social welfare package granted to urban and rural workers.

Because of the very small number of seniors in the survey company's database, the survey did not sample those over 60. In the targeted population (ages 20 to 59), the age band of 40 to 59 was heavily underrepresented, whereas the education level of participants was also much higher than that of the Shanghai population. We acknowledge that this is a major limitation in the sampling process. Appendix A shows a comparison between our sample and the Shanghai population.

Procedure

Participants who visited the link were directed to the online questionnaire on wenjuan.com. Prior to responding to any part of the questionnaire, participants were shown a page shat contained a brief description of the questionnaire as well as the consent to participate in nonbiomedical research form as approved by the COUHES at MIT. The page also showed the researcher's contact information for inquiries about any part of the survey. The page contained a statement that by proceeding to the questionnaire participants have indicated that the questions have been answered to their satisfaction and that they agree to participate in this study. The page also contained a link to the same consent-to-participate form for participants' records.

Participants were first directed to the sociodemographics section, in which they were instructed to indicate their age, gender, education level, income level, *Hukou* status, employment status, place of birth, zip code, home ownership status, and distance driven in the last year. Next, they were instructed to indicate their frequency of violating each of 12 laws, including the eight used in this study. Next, they were asked to indicate the extent to which they agree with statements about obey the law, procedural fairness, distributive fairness, and the effectiveness of the police. Next, they were asked to indicate perceptions about the morality of violating each law, the likelihood of being warned, fined, or arrested for violation, the severity of punishment for violation, and how the five adults they know best would feel about them having violated each type of law. Morality, risk, and severity were assessed for each type of the law. The survey company did not place time limits on any part of the questionnaire and respondents could advance or return to any part of the questionnaire prior to submission.

Measures

The questionnaire consisted of three groups of questions: (1) demographic and socioeconomic information; (2) self-reported compliance with laws and regulations; and (3) assessment of the legitimacy, morality, risk, and severity of laws, as well as evaluations of legal authorities.

Compliance. Because the focus of this study was on state-society interaction through law enforcement, namely the police, we only investigated compliance through the lens of laws and regulations that are directly enforced by the police. We measured compliance with everyday laws and regulations using a six-point Likert scale on which respondents indicated how frequently they complied with eight specific laws classified into four groups.

The first group (everyday laws and regulations, a collection we refer to as "public disturbance") included three laws against public disturbance: (1) making enough noise to disturb your neighbor, (2) littering where it is not allowed, and (3) spitting on the sidewalk. The first two items were taken from Tyler's framework (Sunshine & Tyler, 2003; Tyler, 2006; Tyler & Fagan, 2008), and we added the third as spitting on the sidewalk is illegal in Shanghai. The second group (traffic laws) included two items: (1) drunk driving and (2) red-light running. Although we considered the items in Tyler's framework pertaining to traffic violations, based on the Manchester Driver Behavior Questionnaire (Reason, Manstead, Stradling, Baxter, & Campbell, 1990), we decided to include drunk driving and red-light running as violations in our study since Reason et al. showed that these types of traffic violation are closely related. Previous studies have shown that driving violations can be assessed by self-report surveys (Lajunen & Summala, 2003) and anonymous surveys can provide more reliable information about behavior, motives, and attitudes that lead to risk driving (Lajunen, Parker, & Summala, 2004) since they reduce the likelihood of socially desirable responses (Paulhus, 1986; Lindeman & Verkasalo, 1994).

The third group consisted of a single item: downloading pirated music or software. The fourth group (distracted driving laws) consisted of two items: (1) talking on the phone while driving and (2) sending or receiving text messages while driving. In this study, we added illegal downloading and distracted driving to investigate potential differences in motivation for compliance between long-established laws and laws necessitated by recent technological changes. Illegal downloading has only been enabled by the widespread use of the Internet in the past couple of decades, while distracted driving has only been enabled by the widespread use of mobile phones in a similar time frame.

Legitimacy. The most straightforward way to measure legitimacy is to apply the definition prescribed by Weber, Henderson, and Parsons (1947), that is, the obligation to obey regardless of personal gains and losses both tangible and psychological. Another empirical approach is to measure the public support for the government or the public perception of the trustworthiness of the government (Easton, Dennis, & Easton, 1969). Because we were concerned specifically with why people obey the law, we chose the former approach in our questionnaire and asked four questions about the perceived obligation to obey the law. Appendix C shows the extent to which respondents agreed or disagreed with four legitimacy statements on a six-point Likert scale. These four statements were taken from Tyler's framework (Sunshine & Tyler, 2003; Tyler, 2006; Tyler & Fagan, 2008).

Morality, risk, and severity. For each of the eight items measured for compliance, we measured morality by asking respondents to indicate on a six-point Likert scale the perceived morality of breaking each type of law. Appendix D shows the distribution of responses. Potential instrumental motivations include both the perceived probability of apprehension and perceived severity of punishment. For each of the eight items measured for compliance, respondents indicated on a six-point Likert scale the likelihood of

being warned, fined, or arrested by the police. Respondents also indicated the extent to which they would be severely punished on a six-point Likert scale for each of the eight items. The statements measuring motivation were also taken from Tyler's framework (Sunshine & Tyler, 2003; Tyler, 2006; Tyler & Fagan, 2008).

Antecedents of legitimacy. We assessed procedural fairness, distributive fairness, and police effectiveness as potential antecedents of legitimacy. We measured procedural fairness with the 10 statements in Appendix E assessing police behavior (two statements about overall procedural fairness, four statements about quality of decision-making, four statements about quality of treatment); we also used a statement about the frequency with which people generally (not necessarily the respondent) received fair outcomes in their interactions with the police. We measured distributive fairness (also in Appendix E) by asking respondents to indicate the extent of their agreement with the equitable distribution of police services to all communities and both local and nonlocal *Hukou* holders, as well as the frequency with which the police gave people less help due to their status. We assessed police effectiveness (see questions near the bottom of Appendix E) by asking respondents to indicate their perceptions about the safety of their neighborhood and the effectiveness of the police. The statements measuring determinants of legitimacy were also taken from Tyler's framework (Sunshine & Tyler, 2003; Tyler, 2006; Tyler & Fagan, 2008).

Results

Data Analytic Approach

We used a structural equation model (SEM) to take advantage of its ability to perform multivariate analysis, to reduce measurement errors through the use of latent factors, and to test multiple hypotheses about the structural relationships among variables. Figure 1 shows the schematic structure of the SEM. There are three latent compliance variables (public disturbance, traffic violations, and distracted driving)

Figure 1. Structural equation models for the process-based self-regulation model in China. Measurement variables are included in the model but not shown in the figure to reduce clutter.

and one observed compliance variable (illegal downloading) in our SEM. Public disturbance was measured by the first three items listed in Appendix B (making enough noise to disturb your neighbor, littering where it is not allowed, and spitting on the sidewalk). Traffic violation was measured by drunk driving and red-light running. Distracted driving compliance was measured by conversing on the cell phone while driving and texting while driving. Illegal downloading was measured by the last item. Each motivation was allowed to correlate with all other motivations to explore potential relationships among motivations and possible crowding effects (Bénabou & Tirole, 2006). Negative correlations, especially between instrumental motivations and normative motivations, would be particularly alarming, for they would signal that law enforcement is crowding out intrinsic motivations to comply.

The latent variable "legitimacy" was measured by the four statements in Appendix C. There was a set of variables indicating morality, risk (the probability of apprehension), and severity (of punishment) specific to each of the four groups of laws. Procedural fairness was a latent variable measured by the 11 statements in Appendix E. Distributive fairness was a latent variable measured by three statements. Police effectiveness was a latent variable measured by the three statements. Each antecedent was allowed to correlate with the two other antecedents to explore potential relationships among antecedents.

Because of the surplus of variables (in part because we examined the four groups of laws separately) and the establishment of the model in previous literature, no direct paths were attempted other than those described. A previous study (Sunshine & Tyler, 2003) allowed for all paths and helped to build the conceptual model used in this article. For example, a direct path between procedural fairness and compliance was attempted and found to be insignificant; hence, it was assumed that procedural fairness does not directly affect compliance.

We estimated the model in Mplus v7 (Muthén & Muthén, 2007). The comparative fix index (CFI) = 0.94, the Tucker-Lewis Index (TLI) = 0.93, the root mean square error of approximation (RMSEA) = 0.042 and 90% confidence interval (CI) [0.041, 0.044]. The chi-square statistic was 4108.8 with 1,468 degrees of freedom and a *p* value of 0.0. For the coefficients of determination for the compliance variables: $R^2 = 0.17$ for public disturbance, $R^2 = 0.34$ for traffic violations, $R^2 = 0.31$ for distracted driving, and $R^2 = 0.07$ for illegal downloading. The factor scores showed that the indicators served as good measures of the latent variables. All factor loadings were significant at the 0.01 level, and all but one exceeded 0.6.

To consider multicollinearity effects among the potential motivations for compliance, we examined the relationships between compliance and each potential motivation individually. In this analysis, there were four auxiliary models, each of which contained a sole potential motivation for compliance. In other words, we modeled compliance on legitimacy only, compliance on morality only, and so on. This step was taken to examine whether one motivation was inhibiting the explanatory variance of another in compliance. The results of the four auxiliary models are reported in the online supplemental material.
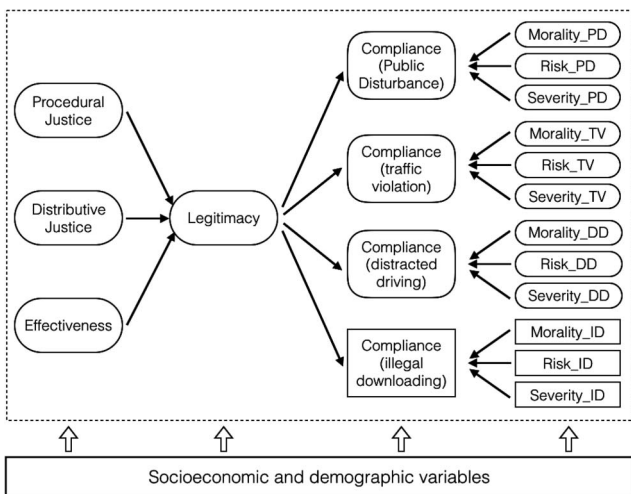
Motivations for Compliance

The two stages of our model addressed our two main research questions respectively: What motivates the Chinese to comply with the law and what determines legitimacy? We present the results of the motivation-compliance stage before the results of the antecedent-legitimacy stage, as the former addresses our first research question. The standardized coefficients of the structural equations in Table 1 show that morality was highly significant (at the 0.001 level) and by far the strongest motivation for compliance across all four groups of laws. Morality had a stronger influence on the traditional traffic and distracted driving laws (standardized coefficients of 0.55 and 0.60, respectively) than on the public disturbance and downloading laws (standardized coefficients of 0.32 and 0.16, respectively). The influence of legitimacy was inconsistent across the four groups. Legitimacy exerted significant influence on public disturbance and distracted driving laws but not on downloading and traditional traffic laws. The influence of severity was significant and remained fairly consistent for all four groups, although it was not nearly as strong as that of morality. In contrast, risk was not significantly related to compliance with any group of laws.

The results for relationships between sociodemographics and compliance, as shown in Table 1, largely conformed to the literature. Males committed violations at a significantly higher rate than females across all four groups, although the magnitude of the gender gap varied. The gender difference was the greatest for public disturbance laws; the gender gap was much smaller and similar for downloading, traffic laws, and distracted driving laws. Age did not impact on compliance with public disturbance, illegal downloading, or traditional traffic violations; however, younger drivers, as other studies indicate, committed distracted driving more frequently than older drivers. Education had no significant impact on compliance. Local *Hukou* holders committed distracted driving at lower rates than nonlocal *Hukou* holders. Interestingly, income had only a significant effect on compliance with illegal downloading of pirated material, with high income respondents being more likely and low income respondents less likely to download pirated material.

Sociodemographics and Motivations for Compliance

The relationship between socioeconomics and motivations for compliance also conformed to our expectations. Most importantly, those with college degrees had significantly lower morality scores for all four groups of laws, in accordance with Posner's (1997) proposition that intellectual education may very well undermine moral regulation of behavior. High income respondents showed significantly lower estimates of the risk of apprehension for violating traffic laws, whereas low income respondents showed significantly higher estimates for public disturbance, distracted driving, and illegal downloading. Drivers with high income had lower sensitivity to the penalty for violating traffic laws and distracted driving laws. Given that the penalty is associated with a set amount of monetary penalty, those with higher income would possess a greater capacity to pay since the penalty constitutes a lower ratio of their income. Hence, higher earners would be less sensitive to the penalty. The standardized coefficients of the sociodemographic variables are reported in the online supplemental material.

Determinants of Legitimacy

The antecedent-legitimacy stage of our model addressed which factors determine legitimacy. Table 2 shows that in our model ($R^2 = 0.46$, $p < .0005$), legitimacy was primarily determined by procedural fairness (standardized coefficient = 0.65). The contribution of distributive fairness was much weaker though still marginally significant. Evaluations of police effectiveness exhibited no statistically significant relationship to perceptions about legitimacy. None of the sociodemographic variables had any direct impact on legitimacy. However, as shown in Table 2, sociodemographic variables had significant impacts on the determinants of legitimacy. Older respondents had substantially lower assessment of procedural fairness, distributive fairness, and police effectiveness. Strong negative relationships existed between socioeconomic status (higher education and income) and all three determinants of legitimacy. All three antecedents were significantly correlated ($\rho = 0.88$ for procedural fairness and distributive fairness, $\rho = 0.88$ for procedural fairness and effectiveness, and $\rho = 0.85$ for

Table 1

Determinants of Compliance (Standardized Coefficients for Full Model)

Determinants	Public disturbance					Traffic violations					Illegal downloading					Distracted driving				
	b	Lower bound	Upper bound	t	p	b	Lower bound	Upper bound	t	p	b	Lower bound	Upper bound	t	p	b	Lower bound	Upper bound	t	p
Legitimacy	.13	.05	.21	3.04	.00	.06	−.02	.13	1.39	.16	−.01	−.03	.01	−1.24	.22	.08	.01	.16	2.36	.02
Risk	.06	−.02	.13	1.50	.13	.00	−.06	.07	.10	.92	.02	−.04	.08	.55	.59	.01	−.06	.08	.31	.76
severity	.09	.01	.16	2.37	.02	.10	.03	.18	2.66	.01	.06	.00	.12	1.86	.06	.08	.01	.15	2.11	.04
Morality	.32	.24	.39	8.16	.00	.55	.48	.62	15.20	.00	.16	.07	.25	3.40	.00	.50	.43	.56	15.42	.00
Age above 40	.23	−.02	.49	1.78	.08	.13	−.11	.38	1.07	.28	−.03	−.09	.03	−1.08	.28	.36	.14	.58	3.16	.00
Female	.37	.23	.52	5.09	.00	.18	.04	.32	2.53	.01	.06	.02	.09	3.42	.00	.20	.07	.32	3.03	.00
College	.13	−.04	.29	1.52	.13	−.02	−.18	.14	−.25	.80	.02	−.02	.05	.85	.40	.01	−.13	.15	.10	.92
High income[a]	.18	−.03	.40	1.68	.09	−.01	−.22	.19	−.13	.90	−.07	−.12	−.02	−2.93	.00	−.02	−.21	.16	−.25	.80
Low income[b]	−.06	−.24	.12	−.68	.50	.02	−.15	.19	.26	.80	.06	.02	.10	2.95	.00	.03	−.12	.19	.40	.69
Local *Hukou*	.06	−.10	.21	.72	.47	.08	−.07	.23	1.11	.27	.00	−.03	.04	.18	.86	.15	.02	.29	2.25	.03

Note. Dependent variables: Degrees of compliance with each of groups of law (i.e., not conducting these types of behavior).
[a] High income: Monthly household income greater than 20,000 CNY (3,018USD). [b] Low income: Monthly household income lower than 7,000 CNY (1,056USD); Middle income is the reference.

Table 2
Determinants of Legitimacy and Socio-Demographics (Standardized Coefficients)

Determinants	Legitimacy					Procedural fairness					Distributive fairness					Effectiveness				
	b	Lower bound	Upper bound	t	p	b	Lower bound	Upper bound	t	p	b	Lower bound	Upper bound	t	p	b	Lower bound	Upper bound	t	p
Procedural fairness	.65	.48	.82	7.43	.00															
Distributive fairness	.14	−.01	.29	1.81	.07															
Effectiveness	−.10	−.28	.07	−1.17	.24															
Age above 40	−.01	−.19	.18	−.09	.93	−.42	−.64	−.20	−3.80	.00	−.36	−.58	−.14	−3.15	.00	−.26	−.49	−.02	−2.12	.03
Female	.06	−.04	.17	1.17	.24	.02	−.11	.14	.24	.81	.08	−.05	.20	1.17	.24	.04	−.10	.17	.54	.59
College	.04	−.07	.16	.72	.47	−.30	−.44	−.17	−4.35	.00	−.30	−.44	−.16	−4.20	.00	−.23	−.38	−.09	−3.10	.00
High income	−.04	−.19	.12	−.48	.63	−.16	−.34	.02	−1.70	.09	−.16	−.35	.02	−1.71	.09	−.22	−.42	−.02	−2.20	.03
Low income	−.10	−.22	.03	−1.54	.12	.21	.06	.36	2.70	.01	.18	.02	.33	2.23	.03	.17	.01	.34	2.08	.04
Local *Hukou*	−.03	−.14	.08	−.58	.56	.07	−.06	.20	1.05	.30	.07	−.07	.20	.96	.34	.06	−.08	.21	.87	.38

distributive fairness and effectiveness). Nevertheless, procedural fairness was the primary determinant of legitimacy because it was by far the most strongly related to legitimacy.

Discussion

Several important findings emerged from our study. First, the morality of the law was far and above the most important motivation for compliance with the law in China. The influence of morality exceeded not only those of instrumental motivations but also that of legitimacy. Though legitimacy was significant in some cases, it was neither as dominant nor as consistent as morality as a normative motivation to comply. This has two important implications. First, because morality was more dominant than severity, this suggests that China is a law-abiding society—one in which people obey the law voluntarily, not because they are coerced. Second, because morality was dominant and legitimacy was inconsistent, China can be categorized as a "morally just society" in the Tyler and Darley (2000)'s categorization of law-abiding societies. In comparison, the United States would most likely be categorized as a dual-influence society since both morality and legitimacy are significant motivations.

We found no consistency in the significance of legitimacy in compliance in the model with all motivations present. Our results showed that legitimacy significantly motivates compliance with laws against public disturbance and distracted driving. The former group contains traditional laws, whereas the latter group contains laws against a recently emerged phenomenon. The former group contains laws unrelated to driving whereas the latter group contains laws related to driving. Our multicollinearity analysis showed that legitimacy mattered for all groups other than illegal downloading. Although this improved the influence of legitimacy, it still demonstrated that morality was a stronger motivation than legitimacy. Moreover, morality was significant for illegal downloading whereas legitimacy was not. However, legitimacy was insignificant only for illegal downloading in the individual motivation models and the compliance correlation matrix showed that illegal downloading seems to be in a separate category from the other three groups. Therefore, it is possible that legitimacy indeed played a significant role in compliance with a multitude of laws as postulated by Tyler (2006). Illegal downloading could be a distinct

phenomenon due to the murky nature of the violation and the phrasing of our question. Again, we stop short of concluding that legitimacy was a significant motivation for all laws because it was not significant for illegal downloading even in the individual motivation model, whereas morality was significant for all types of violation. Moreover, the results showed that different types of law ought to be modeled separately.

The scope of assessment of legitimacy and morality applied in this study invariably raises potential concerns about the validity of the results. In particular, whereas the legitimacy of authorities in general was assessed, morality was law-specific. It is important to restate our definition that legitimacy refers to authorities' discretionary power to make and enforce laws, whereas morality refers to the appropriateness of particular laws. In the context of everyday laws and regulations, legitimacy is always a positive or irrelevant motivation. Only in extreme cases of civil disobedience, rebellion, or something similar could low or negative perceptions about legitimacy work as a negative motivation. Beliefs about the appropriate extent of authorities' power in particular instances fall under morality (along with one's policy preferences), not legitimacy. The reason for this is that though beliefs about the appropriate extent of authorities' power could be independent of policy preferences, they must act in the same direction when beliefs about the appropriate extent of power actually influences behavior. When one believes that authorities have exceeded their powers in making the law in a particular instance, one could only be tangibly motivated to break the law if one's policy preference were also against the law. When one's policy preference is in agreement with or indifferent to the law in place and it is in conflict with one's beliefs about the extent of government power, there is no tangible motivation to break the law. Thus, beliefs about government power always act in the same direction as morality when the motivation is tangible.

The dominance of morality and less prominent role of legitimacy may be explained in the cultural context by the long-lasting Confucian influence on China. Throughout most of Chinese history, those in power have nominally embraced Confucianism, particularly two of its many features—the sense of social hierarchy and moral guidance in everyday life. Confucius's idea that some people have inherently higher social status and his derision of utility as the basis for decision making very much serve the rulers in consolidating power. This sense

of social hierarchy, however, has perpetuated people's deference to particular individuals rather than institutions. Consequently, the concept of legitimacy has a relatively reduced impact on the Chinese.

Authorities may utilize morality to build a more law-abiding society. One way to do so would be to bring the law into congruence with public moral values; the other would be to raise awareness of the true nature of the law when the law reflects public moral values (Tyler & Darley, 2000). A long-discussed issue with the first type of effort focuses on the wisdom of the public, namely that of the majority faction of society. Although China is more ethnically and culturally homogeneous than the United States, which suggests that laws represented by common moral values may be established more readily and voluntarily obeyed more widely, economic divisions exist, making compliance divergent in different realms. There is a long-standing debate regarding the extent to which public opinion ought to shape public policy, which is beyond the realm of this article. An alternative approach would be to create a moral consensus along the lines of the law through public campaigns to convince people of the morality of the law.

The second important finding in terms of motivations for compliance is that the severity of punishment was a significant instrumental motivation whereas the risk of apprehension was not. On the basis of empirical evidence in the United States, Cooter and Ulen (2007) posited that since punishment occurs in the future whereas apprehension occurs in the present, the influence of punishment is subject to varying discount rates and hence would exert less influence than the risk of apprehension. Cooter and Ulen cited arrest data of adolescents in Florida to empirically support their thesis on the lack of contribution from severity to deterrence in the United States. The severity of punishment dictated by law for many types of crime elevates significantly when adolescents turn 18 years old. If severity were to contribute to deterrence, one would expect to see the crime rates decrease as adolescents turn 18. In addition, data shows no decrease in crime rate for adolescents turning 18. Moreover, increasing the certainty of punishment has been empirically shown to deter crime (Cooter & Ulen, 2007).

However, our study of the Chinese—contrary to studies in the United States and our own hypotheses—showed authorities could potentially obtain compliance more effectively by increasing the magnitude of punishment (i.e., increasing fines, lengthening mandatory community service periods) than by increasing surveillance. However, increasing the severity of punishment may crowd out normative motivations for compliance (Bénabou & Tirole, 2006) and compromise legitimacy if people feel that the punishment is excessive. Law enforcement officials may be more reluctant to enforce due to fear of public backlash against excessive punishment (Kahan, 2000). We acknowledge that the manner in which we phrased the question about how severely respondents feel they would be punished could have been interpreted as a combination of risk and punishment severity rather than the magnitude of punishment after apprehension alone. However, our results showed that future models of compliance ought to include severity as a potential motivation.

Our analysis of possible multicollinearity effects through modeling each motivation individually with compliance shows that it is possible that some motivations inhibit the explanatory variance of others on compliance. Namely, risk is significantly related to compliance in the individual motivation model. However, the correlations are not high enough to raise significant concerns about multicollinearity. The standardized coefficients for risk in each individual model are still lower than those for severity, indicating that severity is a more important motivation than the risk of punishment in our study. Again, we acknowledge that our phrasing of the questions for severity could be interpreted as including risk.

Last, procedural fairness is by far the most impactful antecedent of legitimacy, whereas evaluations of police effectiveness are not significant. This finding is particularly revealing and potentially advantageous for law enforcement because the police have far more control over the manner in which they carry out their duties than the results (Sunshine & Tyler, 2003). The overall level of violations, often manifested in the crime rate, is related to a multitude of factors, some of which are beyond the control of the police. It is reassuring for authorities that they can raise perceived legitimacy through improvements in their interactions with the public, rather than through the commitment of more resources.

The relationships between sociodemographics and the constructs in our model attested to the validity of our model. In our study, the gender gap in compliance has been well documented (Yagil, 1998a, 1998b). The negative relationship between age and distracted driving also conformed to previous findings (Atchley, Hadlock, & Lane, 2012). The negative relationship between income and instrumental motivations has both been theorized and empirically demonstrated (Gao & Zhao, 2016). The negative relationships between socioeconomic status (income and education) and the antecedents of legitimacy were both significant and potentially troubling. Although it makes sense that those with higher socioeconomic status hold more cynical attitudes in terms of normative motivations for compliance with the law, we did not expect them to feel that they are treated less well by law enforcement.

Implications for Research and Practice

In terms of the modeling framework, this study has shown that it is crucial to include morality as a component of motivations for compliance. In studies that have shown legitimacy to be a significant motivation for compliance but in which morality is not included, the small fraction of the total variance accounted for by the model implies that important known covariates of compliance need to be incorporated into the model (Eisner & Nivette, 2013). In our model that includes both morality and legitimacy, as previously stated, other than for illegal downloading, the variance of compliance accounted for by the model far exceeded those reported by Sunshine and Tyler's (2003) study in which only legitimacy was included and less than 10% of the variance was accounted for by the model. It was also similar to that in Tyler's original study (2006) of Chicago residents in which morality and peer approval were included as potential motivations for compliance ($R^2 = 0.32$). In addition, following the work of Jackson et al. (2012), we have shown that motivations for compliance ought to be investigated separately for distinct types of laws.

Limitations

We qualify our findings by noting several potential limitations. First, though adopting the behavioral approach removes the researcher's normative biases from assessing the rule of law in China, the perceptions of respondents do not necessarily reflect reality, particularly in the determinants of legitimacy. For example, actual distributive fairness may not be adequately represented by people's assessments of distributive fairness. Second, self-reported frequencies of

violations may be inaccurate. Although literature on traffic law violations indicates that self-reported driving violations (but not accidents) tend to be accurate, similar assumptions do not necessarily hold for public disturbance and illegal downloading. Third, as stated, we only partially modeled motivations for compliance. Important motivations through peer influence like injunctive norms (Bénabou & Tirole, 2006; Gao & Zhao, 2016; Tyler, 2006) were not included in our model, nor were nongovernmental controlled instrumental factors like threats to personal safety posed by violating traffic laws. The absence of these motivations may have influenced the magnitude of the relationships between compliance and motivations. Fourth, we studied the determinants of legitimacy only in terms of law enforcement. The procedural fairness, distributive fairness, and administrative competence of other government agencies were not part of our study but may very well influence legitimacy. Moreover, features of the policymaking institutions and processes were absent from our model. Fifth, our sampling frame (drivers only) was not reflective of the Chinese population. Furthermore, as Appendix A shows, our sample was much younger and more educated than the general population.

There are also a few potential issues with our modeling, one of which was that the model was correlational in nature. We could not necessarily establish causation, so the relationships between variables were not necessarily in the directions we described. We assumed these directions to hold true based on the literature, but we could not confirm them in our model. Another potential issue with our model was the limited range of both the dependent and independent variables. For compliance (other than illegal downloading) variables, very few respondents very frequently, frequently, or even occasionally violated the law. Similarly, for morality, very few respondents indicated that they considered violating any of the laws either completely moral or very much moral. For legitimacy, very few respondents indicated a low level of obligation to obey the law. The distributions of responses were very much skewed and nearly half of the scale had negligible frequencies. We ran another auxiliary model with the compliance variables coded in the Guttman scale as a potential solution to the range limitation problem. Compared with the original model, the Guttman model shows broadly similar results: Morality remains the dominant factor across all four types of behaviors but the magnitude is a bit weaker than that in the original model. Severity and risk behave the same as in the original model: Severity is significant for all four types of behavior and risk is not significant for any of them. The main difference is that legitimacy is significant in three types of behavior in the Guttman model: public disturbance, traffic violation, and distracted driving; though it was not significant for traffic violation in the original model. The comparison between the auxiliary Guttman model and the original modal is reported in the online supplemental material.

Directions for Future Research

Further investigation ought to expand beyond the realm of legal authorities into areas regulated by other authorities. For example, studies of legitimacy in tax compliance would reveal the nature of political legitimacy, as taxation is redistributive. In addition, legitimacy may influence behavior both in other types of interactions with authority such as cooperation with the police and in socially beneficial acts such as water and energy conservation. This study merely serves

as an empirical stepping stone in understanding the distinct and complex nature of morality and legitimacy in China.

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(Appendices follow)

Appendix A

Comparison of Sample and Shanghai Population

Variables	Explanation	% of sample	% of Shanghai population
Demographic			
Male	Male	50	50
Age	20 to ~29	42.1	31.6
	30 to ~39	48.9	24.6
	40 to ~59	9.0	43.8
Socioeconomic			
Education by age band	% Having a college degree of age		
	20 to ~29	65.3	24.7
	30 to ~39	74.6	18.1
	40 to ~59	60.0	6.2
Household income	Less 7K CNY	24.7	
	7K to ~20K CNY	60.5	
	Over 20K CNY	14.8	
Hukou	Holding Shanghai *Hukou*	60	59

Note. The survey did not include those who are 19 years or younger or 60 years or older. All Shanghai statistics reported in the table refer to the population between 20 and 59 years old. The sample underrepresents those who are 40 years or older, and overrepresents those who have higher education.

Appendix B

Self–Reported Behavior With Respect to Four Groups of Laws

Question/statement	Never Code: 1	Very rarely Code: 2	Rarely Code: 3	Occasionally Code: 4	Frequently Code: 5	Very frequently Code: 6	*M*
Make enough noise to disturb your neighbor	57%	35%	7%	1%	0%	0%	1.52
Litter where it is not allowed	53%	39%	6%	1%	0%	0%	1.53
Spit on the sidewalk	74%	20%	5%	1%	0%	0%	1.33
Drink and drive	94%	4%	1%	1%	0%	0%	1.09
Not stop at red lights	81%	16%	3%	0%	0%	0%	1.22
Converse on the cell phone while driving	36%	40%	20%	5%	0%	0%	1.96
Send/receive text messages while driving	57%	30%	10%	4%	0%	0%	1.63
Download pirated music or software	28%	29%	22%	13%	5%	4%	2.53

Note. In the structural equation model, the compliance variable is coded such that higher value means more compliance (i.e. opposite to the frequency of committing these behavior).

Appendix C

Legitimacy Assessment

Question/statement	Completely disagree Code: 1	Mostly disagree Code: 2	Slightly disagree Code: 3	Slightly agree Code: 4	Mostly agree Code: 5	Completely agree Code: 6	*M*
A person should obey the law even if it goes against what he thinks is right	0%	0%	3%	8%	32%	56%	5.37
I always try to follow the law even if I think that it is wrong	0%	1%	3%	11%	39%	46%	5.26
Disobeying the law is seldom justified	0%	1%	4%	12%	29%	54%	5.31
It is difficult to break the law and keep one's self-respect	0%	1%	4%	22%	34%	39%	5.06

Note. In the structural equation model, the legitimacy variable is coded such that higher value means higher legitimacy.

(*Appendices continue*)

Appendix D

Motivations Assessment: Morality, Risk and Severity

Behavior	Morality assessment[a]						
	Completely immoral	Very much immoral	Somewhat immoral	Somewhat moral	Very much moral	Completely moral	
	Code: 1	Code: 2	Code: 3	Code: 4	Code: 5	Code: 6	M
Make enough noise to disturb your neighbor	53%	37%	9%	1%	0%	0%	1.58
Litter where it is not allowed	59%	33%	8%	1%	0%	0%	1.53
Spit on the sidewalk	66%	27%	7%	1%	0%	0%	1.45
Drink and drive	88%	10%	2%	0%	0%	0%	1.14
Not stop at red lights	72%	22%	5%	0%	0%	0%	1.31
Converse on the cell phone while driving	40%	27%	26%	5%	1%	0%	1.97
Send/receive text messages while driving	43%	29%	24%	4%	1%	0%	1.94
Download pirated music or software	29%	17%	42%	9%	2%	1%	2.41

Behavior	Risk assessment[b]						
	Very likely	Likely	Somewhat likely	Somewhat unlikely	Unlikely	Very unlikely	
Make enough noise to disturb your neighbor	26%	22%	23%	13%	7%	10%	2.86
Litter where it is not allowed	23%	23%	19%	17%	7%	11%	2.95
Spit on the sidewalk	24%	21%	20%	15%	9%	12%	3.03
Drink and drive	81%	8%	2%	1%	1%	8%	1.60
Not stop at red lights	73%	14%	4%	1%	2%	7%	1.69
Converse on the cell phone while driving	32%	23%	22%	13%	6%	5%	2.56
Send/receive text messages while driving	31%	24%	20%	14%	5%	6%	2.56
Download pirated music or software	18%	15%	24%	21%	11%	12%	3.31

Behavior	Severity assessment[c]						
Make enough noise to disturb your neighbor	10%	13%	20%	22%	21%	14%	3.73
Litter where it is not allowed	13%	13%	19%	23%	18%	15%	3.68
Spit on the sidewalk	14%	13%	18%	20%	20%	16%	3.7
Drink and drive	1%	1%	2%	5%	9%	83%	5.72
Not stop at red lights	1%	1%	4%	13%	23%	58%	5.3
Converse on the cell phone while driving	6%	10%	16%	23%	21%	23%	4.09
Send/receive text messages while driving	7%	11%	15%	22%	22%	24%	4.16
Download pirated music or software	17%	16%	23%	21%	11%	12%	3.29

Note. In the SEM model, the variables Morality is coded such that high value means it is moral to comply with the law. The variables Risk and Severity are coded such that higher values mean high risk and heavy penalty if violating the law.
[a] Respondents were asked, "How moral do you consider each of the following acts?" [b] Respondents were asked, "If you committed each of the following acts, how likely do you think you would be warned, fined, arrested, or issued a citation by the police?" [c] Respondents were asked, "If you committed each of the following acts, how severely do you think you would be punished [1 = *not severe at all*, 6 = *very severely*]?"

(*Appendices continue*)

Appendix E

Antecedents of Legitimacy

Questions/statements	Procedural fairness						
	Completely agree	Mostly agree	Slightly agree	Slightly disagree	Mostly disagree	Completely disagree	
	Code: 1	Code: 2	Code: 3	Code: 4	Code: 5	Code: 6	*M*
The police fairly make decisions about how to handle problems	44%	44%	11%	1%	0%	0%	1.69
The police treat people fairly	42%	41%	15%	2%	0%	0%	1.77
The police usually accurately understand and apply the law	49%	41%	8%	1%	0%	0%	1.59
The police make decisions based upon facts, not personal biases or opinions	48%	41%	10%	2%	0%	0%	1.68
The police try to get the facts in a situation before deciding how to act	53%	36%	10%	1%	0%	0%	1.59
The police give honest explanations for their actions to the people they deal with	48%	36%	13%	2%	0%	0%	1.67
The police give people a chance to express their views before making decisions	52%	36%	11%	1%	0%	0%	1.61
The police take account of the needs and concerns of the people they deal with	46%	37%	16%	1%	0%	0%	1.72
The police clearly explain the reasons for their actions	49%	37%	12%	2%	0%	1%	1.73
The police honestly explain the reasons for their actions	47%	38%	12%	2%	0%	0%	1.67

Questions/statements	Procedural fairness						
	Always	Very frequently	Occasionally	Rarely	Very rarely	Never	*M*
How often do people receive the outcomes they deserve under the law when they deal with the police?	36%	49%	14%	1%	0%	0%	1.8

Questions/statements	Distributive fairness						
	Completely agree	Mostly agree	Slightly agree	Slightly disagree	Mostly disagree	Completely disagree	*M*
The police provide the same quality of service to people living in all areas of the city	47%	38%	11%	3%	1%	0%	1.73
Migrants receive the same quality of service from the police as do locals	47%	37%	12%	4%	0%	0%	1.73

Questions/statements	Distributive fairness						
	Always	Very frequently	Occasionally	Rarely	Very rarely	Never	*M*
How often do the police give people in your neighborhood less help than they give others due to their status?	0%	0%	3%	13%	39%	45%	5.26

Questions/statements	Police effectiveness						
	Very safe	Relatively safe	Somewhat safe	Somewhat unsafe	Relatively unsafe	Not safe at all	*M*
How safe is your neighborhood during the day?	58%	35%	6%	0%	0%	0%	1.46
How safe is your neighborhood at night?	38%	37%	22%	3%	0%	0%	1.9

Questions/statements	Police effectiveness						
	Very effective	Fairly effective	Somewhat effective	Somewhat ineffective	Fairly ineffective	Very ineffective	*M*
How effective are the police at providing help?	37%	42%	20%	1%	0%	0%	1.85