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Direct and indirect effects of procedural justice on cooperation and compliance: evidence from South Korea

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ABSTRACT

Procedural justice now plays an important role in the study of policing. While most empirical research on the effects of procedural justice has been carried out in Western countries, there has been little empirical research on its effects in East Asia, where authority dynamics are thought to differ from those in the West. Using a sample of 301 South Korean citizens, this study examines the direct and indirect effects of procedural justice and other factors on cooperation and compliance with police and the law. The results show that procedural justice has a significant, positive direct effect on obligation to obey, but not on cooperation or compliance. Procedural justice has a significant, positive indirect effect on cooperation via obligation to obey, but it does not have a significant indirect effect on compliance. We discuss the implications of these results for procedural justice theory and its applications in different settings, including East Asia.

KEYWORDS

Procedural justice; police; cooperation; compliance; Asia

Introduction

The volume of research on the effects of procedural justice in policing has increased dramatically in recent years. Much of this research is rooted in the process-based model of regulation established by Tyler and his colleagues (Sunshine & Tyler, 2003; Tyler, 2006; Tyler & Fagan, 2008; Tyler & Huo, 2002). The process-based model suggests that when authority figures treat subordinates in a procedurally just manner, they are able to stimulate in subordinates an internalized sense of obligation to obey their directives.¹ This feeling of obligation is, in turn, hypothesized to generate higher rates of cooperation and compliance. As applied to policing, the model suggests that police can inculcate greater cooperation and compliance among the people with whom they come into contact if they treat those people in a procedurally just manner. A large body of research using a variety of research methods provides evidence to support these hypotheses. This research provides a powerful basis for questioning the wisdom of aggressive policing strategies that alienate the public, since such approaches can backfire by decreasing people's obligation to obey and their willingness to cooperate and comply voluntarily (Gau & Brunson, 2010; Meares, 2015; Sherman, 2010).

In spite of the mounting body of research evidence on the effects of procedural justice on a variety of key policing-related outcomes in Western nations, questions have been raised about the universality of these effects. For instance, Tankebe's (2009) research in Ghana, a sub-Saharan African nation, revealed

that procedural justice did not have a significant effect on willingness to cooperate with police once the effects of other explanatory variables were included in the model. Similarly, research by Reisig and Lloyd (2009) in Jamaica, a Caribbean island nation with one of the highest homicide rates in the world, found that while procedural justice had a significant effect on obligation to obey and willingness to cooperate with police, the effect of obligation to obey on willingness to cooperate was not significant. The vast majority of empirical research on procedural justice and its effects comes from the United States. However, a significant body of research has also emerged from Australia (e.g., Hinds & Murphy, 2007; Mazerolle, Antrobus, Bennett, & Tyler, 2013; Murphy, 2009) and Europe (e.g., Jackson et al., 2012).² Research on procedural justice is also now available from certain nations in West and South Asia, including India (Madan & Nalla, 2015), Israel (e.g., Factor, Castilo, & Rattner, 2014; Jonathan-Zamir & Weisburd, 2013), and Turkey (Karakus, 2017; Sahin, Braga, Apel, & Brunson, 2016). Pockets of research have also begun to emerge in developing nations located in Africa (e.g., Akinlabi & Murphy, 2017; Bradford, Huq, Jackson, & Roberts, 2014; Tankebe, 2008, 2009) and in Latin America and the Caribbean (e.g., Haas, Van Craen, Skogan, & Fleitas, 2015; Johnson et al., 2014; Reisig & Lloyd, 2009).

Although empirical research on procedural justice in policing has become more global in recent years, certain parts of the world remain relatively unstudied. Most relevant for our purposes is that very little empirical research on the effects of procedural justice in policing has taken place in East Asia, including major population centers like China, Japan, and South Korea (for exceptions, see Sun, Wu, Hu, & Farmer, 2017; and Tsushima & Hamai, 2015). A small body of research has examined related concepts like trust and confidence in police in the region, but these studies did not provide direct tests of procedural justice theory (Cao & Dai, 2006; Cao & Hou, 2001; Sun, Hu, Wong, He, & Li, 2013). The need for more research in East Asia is apparent for two reasons. First, East Asia accounts for more than one fifth of the world's population. Second, cultural orientations toward state authority in the region are thought to be unique relative to other parts of the world (Cao & Dai, 2006; Pye, 1985). Thus the causal dynamics underlying procedural justice theory may not operate the same way in this context. This paper addresses these concerns by examining the direct and indirect effects of procedural justice on cooperation and compliance in a sample of adults in South Korea.

Procedural justice and police legitimacy

Research, primarily from Western nations, has uncovered widespread support for the idea that procedural justice improves public perceptions of police legitimacy, which in turn promotes people's willingness to obey the law and cooperate with police. A recent systematic review of published studies showed remarkable consistency in the effects of procedural justice and legitimacy on a variety of prosocial outcomes (Mazerolle, Bennett, Davis, Sargeant, & Manning, 2013). Although legitimacy has been operationalized in many different ways (e.g., Gau, 2015; Johnson et al., 2014), its most frequently used indicator is an internalized obligation to obey the police or the law (e.g., Gau, 2011, 2014).

Conceived in this way, the effects of police legitimacy on compliance are partially instrumental and partially normative. *Instrumental compliance* is rooted, in part, in the logic of deterrence: people obey the police and the law when they believe these institutions provide a credible threat of sanctions for those who engage in illegal conduct (Sunshine & Tyler, 2003). Beliefs about the probability of being arrested and punished shape people's instrumental decisions about abiding by (or breaking) the law. As a means of securing widespread compliance, instrumental legitimacy suffers from the same weaknesses as deterrence. People's estimations of arrest likelihood and sanction severity are inaccurate (Kleck & Barnes, 2013) and biased by cognitive distortions (Pogarsky & Piquero, 2003). Decisions about whether or not to commit crime, moreover, are heavily influenced by anticipated rewards or gains, even when the probability of punishment is believed to be high (Decker, Wright, & Logie, 1993). *Normative compliance* is thought to be a more efficient and effective mechanism for inculcating law-abiding behavior than instrumental compliance. Normative sources of legitimacy flow from an internalized belief that one should obey the law because it is the right thing to do (e.g.,

Tyler, 2006). Trust in the rationality and general fairness of government agencies (Jackson & Gau, 2016) and a sense of moral alignment with these institutions (Jackson et al., 2012) promote normative legitimacy.

Procedural justice has been identified as a means by which police officers can enhance their legitimacy in the public's eyes. Procedural justice is interactional, meaning it exists within the interpersonal encounters between police and the public. Interactional justice has been broken down into four components: voice and participation, respect and dignity, neutral decision-making, and trustworthy motives. In addition to the support for procedural justice theory seen in studies using survey methods (see Mazerolle, Bennett, et al., 2013 for a review), research relying on observational data likewise demonstrates that when officers behave in a procedurally just manner, people are more likely to be satisfied with the encounter (Jonathan-Zamir, Mastrofski, & Moyal, 2015).

The South Korean context

South Korea is a small country, nearly the size of Britain, located on the Korean Peninsula in East Asia. South Korea is ethnically homogeneous with a distinctive culture. Its official language is Korean and its legal system is based on continental European civil law in conjunction with English common law (Kwon, 2011). Geographically, North and South Korea are sandwiched by three great powers (China, Japan, and Russia), placing them in an important political, economic, and strategic position in the world. Because of these geopolitical dynamics, the Korean Peninsula has been invaded multiple times by other nations, including France, China, and Japan (Moon & Morash, 2008).

East Asian countries – including China, Japan, and Korea – have unique social, political, cultural, and historical backgrounds that differ significantly from those in North American and Western European nations where most research on procedural justice has taken place (Kim, Lin, & Lambert, 2014). While Western democracies tend to value individualism, autonomy, formal social control, and freedom from authority, East Asian countries have historically emphasized other cultural, religious, and legal traditions such as collectivism, Buddhism, Confucianism, respect for authority, and shaming among community members (Cao & Hou, 2001; Cao, Stack, & Sun, 1998; Hwang, McGarrell, & Benson, 2005; Kim et al., 2014). These distinctive cultural values have developed for centuries and emphasize the importance of moral socialization through informal social control rather than formal social control. Ethics, morality, and conscience are thought to be core principles for maintaining social norms and public safety (Hwang et al., 2005; Kim, 2003). From a Confucian perspective, which remains prominent in Korea, individuals are not solely responsible for their own problems; families and communities are expected to take responsibility for helping those within their midst (Chen, 2002). Formal social control has historically been viewed as a last resort when individuals are beyond the control of families and communities (Hwang et al., 2005). These distinctive cultural values may influence the character of East Asian legal systems by shaping their organizational philosophies, structures, functions, and operations. These cultural values may also influence the way citizens perceive, interact with, and respond to law and legal authority.

Policing in colonial Korea

The modern history of the South Korean police can be traced back to the late nineteenth century. In a move towards colonizing the Korean Peninsula, Japan pushed Korea's King Kojong to overhaul the policing system, separating it from the military and imposing on it a wide range of duties, including economic regulation,³ immigration control, sanitation,⁴ education, population surveys, surveillance on politicians, press and publication censorship, religion, and even residence and birth registration (see Hoffman, 1982; Hwang, 2016; Moon, 2004a). Shortly after the reorganization of the police, Korea was under Japanese rule from 1910 to 1945. During the Japanese colonization, the police were responsible for maintaining public order, repressing religion (e.g., inhibition of faith healers) and the liberation movement, and expelling political opponents and independence fighters (Moon, 2004b). The colonial

police also protected the property and personal safety of colonial capitalists. Imperial Japan used the police as a tool for controlling Korean citizens and suppressing dissent through militarization and oppression.

During the Japanese occupation, Korean colonial police exercised unbounded discretionary powers. Torture, inhumane public executions, and mental and physical abuse of citizens and independence fighters by the colonial police were widespread (Hoffman, 1982; Moon, 2004a; Moon & Morash, 2008).⁵ The brutality and oppression perpetrated by police, prosecutors, and judges during more than three decades of Japanese occupation echoed long after the occupation ended (Moon, 2004b). A sense of antagonism, hostility, and distrust toward law enforcement agencies, particularly the police, lingers as a vestige of the injustices that occurred during this era.

Policing after the Korean War

After the Korean peninsula was liberated from Japan in 1945, North Korea invaded South Korea in a war that involved several world powers and lasted from 1950 to 1953. As a result of the war, Korea was divided into two countries. The first (1948) through the sixth (1993) regimes of South Korean governments were often decried as illegitimate, coercive, and undemocratic, led by military personnel and dictators who gained power through military coup and election fraud (Moon, 2004b).⁶ During these regimes, similar to the colonial law enforcement under Japanese rule, the police, prosecutors, and the courts were politicized, corrupted, and manipulated as a tool to serve political and business interests⁷ and suppress citizens, particularly college and university students engaged in anti-government organizations, campaigns, and demonstrations fighting against electoral fraud and unconstitutional regimes.

As part of the dramatic growth in industrialization and economic success that began in the 1970s, citizen awareness of legal authorities grew steadily. South Koreans began questioning the legitimacy of governance, including military regimes. During the 1970s and 1980s, many citizens, often led by college students, joined the protest against the government (Moon, 2004a; Shin, Chang, Lee, & Kim, 2011). At the time, the primary role of the police was not to prevent crime and serve the public. Instead, the police suppressed citizens and surveilled anti-regime organizations and political activists, often resulting in human rights violations, police brutality, and deadly force (Kwon, 2011; Moon, McCluskey, & Lee, 2005). In this oppressive environment, citizens may have been reluctant to cooperate with the police and to report crimes (Moon, 2004b).

At the expense of many citizens,⁸ the first civilian government in South Korea was finally established in the early 1990s. At the time, the police implemented several reform initiatives to improve citizen support and trust and to improve the public image of the police (Jang & Hwang, 2014; Moon, 2004b). Despite intense public relations efforts by government and the police since the end of twentieth century, many citizens and communities continue to harbor negative attitudes toward legal authorities. The historical evolution of the Korean police sowed a deep sense of mistrust and mutual suspicion between the police and the public (Kwon, 2011; Moon & Morash, 2008). Research shows that many citizens do not trust the police (Lee, 2003), and that they view the police as authoritarian, repressive, and prone to using excessive force to suppress legitimate expression of public dissent (Park, 1999). Research has found that many police officers perceive this lack of support and trust among citizens (Lee, 2002; Moon & Zager, 2007). Research has also found that South Koreans have less trust and confidence in the police than in many other developed countries (Cao & Dai, 2006; Cao, Lai, & Zhao, 2012; Jang, 2014).

Current issues: absence of research on procedural justice and police legitimacy

Historical experiences with colonial policing, politicized policing, and police brutality and suppression may have exerted long-lasting influences on citizen perceptions of police in South Korea (Kwon, 2011; Moon & Morash, 2008). A recent study indicates that Korean citizens continue to question the fairness and credibility of police (Shin & Kang, 2012). These perceptions may also be shaped by contemporary

factors. For instance, the president of South Korea has the power to appoint key figures in criminal justice agencies, including the chief of the National Police Agency, the chief justice of the Supreme Court, the attorney general, the minister of justice, and the director of the National Intelligence Service. The president typically appoints officials who share his or her political views and bypasses thorough personnel inspections that would gauge these individuals' qualifications to serve in these positions. Typically, the people occupying these key legal positions, including the chief of the National Police Agency,⁹ are ousted whenever there is a change in political power. From the public's point of view, these political appointees may not be perceived as very legitimate legal authorities.¹⁰ Mistrust towards the criminal justice system and its agents remains highly salient in South Korea.¹¹

Furthermore, although South Korean police have sought to decentralize through the creation of a new patrol division,¹² as well as to implement reform associated with community-oriented policing, the police remain highly centralized with a top-down management style that emphasizes command and discipline (see Lee, 2004; Nalla & Hwang, 2006). Within this centralized national structure, local police are obligated to follow organizational guidelines and legal mandates (Nalla & Hwang, 2006). Moreover, until recently, armed military combat police units¹³ that relied on aggressive and violent tactics were frequently mobilized to break up demonstrations. This hierarchical and militaristic style of policing has generated a sense of public hostility towards the police and has fomented civil unrest, endangering both police and the public.¹⁴ Police brutality and violent clashes between police and demonstrators have been widely publicized (Lee, 2010; Moon & Morash, 2008). Use of force may significantly impact public trust and satisfaction with the police (Johnson et al., 2014). These issues raise important questions about procedural justice and continue to undermine the legitimacy of the criminal justice system in South Korea (Woo, 2017).

The current study

This study uses data from a survey of 301 South Korean citizens in Gyeonggi province to explore the effects of procedural justice and other factors on obligation to obey the police, willingness to cooperate with police, and self-reported compliance with the police and the law. Based on theory and research on procedural justice, we test the effects of four competing explanations for obligation, cooperation, and compliance. One such explanation is that when police behave in a procedurally just manner, they inspire in people an obligation to obey the police and the law, a willingness to cooperate with police and other legal authorities, and compliance with the law and its agents. Alternative explanations suggest that these outcomes are more likely to result from perceptions that police allocate outcomes fairly (distributive justice), that police are more effective in achieving their core mission of fighting crime (perceived effectiveness), or that there is a credible risk of sanctions for wrongdoing. We examine the direct effects of procedural justice, distributive justice, perceived effectiveness, perceived risk of sanctions, and a series of control variables on obligation to obey, willingness to cooperate, and compliance. Consistent with Tyler's process-based model of regulation, we also test the indirect effects of procedural justice (and other independent variables) on willingness to cooperate and compliance through obligation to obey. The basic conceptual model to be tested is shown in Figure 1.

Method

Data

Data for the present study were derived from a survey conducted between May and October 2010 by researchers in the Department of Police Administration at Kyonggi University in Suwon, South Korea. The survey instrument contained questions about citizens' attitudes and opinions towards the police and the law, with a particular focus on procedural justice and legitimacy issues. The survey was administered to a convenience sample of 301 university students and adults (at least 17 years of age), including 185 university students and 116 community residents attending church-related events. The

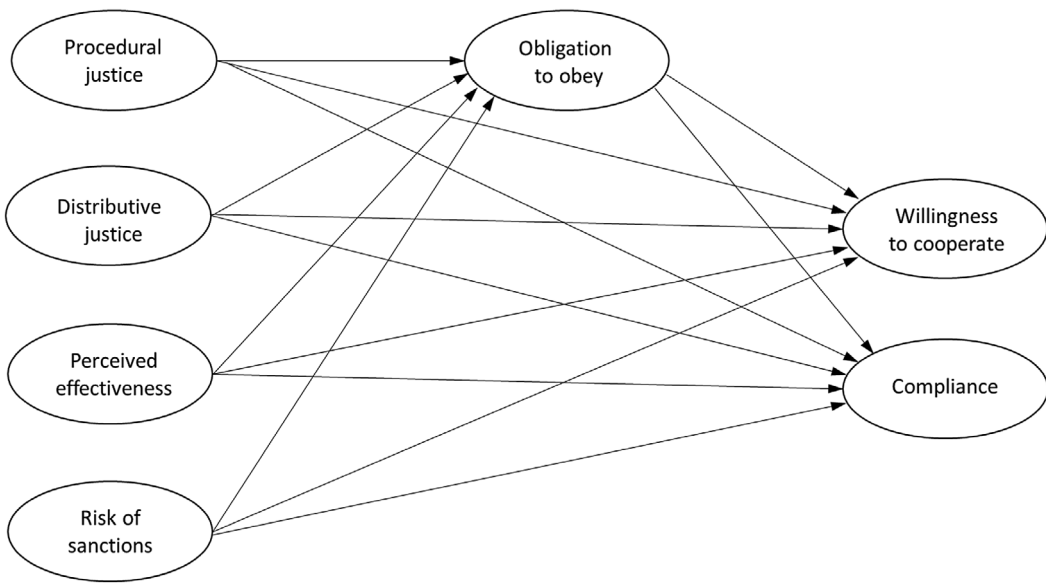


Figure 1. Basic conceptual model.

overall response rate across settings was 90%, based on 301 completed surveys out of the 332 that were distributed. Demographic characteristics of the final sample are shown in Table 1.

For the university student subsample, surveys were administered in class during the spring semester of 2010 in three liberal arts courses at Kyonggi University, which is located approximately 30 km (19 miles) south of Seoul, the nation's capital.¹⁵ Before the survey began, a researcher explained the aim of the project to all prospective respondents. Participation in the survey was completely voluntary and anonymous. Participants were not provided any material or financial reward for their participation in the study.

To obtain a sample of community residents, in October 2010 the researchers visited a local church¹⁶ in Hanam city, which is located in Gyeonggi province about 20 km (12 miles) south of Seoul. Gyeonggi province is located in the western central region of the Korean Peninsula and it surrounds Seoul, which is the largest city and the capital city of South Korea. Hanam City is one of 31 cities in Gyeonggi province. About 24.4% of the population of South Korea resides in Gyeonggi province; Gyeonggi

Table 1. Sample description ($N = 301$).

Variable	Mean/%	SD	Range
Age (in years)	27.75	12.38	17–59
Sex (1 = male, 0 = female)	.47	.50	0–1
Family SES (monthly income)	3.17	1.25	1–6
Less than \$2000	8.3%		
More than \$2000 – Less than \$3000	23.0%		
More than \$3000 – Less than \$4000	30.4%		
More than \$4000 – Less than \$5000	24.8%		
More than \$5000 – Less than \$7000	8.7%		
More than \$7000 or greater	4.8%		
College student (1 = yes, 0 = no)	.61	.49	0–1
Education	3.68	.75	1–5
Elementary school	.0%		
Middle school	14.6%		
High school	5.0%		
College/University	77.7%		
Graduate school	2.7%		

province and Seoul city together comprise approximately 45% of the entire population of South Korea (Statistics Korea, 2011, 2016). The province's demographic characteristics closely match those of Seoul (Statistics Korea, 2011, 2016).

The researchers worked with the church's minister to gain access to congregants who were at least 18 years of age. The researchers surveyed the congregants immediately following the church's main service on a Sunday. The following weekend, the researchers attended a church rally which was open to all community members in Hanam city. The purpose of the event was to promote friendship and to enhance relationships between the community and the church. During the event, people shared food and drinks and played games, including sports. The survey was administered immediately following a lunch that was served at the event. Before the survey began, the purpose of the survey was clearly explained to all participants and respondents were instructed that their participation was completely voluntary and that their responses were confidential. The respondents ranged in age from 17 to 59 and more females (60.2%) than males (39.8%) participated in the survey (although the researchers who collected the data set the minimum age for participation at 18, one 17-year-old ended up participating).

Measures

As shown in Figure 1, the model tested in this study has two ultimate outcomes: willingness to cooperate and self-reported compliance. The model also specifies obligation to obey as an intermediate outcome that partially mediates the relationships between the exogenous variables on the left and the two ultimate outcomes on the right. We specify all three constructs as latent variables measured using a series of observed indicators in a confirmatory factor analysis framework. Appendix A lists the items used to construct all composite measures. The response options for all indicators were based on a 6-point Likert scale ranging from one (strongly disagree) to six (strongly agree), with higher values representing greater agreement with each statement. Willingness to cooperate is measured using four items that tap into the extent to which respondents are willing to call the police to report a crime or another incident, help the police find a suspect, or report dangerous or suspicious activity to the police. Self-reported compliance is a four-item scale measuring the extent to which respondents behave lawfully. Obligation to obey is measured using two items that assess the extent to which respondents feel an internalized sense of obligation to obey the police and follow their directives.

The model specifies four substantively meaningful exogenous variables, including procedural justice, distributive justice, perceived effectiveness, and risk of sanctions (see Figure 1). Procedural justice is measured using six items that reflect the respondents' perceptions of the extent to which police treat people respectfully and humanely and rely on fair decision-making procedures. Distributive justice is measured using three items that tap into the extent to which outcomes like pedestrian stops, traffic stops, and arrests are allocated in a just and unbiased manner. Perceived effectiveness is measured using four items that reflect the extent to which people view the police as effective in controlling crime. Perceived risk of sanctions is measured using three items that gauge the extent to which respondents believe they would be caught and punished for breaking the law. Across all seven latent variables, a baseline confirmatory factor analysis found that the loadings associated with the indicators were strong and positive, ranging from .59 to .91, with a mean of .79 and a median of .81. The measurement model with these seven latent variables fit the data reasonably well (CFI = .95, TLI = .94, RMSEA = .08, WRMR = 1.16) and revealed no issues with discriminant validity (the largest correlation between factors was .48). Although not necessarily of substantive importance for our purposes, we also controlled for the influence of several observed covariates in the model, including age, sex, income, education, and whether the participant was recruited via the university or the community subsample.

Analysis

We used structural equation modeling (SEM) to estimate three models, each one specifying either obligation to obey, willingness to cooperate, or compliance as the ultimate outcome (we estimated

these models separately due to the complexity of the models relative to sample size). All three models feature the same exogenous variables, including four latent variables (procedural justice, distributive justice, perceived effectiveness, and perceived risk of sanctions) and five observed covariates. For the obligation to obey model, there is no mediator included. For the willingness to cooperate and the compliance models, obligation to obey is treated as a mediator between the exogenous variables on the left and the endogenous variable on the right (see Figure 1). Each structural equation model includes both a measurement (confirmatory factor analysis) and a structural (regression) component. Because the indicators of the latent variables are ordinal, we chose a robust mean and variance adjusted weighted least squares estimator available in *Mplus*. Monte Carlo simulations have shown that this estimation method works well for models with ordinal outcomes, including those with small samples and asymmetric distributions (Flora & Curran, 2004; Li, 2014; Rhemtulla, Brosseau-Liard, & Savalei, 2012). To deal with missing data on the observed covariates, we used a Bayesian multiple imputation procedure in *Mplus* to impute ten complete data sets (Asparouhov & Muthén, 2010). We then averaged the parameter estimates across the imputed data sets as recommended by Rubin (1987).

Results

We begin by presenting the SEM results for obligation to obey the police. The full results are shown in Table 2. The obligation-to-obey model fits the data reasonably well according to the fit statistics. The predictors included in the model explain 63.5% of the variation in obligation to obey, with two of the four substantively meaningful exogenous variables exerting a statistically significant effect: procedural justice ($\beta = .562$) and perceived effectiveness ($\beta = .138$). The results suggest that South Korean citizens who view the police as behaving in a procedurally just manner feel a stronger obligation to obey the police. Moreover, those who perceive the police as effective in carrying out their crime control and public safety function also feel more obligated to obey their directives. Three of the five control variables exerted a statistically significant effect on obligation to obey: age, sex, and whether the respondent was in the college student subsample. The significant positive coefficient for age ($\beta = .238$) indicates that older respondents feel a greater obligation to obey the police than younger respondents. The significant positive coefficient for sex ($\beta = .207$) suggests that male respondents feel a greater obligation to obey the police than female respondents. The significant negative coefficient for the college student subsample variable ($\beta = -.299$) reveals that participants in our college student subsample feel less obligation to obey the police than participants in our church-based subsample. The remaining controls, including socioeconomic status and education, did not have a statistically significant effect on obligation to obey the police.

Next we turn to the model results for willingness to cooperate (see Table 2). Once again, the fit statistics reveal that the model fits the data reasonably well. The predictors explain 51.3% of the variation in willingness to cooperate, with only one of the four substantively meaningful exogenous variables exerting a statistically significant direct effect: perceived risk of sanctions ($\beta = .130$). The mediator variable, obligation to obey, also exerted a significant effect on willingness to cooperate ($\beta = .402$). Only two of the five control variables exerted a statistically significant effect on willingness to cooperate: age and education. The significant positive coefficient for age ($\beta = .223$) suggests that older respondents feel a greater willingness to cooperate with police than younger respondents. The significant negative coefficient for education reveals that less educated respondents are more willing to cooperate with police than are more educated respondents. The remaining controls, including sex, socio-economic status, and subsample did not have a statistically significant effect on willingness to cooperate.

Finally, Table 2 shows the SEM results for self-reported compliance (see Table 2). The model fits the data reasonably well according to several fit statistics, although model fit appears to be in the lower range of acceptable standards. The model explains 30.6% of the variation in compliance, with only two of the four substantively meaningful exogenous variables exerting a statistically significant direct effect: distributive justice ($\beta = .401$) and perceived risk of sanctions ($\beta = .273$). Respondents who perceive the police as allocating outcomes like stops, searches, and arrests fairly are more likely

Table 2. Structural equation modeling results.

Description	Obligation to obey			Willingness to cooperate			Compliance		
	<i>b</i>	β	<i>p</i>	<i>b</i>	β	<i>p</i>	<i>b</i>	β	<i>p</i>
<i>Latent variables</i>									
Procedural justice	.442	.562	.000	-.026	-.004	.829	-.249	-.220	.079
Distributive justice	.003	.003	.972	-.002	-.002	.978	.452	.401	.000
Perceived effectiveness	.108	.138	.041	.120	.112	.092	.013	.011	.887
Perceived risk of sanctions	.033	.042	.456	.138	.130	.013	.314	.273	.000
Obligation to obey	–	–		.532	.402	.000	.324	.216	.064
<i>Observed covariates</i>									
Age (in years)	.012	.238	.043	.016	.223	.024	.005	.066	.604
Sex (1 = male, 0 = female)	.212	.207	.006	.183	.105	.091	-.039	-.022	.772
Family SES (six-category ordinal)	.069	.137	.094	-.069	-.101	.147	.099	.137	.104
College student subsample (1 = yes, 0 = no)	-.299	-.231	.027	.092	.051	.595	-.284	-.062	.539
Education (5-category ordinal)	.092	.109	.268	-.270	-.234	.000	.084	.035	.743
Explained variance (R^2)		.635			.513				.306
<i>Model fit statistics</i>									
RMSEA		.056			.055			.057	
CFI		.969			.962			.958	
TLI		.963			.956			.950	
WRMR		1.16			1.15			1.17	

Notes: $N = 301$ for all models; b = unstandardized coefficient, β = fully standardized coefficient; p = two-tailed p -value; bold entries reflect statistically significant coefficients ($p < .05$).

to comply than those who view the police as distributively unjust. The effect of procedural justice on compliance was not statistically significant at the conventional alpha level of .05, though its p -value ($p = .079$) suggests that the effect may have emerged as statistically significant with a larger sample size. Curiously, the coefficient for procedural justice was negative ($\beta = -.220$), which is inconsistent with the positive effect of procedural justice on compliance that is typically observed in this body of research. Interpretation of this finding is speculative, but one possibility is that respondents conflated procedural justice with leniency and saw it as a form of 'soft' policing. They may have believed that a process-based approach equated with a lower chance of unfavorable outcomes such as arrest. More research is necessary to test the veracity of this interpretation.

Perceived effectiveness did not have a significant effect on self-reported compliance. The mediator variable, obligation to obey, also did not exert a statistically significant effect on willingness to cooperate at the conventional alpha level ($p < .05$), though its p -value approached statistical significance ($p = .064$) and therefore may have emerged as significant with a larger sample. None of the five control variables exerted a statistically significant effect on willingness to cooperate.

The findings so far reveal that procedural justice had a significant direct effect on obligation to obey, but not on willingness to cooperate or on compliance (the latter falling just shy of the conventional $p < .05$ cutoff). In addition to the various *direct* effects presented in Table 2, we also calculated the *indirect* effects of procedural justice on willingness to cooperate and on compliance via obligation to obey. The process-based model of regulation articulated by Tyler and his colleagues specifies these indirect effects as a key part of the model (e.g., Sunshine & Tyler, 2003; Tyler, 2006). Consistent with the theory, we found that procedural justice had a significant positive indirect effect on willingness to cooperate ($b = .248$, $p = .004$). However, procedural justice did not have a statistically significant indirect effect on self-reported compliance ($b = .137$, $p = .091$).

Discussion

This study tested procedural justice theory in a sample of citizens in South Korea. Historical and contemporary relationships between police and the public in South Korea differ from those in the United States and other Western nations where procedural justice theory is tested most frequently.

Our findings highlight several important themes associated with the relative influence of procedural justice and instrumental factors on people's perceived obligation to obey the police and the law, their willingness to cooperate with the police, and their self-reported compliance. As Sun et al. (2017) found in their test of procedural justice theory in China, some of our findings from South Korea were consistent with previous research conducted in Western nations. However, key differences emerged that may have implications for thinking about the applicability of procedural justice theory in South Korea and in East Asia more generally.

Consistent with some previous research (e.g., Mazerolle, Antrobus et al., 2013), we found that procedural justice only exerted a significant direct effect on one of the three outcomes (obligation to obey). Procedural justice did not exert *direct* effects on either willingness to cooperate or self-reported compliance behavior; however, consistent with the process-based model of regulation, it did have a significant *indirect* effect on willingness to cooperate. In this sample of South Korean citizens, we found that perceptions of procedural justice enhance people's internalized sense of obligation to obey the directives of the police, which in turn enhance their willingness to cooperate with the police. This finding is consistent with procedural justice theory, which postulates that procedural justice operates indirectly through perceived obligation to obey (e.g., Gau, 2011; Pryce, Johnson, & Maguire, 2017) or legitimacy (e.g., Mazerolle, Antrobus et al., 2013; Sunshine & Tyler, 2003), as alternatively defined (but see Reisig & Lloyd, 2009). However, the finding that procedural justice had neither a direct nor an indirect effect on self-reported compliance deviates strongly from the literature on procedural justice and its effects. Procedural justice appears to promote cooperation, but not compliance, in this sample.

The finding that distributive justice (fairness in the allocation of outcomes) did not have a significant effect on obligation to obey also deviates from some existing research (Gau, Corsaro, Stewart, & Brunson, 2012; Tyler, 2006; but see Sunshine & Tyler, 2003). Previous studies have produced mixed findings on the effects of distributive justice (Sunshine & Tyler, 2003). Perceived effectiveness did have a significant effect on obligation to obey, which also diverges from previous analyses. Distributive justice exerted a significant direct effect on compliance, while obligation to obey did not. This is inconsistent with previous research (Gau, 2011; Gau et al., 2012; Reisig, Bratton, & Gertz, 2007; Sunshine & Tyler, 2003). The absence of a significant relationship between obligation and compliance represents an important departure from procedural justice theory, which argues that an internalized sense of obligation to obey the law is a key antecedent of compliance. Finally, perceived risk of sanctions emerged as a significant predictor of both cooperation and compliance. Perceived risk of sanctions is a central element of deterrence theory. Previous research has found a significant relationship between sanction risk and compliance (Sunshine & Tyler, 2003), but not between sanction risk and willingness to cooperate (Pryce et al., 2017; Sunshine & Tyler, 2003; Tankebe, 2009). Perceived risk of sanctions is often conceptualized as an *instrumental* factor that influences compliance and cooperation, in contrast with procedural justice, which is typically conceptualized as a *normative* factor.

One of the key patterns emerging from this study has to do with the relative effects of normative and instrumental factors. The instrumental factors had more robust effects than expected, while the normative effects associated with procedural justice were less evident than expected. Previous studies have found that instrumental factors matter, but less so than normative factors (e.g., Reisig et al., 2007; Tyler, 2006). The idea that normative factors are more important than instrumental factors in shaping cooperation and compliance is one of the foundations of procedural justice theory. However, evidence from this South Korean sample suggests that instrumental judgements about police effectiveness, distributive justice, and perceived sanction risk have noteworthy effects. In fact, while procedural justice doesn't have a significant direct or indirect effect on compliance, two instrumental factors – distributive justice and perceived risk of sanctions – both exert significant effects. These atypical findings may be rooted in cultural differences between East Asian and Western nations, or in the profound legal and governmental changes that have occurred in South Korea in recent decades.

Cultural orientations toward state authority in East Asia generally, and in South Korea specifically, are unique relative to Western nations. Moreover, South Korea is emerging from a history of significant police oppression and abuse. Situated against this backdrop, public views of the police and

the law in South Korea may differ considerably from the Western nations where most procedural justice research takes place. It is difficult to know how these contextual differences might influence the relationships hypothesized in procedural justice theory. Research has shown that in places with a history of endemic police brutality and corruption, instrumental judgments about police can outweigh normative judgments in shaping cooperation and compliance. For instance, Tankebe (2009) found that the dominant predictor of cooperation with police in Ghana was perceived effectiveness; the effects of procedural justice were not significant. In the present study, willingness to cooperate was shaped primarily by obligation to obey and perceived risk of sanctions – a mix of normative and instrumental influences. However, compliance was shaped primarily by two instrumental factors: distributive justice and perceived risk of sanctions. Procedural justice and deterrence are competing theoretical explanations for why people obey the law (Sunshine & Tyler, 2003; Tyler, 2006). Here we found that perceived sanction risk was the *only* variable exerting significant effects on both willingness to cooperate and self-reported compliance. Thus, explanations for why people cooperate and comply with the law and legal authorities in South Korea must account for perceptual deterrence. Police performance also plays a role. While it did not exert a significant direct effect on willingness to cooperate or self-reported compliance, it did have a significant effect on obligation to obey, which in turn had a significant effect on willingness to cooperate.

These results suggest that the social psychology of obligation, cooperation, and compliance in this context may be very complex, involving an uncertain mix of normative and instrumental considerations. Procedural justice exerts some effects, though fewer than expected based on the existing literature. Instrumental factors also have key effects, though perhaps to a greater extent than expected based on the literature. Understanding the complex array of factors that influence cooperation and compliance with the law and legal authorities in South Korea and East Asia more generally will require a substantial investment in research in this region. One tentative conclusion that emerges from our study is that procedural justice theory may need to be adapted to the unique cultural and contextual environment of the East Asian region (see also Sun et al., 2017).

The major policy implications that emerge from this study are associated with the pattern of direct and indirect effects we have just outlined. If police officials are interested in inculcating an internalized sense of obligation to obey in South Korea, then they must behave in ways that lead the public to view them as procedurally just and effective in preserving public safety. If they want to promote cooperation with police, then they must develop in the citizenry a sense of obligation to obey, as well as the view that people who violate the law will be caught and punished (risk of sanctions). If police officials are interested in promoting compliance with the law and legal authority, they must allocate police services in a fair and equitable manner (distributive justice) and increase the perceived risk of sanctions. These policy implications call for police to optimize both normative and instrumental factors that are thought to promote prosocial outcomes like obligation, cooperation, and compliance.

This study is not without limitations. The data were collected from a convenience sample of people located within a single province in South Korea. Future research should seek to gather data from a random sample of respondents from a wider geographic area to facilitate greater external validity. Additionally, as with most studies of procedural justice, we relied on surveys of the general population. This area of research would benefit from greater application of qualitative interviews (e.g., Gau & Brunson, 2010), systematic social observations of police–citizen interactions (e.g., Jonathan-Zamir et al., 2015), surveys of arrestees and offenders (e.g., Baker et al., 2014; Nuño, 2017), and experimental designs (e.g., Lowrey, Maguire, & Bennett, 2016; Maguire, Lowrey, & Johnson, 2016; Mazerolle, Antrobus et al., 2013; Sahin et al., 2016). Finally, this study highlights the need for procedural justice researchers to continue working toward the development of standardized methods for measuring key constructs and evaluating their relationships with one another (see Gau, 2011, 2014; Maguire & Johnson, 2010; Reisig et al., 2007). It is difficult to compare studies across countries and regions when operationalization and measurement are inconsistent.

Conclusion

This study adds to a growing body of research on the international generalizability of the procedural justice model developed in the West. Similarities and differences emerged when this model was applied to a South Korean sample. Normative judgments mattered, but instrumental factors appeared to have robust effects. Researchers should continue examining the factors that influence people's views of the law and legal authorities in a wider variety of settings, including nations and regions with different cultures and legal systems and varying levels of social, economic, and institutional development. Doing so will help researchers develop a clearer understanding of the contours of procedural justice theory, and help policy makers improve criminal justice practices in ways that preserve and enhance both public safety and the rule of law.

Notes

1. Much of the literature on process-based regulation postulates indirect effects of procedural justice on outcomes like cooperation and compliance through perceived legitimacy. However, recent scholarship has begun to challenge the meaning and measurement of legitimacy in this body of research (Johnson, Maguire, & Kuhns, 2014; Tankebe, 2013). Although the dimensions or components of legitimacy are inconsistent across studies (see Johnson et al., 2014), the most frequently used component of legitimacy in this body of scholarship is obligation to obey, which Tyler (2006) argues is the most direct measure of perceived legitimacy. Given recent debates about the meaning and measurement of legitimacy, here we treat obligation to obey as the key mediator linking procedural justice to outcomes like cooperation and compliance, but we do not necessarily treat it as a measure of legitimacy.
2. European research on procedural justice has been carried out in Belgium (Dirikx, Gelders, & Parmentier, 2012; Van Damme, 2013; Van Damme & Pauwels, 2012a, 2012b), Finland (Saarikkomäki, 2015); Slovenia (Reisig, Tankebe, & Mesko, 2012, 2014; Tankebe & Mesko, 2015), Sweden (Van Damme, Pauwels, & Svensson, 2013), the United Kingdom (e.g., Bradford, 2014; Hough, Jackson, Bradford, Myhill, & Quinton, 2010; Tankebe, 2013), and in comparative studies across European nations (Hough, Jackson, & Bradford, 2013).
3. Colonial police were involved in regulating various economic activities, including markets, business, social welfare, factory conditions, and construction of roads, bridges, and other infrastructure (Hwang, 2016). According to Hwang (2016), 'An Economic Police Section in the provincial government offices was mobilized to prevent black marketeering, to oversee the distribution of rations, and generally to enforce the channeling of material resources toward the war effort ... Local police officials and patrolmen, including economic police, also became involved in selecting and corralling thousands of people destined for hard industrial labor' (p. 75).
4. Military doctors and police played an important role in sanitary and hygienic reforms as part of the distinctive ruling styles imposed on Korea by Imperial Japan. Japan overhauled Korea's medical system to reinforce its ruling power (Henry, 2005; Park, 2002). The colonial police inspected household hygiene and carried out census surveys regarding health and disease (Henry, 2005). According to Park (2002), Japan established the sanitary police in 1907 to take charge of sanitation in each province. Responsibilities of the colonial police included 'the prevention and disinfection of contagious disease, vaccination, distribution of food and water, dispensation of medicine, livestock, meat production, and burial sites' (Hwang, 2016, p. 225).
5. According to Moon (2004b), 'There were many cases where accused or suspected persons were detained and investigated in the police station for months until they admitted their (false) guilt or provided information the police needed. During the investigation, every imaginable physical or psychological torture tactic such as threats, deception, persuasion, electric shocks, beatings, and forced water intake were employed. Worse, the judiciary power was given to the police and more than 100,000 cases were tried in police courts each year' (p. 139).
6. Election fraud remains an ongoing issue in South Korea. For example, Park Geun-hye, former President of South Korea, was impeached by the Constitutional Court on 10 March 2017 for corruption. She was elected in December 2012 amidst allegations of electoral fraud, with many Koreans proclaiming that the election was illegal and fraudulent. Geun-hye's father, Park Chung-hee, was a dictator and military general who seized power through military coup and led South Korea from 1961 until his assassination in 1979 (Moon & Morash, 2008). Geun-hye is the third former president of South Korea to have been arrested over criminal allegations. After the impeachment, Moon Jae-in, a former student activist and human rights attorney, was elected as President of South Korea in May 2017.
7. During the 1970s and 1980s in Korea, the collusion between business and politics was regarded as a necessary evil for economic growth.
8. There were several deaths related to human rights violations, torture, the use of deadly force during police investigations, and bloody forms of police suppression until the early 1990s (for more details, see Katsiaficas, 2012; Kwon, 2011; Moon, 2004b).

9. Moon and Morash (2008, p. 111) stated that ‘without a fixed period of tenure, the Commissioner General has frequently been changed at the will of the ruling regimes. The average tenure has been less than a year, which has significantly diminished the political neutrality of the police (Pyo, 2001). Consequently, high-ranked police officers become more concerned with the interests of parties in power than with the citizenry, and police are deeply involved in political matters.’
10. Albrecht and Green (1977) proposed a positive link between attitudes toward the police and attitudes toward larger legal (e.g., courts and judges) and political systems. With samples from Latin American countries and the United States, Cao and Zhao (2005) found evidence that trust in the political and legal system had a positive influence on confidence in the police. Lee (2003) also found that along with the growth of citizen distrust in police between 1982 and 1995 in South Korea, distrust in the legal system and parliament, and political cynicism also increased during the same period. Moreover, using data from the World Values Surveys in 1995–1997, Cao and Dai (2006) found that trust in the social and political system is the single strongest predictor of confidence in the police in South Korea.
11. The newly elected President, Moon Jae-in, quickly began advocating for far-reaching criminal justice system reform. A key element of his 2017 presidential campaign were his promises to reform police and prosecution and to shift the role of the National Intelligence Agency.
12. Before 2003, police patrol divisions were known as mini-stations or police substations. Police patrol divisions combined mini-stations in an effort to improve the quality of services and enhance public safety (for more details, see Moon & Morash, 2008).
13. The military combat police unit was, until recently, one of the unique features of the police system in South Korea. The unit launched in 1971 and one of its main tasks involved combating North Korean armed agents who had infiltrated South Korea (Lee, 2010). The forces were involuntarily selected from among army conscripts (Moon & Morash, 2008). The military combat police unit operated for 42 years before it was disbanded in 2013 due to resource constraints.
14. For a theoretical framework that ties together perceptions of procedural justice, crowd dynamics during incidents of civil unrest, and the use of violence by and against police and protesters, see Maguire (2016).
15. In the college/university system of South Korea, the spring semester begins in March and ends in July. The survey was administered to students in liberal arts courses because these courses are open to all students at the university and fulfill a general education requirement to graduate. There were 43 different majors from 10 colleges among the participants and the gender ratio was nearly equal (50.8% male and 49.2% female).
16. The Korean Statistical Information Service (KOSIS) administers a decennial census that tracks the religious affiliations of the populace. The latest religious data currently available from KOSIS were released in 2005. According to the Census Bureau, approximately 53% of South Koreans aged 15–59 declared a religious affiliation. Among those claiming a religious affiliation, about 55% were Christian and about 44% were Buddhist. In Hanam city, approximately 53% of residents declared a religious affiliation. Among those, approximately 64% were Christian and about 34% were Buddhist. The convenience sampling method used in this study is unlikely to have produced a sample that is representative of the South Korean population at large. Nonetheless, it does provide a useful test of procedural justice theory among people associated with two institutions: a university and a church. We are careful not to generalize to the larger population.

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The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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Appendix A. Items used to construct composite measures

Procedural Justice (6 items)

- The police make decisions based upon facts, not their personal biases or opinions (q13_4).
- The police give honest explanations for their actions (q14_2).
- The police give people a chance to express their views before making decisions (q14_3).
- The police treat people with dignity and respect (q14_6).
- The police respect people's rights (q14_7).
- The police sincerely try to help people with their problems (q14_8).

Distributive Justice (3 items)

- The police fairly decide who to stop and question on the street (q13_6).
- The police fairly decide who to stop for traffic violations (q13_7).
- The police fairly decide who to arrest and take to jail (q13_8).

Perceived Effectiveness (4 items)

- The police have been effective at controlling violent crime (q5_1).
- The police have been effective at controlling gang violence (q5_2).
- The police have been effective at controlling drug crime (q5_3).
- The police have been effective at controlling burglary crime (q5_4).

Perceived Risk of Sanctions (3 items)

- If I commit a crime, I would be caught by the police immediately (q16_1).
- If I commit a crime, I would eventually be caught by the police (q16_2).
- If I was caught by the police for committing a crime, I would be punished severely (q16_3).

Obligation to Obey (2 items)

- Communities work best when people follow the directives of the police (q1_3).
- Overall, the police are a legitimate authority and people should obey their directives (q3_4).

Willingness to Cooperate (4 items)

- I would call the police to report a crime occurring in my neighborhood (q18_1).
- I would call the police to report an incident (q18_2).
- I would help the police to find someone suspected of committing a crime (q18_4).
- I would report dangerous or suspicious activities in my neighborhood to the police (q18_6).

Compliance (4 items)

- I park my car legally (q9_1).
- I dispose of trash and litter legally (q9_2).
- I do not make noise at night (q9_3).
- I obey speed limits and traffic laws while driving (q9_4).