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## Linking supervisory procedural accountability to officer procedural accountability in Chinese policing

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#### **ABSTRACT**

An important yet severely understudied issue in the procedural justice literature involves the linkage between supervisory procedural a police agency and officer accountability within accountability on the street. Relying on the survey data collected from more than 700 police officers in a large Chinese city, this study finds that the effect of supervisory procedural accountability on officer procedural accountability is principally indirect through the mediating factors of officer satisfaction with job and morale, net of several control variables. Noticeably, surveyed officers report only moderate levels of procedural accountability delivered by their supervisors, and even lower levels of accountability that they themselves are willing to render to the public. Implications for future research and policy are discussed.

#### ARTICLE HISTORY

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#### **KEYWORDS**

Chinese policing; procedural justice; police accountability; general strain theory; learning

#### Introduction

Holding the police accountable to the public is a fundamental principle of a democratic society. Police accountability involves holding both the entire agency and individual officers responsible for fairly and effectively carrying out their core missions within the boundaries of the law (Walker and Archbold 2013). Among the various aspects of accountability, procedural accountability has received a growing scholarly attention, with the burgeoning literature showing a positive impact of procedural justice on public perceptions of police legitimacy and cooperation with the police (Sunshine and Tyler 2003, Jackson *et al.* 2012). Indeed, when officers are more answerable to citizens' questions and requests and transparent in their decisions and actions, regardless of the outcome, they are more likely to be considered legitimate by the citizenry and receive voluntary cooperation from the public (Walker and Archbold 2013).

An important yet severely understudied issue in the procedural justice literature involves the potential linkage between supervisory procedural accountability within a police agency and officer procedural accountability on the street. A promising direction of procedural justice research points to the necessity of including police organisational variations into analysis. Evidence has shown that organisational factors, such as leadership quality, supervisory fairness, and peer support, are prominent antecedents of officer psychological states and job performance (Biggam *et al.* 1997, Collins and Gibbs 2003, Brough 2004). Particularly, drawing upon the strength of a long line of research on organisational justice in social psychology (see Cohen-Charash and Spector 2001 and Colquitt *et al.* 2001 for a review), a growing number of studies in policing have demonstrated that within police agencies, organisational procedural justice is essential in promoting officer job satisfaction,

commitment, performance, and service to the public (Tankebe 2010, Wolfe and Piquero 2011, Myhill and Bradford 2013, Bradford et al. 2014, Haas et al. 2015, Trinkner et al. 2016, Wolfe and Nix 2016). Notably, several recent studies have highlighted a potential connection between internal supervisory procedural justice and external officer procedural justice (Donner et al. 2015, Van Craen et al. 2017, Wu et al. 2017). It is reasonable to expect that when supervisors are more answerable to their officers and explain department policies and their decisions well to subordinates, patrol officers are more likely to be similarly transparent and open towards the public during police-citizen encounters.

Two theoretical frameworks may explain the linkage between supervisory and officer procedural accountability. First, learning theory suggests that a great deal of learning among humans takes place by observing others' behaviours (Akers 1998). Officers may observe how supervisors treat them, imitate such behaviours, and treat the citizens they encounter at work in a similar manner. Second, general strain theory (GST) postulates that high levels of strain produce negative emotions which further lead to crime and delinquency (Agnew 2001). Lack of accountability to subordinates may constitute a notable organisational strain for officers, generating a host of negative emotions such as low job morale and high frustration and anger, and subsequently resulting in officers' low commitment to departmental goals and policies including procedural accountability furnished to citizens.

This study proposes a conceptual model arguing that internal procedural accountability (IAC) that officers receive from supervisors affects external procedural accountability (EAC) that officers deliver on the street, both directly based on an imitation hypothesis, and indirectly through emotions drawing upon propositions of GST (see Figure 1). This model is tested using data collected from a sample of 713 police officers in a metropolitan in China. A commonly recognised limitation of literature on Chinese policing is the lack of empirical studies, especially theory-quided ones (Sun and Wu 2010). Although a small number of studies have started to fill this emptiness by examining issues, such as police occupational attitudes (e.g. Sun et al. 2009, 2016, Cuvelier et al. 2015, Liu et al. 2017), arrest actions (Zhang and Liu 2004), and cadets' motivations to join the force (Wu et al. 2009), empirical research on Chinese policing remains sporadic. This study contributes to our understanding of factors that influence Chinese police attitudes and behaviours. Furthermore, research from major Western democracies, such as the US, UK, and Australia has shown the effects of procedural justice on people's perceptions of police legitimacy and trustworthiness as well as on officers' job satisfaction, commitment, and compliance. Whether such an internal-external nexus of

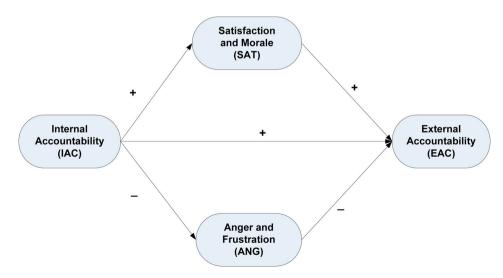


Figure 1. Conceptual model.

procedural accountability also maintains in a rapidly developing authoritarian country remains an open question to be addressed.

This study attempts to answer three research questions:

- (1) To what extent do Chinese police supervisors render procedural accountability to their officers, and to what extent do Chinese officers provide procedural accountability to citizens?
- (2) Is there a significant effect of supervisory procedural accountability on officer procedural accountability, controlling for key officer background characteristics?
- (3) Should there be a relationship between supervisory and officer procedural accountability, is this relationship mainly direct or indirect through mediating factors of officer affections?

#### Literature review

#### Procedural accountability and policing

Procedural accountability is an integral dimension of procedural justice. It refers to the willingness of authorities to demonstrate transparency and openness in their actions and decision making (Tyler 2004). Accountability, along with neutrality, respect, and voice, are considered as four core values of procedural justice (Tyler 2004, Haas *et al.* 2015, Van Craen 2016). Police managers and supervisors should encourage their subordinates to express their views on the situation and participate in the decision-making process (voice). They should show politeness and respect and demonstrate care and concern when interacting with rank and file (respect) (Mastrofski *et al.* 2016). Supervisors should remain neutral when making decisions and avoid personal biases (neutrality), and finally, authorities should be answerable to their decisions and explain policies and decision-making to subordinates in an open and clear manner (accountability).

A number of organisational studies including research on police and correctional officers have indicated that organisational justice, with procedural accountability as an integral part, promotes trusting relationships between supervisors and officers, increases officer organisational commitment and job satisfaction, elevates officer endorsement of democratic policing, and enhances officer adherence to organisational rules (Tankebe 2010, Myhill and Bradford 2013, Bradford et al. 2014, Donner et al. 2015, Trinkner et al. 2016). Two studies (Wolfe and Piquero 2011, Mastrofski et al. 2016) found that perceptions of organisational justice relate to officer disapproval of deviant attitudes and lower likelihoods of misconducts. Tankebe (2014), based on data from Ghana, revealed that perceived distributive justice and procedural justice within the police service are significant correlates of officer satisfaction with democracy and support for procedural justice in police-citizen encounters. Finally, two recent studies, based on data from Belgium and Taiwan, respectively, found that disrespectful supervision shapes disrespectful policing (Van Craen et al. 2017), and supervisory procedural justice influences officer procedural justice on the street (Wu et al. 2017).

#### Low supervisory accountability as bad modelling and source of strain

Supervisory influence on officers may be direct, indirect, or both. A direct effect may reflect a supervisory modelling perspective. Social learning theory posits that people learn how to behave by imitating other people's behaviour and observing the consequences of others' behaviour (Akers 1998). Observers are most likely to imitate people with high status, power, or competence, as these attributes lead them to believe that their models' behaviour is appropriate to the situation and has been rewarded in the past (Van Craen et al. 2017). In the management and organisational psychology literature, learning theory is fundamental in understanding organisational socialisation (Weiss 1977). Supervisors' behaviours signal organisational norms and expectations to employees, indirectly encouraging employees to engage in similar actions.

Concerning policing, the formation of officer procedurally accountable behaviours may be facilitated by police managers, especially first-line supervisors, who serve as an important reference group in patrol officers' work environments (Van Maanen 1974, Fielding 1988). Research has revealed that supervisors vary in their styles of supervision, skills, and knowledge (Engel 2001). Some sergeants, for example, are more active than others, initiating more contacts with subordinates and delivering specific instructions and patrol objectives (Van Maanen 1983). The relations between many frontline officers and their supervisors, however, are less positive, with officers often complaining about the authoritarian leadership style of supervisors, whose primary concern was the loyalty of their subordinates (Bittner 1983). It is important to assess the influence of differential procedural accountability exercised by supervisors on officer behaviour. Van Craen and colleagues (2017) found that verbally aggressive behaviour by supervisors is directly associated with disrespectful officer behaviour towards citizens, implying that supervisor modelling plays a role in shaping street-level policing. When supervisors are open and answerable to officers, their style of leadership encourages officers to believe that such conduct is a preferred way to exercise authority and make people comply, cultivating officers' inclination towards similar behaviour. This study thus hypothesises that supervisory procedural accountability has a positive direct impact on officer procedural accountability.

An alternative and indirect mechanism linking internal and external accountability is officers' emotions. A growing body of research has documented a close association between perceptions of injustice and indicators of psychological strain (Donner *et al.* 2015). According to Agnew (1992, p. 50), strain refers to 'relationships in which others are not treating the individual as he or she would like to be treated'. A strain is most likely to stir criminal and delinquent coping responses if it is perceived as unjust, is high in magnitude, is associated with low social control, and creates an incentive to commit acts of deviance (Agnew 2001, 2006). Failure to achieve fairness in the process involving officers in decisions can represent a critical source of strain, considered as either the presence of negatively valued stimuli of obscurity and arbitrariness, or the removal of positively valued stimuli of answerability (Wu *et al.* 2017). When such injustice is experienced chronically or repetitively, it may create especially high levels of negative emotions against the job and the department. Feelings of frustration and anger, coupled with lack of effective positive coping mechanisms and sufficient social control, can stimulate officer misconduct, including unfair treatment of citizens (Agnew 2001). Indeed, both Van Craen *et al.* (2017) and Wu *et al.* (2017) found that unjust supervision leads to unjust policing indirectly through the mediating factors of negative affections.

While GST focuses on the effects of negative emotions on behaviour, other research has indicated that positive feelings, in contrast, promote positive behaviour. The relationship between job satisfaction and performance is one of the most longstanding research traditions in industrial-organisational psychology (Judge et al. 2001). In policing, job morale and satisfaction can also motivate police officers to work in favour of the organisation, devote more efforts into work instead of just 'laying low' and doing minimal work, and take more time to listen to citizens' input, answer their questions, and address their concerns (Cohen-Charash and Spector 2001, Van Craen et al. 2017). Furthermore, perceived supervisory accountability can increase officers' satisfaction with their organisation as a place to work (Myhill and Bradford 2013). Surveys collected from a sample of Korean police officers indicated that perception of organisational justice has an indirect effect on organisational commitment through job satisfaction (Crow et al. 2012). Similarly, Wu et al. (2017) found that supervisory procedural justice affects officer procedural justice towards citizens through both positive emotion of satisfaction and negative emotion of anger. As such, this study hypothesises that supervisory procedural accountability shapes officer procedural accountability indirectly through the positive influence of satisfaction/morale and the negative effect of anger/frustration.

#### Chinese policing in context

The Chinese police have experienced significant progress in modernisation and professionalisation since the 1980s. Noticeable improvement has been made in police education and training, for

example, with the formation of a number of police higher education institutions and technical schools and more college-educated officers serving as first-line supervisors and officers. While the Chinese police work hard towards the establishment of a professional force, they are suffering a crisis of legitimacy (Sun and Wu 2010), partially due to widespread misconduct, inadequate training in human relations skills, and involvement in much non-police work (e.g. birth control and economic disputes) (Du 1997). The arrest and conviction of China's former public security czar Zhou Yongkang in 2015, in addition, has elucidated that corruption and abuse of power have been pervasive even among the nation's highest levels of law enforcement officials.

Enhancing police accountability remains one of the most urgent and important tasks for the Chinese government, resulting in a variety of governmental measures. The 1995 Police Law stipulates that the Chinese police are subject to both internal and external supervisions. The former is mainly performed by the supervisory teams or committees established throughout all levels of police agencies since the late 1990s. The latter includes supervisions exercised by the Peoples' Procuratorate Offices, the Ministry of Supervision, and the public. The Ministry of Public Safety also published a series of regulations to enhance internal supervision of police officers, including the 1999 Regulations on Police Internal Supervision, 2000 Regulations on Discipline of Misconduct, and 2001 Regulations on Evaluation of Performance Quality (Ministry of Public Security (MPS) 2006). In 2003, the Supreme People's Procuratorate launched a campaign to reduce over-extended detention cases. Within eight months, the police and the court system cleared up more than 14,000 and 7000 of such cases, respectively (Wong 2009). Additional official reform efforts centred on strengthening the overall capacity of neighbourhood police stations (Yang 2003), reducing units with low standards in qualification and performance such as the social order joint protection teams (similar to auxiliary police formed by community volunteers) (Zhong 2009), and tightening the management and supervision of private security organisations (Sun and Wu 2010).

Besides government efforts, the news media and the public have played an increasingly salient role in monitoring the police during the past two decades. There has been a growing awareness of police misconduct accompanied by a noticeable rise of citizen resistance to or disrespect of police authority (Wong 2009). Massive protests and violent confrontations between the police and the public were pervasive but only occasionally reported by the state-controlled media. Although a large part of protests are related to such issues as land-taking, labour rights, environmental issues, and social securities, incidents directly related to discontent with the police were not unheard of, particularly those caused by police illegal search, detention, and torture (O'Brien and Li 2006, Liebman 2012). It is estimated that approximately one-fifth of the public protests were triggered directly by police misconduct (Legal Daily 2012, 27 December), imposing great pressure on the police and straining police-public relations.

Further complicating the matters, Chinese culture typically favours the pursuit of substantive justice over procedural justice (Li 2012). Evidence suggests that Chinese people barely distinguish between procedural justice and distributive justice defined in Western terms (Sun *et al.* 2013), and the Chinese police, who share the same cultural values with the people, also weigh outcomes over process, and crime control over due process. With the professionalisation movement, however, the government, law (both administrative and criminal), and the police have started recognising the necessity and importance of procedural justice (Wong 2011). Nonetheless, law on the book and law in action do not always correspond, and the procedural law that attempts to hold the police accountable has not really changed their zealous pursuit of substantive justice (Wong 2011).

To fight for the rising tide of public discontent with policing, often emboldened by divergent social media and ambiguous official communications, the Chinese police have launched its most recent wave of reform aiming at enhancing public feeling of safety, satisfaction with the police, and police accountability and legitimacy. In February 2015, China rolled out a comprehensive police reform plan that consists of over one hundred measures, including such progressive policies as that the police must videotape all criminal interrogations to prevent torture and extortion, and that any officers involved in obtaining wrongful convictions must be held accountable with no statute

limitations (South China Morning Post, 16 February 2015). In 2016, the MPS further urged the police to record all interactions with the public, and make information on individual cases available on police websites as part of a stronger push to standardise and professionalise police work. The MPS, in addition, announced in July that the public has the right to record the actions of police officers on duty as long as they do not intervene in police work or stop officers from doing their jobs (South China Morning Post, 28 September 2016). Regardless of their real impact on the street, these reform measures clearly signal strong determination by party leaders and police administrators to place some emphasis on police external accountability.

With all these new demands and pressures from the top, the levels of stress and frustration among Chinese police officers are alarmingly high. Scoggins and O'Brien (2016, p. 225) characterised China's police as unhappy who are constantly challenged by heavy caseloads, low pay, and laborious administrative tasks. While the MPS is concerned about officer dissatisfaction, their main remedies lie in improving police physical health. Both national and local police leaders focus on increasing the physical strength and stamina of line officers, with limited attention to the psychological challenges that officers often confront in an increasingly unfriendly work environment (Scoggins and O'Brien 2016). Even more rarely addressed is officers' grievance related to organisational constraints. Line officers in China often complain about the structure of the police bureaucracy which provides street-level officers with few chances to voice their opinion, participate in policy- and decision-making, and exercise discretion on individual cases (Scoggins and O'Brien 2016). Unfortunately, there seems to be little political, public, or scholarly interests in scrutinising the issue of organisational justice within police departments and its potential in promoting officer satisfaction and morale. Internal accountability has largely been, but should not be, overlooked in Chinese policing.

It is within this broader context of Chinese policing that this study on Chinese police accountability comes as a timely and worthwhile effort. As empirical investigation on Chinese policing is lacking, it remains largely unknown (at least not in any quantitative terms) exactly to what extent police supervisors are answerable to their subordinates in the department, to what extent Chinese officers are transparent and open to citizens on the street, and in what matters that supervisory and officer procedural accountability are connected to one another. This study attempts to fill these knowledge voids.

#### Methods

#### Data

Data used in this study were gathered from a police college located in a large city in southwest China. Founded in the 1950s as a basic training school for police officers, this municipal college has progressively developed into a higher education institution that currently offers bachelor's degrees through eight departments. High-school graduates have to pass competitive national entrance examination to be admitted to the college. In recent years, approximately 80% of this college's graduates eventually became police officers. In addition to degree education for police cadets, the college also serves as the base for in-service, short-term training courses or programmes, normally lasting from a few days to a few weeks, to rank and file working in the city.

Survey data were collected during the fall of 2015 and spring of 2016 from police officers who were attending mandatory on-the-job training courses/programmes in the police college. A Chinese survey questionnaire was developed by two US-based scholars largely following an English instrument used by an international comparative project intended to assess police officers' views and activities of procedural justice. To ensure accurate translation, the Chinese survey questionnaire was translated back to English by a bilingual police scholar and the translated version was compared to the original English version. Minor revisions were made to enhance the comparability between the Chinese and English survey items.

Data collection was carried out by an instructor of the college, who informed officers in various training courses in advance about the opportunity to participate in a research project. Surveys were distributed and completed in a classroom setting in the beginning or towards the end of a scheduled lecture by the instructor. Before distributing the survey to officers, the instructor explained the purpose of the study and emphasised the voluntary and confidential nature of participation. Approximately 850 surveys were distributed and 768 surveys were returned. Fifty-five surveys were dropped from the analysis because of missing responses, resulting in a final sample of 713 police officers.

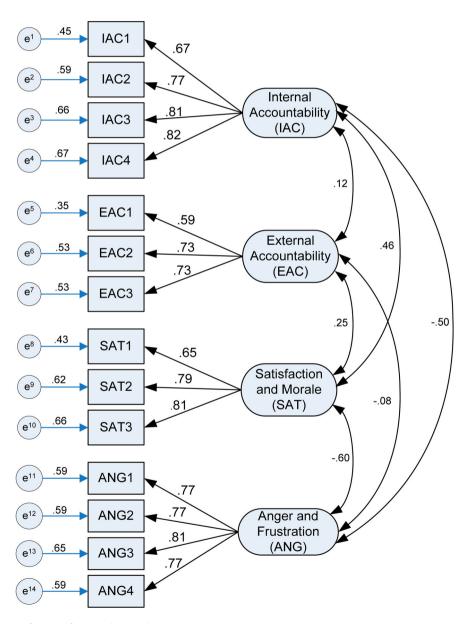
#### Measures and analyses

The analyses involved an exogenous variable, two mediating variables, one endogenous variable, and five control variables. Table 1 displays all items used to construct the key factors and the control variables. The exogenous variable, IAC (internal procedural accountability) is constructed with four items that signal the extent to which officers perceive their supervisors accountable. The first mediating

**Table 1.** Percentage distributions and descriptive statistics for items for factor analysis and control variables (n = 713).

	Coding and response categories						`		
Exogenous, mediating, and endogens variables		1 2 3					6	М	SD
Procedural accountability received from supervisors (IAC) (1 =	0	•			•				
strongly disagree; 6 = strongly agree)									
When they are giving instructions, my supervisors explain why		6.0	13.8	22.0	28.5	26.2	3.5	3.65	1.26
they give these instructions (IAC1)		0.0	13.0	22.0	20.5	20.2	3.3	3.03	0
When making policy choices, my supervisors sufficiently		4.5	12.1	24.8	33.5	21.2	3.7	3.66	1.18
explain why these choice are being made (IAC2)									
When implementing changes, my supervisors sufficiently		4.1	9.9	21.0	35.3	24.8	24.8	3.81	1.18
explain why these changes are necessary (IAC3)									
My supervisors give explanations for decisions they make that		4.0	10.0	18.0	34.5	28.9	4.7	3.88	1.18
affect me (IAC4)									
Job satisfaction and morale (SAT) (1 = strongly disagree; 6 =									
strongly agree)									
I go to work with enthusiasm (SAT1)		3.3	7.4	13.1	23.8	32.3	20.1	4.34	1.32
I am satisfied with my job for the time being (SAT2)		6.7	15.8	23.4	23.4	21.8	8.8	3.64	1.38
I find real enjoyment in my work (SAT3)		7.7	18.9	26.1	24.1	16.0	7.2	3.43	1.36
Job anger and frustration (ANG) $(1 = \text{never}; 6 = \text{very often})$									
Does it happen that you are pissed because of events that		1.9	14.6	53.6	6.4	18.2	5.3	3.40	1.15
happen at work (ANG1)									
Does it happen at work that you do not receive what you feel		5.9	20.5	42.7	6.3	16.1	8.5	3.32	1.35
you have a right to (ANG2)		2.5	22.2		7.0	110	- 0	2.24	
Does I happen that you feel you are being thwarted at work		3.5	22.2	46.6	7.9	14.0	5.9	3.24	1.21
(ANG3)		2.0	22.0	42.7	7.0	155	6.0	2.20	1 20
Does it happen that events take place at work which make you angry (ANG4)		2.8	23.9	43.7	7.2	15.5	6.9	3.29	1.26
Procedural accountability given to citizens (EAC) (1 = never; 6 =									
very often)									
I explain to citizens why the police focus more on certain		3.8	18.3	47.7	8.5	17.7	4.0	3.30	1.18
problems than on others (EAC1)		5.0	10.5	٦,.,	0.5	17.7	4.0	3.30	1.10
I explain to citizens why certain actions and measures are		4.6	16.7	40.9	11.0	20.4	6.5	3.45	1.28
necessary (EAC2)				.012		2011	0.5	51.5	0
I explain to a citizen why the police see to it that he or she		3.9	15.1	32.7	10.6	26.1	11.7	3.75	1.39
abides by the laws and rules (EAC3)		3.5		52.,		2011		51.75	
Control variables									
Gender $(0 = male; 1 = female)$	82.9	17.1						0.17	.38
Education (1 = high-school degree or lower; 6 = Master's degree		1.4	.6	21.7	58.8	5.9	11.6	4.02	.94
or higher)									
Year of service								10.5	6.37
Military ( $0 = no$ experience; $1 = military$ experience)	88.1	11.9						.12	.32
Field station ( $0 = \text{not working in a field station}$ ; $1 = \text{working in a}$	74.5	25.5						.26	.44
field station)									

variable, SAT (satisfaction with job and morale) is a three-item scale that denotes respondents' satisfaction with their job and work morale. Drawing on four items, the second mediating variable, ANG (anger and frustration), attests the frequency of job-related anger and frustration that occurs to surveyed officers. The endogenous variable, EAC (external procedural accountability), is obtained from three items that reflect the extent to which officers are accountable to citizens during policecitizen encounters. As shown in Figure 2, the construction of all these measures was justified through confirmatory factor analysis. Model fit statistics showed an adequate fit of the data to the model ( $\chi^2 = 157.494$ , df = 71, p = .000; GFI = .970; TLI = .973; CFI = .979; RMSEA = .041). This measurement model produced no excessively large modification indices (MIs), and the factor loadings



**Figure 2.** Confirmatory factor analysis results (n = 713).

Note: Standardised path coefficients were reported.

were all statistically significant and substantively reasonable. There was no evidence of cross-loadings for these indicators, as the indicators were all loaded onto their respective theoretically based factors.

To better understand the relationships among the key factors, we also incorporate several control variables. Gender is a dichotomised variable (0 = male; 1 = female). Education is an ordinal variable ranging from 1 (high school degree or lower) to 6 (Master's degree or higher). Job experience is measured in years, and both military experience and working in a field station are dummy variables (0 = no; 1 = ves).

Descriptive statistics were first used to describe Chinese officers' perceptions of their supervisors' treatment and their own behaviours on the street. Structural equation modelling (SEM) was then employed to assess the relationships between the factors, net of all controls. Parameters were estimated using the maximum likelihood algorithm. To determine whether a measurement model and a structural model have a good fit to data, criteria that have been commonly used in existent research were also used in this study. These criteria are (a) the value of  $\chi^2$ , df, and associated pvalue; (b) the comparative fit index (CFI) (Bentler 1990); (c) the Root Mean Square Error of Approximation (RMSEA) (Browne and Cudeck 1993); (d) the Tucker-Lewis Index (TLI); and (e) the goodness-of-fit index (GFI; Jöreskog and Sörbom 1993). Models are generally considered good when CFI, TLI, or GFI is greater than .95, or the RMSEA is lower than .05. To examine sources of error in the models and inform model re-specification, parameter estimates, standardised residuals, and MIs are examined. It should be mentioned that no purely empirical attempts were made to modify a model until it fits optimally; instead, model specification and modification were based on theoretical rationale.

#### Results

#### Univariate statistics analysis

To answer our first research question, percentage distributions across evaluative items that make up key factors were used. Several general patterns emerge. As seen in Table 1, Chinese supervisors have moderate levels of procedural accountability when making decisions, implementing changes, and giving instructions to officers. Answering on a scale of 1-6 with 1 representing strongly disagree and 6 strongly agree, less than 60% of the respondents agreed that their supervisors explain why certain instructions are being given (IAC1 in Table 1) or their supervisors sufficiently explain why certain policy choices are being made (IAC2). A higher percentage of the respondents (75%) agreed that when implementing changes, their supervisors sufficiently explain why these changes are necessary (IAC3). Finally, 68% of the respondents agreed that their supervisors explain decisions affecting the respondents (IAC4).

Officers themselves, however, are not highly transparent or answerable to citizens when making decisions and taking actions on the street. The majority of the officers reported they either never (3.8%), very exceptionally (18.3%), or only occasionally (47.7%) explain to citizens why the police focus more on certain problems than on others (EAC1). Similarly, a majority (62.2%) of the respondents reported they never, very exceptionally, or only occasionally explain to citizens why certain actions and measures are necessary (EAC2). Lastly, roughly half of the respondents (51.7%) reported they never, very exceptionally, or only occasionally explain to a citizen why the police see to it that he or she abides by the laws and rules (EAC3).

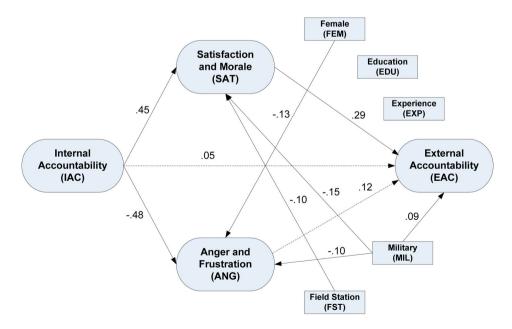
With respect to emotional states, the study officers expressed high levels of job satisfaction and morale on average. Over three-quarter of the respondents (76%) agreed with the statement that 'I go to work with enthusiasm' (SAT1), higher than their agreement with the notion that 'I am satisfied with my job for the time being' (54%; SAT2) or 'I find real enjoyment in my work' (47%; SAT3). Meanwhile, the respondents also appeared to harbour an alarming amount of job-related anger and frustration. A range of 43-54% of the respondents reported that every now and then it happens that they are pissed because of events that happen at work (ANG1), they do not receive what they feel they have a right to at work (ANG2), they feel they are being thwarted at work (ANG3), and that events taking place at work make them angry (ANG4). Additionally, between 21% and 30% of the respondents reported that the above situations occurred to them regularly, quite often, or very often.

#### **SEM** analysis

This part of analysis addresses our second and third questions about the relationships between IAC, SAT, ANG, and EAC, with the hypotheses stating that IAC affects EAC directly and indirectly through the mediating effects of SAT and ANG, net of all controls. The final model results are displayed in Figure 3 with solid lines representing significant paths and dot lines indicating not significant connections. To keep Figure 3 easier to follow, non-significant paths from control variables are omitted. The model fit to the data was adequate ( $\chi^2 = 242.169$ , df = 121, p = .000; GFI = .965; TLI = .959; CFI = .971; RMSEA = .038).

Results show that internal procedural accountability (IAC) does not have any direct effect on external procedural accountability (EAC), but does have a significant indirect effect through the mediating factors of emotions ( $\beta$  = .07). Specifically, IAC is positively related to job satisfaction and morale (SAT) ( $\beta$  = .45), but inversely linked to job anger and frustration (ANG) ( $\beta$  = -.48). Although ANG does not affect EAC, SAT does influence EAC significantly in a positive manner ( $\beta$  = .29). Thus, higher levels of IAC lead to higher levels of EAC through enhanced job satisfaction and morale.

With respect to the impact of officer background characteristics, while gender does not affect officer EAC, female officers expressed lower levels of job anger and frustration than male officers  $(\beta = -.13)$ . Meanwhile, officers with military experience reported higher levels of job satisfaction and morale  $(\beta = .15)$ , as well as lower levels of anger and frustration  $(\beta = -.10)$ . Military experience also promotes officer EAC both directly  $(\beta = .09)$  and indirectly through emotions  $(\beta = .03)$ . Finally, officers working in field stations, compared to those working in higher or specialised units, reported significantly lower levels of job satisfaction and morale  $(\beta = -.10)$ , further leading to lower EAC  $(\beta = -.02)$ .



**Figure 3.** Structural equation modelling results (n = 713).

Note: Standardised path coefficients were reported. Solid lines represent significant paths, whereas dot lines represent not significant connections. Non-significant paths from control variables were not reported.

**Table 2.** Direct, indirect, and total effects of external accountability (n = 713).

	SAT	ANG		EAC		
Variable	Direct	Direct	Direct	Indirect	Total	
Exogenous						
IAC	.45***	48***	.05	.07*	.13*	
Mediating						
SAT	_	_	.29***	_	.29**	
ANG	_	_	.12	_	.12	
Control						
Gender	05	13***	02	03	05	
Education	03	.01	.06	01	.05	
Experience	02	.00	.07	01	.06	
Military	.15***	10**	.09*	.03*	.12**	
Field station	10*	.06	.08	02*	.06	
$R^2$	.24	.27	.09			

<sup>&</sup>lt;sup>a</sup>Standardised path coefficients were reported.

Table 2 summarises the direct, indirect, and total effects of the exogenous and mediating variables on external procedural accountability. To recap the findings, although IAC exerts a significant direct effect on both SAT and ANG, its impact on EAC is mainly indirect through SAT as the direct effect of ANG on EAC is not significant. Among control variables, military experience is the only one that has a significant influence on the two mediating variables, SAT and ANG, and the endogenous variable, EAC. Adding the direct and indirect effects together, SAT has the strongest total effect (.29) on EAC (due exclusively to its strong direct impact), followed by IAC (.13), military experience (.12), and ANG (.12).

#### Discussion

This study represents an initial effort to empirically investigate the extent and correlates of police procedural accountability in China. We proposed and tested a conceptual model that connects supervisory accountability and officer accountability through mediating mechanisms of both modelling and emotions. Data collected from a large group of officers in a Chinese city provide partial support to this model. First of all, the modelling hypothesis is not supported, as there is no direct effect of supervisory procedural accountability on officer's self-reported accountable behaviour. Our finding showing the absence of a direct link between internal and external accountability is different from recent results from studies of Belgium (Van Craen et al. 2017) and Taiwan police (Wu et al. 2017). While these studies utilised a similar explanatory framework connecting internal and internal procedural justice, we should be cautious in comparing their results from SEM as not all mediators or measurements are identical. In addition, we must caution that our finding is preliminary and inconclusive as we did not include any specific social learning variables in the model, and our argument was only based on the assumption that any direct link detected between supervisory and officer accountability can be attributable to an imitation effect. This assumption, to say the least, is a very narrow and incomplete interpretation of social learning. For imitation to occur, for example, officers should look up to or admire their supervisors as the 'models' yet we did not have any such measures to indicate officer-supervisory relationship. Besides imitation, a key component of social learning is differential reinforcement, a complicated multifaceted concept comprised of social and non-social reinforcement, positive and negative reinforcement, and experienced and anticipated consequences. Data on these elements of differential reinforcement were unavailable and thus not included in this study. As testing of the imitation hypothesis in the policing literature is quite limited, a plausible linkage between supervisory modelling and officer procedural accountability warrants further investigation.

<sup>\*</sup>p < .05.

<sup>\*\*</sup>p < .01.

<sup>\*\*\*</sup>p < .001.

Second, our results show some support for GST propositions. We find that lack of procedural accountability from supervisors increases the levels of officer job-related anger and frustration, consistent with the part of GST stating that injustice leads to negative emotions. Such negative emotions, however, do not transmit to officers' unaccountable behaviour on the street, failing to support the other part of the theory claiming that when people feel angry or frustrated, they behave poorly (Agnew 2001). Perhaps engaging in delinquent or criminal behaviour as a result of negative emotions is somewhat different from involving in unaccountable actions. Like their western counterparts, Chinese police officers understand the potential risk of losing their temper and performing unaccountable conduct when dealing with citizens, as recording police-citizen encounters and circulating video clips on social media have become a popular way of public scrutiny of police behaviour. Future research should continue to explore factors that shape the linkage between officer emotional states and field practices.

Echoing GST's arguments, we find that positive affections matter in mediating the effects of supervisory accountability on officer accountability. When officers feel satisfied with their job and high morale as a result of fair and accountable supervisory treatment, they are more likely to hold themselves accountable to citizens, explaining to citizens their decisions and actions and answering citizens questions. It appears that the golden rule of happy employees breeding happy clients works nicely in the profession of policing. The varying effects of positive and negative emotions suggest that future studies ought to take both types of emotion into consideration when assessing police accountability on the street.

Overall, our results render some promising support to Western theories such as GST and procedural justice propositions. Despite lack of a direct relationship between our exogenous and endogenous variables, by and large, our results illustrate the significant role that emotions play in connecting negative events (e.g. lack of internal accountability) and negative behaviours (e.g. lack of external accountability), and the importance of realising organisational justice in Chinese policing. Obviously, one single study cannot speak much about the portability of Western theories of organisational justice to other cultures such as China, but it does encourage more future research, empirical in nature, to continue formulating, testing, and refining theories that take common human nature and social processes that we, across borders, may all possess and experience into account.

Third, the effects of some control variables deserve discussion. Although female officers and male officers are similar in their reported provision of procedural accountability to citizens, the former conveyed significantly lower levels of job-related anger and frustration than the latter. Though the disproportional representation of men in policing and the gendered organisational culture could contribute to higher levels of stress and unique stressors among female officers (Haarr and Morash 1999, He et al. 2002), the impact of gender on officer stress remains equivocal. The lower levels of negative emotions reported by Chinese female officers are not completely unexpected and may be explained by a few reasons. It is possible that women are less likely than men to vocalise their anger and frustration with work due to a differential socialisation process that discourages assertiveness and complaints while fostering passivity and acquiescence (Feldberg and Glenn 1979). It is also possible that for female officers, emotions are less influenced by objective factors such as pay and rank but more by subjective factors such as perceived intrinsic rewards of helping others (Phelan 1994). Finally, Chinese policing continues to be a gendered occupation with female officers more likely to undertake desk and supportive assignments. Their involvement in lower risk and nonfield, non-patrol work may lead to lower levels of anger and frustration.

Results also show that working in a field station, compared to a higher level or specialised work unit, is associated with lower levels of satisfaction and morale among surveyed officers. Many officers are unwilling to be assigned to field stations (called paichusuo, PCS), as jobs there typically involve a large amount of tedious, repetitive, and non-law enforcement-related work (Sun and Wu 2010). Officers working in PCSs also tend to face more severe resource limitations, heavier caseloads, more administrative and paper work, and lower pay and prestige than their counterparts in higher level, better equipped facilities (Scoggins and O'Brien 2016). Furthermore, compared to the 'street-level bureaucrats' described in Lispky's (1980) classic work, Chinese police officers working in PCSs 'lack both the opportunity and the inclination to exercise the discretion employed by street-level bureaucrats elsewhere' (Scoggins and O'Brien 2016, p. 228). All these challenges may explain why officers working in field stations are especially disgruntled.

Additionally, officers with prior military experience have more neutral emotions, that is, they expressed both lower levels of satisfaction/morale and lower levels of anger/frustration. Importantly, they, compared to counterparts without military experience, reported delivering higher levels of procedural accountability on the street. This result is interesting, considering a similarly positive finding regarding military experience from one recent study that Chinese police supervisors with military experience were less likely than those without military background to endorse selective enforcement (Liu et al. 2017). These results seem to suggest that although police agencies are quasi-military in nature, which may militate against internal procedural justice, officers with military experience were more likely to deliver fair services on the street. It is possible that officers who served in the military before tend to be more disciplined and perform greater compliance with formal rules and policies. This speculation of course calls for future testing.

Finally, surveyed officers revealed only moderate levels of procedural accountability delivered by their supervisors, and even lower levels of accountability that they themselves perform on the street. Given that procedural justice has not been widely discussed in Chinese policing as it does in the Western world (Sun et al. 2017), it is not surprising that Chinese officers, including supervisors, do not report they perform, or give priority to, procedural justice at work. Moreover, the core elements of procedural justice that the Western literature typically refers to, involving respect, voice, neutrality, and accountability, are also different from the procedural justice that Chinese legal scholars focus on, which weighs heavily on criminal procedural safeguards (e.g. exclusionary rule) rather than the manners of treatment that authorities should follow when interacting with subordinates (e.g. He 2012). This may explain Chinese officers' general lack of attention to procedural accountability that Western scholars have emphasised. As previously mentioned, enhancing police accountability has become one of the top priorities for Chinese police in recent years, it is hoped that such disregard for procedural accountability can be recognised and addressed soon.

This study, despite its originality and other strengths, has several limitations. As previously acknowledged, our study is merely a proximate and indirect testing of learning theory. Future research should include multiple variables to indicate key concepts such as imitation (e.g. whether or not officers admire their supervisors), and differential reinforcement (e.g. officers' report of anticipated or actual positive or negative sanctions of supervisors who delivered procedural accountability, officers' perception of the extent to which being accountable to citizens would interfere with their job activities and performance). With respect to GST, Agnew (2001) argued that not only will unjust experience most likely result in negative outcomes, but other factors, such as the magnitude of the strain and nature of coping mechanisms, can also affect consequences of strain. Future research should accordingly examine how often and how long officers have experienced supervisory unaccountability, and whether impacted officers have employed any cognitive, behavioural, or emotional coping strategies to minimise the effects of strain caused by unfair treatments. Future research should also explore the effects of additional affective and evaluative states, such as sense of alienation (Shernock 1988), perception of legitimacy (Trinkner et al. 2016), and level of cynicism (Stearns and Moore 1993, Trinkner et al. 2016), in affecting officer performance.

In addition to measurement issues, our data are limited. The study sample, while serving the purpose of this study well, is not a randomised nationwide sample of police officers in China. Future research should gather more diverse and encompassing samples from multiple jurisdictions in China and from other countries to test the generalizability of our explanatory model. Also, like much other research in this area, this study relies on cross-sectional data which preclude strong inferences regarding causal relationships among the variables. Future research should use longitudinal designs to further explore the causal inferences.

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Finally, there are other potential linking mechanisms between internal and external accountability that we do not consider in this analysis. Previous research has explored a few alternative linkages between police organisational justice and officer attitudes and behaviours. For example, fair treatment within departments may promote the internalisation of department values and priorities (Bradford et al. 2014), increase the likelihood that officers follow department policy and obey supervisors (Haas et al. 2015), foster officers' good organisational citizenship and engagement in proactive organisational behaviours (Huberts et al. 2007, Bradford et al. 2014), and promote officers' trust in citizens (Van Craen et al. 2017, Van Craen and Skogan 2017), all may eventually contribute to line officers' delivery of better service to the community. Future research should test these other mediating mechanisms along with learning and GST hypotheses.

Findings of this study generate some important implications for policy. Increasing supervisory procedural accountability seems to be a promising approach to promote accountable policing, one that could complement other organisational strategies such as training officers in the principles of procedural justice and implementing policies that support accountable behaviour (Skogan et al. 2015). Nevertheless, police departments' quasi-military tradition and chain of command could make the application of a transparent and clear decision-making process difficult (Haas et al. 2015). Indeed, research has revealed that police officers regularly complain that their views are not consulted or valued by the top brass, that they often receive arbitrary and irrational directives from administrators, and that the rules they are subject to are unrealistic and counterproductive (Sklansky 2008). This conflict is due partly to the nature of the police profession where the need for urgent decisions and responses may hinder the utilisation of procedurally accountable managerial techniques (Roberts and Herrington 2013). Also, police supervisors tend to have an enduring habit of making decisions on their own without input from or sufficient explanations provided to their subordinates (Myhill and Bradford 2013). Many supervisors and managers thus need training in dispensing internal procedural justice, as this is often not what they grew up with (Van Craen and Skogan 2017).

Despite challenges, it is important for police organisations to initiate changes at the supervisory level toward greater accountability. Specifically, police departments should prioritise organisational justice, understanding that the quality of leadership hinges on the creation of a supportive environment that values respect, neutrality, voice, and accountability (Taxman and Gordon 2009). Given that officers are more likely to internalise desirable means and ends if they understand what these are (Manzoni 2006), departmental training programmes and reward systems need to gear toward the subjects of procedural accountability, participative and transactional leadership styles, and open management practices. Particular emphasis should be placed on helping supervisors improve their practices, which can hopefully lift officers' spirit and morale and improve officers' understanding of desirable means and ends. Ultimately, efforts of implementing elements of procedural accountability inside the organisation are likely to pay off on the street, improving police legitimacy and enhancing citizen cooperation.

#### Disclosure statement

No potential conflict of interest was reported by the authors.

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