




# Untangling the Complex Pathways to Confidence in the Police in South Korea: a Stepwise Multilevel Structural Equation Modeling Analysis

Seong-min Park<sup>1</sup>  · Hong Lu<sup>1</sup> · Joshua W. Donnelly<sup>1</sup> · Young-oh Hong<sup>2</sup>

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## Abstract

Studies on confidence in the police have employed three theoretical frameworks: (1) an instrumental model that focuses on the effect of police effectiveness and fear of crime, (2) an expressive model that emphasizes the role of general perception on social cohesion, and (3) a procedural model that highlights the distinct role of perceived police fairness. While studies have clarified specific pathways in the instrumental and expressive models, a comprehensive examination of all three models remains sparse in the field of criminal justice. Furthermore, existing studies rarely examined the multilevel causal structures of these models. This study aims to address these limitations by examining separate and comprehensive multilevel structural equation models (SEMs) of these theoretical frameworks. The data was collected through the multistage stratified random sampling from 12 boroughs of four metropolitan cities in South Korea, and a total of 2040 individuals were interviewed face-to-face. The results of the SEM analyses showed that perceived police fairness was the primary determinant of confidence in the police in South Korea, while fear of crime, perceived police effectiveness, and perceived social cohesion had a limited effect. Policy implications and suggestions for future studies are discussed.

**Keywords** Confidence in the police · Police fairness · Police effectiveness · Social cohesion · Fear of crime

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✉ Seong-min Park  
seong.park@unlv.edu

<sup>1</sup> Department of Criminal Justice, University of Nevada, Las Vegas, 4505 S. Maryland Parkway Box 455009, Las Vegas, NV 89154-5009, USA

<sup>2</sup> Korean Institute of Criminology, 114 Taebong-no, Seocho-Gu, Seoul 06764, Republic of Korea

## Introduction

Public confidence in the police is a critical determinant of successful policing (Bradford & Myhill, 2015; Cao, Frank, & Cullen, 1996; Jackson & Bradford, 2009; Jang & Hwang, 2014; Merry, Power, McManus, & Alison, 2012; Rusinko, Johnson, & Hornung, 1978; Sindall & Sturgis, 2013; Skogan, 2009). A higher level of confidence in the police tended to increase calls for service and support for the police, and in turn, reduces fear of crime, antisocial behaviors, perceived crimes, and risk of victimization (Bahn, 1974; Povey, 2001; Quinton & Morris, 2008; Skogan, 2009). Within the context of community policing, high confidence in the police tends to promote healthy partnerships between communities and the police and helps reduce disorders and crimes (Jang & Hwang, 2014; Reisig & Parks, 2000). In Britain, the Home Office linked confidence in the police to the overall effectiveness of their criminal justice system and initiated the *National Reassurance Police Programme*, which highlighted the critical role of public's confidence in police effectiveness (Povey, 2001; Quinton & Morris, 2008; Skogan, 2009).

Given its importance, scholars, policymakers, and practitioners have increasingly paid attention to diverse factors associated with confidence in the police. Among the various analytic models used to assess these factors, they largely fall into three theoretical frameworks: *instrumental (or accountability) model*, *expressive model*, and *procedural model* (Bradford & Myhill, 2015; Jackson & Bradford, 2009; Jackson, Bradford, Hohl, & Farrall, 2009; Jang & Hwang, 2014; Merry et al., 2012). The instrumental model hypothesizes that people believe that the police are responsible for local crimes and disorder; therefore, their confidence in the police is driven by their victimizations, neighborhood crime rate, and fear of crime (Skogan, 2009). The expressive model is based on the neo-Durkheimian theory and posits that public confidence in the police is determined by individuals' perception about broader and symbolic notions of social cohesion, order, and formal or informal social control (Bradford & Myhill, 2015; Jackson, 2004; Jackson & Bradford, 2009; Loader, 1997). Lastly, the procedural model postulates that legitimacy, justice, and fairness in policing are keys to understanding the level of public confidence in the police (Bradford, Jackson, & Stanko, 2009; Merry et al., 2012; Tyler, 1988; Tyler & Huo, 2002).

While these theoretical frameworks have advanced the clarification of complex causal paths to confidence in the police, there have been two noteworthy limitations in previous studies. First, there have been a handful of studies clarifying the comprehensive effects of these three frameworks. Recently, a few studies have extensively examined these frameworks and clarified the effects of the core determinants of police confidence (i.e., Holmes, Painter II, & Smilth, 2017; Jang & Hwang, 2014). For example, Jang and Hwang (2014) examined the relative effects of instrumental and expressive models and found that the expressive model retained a greater effect on confidence than the instrumental model did. However, these studies were still limited in addressing the impact of the procedural model. Secondly, these theoretical models encompass multilevel implications signifying individual perception and macro-level status (see Boateng, 2016; Holmes et al., 2017). Especially, instrumental and expressive models postulate the effects of neighborhood or societal conditions in their theoretical frameworks. Few studies, however, have clarified whether these macro-level factors have a direct or mediating effect on individuals' confidence (i.e., neighborhood crime rate influences individual fear of crime, which in turn impacts his/her confidence in the police).

The primary purpose of this study is to fill the void by examining these three theoretical frameworks in both distinctive and comprehensive ways and constructing multilevel structural

equation models (SEMs) that examine the direct and indirect effects of macro-level variables. A total of 2040 individuals were surveyed through the multistage random sampling process in four major metropolitan areas in South Korea. As public confidence in the police is a serious concern in South Korea (Batzeveg, Hwang, & Han, 2017; Boateng, Lee, & Abess, 2016; Jang & Hwang, 2014), findings from this study should provide valuable policy implications regarding public's confidence in the police to Korean criminal justice policymakers.

## Public Confidence in the Police in South Korea

The contemporary history of South Korea is marked with several distinctive political and social periods which had a profound impact on policing and its public perceptions including (1) the Imperial Japanese occupation (1910 to 1945), (2) the Korean War (1950–1953), (3) era of military rules (1961–1993), and (4) the current democratic republic with several presidencies tarnished with corruption and scandals (1993 to the present). During each of these regimes, the Korean police, a centralized police force following a top-down command structure, have been used as a political tool by the central government to serve the interests of the political elite (Kwak & McNeeley, 2019; Nalla & Hwang, 2006).

During the Japanese occupation, for example, the police were used to perform surveillance on the Korean people, suppress anti-Japanese sentiment, and oppress dissents brutally and violently. The unbounded police power infiltrated every aspect of Korean people's lives, contributing to the public's deep antagonism and distrust of the police (Pyo, 2001). The Korean War heavily involved the police in the military operations, forging a police image as an agent of the governmental bureaucracy (Hwang, McGarrell, & Benson, 2005). The subsequent era of dictatorial and authoritative military rules made the police intensely involved in the politics of military personnel. The police were charged with suppressing freedom of expression and association, arresting political dissents and sending them to reeducation camps, interfering with elections, and cleansing gang members, drug users, and violent offenders from the street with brutal and unfair tactics, while the police themselves maintained corruptive connections to criminals (see Boateng et al., 2016; B. Moon, 2004 for detailed examples). These heavy-handed crime control tactics brewed the Korean public's deep hostility, suspicion, and disrespect toward the police, thus challenging its legitimacy and authority (Han & Bu, 2000; Hoffman, 1982; Joo, 2003; S. Lee, 1990; B. Moon, 2004; B. Moon & Zager, 2007; C. Moon & Kim, 1996; Nalla & Hwang, 2006; Pyo, 2001). Even after 1993, when South Korea embarked on modern democracy, corruption and political scandals continued to taint presidencies resulting in resignations, arrests, and suicide of several presidents. Korean citizens thus remained largely cynical and suspicious about their political system and the police as an agent of social control, as demonstrated by the relatively low public's confidence in the police, particularly when compared with Taiwan, Japan, and the USA (Boateng et al., 2016; Cao & Dai, 2006; Jang & Hwang, 2014).

To address their identity crisis and modernize their organization, South Korea police initiated Police Grand Reform in 1999 to transform its police force from political-oriented to citizen-oriented policing. The reform called for enhancing police legitimacy and accountability through creating an independent civilian organization free from governmental interference, the National Police Board, which would be in charge of internal police affairs such as promotions, budgets, and investigations of police misconduct (S. Lee, 1990; B. Moon, 2004). It also aimed at increasing awareness and knowledge of the rule of law, criminal procedure, human rights, and the importance of police-community relations through hiring college graduates and its

intensive 8-month police academy for new police recruits (B. Moon & Maorash, 2008; Pyo, 2002; Roh & Choo, 2007). Finally, the reform restructured the police organization and operational strategies by centralizing motor patrol and criminal investigation in urban communities, which allows front-line police officers to focus on building a police-community relationship and providing services to local residents (e.g., receiving complaints, providing information and advice, foot/bicycle patrol, organizing community prevention, and developing personal contacts) (Jang & Hwang, 2014; Pyo, 2002).

Empirical studies have consistently reported that public confidence in the police is relatively low in South Korea (Cao, Lai, & Zhao, 2012; Hwang et al., 2005; Jang & Hwang, 2014). Analyzing the data from the sixth-round World Values Surveys, we have identified the temporal change of average Korean public confidence in the police, along with that of Japan, the USA, and world average for comparison purposes, from 1983 to 2013 and present in Fig. 1. Overall, this explorative analysis shows that public confidence in the police in Korea is generally lower than that of Japan, the USA, and the world average in some years. The public's confidence suffered a steep drop during the 1980s and 1990s but climbed up since the 2000s in South Korea. While the decline of confidence in the police can be explained by various political and social events such as the historical legacy of the Japanese colonial rule, the authoritarian military regime, and the corruption scandals, the upward trajectory in recent years seems to coincide with the implementation of the Police Grand Reform, aiming at transforming the police from the political orientation to citizen orientation, albeit that there is much room for improvement (Boateng et al., 2016; Jang & Hwang, 2014; Roh & Choo, 2007).

## Theoretical Framework

In this section, we will first review the details of instrumental, expressive, and procedural models and then propose corresponding SEMs which portray their theoretical frameworks in shaping public confidence in the police.

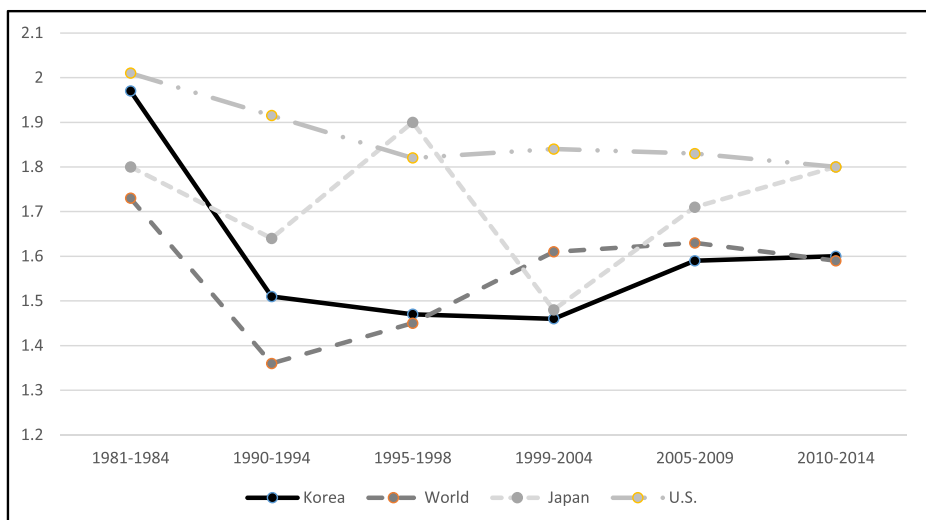


Fig. 1 Temporal change of Korean public confidence in the police

## Instrumental Model

The instrumental model theorizes that people expect the police to serve particular roles and functions in society, and their confidence in the police is closely associated with their perceived police effectiveness in achieving these goals. As the primary agency of law enforcement, the police are charged with suppressing crime, maintaining order, and reducing fear of crime. Thus, they should be evaluated based on their performance in these areas. Research from the instrumental perspective has explored four core determinants of public confidence in the police such as (1) fear of crime, (2) perceived effectiveness of the police, (3) official crime rate, and (4) victimization experience.

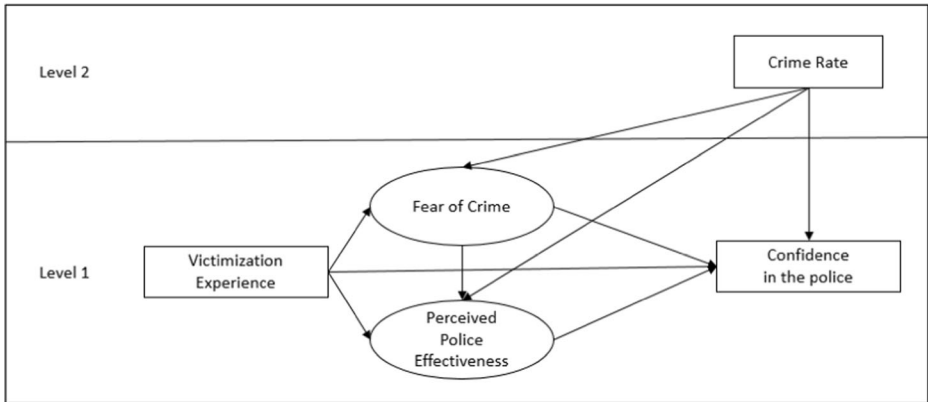
Studies focusing on fear of crime argued that criminogenic neighborhood conditions cause residents to worry about victimization and attribute these undesirable conditions to the inability or unwillingness of the police to handle criminal problems (Ren, Cao, Lovrich, & Gaffney, 2005; Skogan, 2009; Xu, Fiedler, & Flaming, 2005). Accordingly, these studies suggested that a higher-level fear of crime could inflame cynicism toward the police, thus negatively impacting confidence in the police (Ren et al., 2005; Skogan, 2009). Similarly, studies also asserted that police effectiveness played an essential role in shaping police legitimacy (Cao & Wu, 2019; Garcia & Cao, 2005; Taylor & Lawton, 2012), and in turn, police legitimacy facilitated the public acceptance of police actions and confidence in the police (Tyler, 2006; Tyler & Huo, 2002).

At a macro level, a series of studies found that crime rate was a good indicator of police effectiveness and public confidence in the police (Cao et al., 2012; Jang, Joo, & Zhao, 2010; Reisig & Parks, 2000; Skogan, 2009). In their SEM analysis of two-wave survey data in Phoenix, AZ, Baker et al. (1983) found that a sudden increase of reported crime (crime wave) significantly increased the level of fear of crime and decreased public's confidence in the police. Reisig and Parks (2000) found that residents of neighborhoods with a higher homicide rate retained a lower level of satisfaction with the police. Other studies also presented that criminal problems such as violent crimes, drug dealings, and gang activities in the neighborhood inversely influence residents' confidence in the police (Jesilow, Meyer, & Namazzi, 1995; Weitzer & Tuch, 2002; Weitzer, Tuch, & Skogan, 2008). Due to the multilevel trait of crime rate, Reisig and Parks (2000) differentiated this approach as the *neighborhood context model* compared with the *quality of life model* focusing on individuals' perception of criminal conditions. Victimization experience seemed to have a mixed impact on confidence in the police. While some studies found a significant impact of victimization experience on attitude toward the police (Baker et al., 1983; Dowler & Sparks, 2008; Jackson et al., 2009), other studies suggested a non-significant correlation between the two variables (Hawdon & Ryan, 2003; Smith & Hwawkins, 1973).

The current study builds on the previous research findings and constructs the instrumental model of confidence in the police using a multilevel SEM, as shown in Fig. 2. In this model, perceived police effectiveness, the core factor of the instrumental model, is hypothesized to have a direct impact on confidence in the police, while individual victimization experience and fear of crime influence his/her confidence in the police directly and indirectly. At the macro level, crime rate is hypothesized to cause the variation of individual fear of crime, perceived police effectiveness, and confidence in the police.

## Expressive Model

The expressive model postulates that the police embody order, justice, and social stability; therefore, people expect the police to defend broader structures of social order



**Fig. 2** Structural equation modeling of the instrumental model

and represent the symbolic notion of social cohesion (Jackson, 2004; Jackson & Bradford, 2009; Jackson et al., 2009; Jackson & Sunshine, 2007; Jang & Hwang, 2014; Loader, 1997; Loader & Mulcahy, 2003; Taylor & Lawton, 2012). According to this perspective, the police are a highly visible institution of state power which handles concerns about social order and social problems; correspondingly, public confidence in the police is primarily determined by individuals' general perception of social cohesion and the strength of formal and informal social controls (Jackson & Bradford, 2009; Jackson et al., 2009). Theoretically, this model bases its origin on the neo-Durkheimian approach initiated by Jackson and Sunshine (2007). The neo-Durkheimian theory argues that a sense of social order and cohesiveness is the essential identity of the police, and people grant the police as guardians of social order and representatives of the community (Jackson & Sunshine, 2007; Sunshine & Tyler, 2003). When social norms and values fade, therefore, people expect the police to reinstate a healthy social environment and reestablish social orders (Jackson & Bradford, 2009).

Accordingly, the expressive model presents individuals' assessment of social cohesion, control, and the degree of breakdown and fragmentation of society as the critical determinant of confidence in the police (Jackson & Bradford, 2009; Jang & Hwang, 2014). Empirical examinations of these variables in previous studies have revealed that social cohesion and perceived informal social control significantly influence individual confidence in the police (Jackson & Bradford, 2009; Jackson et al., 2009; Jang & Hwang, 2014). Besides these variables, studies examining this model have introduced the level of deprivation as a determinant of social order and confidence in the police (Jackson et al., 2009).

Building upon these existing research findings, the current study delineates the expressive model, as illustrated in Fig. 3. At the micro level, individuals' perceptions regarding four structural factors—perceived social cohesion, perceived collective efficacy, perceived informal control, and perceived formal control—are hypothesized to affect confidence in the police directly. As neo-Durkheimian theory asserts, perceived social cohesion accounts for the individual difference in the other three factors. At the macro level, the level of deprivation is hypothesized to influence both perceived social cohesion and confidence in the police.

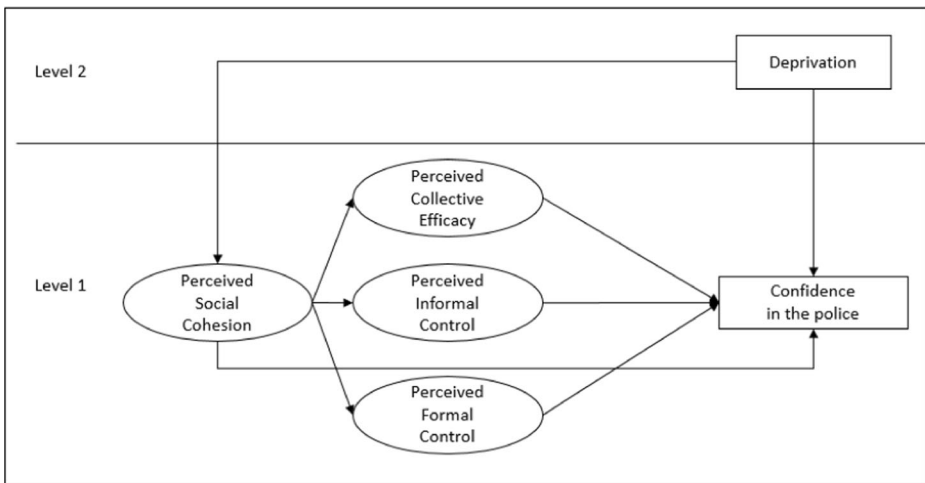


Fig. 3 Structural equation modeling of the expressive model

## Procedural Model

The procedural model has suggested that the perceived fairness of police should significantly affect citizens' satisfaction with police-initiated contact (Bradford et al., 2009; Merry et al., 2012), and their confidence in the police (Bradford et al., 2009; Cao & Wu, 2019; Tyler, 1988, 2006; Tyler & Huo, 2002). Several studies examining the expressive model also pointed out the importance of police fairness in their analyses (i.e., Jackson et al., 2009).

The effect of police fairness has been discussed under the framework of procedural justice, which incorporates normative perspectives. Contrary to the instrumental perspective, which emphasizes the role of police performance and distributive justice (Sunshine & Tyler, 2003), the normative perspective suggested a multidimensional judgment of procedural justice, including legitimacy, ethicality, representation, consistency, neutrality, and error correction (Tyler, 2006). Through empirical research, Tyler and his associates found that when citizens felt they were being treated fairly, they tended to regard police authority as legitimate, thus were more likely to comply and have more favorable opinions about the police (Tyler, 2003, 2006; Tyler & Huo, 2002). Moreover, when citizens viewed the police exercising their authority in a fair manner (e.g., the police listened to their complaints/opinions) and having the right motives (e.g., being neutral and ethical), they were more likely to trust the police and respect their authority (Lind & Tyler, 1988). Overall, studies in Western countries have generated ample evidence positively linking procedural justice with public confidence in the police, including police encounter with ethnic minorities (Jackson et al., 2009; Merry et al., 2012; Tyler, 1988, 2006; Tyler & Huo, 2002).

The significance of police fairness is also highlighted in the studies of police-citizen contact. While earlier studies on police-citizen contact found that it negatively influenced confidence in the police, follow-up studies identified that diverse situational factors (i.e., fairness in police operations) altered citizens' attitude to the police (Bartsch & Cheurprakobkit, 2004; Bradford & Myhill, 2015; Merry et al., 2012; Rusinko et al., 1978). After examining these situational factors, Bradford and Myhill (2015) concluded that fairness of police contact is the critical determinant of confidence in the police. Studies on racial



disparities in the level of confidence in the police also have presented that the sense of fairness is an essential underlying mechanism, which links racial discrepancy to confidence in the police (Cao & Wu, 2019).

Constructing from these findings, the current study proposes a procedural model, which hypothesizes that individuals' victimization should yield police contact and influence their perception of police fairness, and in turn, this perception of police fairness should be the primary determinant of their confidence in the police. Using the SEM approach, we illustrate this model and present in Fig. 4.

## Current Study

To identify the core determinants of confidence in the police within the context of South Korea, the current study examines three above-stated models separately and comprehensively in a stepwise manner. We expect that this approach should address the following research questions. First, when analyzed separately and in aggregation, which variables in the three models significantly impact confidence in the police after controlling for participants' demographics and the other models? Second, which model provides the best model-fit in predicting confidence in the police? Third, is confidence in the police conditioned upon neighborhood socio-economic status and crime rate? These research questions help clarify the dynamic causal paths to public confidence in the police.

## Methodology

### Data

To examine the given SEMs, we sampled a total of 2040 individuals with multistage random sampling. We first selected four most-populated metropolitan cities out of seven in South Korea. Within the four selected metropolitan cities, there are a total of 50 boroughs, 12 of which were randomly selected for this study. A list of residents of 20 years or older were drawn from the official resident registration records for each of the 12 boroughs, and 170 residents were randomly selected from each list, totaling a sample of 2040 residents for this study.

The door-to-door interviews were conducted between October 20, and November 3, 2017. Trained interviewers were instructed to randomly select another resident in the same or nearby

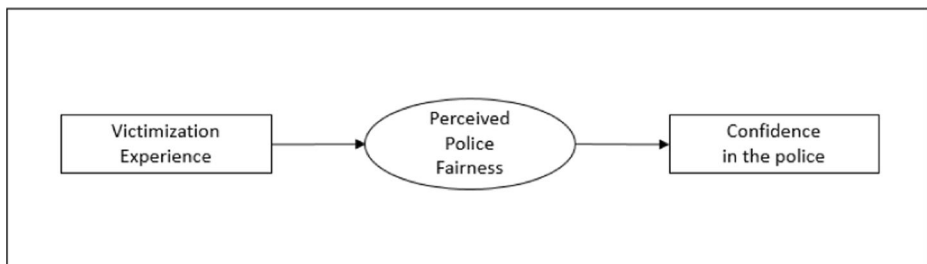


Fig. 4 Structural equation modeling of the procedural model



neighborhood if any of the residents were not available or declined being interviewed until the total number of samples was met. An overall comparison between our sample and the national population indicates that our sample is relatively older with an average of 47.1 years of age compared with 40.9 national average, and with slightly more female participants (51% v. 50.01% national rate). These discrepancies could be attributable to our sample selection criteria of excluding individuals under 20 years of age, and the greater availability of females at residence during the day.

## Variables

**Confidence in the Police** Previous studies measure confidence in the police in various ways including perceived police effectiveness, procedural justice/fairness, satisfaction with the police, willingness to help the police, and reporting crimes to the police (i.e., Cao et al., 1996; Jang & Hwang, 2014; H. D. Lee, Cao, Kim, & Woo, 2019; Sindall & Sturgis, 2013; Taylor & Lawton, 2012). In this study, we asked respondents to answer a direct question that taps their general *confidence in the police*, “how much do you have confidence in the police?” Respondents are given five Likert-scale choices, including a great deal (5), quite a lot (4), neutral (3), not much (2), and not at all (1). These responses are given the values from 5 to 1 correspondingly, in which the higher value indicates the higher level of confidence in the police.

**Victimization** To measure individual criminal victimization experience, we asked respondents whether they were a victim of nine crimes in the past year (1 = yes; 0 = no), including (1) burglary, (2) robbery, (3) pickpocketing, (4) auto theft including bike or motorcycle, (5) assault, (6) extortion, (7) sexual crime, (8) auto damage, and (9) property damage. Then, we count the number of *yes* for each type of crime and introduce the sum of *yes* responses as a victimization variable. Therefore, the variable, *victimization*, indicates the frequency of victimization from various crime types that a respondent has experienced in the past year.

**Fear of Crime** Respondents were asked to rate their fear of being victimized for each of the crimes, such as stealing, fraud, burglary, robbery, assault, stalking, and sex crimes. The five Likert-scale choices included never (1), seldom (2), occasionally (3), usually (4), and always (5). The seven responses of each respondent were factorized into a latent variable ( $\alpha = .928$ ) based on *Item Response Theory (IRT)-based confirmatory factor analysis (CFA)*. The IRT-based CFA method is specially devised for factor indicators with multiple ordered categories such as Likert-scale values (Fox, 2010; van der Linden, 2016).

**Perceived Police Effectiveness** To measure each respondent’s perception about the effectiveness of the police, we have introduced three questionnaires: what do you think about the following operations of the police in your neighborhood?: (1) doing well on patrolling the neighborhood for crime prevention, (2) immediately responding to a call/notification about criminal incidents, and (3) admittedly arresting criminals if a crime is reported. For each question, respondents are given five Likert-scale response choices such as never (1), seldom (2), occasionally (3), usually (4), and always (5). Each respondent’s responses for three questions are factorized into one latent variable through the IRT-based CFA method ( $\alpha = .790$ ).

**Perceived Social Cohesion** Previous studies have defined social cohesion as the willingness of members in society to cooperate in order to achieve their shared values and goals (Stanley, 2003). Four questions were designed to measure this variable in our study: (1) Do community members interact with one another? (2) Do community members talk about incidents in the neighborhood? (3) Do community members help one another in crisis? and (4) Are community members involved in community meetings and events? Answers to these questions based on the five Likert-scale choices were again factorized into a latent variable through the IRT-based CFA method ( $\alpha = .836$ ).

**Perceived Collective Efficacy** Collective efficacy refers to community members' active involvement in collaboration for specific goals such as order maintenance and crime prevention (Sampson, Raudenbush, & Earls, 1997). Three items are introduced to measure *perceived collective efficacy* in this study ( $\alpha = .631$ ): (1) community members' willingness to help children who suffer from harassment or bullying in the community, (2) community members' willingness to call the police when a crime breaks out, and (3) community members' willingness to participate in community patrols to prevent crimes, based on the five-category Likert scale.

**Perceived Informal Control** We elaborate on the definition of *informal social control* as community members' informal intervention toward disorderly and criminal behaviors in the neighborhood (Bursik, 1999) and measured *perceived informal control* with the following six questions: how frequently do you observe the following incidents/behaviors in your neighborhood: (1) garbages on the street and dirty, (2) dark and obscure places, (3) abandoned car or building, (4) disorderly behaviors, (5) delinquent juveniles in a group, and (6) quarreling people on the street. Respondents are given five Likert-scale items such as never (5), seldom (4), occasionally (3), usually (2), and always (1), and their replies have been given values in the opposite direction to make the higher value show the higher degree of informal control (i.e., never = 5). Each respondent's responses are factorized into one latent variable through the IRT-based CFA method ( $\alpha = .891$ ).

**Perceived Formal Control** To measure individuals' perception about formal control, we have questioned respondents as to how well do they think the following criminal justice practices perform in society: (1) crime prevention, (2) arresting criminals, (3) supporting and protecting victims, (4) rehabilitating criminals, and (5) publicizing crime prevention efforts. Respondents are given five Likert-scale answer choices, and their answers are factorized into one latent variable through the IRT-based CFA method ( $\alpha = .838$ ).

**Police Fairness** The fairness of police operations is measured by two survey items. The respondents were asked to rate two statements: (1) the police investigate criminal cases in a fair manner regardless of suspects' or criminals' social positions, and (2) the operation of the police is not influenced by suspects' economic status or income level. Respondents are given four options: (1) not fair at all, (2) unlikely to be fair, (3) likely to be fair, and (4) absolutely fair. The responses were factorized into one latent variable through the IRT-based CFA method ( $\alpha = .913$ ). Table 1 presents the standardized and unstandardized factor scores for all indicators in this study.

**Macro-level Variables** *Crime rate* and *deprivation* are introduced as macro-level variables. The crime rate of each borough is calculated as the number of property and violent crimes per

**Table 1** IRT-based CFA unstandardized and standardized factor loadings

Factor indicators	Factor loading	
	Unstandardized	Standardized
<b>Fear of crime</b>		
Do you feel fear about stealing victimization?	1.000	0.81
Do you feel fear about fraud victimization?	1.012	0.82
Do you feel fear about burglary victimization?	1.055	0.855
Do you feel fear about robbery victimization?	1.095	0.887
Do you feel fear about assault victimization?	1.059	0.858
Do you feel fear about stalking victimization?	1.109	0.898
Do you feel fear about sex crime victimization?	1.089	0.882
<b>Perceived police effectiveness</b>		
The police doing well on patrolling for crime prevention	1.000	0.75
The police immediately responding a call/a notification	1.184	0.888
The police surely arresting criminals if a crime is reported	1.022	0.766
<b>Perceived social cohesion</b>		
Community members know well/have a good relationship	1.000	0.833
Community members talk about incidents in the neighborhood	0.984	0.82
Community members help each other when trouble happens	1.02	0.849
Community members participate community meetings/events	0.815	0.679
<b>Perceived collective efficacy</b>		
Community members help children being suffered	1.000	0.743
Community members call the police when a crime happens	0.929	0.69
Community members participate in community patrolling	0.839	0.623
<b>Perceived informal control</b>		
In your neighborhood, garbages on the street and dirty	1.000	0.808
In your neighborhood, dark and obscure places	0.999	0.807
In your neighborhood, abandoned car or building	0.959	0.775
In your neighborhood, disorderly behaviors	0.915	0.739
In your neighborhood, delinquent juveniles in a group	1.047	0.846
In your neighborhood, quarreling people on the street	1.088	0.879
<b>Perceived formal control</b>		
Crime prevention	1.000	0.779
Arresting criminals	0.915	0.712
Supporting and protecting victims	0.967	0.753
Rehabilitating criminals	0.981	0.764
Publicizing crime prevention efforts	1.038	0.808
<b>Police fairness</b>		
The police investigate criminal cases fairly	1.000	0.753
The police are not influenced by suspects' status	0.913	0.880

Model-fit statistics: RMSEA = 0.064, CFI = 0.963, TLI = 0.959, chi-square = 75,846.0 ( $p < .01$ )

1000 residents in the year of 2014,<sup>1</sup> and the level of deprivation is operationalized as the GINI index in each borough based on Korean Statistical Information Service.<sup>2</sup>

**Control Variables** Besides the explanatory variables given in the models, this study introduces five control variables: sex, age, education, marital status, and income. Studies have revealed that older people and females tended to have a relatively more favorable attitude toward the police than their counterparts (Jang et al., 2010; Weitzer & Tuch, 2004). The current study hypothesizes that married people and people with higher education and income levels should have a more positive opinion

<sup>1</sup> It is the most recent data which is available when this manuscript is written.

<sup>2</sup> Available at <http://kosis.kr/eng/>

regarding the police as their perceptions of risks are expected to be higher (Ho & McKean, 2004). Sex (1 = male) and marital status (1 = coupled) are dummy variables, and each respondent's actual age is used to measure age. Education is operationalized into eight categories from illiterate (= 1) to graduate degree (= 8), and income is measured with 11 categories of monthly household income from less than 1,000,000 Korean Won to more than 10,000,000 Korean Won. Table 2 presents the descriptive statistics of all observable variables in this study.

## Findings

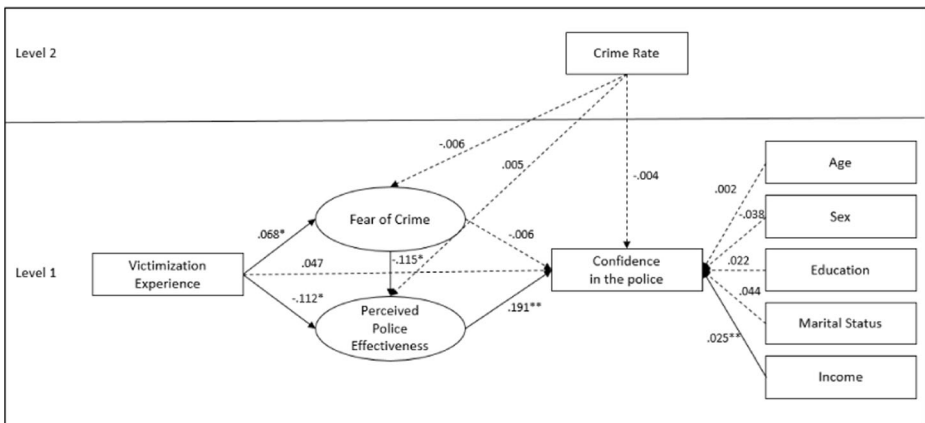
### Instrumental Model

Figure 5 presents the results from the SEM analysis of the instrumental model. First, the multilevel analysis shows that the macro-level criminal condition, *crime rate*, does not retain any significant effect on individual *fear of crime*, *perceived police effectiveness*, and *police confidence*. To examine the random variations, we have also inspected the random intercept model for the micro-level variables and found that *police confidence* ( $\sigma^2 = .037, p < .05$ ) and *fear of crime* ( $\sigma^2 = .108, p < .01$ ) randomly varied across macro-level units, while *perceived police effectiveness* ( $\sigma^2 = .041, p > .05$ ) did not. These findings indicate that the levels of police confidence and fear of crime were significantly different across given boroughs; however, these variations were not associated with the macro-level status of the crime rate.

At an individual level, *fear of crime* ( $b = .068, p < .05$ ) and *perceived police effectiveness* ( $b = -.112, p < .05$ ) were found to be significantly driven by *victimization experience*. As hypothesized, individuals with more *victimization experience* retain a higher level of *fear of crime* and a lower level of *perceived police effectiveness*. Furthermore, the higher level of fear of crime negatively influenced *perceived police effectiveness* ( $b = -.115, p < .05$ ). As for their influence on *police confidence*, however, only *perceived police effectiveness* had a significant direct impact on *police confidence* while other variables did not. We have also examined the indirect effect of *victimization experience* and *fear of crime* and found that *victimization experience* showed a significant negative indirect impact on police confidence ( $b = -.023, p < .05$ ) while *fear of crime* did not ( $b = -.023, p < .05$ ). Among control variables, only individuals' *income* levels had presented a significant positive influence on *police confidence* ( $b = .025, p < .01$ ).

**Table 2** Descriptive statistics for observable variables

Variable	Frequency	Mean	Std. D	Max	Min
Individual level ( $N = 2040$ )					
Confidence in the police		2.68	0.87	1	5
Victimization		0.23	0.65	0	6
Sex (1 = male)	1000				
Age		47.10	14.53	20	87
Marital (1 = coupled)	1519				
Education		5.60	1.51	1	8
Income		5.21	2.17	1	11
Macro level ( $N = 12$ )					
Crime rate		21.63	6.59	14.70	40.65
Deprivation (GINI)		0.31	0.03	0.23	0.35



**Fig. 5** Results from the SEM analysis of the instrumental model

These micro-level findings show that the core determinant of police confidence in the instrument model is individuals' perception of police effectiveness. Contrary to findings from previous studies, this study reveals that *fear of crime* and *victimization experience* did not directly influence police confidence in South Korea. Moreover, the level of crimes at the borough level did not influence individuals' *fear of crime*, *perceived police effectiveness*, and *confidence in the police*. The effects of *age*, *sex*, *education*, and *marital status* were not significantly associated with the individual level of confidence in the police, either. In sum, the analysis of the instrumental model indicates that citizens in South Korea trusted the police when they perceive that the police effectively provided their service and handle criminal incidents.

### Expressive Model

To examine the argument from the neo-Durkheimian theory, we examined the expressive model and presented the result from the SEM analysis in Fig. 6. The multilevel approach shows that the macro-level status of deprivation did not significantly influence individuals' perception of *social cohesion* ( $b = .537, p > .05$ ) and *police confidence* ( $b = -.898, p > .05$ ). At the micro level, individuals' perception about general *social cohesion* is found to significantly influence their perceived *collective efficacy* ( $b = .551, p < .01$ ) and *formal control* ( $b = .308, p < .01$ ) but not their *perception of informal control* ( $b = -.076, p > .05$ ) and confidence in the police ( $b = -.038, p > .05$ ). The total indirect effect of *social cohesion* on *police confidence* was not significant, either ( $b = .069, p > .05$ ).

As for effect on the *police confidence*, all exogenous and control variables are found not significant except *perceived formal control* ( $b = .240, p < .05$ ) in the expressive model. Individuals with a higher level of trust in formal control (i.e., general criminal justice policies) retained greater confidence in the police. This finding indicates that individuals' perceptions about overall formal criminal justice policies, not *social cohesion*, *collective efficacy*, or *informal control*, shaped their confidence in the police in South Korea.

### Procedural Model

Besides the above models, we examined the procedural model that focused on the effect of perceived *police fairness* on confidence in the police and presented the results in Fig. 7. The

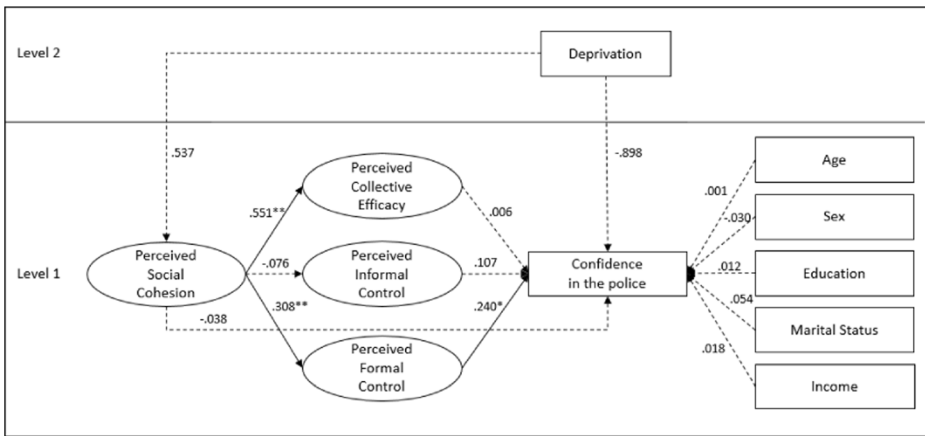


Fig. 6 Results from the SEM analysis of the expressive model

results from this SEM analysis show that individuals’ victimization experience negatively influenced their perception of police fairness ( $b = -.034, p < .01$ ), and individuals’ perceived police fairness, in turn, positively impacted their confidence in the police ( $b = .917, p < .01$ ). As found in the expressive model, no control variables were significant. These results suggested that those who contacted the police due to their criminal victimization were more likely to consider the police to be unfair, and those with a lower level of *perceived police fairness* had a significantly lower level of *confidence in the police* in South Korea.

**Comprehensive Model**

Finally, we combined all three models to assess the relative effects of each model on confidence in the police, using a comprehensive SEM analysis and presented the results in Fig. 8. The results showed that the effect of *victimization experience on fear of crime* ( $b = .068, p < .05$ ) and *perceived police confidence* ( $b = -.113, p < .05$ ) and that of *perceived social cohesion on collective efficacy* ( $b = .551, p < .01$ ) and *formal control* ( $b = .308, p < .01$ ) were consistent with those from individual models. The non-significant effects of macro-level variables and control variables were also identical to the findings from separated analyses as given in Fig. 8.



Fig. 7 Results from the SEM analysis of the procedural model

The effects of these variables on *confidence in the police*, however, are distinct from previous individual models in two aspects. First, *police effectiveness* ( $b = .028, p > .05$ ) and *formal control* ( $b = .120, p > .05$ ) were significant in separate, individual models, but were not significant in the comprehensive model. *Police fairness* was the only significant variable ( $b = .816, p < .01$ ) consistently across all of the models. In other words, when all models were combined, individuals' perception of *police fairness* was the primary, significant determinant of *confidence in the police*. Secondly, *victimization experience*, which had a significant, indirect effect in individual models, now had a significant direct impact on *confidence in the police* ( $b = .077, p < .05$ ). Furthermore, more victimization experience increased the level of confidence in the police, as indicated by the coefficient of victimization experience. This seemingly inconsistent finding may be interpreted as that the remaining variance of victimization experience (after controlling for fear of crime and police effectiveness) was positively associated with *confidence in the police*.

### Model-Fit Test of SEMs

To examine each model's capability to explain the variance in the given data, we estimated the *Akaike information criterion* (AIC), the *Bayesian information criterion* (BIC), and the *sample-size adjusted BIC* (ABIC) and presented the results in Table 3. The general equation of information criterion (IC) is given as:

$$IC = -2\ln(L) + \theta\gamma \tag{1}$$

where  $L$  indicates the maximized value of the likelihood function and  $\theta$  refers to the number of parameters in a statistical model. When  $\gamma$  is given as 2, this function becomes the AIC statistics. If  $\gamma$  is equal to  $\log(N)$ , this function is identified as the BIC statistics, and if  $\gamma$  is identical to  $\log((N + 2)/24)$ , this function is equal to the ABIC statistics (Muthén & Muthén, 1998-2017; Park & Fisher, 2017). As these model-fit statistics control for the number of parameters, they can compare both nested and non-nested models (Dayton, 2003).

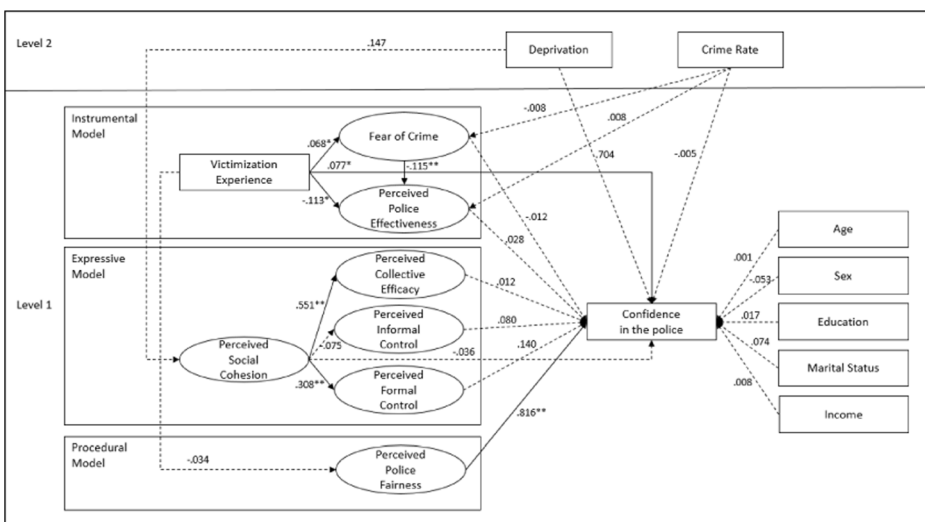


Fig. 8 Results from the SEM analysis of the comprehensive model



As these IC statistics represent the amount of lack-of-fit, the results of the model-fit test showed that the procedural model provided the best fit to the survey data, whereas the comprehensive model provided the least model-fit. This finding suggested that perceived police fairness in the procedural model represented the most significant factor in shaping confidence in the police. This was also consistent with the findings from the comprehensive model analysis.

## Discussions and Conclusion

To broaden our perspective on the intricate causal pathways leading to confidence in the police in South Korea, the current study examined three theoretical frameworks and conducted four analyses, including three separate individual analyses for each model and one comprehensive model.

Before turning to the results and their implications, we would like to caution readers with theoretical and methodological caveats of this study. First, this study was based on a one-time survey data that did not take into consideration any temporal order of variables. As Skogan (2009) pointed out, *confidence in the police* may play a role in the exogenous variable for explaining *fear of crime* or *perceived police effectiveness*. It is also theoretically meaningful to hypothesize that individuals with higher *confidence in the police* are more likely to consider police operations to be fair (Merry et al., 2012; Tyler, 1988, 2006). Future studies may enhance our study by introducing a sufficient number of second-level units and panel survey data. Second, the number of boroughs as the second-level units is 12 in our study, which may not be sufficient in fully identifying the macro-level variations. Lastly, previous studies have revealed that the public perception of distributive justice, along with procedural justice, also plays an essential role in assessing police legitimacy (Sunshine & Tyler, 2003). Future studies should extend the procedural model and include the measurement of distributive justice.

Despite these methodological caveats, the current study has generated several significant findings. First, confidence in the police is relatively low in South Korea compared with other developed countries such as Japan and the USA. While the steep decline in public's confidence in the police during the 1980s and 1990s could be attributable to the authoritarian military rule (Boateng et al., 2016; B. Moon, 2004), the climb in public confidence in the police since the 2000s may be a sign that the public welcome the community-based policing and greater police accountability implemented by the Police Grand Reform.

Second, the instrumental and comprehensive SEM analyses show that *fear of crime* does not play a significant role in establishing one's *confidence in the police*. This finding is somewhat inconsistent with previous studies that presented the significant negative effect of *fear of crime* (i.e., Jackson, 2004; Jackson & Bradford, 2009; Jang & Hwang, 2014). In their SEM analyses of the Korean National Victimization Survey, for example, Jang and Hwang (2014) found that fear of crime consistently affected confidence in the police in South Korea. We speculate that this inconsistency could be due to the operationalization of confidence in the police, as these studies included *perceived police effectiveness* as a core element of *confidence*

**Table 3** Model-fit statistics comparison

	Instrumental	Expressive	Procedural	Comprehensive
AIC	13,437.76	21,252.14	6672.80	31,145.35
BIC	13,583.89	21,403.90	6734.63	31,432.01
Adjusted BIC	13,501.29	21,318.12	6699.68	31,269.96

in the police. Indeed, previous studies, which differentiated *perceived police effectiveness* and *confidence in the police*, found that *police effectiveness* mediated the impact of *fear of crime* on *confidence in the police* (Jackson et al., 2009).

Third, the results of the expressive model suggest that none of the key variables, such as *social cohesion*, *informal control*, and *collective efficacy*, was significant in predicting *confidence in the police*, with the exception of *formal control* and *social cohesion*. Furthermore, both significant variables became non-significant in the comprehensive model analysis. These findings suggest that Korean people were less likely to view the police as the guard of social cohesion and moral standards; instead, they regarded the police more as law enforcers and crime fighters.

Last, the SEM analyses of the procedural model and the comprehensive model revealed that police fairness and their procedural justice were the essential determinant of *confidence in the police* in South Korea. This finding supports the general thesis that public's contact with the police influences their perceptions of police fairness, and in turn, affects their confidence in the police (Bradford et al., 2009; Merry et al., 2012; Tyler, 1988; Tyler & Huo, 2002). This finding is also consistent with the recent international studies, which have demonstrated the importance of procedural justice in engendering successfully policing around the world, including non-Western societies (i.e., Grant & Pryce, 2019; Pryce & Grant, 2020).

In sum, our findings in this study provided one important policy implication to Korean criminal justice policymakers. To achieve a higher level of confidence in the police, which presumably boosts the support for the police, reduces fear of crime, and prevents disorders/crimes (Bahn, 1974; Povey, 2001; Quinton & Morris, 2008; Skogan, 2009), police officers and the police institution in South Korea should place the highest priority on improving their fairness and procedural justice. Recently, the Korean police are undergoing a series of reforms, including gaining the legal status of independent investigation and establishing local self-administering agencies. For the success of these reforms, the Korean police should keep in mind the importance of procedural fairness in their operations. After all, the success of the police reforms hinges on public confidence in the police, and police fairness drives the public confidence in the police in South Korea.

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## Compliance with Ethical Standards

**Conflict of Interest** The authors declare that they have no conflict of interest.

**Ethical Approval** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed Consent** All participants provided informed consent.

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