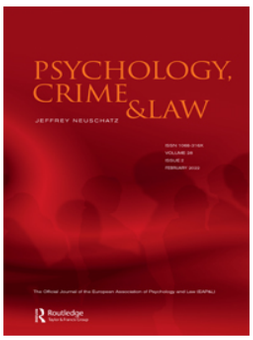

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Perceived justice, negative emotions and delinquency in Chinese high schools and vocational schools

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ABSTRACT

General strain theory (GST) has been applied to explain the causes of delinquency in Western and China context, which argues that strain is a major source of criminal motivation. Being an important source of strain, the subjective perception of justice has the potential to promote negative emotions and delinquency. Using a sample of 2081 students from 11 middle schools and 11 vocational schools in South China, the current study tests associations and intervening paths between perceived justice, life satisfaction, negative emotions and delinquency. Results revealed that dissatisfactory perceived justice promoted delinquency, and this relationship was mediated by life satisfaction and negative emotions. Limitations and future research directions are discussed.

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Strain; emotions; delinquency; China; general strain theory

Rapid economic development has led China to enjoy growing productivity and wealth, as well as the annoyance of increasing crime rate. Guangzhou city is located in South China with a population of 18.68 million, which comprised 9.3 million local citizens and 9.38 million non-local citizens. The investigations of variables correlated to crime and delinquency are important for crime prevention and crime control in such a mega city. Citizens' perception of justice is influenced by the distribution of wealth during such rapid economic development, and the perceived justice has effects on their behavior.

Researchers tempted to investigate the causes of crime in China employing different western criminological theories, such as general strain theory (thereafter GST). GST delineates that strains produce negative emotions and the later increases the likelihood of crime, and studies involving middle and high school students in China provided support the the effectiveness of GST in Asia context. However, none of the above Chinese studies included perceived justice as a source of strain. Nor is there any Chinese GST studies to quantitatively define the role of perceived justice in causing negative emotions and deviant coping strategies. On the other hand, few of them shed light on Chinese vocational school students, whose population is larger than high school students.

This study speaks directly to the paucity of research on Chinese juvenile's perceived justice and their deviant activities. The current study examined the role of dissatisfactory perceived justice as a motivator of delinquency within the Chinese context, utilizing the

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GST framework to investigate the associations among the variables such as perceived justice, life satisfaction, negative emotions and delinquency.

General strain theory

GST entails that various types of strain may produce negative emotions, especially anger and depression. Such negative emotions would lead to deviant behavior or increase the likelihood of delinquency. Three types of strain are considered especially important: failure to achieve positively valued goals; loss of positively valued stimuli and presentation of negatively valued stimuli (Agnew, 1992).

The first type of strain focuses on relations that create difficulties for adolescents to achieve positively valued goals, comprising disjunction between aspirations (ideal goals) and actual achievements, disjunction between expectations (mostly income expectations) and actual achievements, and disjunction between just/fair outcomes and actual outcomes. The second type of strain, loss of positively valued stimuli, focuses on the removal of positively valued stimuli, such as the death of a friend or relative. The third type of strain concerns the presence of negative stimuli such as physical punishment, negative relationships with parents, verbal insults or close relations with delinquent peers (Agnew, 1992).

Meanwhile, a key proposition of GST is that negative emotions mediate the effects of strain on delinquency, and a pathway between strain, negative emotions and delinquency was presumed by Agnew (1992). Individuals may develop negative emotions, like anger, resentment, depression and anxiety, when they are confronted with strain. One coping strategy toward those negative emotions is delinquent behavior. The effects of negative emotions have received empirical support (Agnew et al., 2002; Bao et al., 2004; DeLisi, 2011).

GST has been regarded as one of the most important criminological theories since its introduction in 1992 by Agnew. Extensive empirical support for GST has been obtained in the United States (Agnew et al., 2002; DeLisi, 2011; Hoffmann & Ireland, 2004; Mazerolle & Maahs, 2000; Ostrowsky & Messner, 2005) and other countries (Bao et al., 2007; Botchkovar & Broidy, 2013; Cheung & Cheung, 2009; Moon et al., 2012; Wang et al., 2020; Zhang et al., 2018).

Perceived justice as a strain

Perceived justice is a multi-dimensional concept, and individuals' perception of fairness or unfairness would generate positive or negative attitude, as well as behavior (Adams,1965). Researchers proposed three dimensions of perceived justice, namely, distributive justice, procedural justice and interactional justice (Su et al., 2019). Perceived justice has been introduced into different fields including criminological research, and perceived justice or injustice would have effects on positive or negative emotions, as well as criminal propensity (Liu et al., 2020).

Among the category of strain as failure to achieve positively valued goals, the desire for justice/fairness/equity stands as an important source of assessment attitudes. Individuals hold that certain distributive justice rules should be applied in social relationships and resources be allocated equitably. Actors in inequitable relationships may experience

distress when they feel the outcomes are unjust, and individuals in inequitable relationships may have a higher likelihood of delinquency. Despite the effects of their own experience of being treated inequitably, individuals may also be distressed by witnessing the inequitable treatment of others (Agnew, 1992).

Previous research examined how different types of perceived justice were associated with delinquency. Perceived school fairness has a significant effect on students' likelihood of participating in school violence, students being more likely to participate in violence if they perceive unfairness in school rules or treatment by teachers. For example, students are more likely to bring weapons to school if they perceive that rules are unfair, while students who believe rules are fair would be less likely to do that (James et al., 2015). Rebellon et al. (2012) investigated the effects of perceived justice from interactions with parents and teachers on delinquency, and results revealed that perceived justice promotes delinquency and such relationship is mediated by situational anger.

Different types of justice were also witnessed to have positive effects on delinquency within the GST framework (Scheuerman, 2013). It has been documented that interactional justice, in the form of police-initiated contact, has negative consequences for youth including increased delinquency, when youth have negative evaluations of their police encounters (Slocum et al., 2016). The measurement of perceived justice had been validated in China (Su et al., 2019), but the relationship between perceived justice and delinquency has seldom been investigated using Chinese data.

Life satisfaction, as a variable relevant to strain, is affected by external stimuli and internal characteristics (Op de Beeck et al., 2012), and has been employed in different GST studies (Baron, 2004; Jang & Johnson, 2005; Macdonald et al., 2005). Using data from a stratified cluster sample of 5,414 public high school students, Macdonald et al. (2005) examined the role of life satisfaction and self-control in predicting youth violence, and results indicated that higher levels of life satisfaction are associated with lower violence.

Researchers in Chile examined a sample of 802 seventh graders, with an average age of 12.6 years, from three different cities and found that adolescents who report lower levels of life satisfaction would be more likely to engage in school violence. Moreover, school climate and school satisfaction also have effects on school violence and life satisfaction. Results provided support for the association between school violence and levels of life satisfaction among youth (Varela et al., 2018).

The association between perceived justice and life satisfaction requires more investigation. Perceived justice can be categorized into one type of strain, having a positive effect on negative emotions and delinquency. However, perceived justice might also have a significant effect on life satisfaction, while the latter acts as a mediator influencing the relationship between perceived justice and negative emotions. It is difficult to find a publication using Chinese data investigating such relationships.

GST in Asia context

For the Asian context, Agnew (2015) argued that GST is quite applicable to Asian societies and has the potential to shed much light on the causes of crime in Asia. GST had been tested in Asia and received support for its key hypotheses (Bao et al., 2004, 2007; Gao et al., 2014; Moon et al., 2009; Wang et al., 2020; Zhang et al., 2018). Bao et al. (2007)

examined the buffering effect of social capital on the strain-delinquency relationship. Social capital was measured by support from parents, teachers, and friends, exposure to delinquent peers, moral beliefs, self-efficacy and self-esteem. Results revealed buffering effects. For example, school support dampened the effect of negative relations with parents, while the effect of negative relations with teachers was conditioned by family support.

In a study conducted in South Korea, eight types of strain were measured, including family conflict, emotional and physical punishment by parents, physical punishment by teachers, financial stress, examination-related stress, being bullied, gender discrimination and criminal victimization, and strain was found to be correlated with delinquency, this relationship would be mediated by negative emotions (Moon et al., 2009).

In another South Korean study, Moon and Morash (2017) explored the distinction between 'objective' strain and 'subjective' strain. Objective strain refers to events or conditions disliked by most people and subjective strain refers to events or conditions disliked by those experiencing them. Of the two, subjective strain is more strongly related to crime (Froggio & Agnew, 2007). Subjective strains have been found to increase the likelihood of a generation of negative emotions, resulting in having a closer relationship with criminal activities (Agnew, 2006). However, Moon and Morash (2017) also obtained limited support for the proposition that subjective strain has a relatively greater effect than objective strain in predicting delinquency. Three types of strain (teachers' punishment, gender discrimination and criminal victimization) were tested. Regardless of being conceptualized as objective or subjective, all strains have positive effects on delinquent behaviors.

Another critical issue of GST is that only some strained individuals commit criminal behavior. Strained people's adoption of delinquency is conditioned by various individual and social variables that have been considered as influential factors. Agnew (2006) refined an integrated model of GST and argued that weakened social control and increased delinquent peer affiliation would increase the likelihood of delinquency among strained individuals, along with the mediating effect of negative emotions. Such conditioning factors have a wide range, including an individual's social skills, socioeconomic status (SES), bonds with parents or teachers or affiliation with delinquent friends (Agnew, 2013).

In China, the strain-anger-crime path and the path from strain to social control and delinquent peers and then to delinquency were tested (Gao et al., 2014). Gao et al. (2014) extended the model to link the state of anger to delinquent peer affiliation, and link the state of depression to social control, arguing that angry adolescents would be likely to be rejected by conventional peers and turn to delinquent peers, and the state of depression caused by strain would reduce the involvement with and commitment to academic study. Their results indicated that the state of anger was related to delinquent peer association, the state of depression was linked to social control, and delinquent peers and social control had a direct effect on delinquency. Thus they concluded that anger and depression had indirect effects on delinquency via social learning and social control variables.

However, perceived justice has not been introduced in the above Asian GST studies. Studies examining GST in Asia context mostly employed maltreatment, conflict with school or family, negative life events as strains, and none of them utilized perceived

justice as a type of strain. More GST studies to investigate the effects of perceived justice on negative emotions and deliquency are needed.

The present study

As stated above, the subjective perception of justice, or perceived justice, has been inadequately investigated among previous GST studies, especially in China. To fill the gap, the present study makes an effort to measure the associations between perceived justice and life satisfaction, and to investigate the relationships among perceived justice, life satisfaction, negative emotions and delinquency.

The present study is important because it is the first study examining the role of perceived justice as a motivator of delinquency, applying the GST framework to Chinese data to investigate the associations and intervening paths between perceived justice, life satisfaction, negative emotions and delinquency.

Hypotheses of this study are as follows:

Hypothesis 1: Perceived justice has a significant effect on negative emotions.

Hypothesis 2: The effect of perceived justice on negative emotions may be mediated by life satisfaction.

Hypothesis 3: Negative emotions have a significant effect on delinquency.

Hypothesis 4: Perceived justice's effect on delinquency is mediated by negative emotions.

There are difficulties associated with collecting self-reported data for delinquency research in China. A survey covering schools in all districts of a city like Guangzhou must be approved by a department of the municipal government, such as the Educational Bureau or the Guangzhou Office of Juvenile Protection. Such departments would inform relevant schools to collaborate with researchers for the survey. Many schools are cautious about collaborating with unknown researchers to conduct a survey. They would refuse such survey arrangement unless they receive written notification from upper-level authorities.

It is still more difficult to collect such data in vocational schools. More opportunities for college admission have made high schools more attractive, thus the amount of total and yearly admitted students in high schools has kept increasing from the 1990s onward. As a result, most vocational school students were from lower-class backgrounds with low self-efficacy and low self-esteem, choosing to receive technical training because of their poor performance in middle or high schools. Employment rates are low for graduates from vocational schools due to poor education quality and mismatch between curriculum and market needs. Including vocational school students in criminological studies can shed much light on the inner aspects of Chinese society.

Method

Participants

The data came from Guangzhou, the third largest city in China. At the end of 2020, the resident population in Guangzhou was 18.68 million. 2081 respondents were selected among tenth-grade students from 11 high schools and 11 vocational schools, with a

cluster sampling method. Two classrooms were sampled from every school, and all of the students in the class were invited to participate in the study. Informed consent was obtained. The students filled out and answered a questionnaire using the self-report method through group interviews without their teacher present.

Most GST studies in China have involved high school students, while vocational schools should also be taken into account. In contrast with existing Chinese GST studies, the present study collected data from vocational schools besides high schools, and selecting students from vocational schools and high schools presents a greater coverage and broader picture about China's juvenile population.

Measurements

Dependent variable

Delinquency is measured by counting the number of different offences the respondent reported in the previous 12 months, such as fare dodging, damaging public property on purpose, stealing something from a shop or department store, breaking into a building to steal something, stealing a bicycle, using a weapon, using or threaten to use force to get money or things from someone, carrying a weapon such as a stick, knife, gun, or chain, taking part in a group fight on the street or in another public place, beating someone up or hurting someone with a stick or knife so badly that the person was injured. Cronbach's alpha was .903. We used the logged score of delinquency for analysis.

Independent variables

Perceived Justice is measured by 24 items covering three dimensions of perceived justice, namely, procedural, distributive and interactional justice, which has been validated by researchers in China (Fang & Chen, 2016). Cronbach's alpha is .939.

Negative Emotions is measured by asking respondents how often they felt jealous, ashamed, scared, angry, moody or nervous in the past 12 months (Op de Beeck et al., 2012). A six-point scale is applied ranging from '0: never' to '5: every day'. Cronbach's alpha is .804.

Life Satisfaction is measured by the instrument constructed by Op de Beeck et al. (2012). Respondents were asked how satisfied they were with life as a whole, home, general living conditions, relations with family, time for themselves, and personal interests, his or her social contacts with friends and acquaintances. A four-point scale is applied to all items, where 1 = very unsatisfied, and 4 = very satisfied. Higher scores indicate higher satisfaction with life. Cronbach's alpha is .832.

Control variables

Control variables comprise individual demographics of gender, age and social-economic status (SES).

Results

Descriptive statistics and correlations

Descriptive statistics of dependent and independent variables are shown in Table 1. Table 2 shows bivariate correlation results for Perceived Justice, Life Satisfaction, Negative

Table 1. Descriptive statistics of dependent and independent variables.

Variables	Mean	SD	Min	Max
Delinquency (logged score)	0.1184	0.288	0.00	1.65
Age	15.97	0.709	14	17
SES	5.482	1.390	2.00	10.00
Perceived justice	51.545	15.950	15.00	120.00
Life satisfaction	11.318	2.760	0.00	30.00
Negative emotions	13.013	4.366	1.00	47.00

Table 2. Correlation matrix for perceived justice, life satisfaction, negative emotions and delinquency.

	2	3	4
1. Perceived justice	−.131***	.147***	.071**
2. Life satisfaction		−.110***	−.021
3. Negative emotions			.177***
4. Delinquency			

*$p < .05$, **$p < .01$, ***$p < .001$

Emotions and Delinquency. As expected, Perceived Justice ($r = .068$, $p < .01$) and Negative Emotions ($r = .195$, $p < .001$) are significantly correlated with Delinquency. Perceived Justice is significantly correlated with Negative Emotions ($r = .148$, $p < .001$) and Life Satisfaction ($r = -.116$, $p < .001$).

Regression analyses were conducted to examine predictors of Delinquency, as shown in Table 3. In Model 1, Perceived Justice serves as independent variable, which is significantly related to Delinquency ($B = 0.077$, $p < .01$; Adjusted $R^2 = 0.051$). Gender, age and SES were controlled.

In Model 2, Life Satisfaction and Negative Emotions were included with Perceived Justice, as well as gender, age and SES. Perceived Justice retained its significant predicting effect ($B = 0.055$, $p < .05$). Negative Emotions was significantly correlated with delinquency ($B = 0.169$, $p < .001$). Life Satisfaction did not have significant effect on delinquency ($B = -0.014$, $p > .05$). Adjusted R^2 of Model 2 was 0.041.

Paths from classroom-level perceived justice to delinquency

Gender, age and SES are included in the path model as control variables. As shown in Figure 1, Perceived Justice has significant effect on Negative Emotions ($B = 0.139$, $p < .001$) and Life Satisfaction ($B = -0.131$, $p < .001$). Life Satisfaction also has significant

Table 3. Regression models with standardized coefficients predicting delinquency ($N = 2081$).

	Model 1		Model 2	
	B	*t*	*B*	*t*
Gender	−0.136***	−6.109	−0.141***	−6.284
Age	−0.008	−0.356	−0.002	−0.094
SES	−0.015	−0.666	−0.011	−0.499
Perceived justice	0.081***	3.622	0.056*	2.475
Life satisfaction			−0.033	−1.465
Negative emotions			0.160***	7.109
Adjusted R^2	0.022		0.047	

*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$.

effect on Negative Emotions ($B = -0.104$, $p < .001$). Negative emotions has significant effect on Delinquency ($B = 0.177$, $p < .001$). Perceived Justice has significant direct effect on Delinquency ($B = 0.045$, $p < .05$) The results of path analyses suggest a strong intervening process from strain to Delinquency, and the important role of Negative Emotions in relating Perceived Justice to Delinquency.

Discussion

The current study provides support for the effect of perceived justice on delinquency, as well as the intervening processes from perceived justice to delinquency. Few studies using Chinese data to test intervening paths among perceived justice, life satisfaction, negative emotions and delinquency. Although demensions of perceived justice have been well established, few studies have examined the effects of perceived justice within GST framework, especially in Asia context. This study firstly used Chinese data to confirm the role of perceived justice as a type of strain within GST framework. Four hypotheses were tested, and all of them were supported.

The present study examined how 'fair' respondents consider the society is, and such perceived justice is an important source of strain. Individuals' judgement of fairness or unfairness may shape their opnions toward the socioty as well as their behavior. Hypothesis 1 is supported in that perceived justice has a significant effect on negative emotions. Students will have higher levels of negative emotions if they feel the society is unfair. When such feelings of unjust generates anger or depression, delinquent activities will more likely occur. The results provide support to the key proposition of GST that strain may increase negative affect.

On the other hand, perceived justice has a direct effect on delinquency. Juvenile with higher tension of unjust feelings may be suffered from a higher likelihood of delinquency. Young students are facing difficulties when they grow up and learn to cope with the society. It is not unusual for young people to generate the feeling of unfairness when they have conflicts with parents or teachers. They have more accesses to various information compared with older generations, and their judgment concerning the whole society would be shaped by seeing or hearing some negative events in this country. If rules or treatments are perceived as unfair by young students, they are less willing to comply with law or rules. There would be more compliance if rules are perceived as fair and legitimate. The results have merit for policy-makers such that making improvement for benefit distribution among citizens has an effect on people's perception of justice or injustice, which has policy implication for crime control or crime prevention.

Perceived justice is an important topic for researchers and policy-makers in China. Many Chinese researchers investigated variables correlated to perceived justice, such as financial status, education, social status and social networks. Decades of rapid development reshaped Chinese society dramatically, accompanied with complex changes and produced huge difference among regions, industries and populations. Citizens' perception of injustice are increasing during past decades when Gini Coefficient kept climbing in China, while the wealth of the nation is becoming consolidated. Community members are concerned with the distribution of benefit in the process of economic development. Media kept showing the sky-high earnings of entertainment stars, and factory

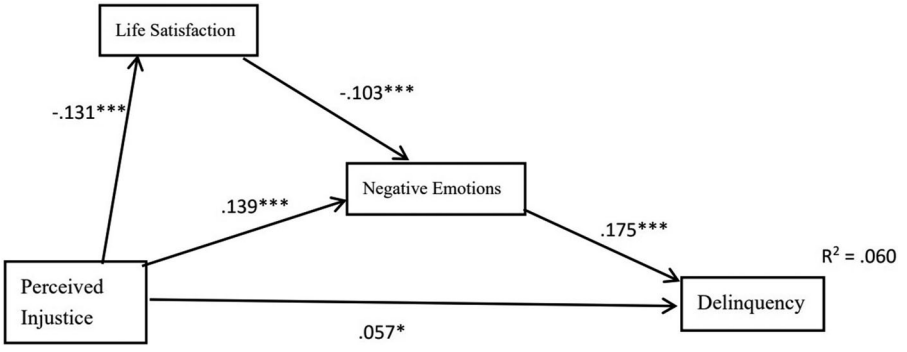

Figure 1. Intervening paths from perceived justice to delinquency. *$p < .05$, **$p < .01$, ***$p < .001$.
Note: Standardized path coefficients are presented.

workers earn small salaries. Young people are easily influenced by media or family menber\s opinion. The more they view the society environment as unfair.

The results of path analyses provide support to the statement of Hypothesis 2, that life satisfaction mediates some effect of perceived justice on negative emotions. Perceived justice has a direct effect on negative emotions and life satisfaction. Higher levels of students' feelings of injustice decreased their satisfaction with their lives. It is important to observe these findings because perceived justice may have different effects on negative affect via different paths.

The present study highlights the significance of perceived justice and life satisfaction in the production of delinquency. Few, if any, researchers introduced perceived justice and life satisfaction into GST studies in Chinese context. The results revealed that life satisfaction is critical for young individuals its low levels or absence represents the risk of delinquency. Perceived justice would boost students' levels of life satisfaction. The levels of life satisfaction have impacts on the levels of negative emotions. Life satisfaction is a key predictor for the positive emotions for youth.

Hypothesis 3 and Hypothesis 4 were verified that negative emotions have a significant effect on delinquency. Negative affect plays a key role in GST propositions. Meanwhile, negative emotions mediate the effects of strain on delinquency, and a pathway is validated among strain, negative emotions, and delinquency. Individuals may develop negative emotions, like anger, resentment, depression and anxiety when confronted with strain. This is important for understanding Chinese youth concerning their deviant activities. The influences from the society shaped their perception of justice, and such perceptions have effects on life satisfaction and negative emotions. Perceived justice and negative affect direct to delinquency. The role of negative affect as a mediator between strain and delinquency is consistent with literature.

Negative affect, especially in the form of anger, plays an important part between strain and delinquent adaptations. Variables correlated with negative affect are important for investigating the causes of delinquency as directed by GST. The results revealed that perceived justice may generate a range of negative emotions, such as anger, frustration, and depression. Such negative affect may generate a major impetus for deviant behavior, and then would increase the likelihood of engaging in criminal activities.

There are limitations to the present study. Firstly, variables from other theories such as Social Learning or Social Control were not included. Secondly, the present study did not examine the effects of procedural, distributive, and interactional justice separately. Thirdly, the present study did not investigate variables influencing individuals' perception of justice. Future studies should control variables of social control and delinquent peers. The authors of the present article plan more extensive investigation on the relationships between perceived justice and delinquency in China.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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