



Does family background impact driving attitudes and risky behaviours? An investigation on Chinese young drivers



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ABSTRACT

The rapid pace of motorisation in China has been well documented, as has the large road trauma burden the Chinese citizens are facing as a result. China's unique political system represents an important consideration in helping reduce road trauma, yet political factors have not been previously investigated in this context. Recently, emerging issues on the road involving the adult children of politically powerful families have become a serious social problem in China, and have drawn widespread media and public attention. This study took a novel approach to examining factors associated with risky attitudes and risky road use in China by investigating the economic and political background status of a sample of young Chinese drivers. An online survey was conducted in May 2015 with a sample size of 476 Chinese young drivers from across the country, aged between 18 and 28, including 305 males and 171 females. The results suggest that for participants who reported having a familial political background, more risky driving behaviours were reported among those participants who reported more impact on their life from that political background; while for participants without political background, higher personal income was associated with more risky driving behaviours. The findings are discussed in light of China's political management system and potential education opportunities for young drivers.

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1. Introduction

Road trauma is an important public health issue, which has been increasingly recognised by governments and institutions internationally. Numerous studies have been conducted to investigate causes and consequences of road crashes (e.g., Zheng et al., 2010; Nordfjarn et al., 2014; Vardaki and Yanniss, 2013; Zheng, 2012; Roshandel et al., 2015). In China, recent decades have seen dramatic changes in the road trauma burden. For instance, annual road crashes increased from approximately 6000 in 1951 to 413,000 in 1999; meanwhile, the annual injuries caused by road crashes increased from approximately 5000 to 286,000, and annual fatalities increased from 852 to approximately 84,000 in the same time period (Wang et al., 2003). Nearly 100,000 people were killed on the road each year from 2001 to 2007 in China (Loo et al., 2011), equivalent to about 274 fatalities per day; and 58,539 people in China were reported being killed in road crashes in 2015 alone (WHO, 2015).

According to data from National Bureau of Statistics of China, the number of nationwide licensed car drivers had reached 248 million, and the total motorway length had reached 111.9 thousand kilometres by 2014 (National data, 2015). In particular, because of China's rapid economic growth during the past 30 years (i.e., with an average annual GDP growth rate above 10%) (USA Today, 2007), many Chinese families can afford to buy cars for themselves and their children for the first time (He et al., 2013). Although the official data about licensed drivers in a specialised age group are unavailable, evidence has shown that novice drivers in China are continuously increasing (Zhang et al., 2013). In turn, the number of road crashes and resulting injuries and fatalities in China involving young drivers is rapidly growing (Baidu Wenku, 2015b). International research has shown that misjudging the speed of oncoming vehicles, driving while fatigued and active punishment avoidance are common among young drivers (Weiss et al., 2014). In addition, as a prevailing habit among young drivers – phone use (including texting) while driving – has been shown to lead to a significant increase of the reaction time due to driver distraction and delayed reaction (Yannis et al., 2014; Saifuzzaman et al., 2015). While the body of evidence about the risks associated with young drivers is substantial, very little research in this area has been conducted in China.

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“Second Rich and Powerful Generation” (SRPG) is a novel Chinese term, which is defined as a young person who has grown up with an economically rich and/or politically powerful family background (Baidu Baike, 2015a, 2015b). In recent years, emerging issues on the road involving SRPG drivers have become a serious social problem in China with severe injuries and fatalities, and it has drawn wide attention from the media and public. For example, on October 16, 2010, after a luxury car crashed into two college students on a campus because the driver was speeding and drunk-driving. One student was killed and one was critically injured. The 22-year-old driver was reported to have shouted to the witnesses who angrily stopped his car, “do whatever you want, no harm to me because my father is xxx (a deputy director of the local public security bureau)” (Song and Deng, 2012). On October 20, 2010, a college student from a rich family crashed into a woman and then stabbed her to death when he found that she was recording his license plate number (Trevaskes, 2012).

Media reports of such road crashes often emphasise the economic or political background of SRPG drivers, which are the most significant features that distinguish them from general drivers. However, very little research has investigated the potential relationship between drivers' economic and political backgrounds and their driving attitudes and behaviours. One possible reason is that these factors do not play a big role for drivers in developed countries, where much of the road safety research has been conducted. However, the case in developing countries, especially in countries with long traditions, deep-rooted values, and a unique political structure/system such as China can be different from that in developed countries. As numerous road crashes involving SRPG drivers have been documented in the Chinese media, the need to understand the underlying reasons for their unique driving behaviours and attitudes is exigent.

Some studies have investigated the relationship between the financial status of the driver and his/her tendency to commit driving violations. For instance, Shinar et al. (2001) reported that for US adult drivers, the higher their incomes, the less likely they were to report observing speed limits. Apart from the income level of drivers, the economic background of drivers' families might also play a role in their driving attitudes and behaviours. In China, recent severe road crashes involving drivers with a rich family background were possibly and partially resulted from these drivers' favourable attitudes towards dangerous driving (Wang and Zheng, 2014). Therefore, a link may exist between the economic background of young drivers and the level of their risky attitudes and behaviours on the road. In China, since the economic wellbeing of many families has improved dramatically in such a short time period, which enables them to purchase a car for the first time (Fleiter and Watson, 2015), it is possible that family factors may have important influence on young Chinese drivers' risky attitudes and driving behaviours (Fleiter et al., 2011). However, no research has yet examined such influence.

Additionally, the political background of drivers' families is another important factor worthy of consideration for Chinese drivers, and has not been investigated previously. In China, the political status of government officers is classified into 12 levels, and the power they hold may affect their specific duties and other local public administration practices, such as traffic safety management. However, it seems that the children of some of these public servants appear to regard their parents' political power as a shield against being punished by laws or regulations (Song and Deng, 2012). Even worse, some of them appear to have formed a potential consciousness that they have the “privilege” to do something that others cannot do, just like the young driver described in the last section. As noted above, political background has not previously been included in road safety studies. However, numerous cases of recent severe road crashes in China have involved young drivers whose

parents or close relatives hold political power, as discussed above. This demonstrates the necessity of conducting research that aims to examine the political backgrounds of Chinese young drivers as another factor that may impact upon their driving behaviours and attitudes.

These research gaps discussed above motivated the current research. Specifically, this research aims to fill a gap in our knowledge regarding the role of economic and political factors in road crashes involving Chinese young drivers, such that new policies could be developed in order to diminish road crashes involving this driver group. Very few studies have examined the association between drivers' attitudes and behaviours and their family backgrounds. Towards this end, the remainder of this paper is organised as follows. Section 2 provides detail of the methodologies related to the survey design, data collection, and data analysis; Section 3 presents the survey findings and analysis results; Section 4 discusses main findings in relation to the literature, their interpretations and implications, and this study's limitations; and Section 5 concludes this paper by pointing out future research.

2. Method

Using self-developed scales to measure economic and political background status as well as a range of driving attitude, risky behaviour and demographic scales developed by other researchers, this study implemented an online survey targeting Chinese young drivers to investigate family economic and political background's impact on Chinese young drivers' driving behaviours and attitudes. This section discusses the survey design, data collection procedure, and data analysis methods.

2.1. Survey participants and procedure

The target population of this survey was Chinese people aged between 18 and 28 years old with driving experience. This age range was chosen for two reasons: the officially recognised age range for being an adolescent in China is from 14 to 28 (Baidu Zhidao, 2015a); and the minimum age of being eligible for applying for a driver's license in China is 18 (Baidu Zhidao, 2015b). The driving experience in this study was defined as the number of years the participant had been driving. In addition, all participants were drivers of private cars (i.e., drivers of truck, taxi, bus, and motorcycle were excluded).

A third-party survey firm was contracted to administer the online survey (SOJUMP, 2015). The quality of sample was assured in three ways: (1) Participant authenticity was checked using mobile phone or email verifications; (2) IP address was controlled to ensure that a respondent (with the same IP address, or username) could only answer the questionnaire once; and (3) questionnaires with incomplete responses were excluded.

The survey was conducted in May 2015. To increase the response rate, as incentives the survey firm offered participants credits that could be exchanged for gifts. The final sample size was 476 consisting of 305 males and 171 females with an age range of 18–28 years. The response rate of this survey was 15.8% (476 respondents out of 3022 delivered questionnaires). Additional demographic details of the sample are presented in Section 3.1.1.

2.2. Questionnaire development

A copy of the questionnaire is provided in Appendix A.

2.2.1. Driving attitude and risky behaviour scales

The attitudinal and behavioural scales applied in the current study were developed by Ulleberg and Rundmo (2003), and have also been applied to investigate the relationship between human factors and young drivers' driving behaviours in several recent

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