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Abstract

Western scholars implicitly assume that the correlates of fear of crime discovered in the extant literature are also applicable to populations of different culture and ethnic backgrounds. The current study investigates whether such an assumption is valid, drawing on survey data of Chinese immigrants in Houston. Among other findings, this study reveals that the effect of age on fear of crime is negative among Chinese immigrants, contrary to the previous research findings on the general population. We discuss the social and cultural process that produces this interesting pattern. The study also finds that consistent with previous research that acculturation is a salient variable in explaining immigrants' fear of crime.

Key words: fear of crime; Chinese Immigrants; Confucianism

Introduction

Fear of crime pervades the lives of many Americans. Results from the General Social Survey from 1973 through 2006 demonstrate that an average of 40% of the population feel afraid to walk at night in their neighborhoods (General Social Survey, 1973 - 2006). Other studies show that as many as 60% of residents in urban cities modify their routine social activities due to fear of crime (Ackah, 2000; Warr & Stafford, 1983).

The widespread fear of crime and its detrimental consequences has propelled empirical research on the correlates of fear of crime. An impressive body of knowledge has been accumulated, informing both scholars and policymakers on the correlates of fear of crime. Nevertheless, very little is known about fear of crime among immigrant populations. The dearth of empirical studies on immigrant population is less than desirable given the rapid growth of immigrant population in recent years; immigrants to the United States totaled thirty six million, or 12% of the U.S. population, in 2005 (Derose, Escarce, & Lurie, 2007). The percentage has doubled since 1970 and, if the past is prologue to the future, it will continue to grow.

In comparison to early immigrants, the majority of whom came from a few European countries, thereby making them more or less "like" each other, recent immigrants come from a vast array of countries with a variety of languages and cultural norms (Norris-Tirrell, 2002). For instance, recent decades have witnessed a dramatic increase in Asian immigrants, particularly those of Chinese descent (Wong, 2006). No known study, however, has examined the correlates of fear of crime among Chinese immigrants in the United States.

This exploratory study aims to examine a set of correlates of fear of crime among a sample of Chinese immigrants in Houston, Texas. The primary question examined is what factors determine the extent to which a Chinese immigrant in Houston experiences a fear of crime? A corollary of this question is whether or not these correlates differ from those that have been found to affect the fear of crime among the general population in the United States.

Correlates of Fear of Crime

The literature suggests that fear of crime is essentially a function of the person and the environment (Lee & Ulmer, 2000; Perkins & Taylor, 1996; Yin, 1985). The personal factors that have been found to influence fear of crime include age, gender, income, education level, and criminal victimization. Environmental factors include perception

of neighborhood dangerousness, and neighborhood disadvantage such as signs of physical and social incivilities. Although most recent studies emphasize the importance of environmental factors, the personal factors still play a central role. After all, fear of crime is fundamentally fear for oneself, and it results from a *personal* assessment of one's vulnerability to criminal victimization (Ackah, 2000; Yin, 1985).

Socio-demographic factors are the personal factors that have been most extensively studied, and relatively well-established patterns have emerged. First, studies of the general population samples indicate that females report more fear of crime than males (Ackah, 2000; LaGrange & Ferraro, 1989; Lee & Ulmer, 2000). Age is positively related to fear of crime, while income exhibits a negative association with fear (Lee & Ulmer, 2000; Skogan & Maxfield, 1981).

The association between these socio-demographic correlates and fear of crime can be explained by invoking the vulnerability thesis (Clemente & Kleiman, 1977; Taylor & Hale, 1986). The vulnerability thesis posits that individuals who are physically or socially more vulnerable are more fearful. Thus, physical vulnerability renders women and the elderly more fearful of crime, while social vulnerability makes those from lower socioeconomic backgrounds feel more fear.

The vulnerability thesis is intuitively appealing, and research findings thus far have been consistently supportive of the model (Lee & Ulmer, 2000; Perkins & Taylor, 1996; Yin, 1985). Given the empirical findings, researchers tend to simply assume that the observed associations will hold true even for samples from different socio-cultural backgrounds. Whether such an assumption is viable, however, is fundamentally an empirical matter. In fact, there exists some evidence suggesting that the assumption might not hold water when it comes to the Chinese population. Specifically, Liu, Messner, Zhang, & Zhuo (2009) found in a multilevel study of a random sample 2,472 Chinese in Tianjin, Mainland China that younger people exhibited significantly *greater* level of fear than the elderly. Those with higher education were also more fearful of crime than the less-educated.

Confronted with these anomalous findings, Liu et al offered an *ex post facto* interpretation relying primarily on different exposure to media by age and education groups in Chinese society. That is, under the rapid changes transpiring in contemporary China, the younger and more educated rely heavily on the Internet, popular culture, and tabloid newspapers for information, while the elderly chiefly depend on the newspapers provided by the state. The Internet and tabloid newspapers are much more likely to contain information on violence and crime than do government controlled newspapers. Consequently, younger and more educated Chinese report higher levels of fear of crime. Irrespective of the validity of their *a posteriori* theorization, the effects of age and education in their study were quite unexpected and the researchers called for more research on the issue. A goal of the current study is to investigate whether the anomalous effects of age and education on fear of crime observed in China are also applicable to Chinese immigrants in the United States.

In addition to the aforementioned socio-demographic characteristics, criminal victimization experiences seem to affect fear of crime. Yet, empirical findings are somewhat ambiguous (see Hale, 1996; Smith & Hill, 1991; Warr & Stafford, 1983). Such an ambiguity is also observed with immigrants or foreign populations. For instance, Lee & Ulmer's (2000) study of Korean immigrants in the Chicago area indicates that neither violent nor property crime victimization increases fear of crime. By contrast, both violent and property crimes were found to raise fear of crime among the Liu et al.'s (2009) Chinese sample in Mainland China.

These inconsistencies may be, in part, due to measurement issues, such as collapsing violent and property crimes together or aggregating serious and minor crimes in a single category. It also may be due to different interpretations of victimization by individuals. While victimization carries a message of vulnerability, some victims believe that they can avoid or prevent victimization in the future through a change of lifestyle or other protective measures. For these individuals, fear of crime will be likely reduced (Tulloch, 2000).

The apparent lack of linkage between criminal victimization and fear of crime led researchers to examine non-criminal causes of fear of crime. Scholars have especially focused on environmental factors that might instill fear among the residents of a neighborhood. Environmental factors that have been extensively studied include neighborhood crime rates (Lewis & Maxfield, 1980), social ties in the community (Ross & Jang, 2000; Taylor, 2002), crime prevention strategies (Norris & Kaniasty, 1992), neighborhood attachment and satisfaction (Delisi &

Regoli, 2000; Loo, 1986), and physical and social incivilities (Gibson, Zhao, Lovrich & Gaffney, 2002; LaGrange, Ferraro, & Supancic, 1992; Skogan, 1990). This line of research indicates that it is the perceptions of, rather than the objective conditions of a neighborhood that primarily affect fear of crime (Gibson et al., 2002; LaGrange et al., 1992; Perkins & Taylor, 1996). Thus, individuals on the same neighborhood block, although they encounter the same physical and social conditions, may perceive them differently. These differences in perceptions may in turn make individuals more or less concerned about the safety in their neighborhoods.

The Immigrants' Context

In comparison with the accumulated evidence on fear of crime among the general population, research on immigrants' fear of crime is scant. A review of the literature revealed only four empirical studies that have examined correlates of fear of crime among immigrants. First, Sundeen's (1984) study of foreign students in the U.S. indicates that a different etiological process might underlie immigrants' fear of crime. Specifically, Sundeen (1984) reports that main predictors of fear among American samples were perceptions of neighborhood dangerousness, perceived police protection, victimization experiences, and gender. On the other hand, the predictors of fear among immigrant students samples were participation in cultural activities of their country of origin and length of stay in the U.S. Participation in their cultural activities showed a positive association with fear, while length of stay in the U.S. showed a negative association. Further, fear of crime appeared to be independent of the foreign students' home countries. Although this study was limited to foreign students in the United States, it nonetheless suggests an important variable that may be salient in a study of immigrants' fear of crime; both length of stay in the U.S. and adherence to the culture of home country are important dimensions of the theoretical construct, *acculturation*. Acculturation is defined in the anthropological literature as "those phenomena which result when groups of individuals having different cultures come into continuous, firsthand contact, with subsequent changes in the original cultural patterns of either or both groups" (Redfield, Linton, & Herskovits, 1935, p. 145-146).

Drawing on Sundeen's (1984) study, Ackah examined the impact of acculturation on the fear of crime among the Ghanaian immigrants in Washington, D.C. (2000). Consistent with Sundeen's findings, a lower level of acculturation was associated with a higher level of fear among Ghanaian immigrants. Yet, a prolonged stay in the U.S. did not reduce an immigrant's fear of crime. Perception of dangerousness of one's neighborhood also showed an interesting pattern. Those who perceived their own neighborhoods as more dangerous than other neighborhoods in the D.C. area reported less fear of crime. Encountering such an unexpected finding, Ackah suggested a possibility that living in a dangerous neighborhood may desensitize immigrants, thereby making them less fearful of crime (2000).

Brown and Benedict (2004) examined high school students' fear of crime in Brownsville, Texas, a U.S.-Mexico border city. They specifically focused on Hispanic immigrant students' fear of weapon-associated victimization at school. Their research showed that immigrant students exhibited higher level of fear than non-immigrant students. Additionally, using language spoken at home as a measure of acculturation, they found that lower level of acculturation was associated with heightened level of fear.

Finally, Lee and Ulmer (2000) examined the correlates of fear of crime among Korean immigrants in the Chicago area. They used English proficiency, length of residence in the U.S., nativity, immigrant status, exposure to ethnic media, and friendship with non-Korean Americans as measures of acculturation. Among them, English proficiency and length of residence showed an inverse association with fear of crime. In addition, native-born U.S. citizen Koreans were markedly less fearful of crime than non-natives. Exposure to ethnic media and attachment to ethnic friends and culture, which signal a low acculturation, were positively associated with fear.

In sum, these studies suggest that immigrants in general are more fearful of crime than the general population. Further, it seems that factors other than the predictors that have been identified in the general literature might explain the fear of crime among immigrant populations. Such immigrant-specific variables may include acculturation, length of stay in the U.S., and immigration status. In the current study, we explore correlates of fear of crime among Chinese immigrants in Houston. Thus far, no known study has examined the fear of crime among this rapidly increasing immigrant group. As an exploratory approach, we employ two sets of potential correlates of fear of crime among the Chinese immigrants. First are factors germane to the general population's fear of crime, including age, gender, household income, education level, victimization experiences, and perception of neighborhood dangerousness. Second are factors unique to immigrants, which include acculturation, the length of stay in the U.S., and immigration status.

The Current Study

The current study was part of a larger research project conducted by the Texas Crime Victims' Institute. The original research involved victim services available among immigrant populations in Houston. Since the main topic of the research was not fear of crime, well-designed measures of environmental predictors of fear of crime, such as physical and social incivilities, are lacking. In order to guarantee the anonymity of respondents, thereby increasing the response rate, the addresses of the respondents were not queried. Instead, the zip codes of their addresses were recorded. As such, the analyses of the current study primarily focus on individual, rather than environmental, correlates of fear of crime among Chinese immigrants.

Procedures

An English version questionnaire was created employing a variety of measures on the correlates of fear of crime. To ensure conceptual equivalence across languages, a translation and back-translation method was employed. First, the English version of the questionnaire was translated by a university-level Chinese instructor. Then, the translated Chinese version was back-translated into English. The original English and the back-translated English version were then compared with each other by bilingual faculty members. Corrections and modifications were made to accurately reflect the intent of the wording in the original language.

Compared to native-born populations, immigrants tend to be more suspicious of social scientists (Davis & Henderson, 2003; Norris-Tirrell, 2002). In an effort to reduce research participants' suspicion, we first contacted Chinese community leaders in Houston on numerous occasions explaining the purpose of the study and asked for their assistance. As a consequence, word of mouth about our study circulated at various community meetings. Ethnic market bulletins also ran news stories about our project and encouraged the Chinese community's involvement in the endeavor.

Research on immigrant populations points to the difficulty of employing a probability sampling design (Brow & Benedict, 2004; Norris-Tirrell, 2002; Lee & Ulmer, 2000). Most of all, obtaining a workable sampling frame of immigrant population is nearly impossible because of the existence of undocumented immigrants and high residential mobility of recent immigrants. As such, the present study adopted a purposive sampling design. Two Chinese community centers in Houston were selected as the optimal venues for survey distribution. These centers provide various services and programs, including language, literacy, and employment and recreational opportunities to recent Chinese immigrants in Houston. All the community leaders that we contacted, without exception, agreed that these two centers are the places where the largest number of Chinese immigrants convened at any given time of the year.

Two bilingual graduate assistants were stationed at the lounge of each center and distributed the questionnaire to entrants, providing appropriate directions on how to complete and return the questionnaire. Survey distribution and collection lasted one week at each location. Respondents were assured of voluntariness and confidentiality. After the questionnaires were completed, respondents either directly mailed them to the Texas Crime Victims' Institute in a self-addressed envelope or placed them in drop box located in each Community Center.

Out of 3,000 questionnaires distributed, 534 usable responses (about 18 percent) were collected. This low response rate, however, is not a gross exception in a study of immigrants. For instance, the response rate of Lee & Ulmer's (2000) study of Korean immigrants was 25%. Nonetheless, the current study's relatively low response rate coupled with the non-probability sampling design cautions readers against generalizing these findings to the population of Chinese immigrants. Cases with missing values on at least one of the items constituting the fear of crime scale were dropped from the analyses. Further, cases with high a leverage point were dropped through a visual inspection of the plot of the leverage and squared residuals. This process of diagnostics left 486 cases for analysis. These participants are nested within 76 zip codes within Houston.

Measures

The dependent variable in this study is fear of crime. Recent scholars recognize the difference between fear of crime and perceived risk of harm (Ferraro, 1995; Warr, 2000). For example, Ferraro defines fear of crime as an "emotional response of dread or anxiety to crime or symbols that a person associates with crime" (1995, p. 4), while perceived risk is the "recognition of a situation as possessing at least potential danger, real or imagined" which "involves exposure to the chance of injury or loss (1995, p. 11). Rountree (1998) takes a slightly different approach, defining

fear of crime as a combination of risk perception (cognitive component) and being afraid (emotional component). Thus, she operationalizes fear as worrying about being victimized. In the current study, we employ Rountree's approach. Specifically, respondents were asked, "How worried are you personally that you will become the victim of the following crimes?" Six different types of crimes—robbery, sexual assault, assault, burglary, vandalism, and car theft—were given. Responses were provided on a 4-point scale ranging from 1 (Not worried at all) to 4 (Very worried). The summed score of the responses to the six items serves as the dependent variable in this study, and its scale reliability is quite high (Cronbach' alpha=.94).

Twelve independent variables were included in the model. The first set of variables consists of the correlates that extant studies have found to be associated with fear of crime among the general population. Gender is dummy-coded in the direction of female (=1). In terms of age, we only surveyed those who are 18 years old and older. Age is a continuous variable which was measured by asking "What was your age on your last birthday?" Education is an ordinal-scaled variable ranging from 1 (less than high school) to 6 (postgraduate degree). Household income is also an ordinal variable ranging from 1 (less than \$10,000) to 8 (\$75,000 or more). Both education and household income are treated as continuous variables in multivariate analyses. Criminal victimization experiences were measured by two dummy variables, distinguishing between violent criminal victimizations and property crime victimizations. The variable *violent victimization* equals 1 if the respondent has experienced any kind of victimization among robbery, sexual assault, and assault during the three year period prior to the survey, while *property victimization* includes burglary, theft, auto theft, and vandalism for the same time span. If a respondent experienced both violent and property criminal victimization, the respondent was counted as having experienced a violent victimization. Whether a victim had been injured was measured by a binary variable, with 1 denoting that the victim had sought medical treatment due to injury.

Finally, we employed a single variable that captures neighborhood characteristics. Following the contention that the perceptions of neighborhood conditions are more salient than objective conditions (Ackah, 2000; Gibson et al., 2002; Perkins & Taylor, 1996), we used perception of the seriousness of crime problem of one's neighborhood as a neighborhood-level variable. It was measured by the question, "Compared to criminal activity in other communities in Houston would you say that crime in your community is?" The answer category ranges from 1 (Not a problem at all) to 5 (Very serious problem).

Among the immigrant-specific variables, acculturation was measured by a six-item index adopted from Marin & Sabogal's (1987) Short Acculturation Scale. Our six-item measure focuses on the language dimension of the construct of acculturation. The literature suggests that language acquisition is the most salient aspect of the acculturation process (Lyons, 1981; Marin & Sabogal, 1987). Also, it is not unusual for immigrants—especially cloistered immigrants such as Asians—not to report victimization to the police due to their limited English (Lee & Ulmer, 2000; Pogrebin & Poole, 1990). Therefore, the observed association between fear of crime and English fluency in prior studies is not surprising (Lee & Ulmer, 2000; Brown & Benedict, 2004). Specifically, respondents were asked in what language they were taught as a child as well as what language they currently use when they read and associate with peers. Further, they were asked in what language they consume mass media. A Likert type response set, ranging from Chinese Only (1) to English Only (5), was given. Another item examines the degree to which respondents primarily associate with Chinese friends. The final item asks whether respondents prefer ethnic-Chinese foods or American foods. Response sets were arranged such that higher scores indicate higher levels of acculturation. The sum of the six items constitutes the acculturation scale, with a possible range of 1 through 40. The six items exhibit an average item-rest correlation of .59, and the resulting index yields a strong internal reliability (alpha=.81).

Considering that our acculturation scale primarily taps the language proficiency dimension, the length of stay in the U.S. (in months) was also included in the model. For fear of multicollinearity between these two variables, VIF and tolerance scores were assessed. No sign of multicollinearity appeared between the two variables as well as among all the independent variables in the model. Finally, two dummy variables—*citizen* and *permanent resident*—representing the immigrant status were created. The reference group is an aggregate category of *other immigrant statuses*, which includes foreign students, visitors, refugees, and illegal immigrants.

Results

Although the current study does not employ a comprehensive set of environmental correlates of fear of crime, it is likely that residents living in the same neighborhood are more similar in their level of fear than those living in different neighborhoods. In other words, error terms might not be independent of each other due to clustering, thereby leading to a deflation of estimated standard errors (Byrk & Raudenbush, 1992). To test such a possibility, using MLwiN, we estimated an unconditional (one-way ANOVA) multilevel model with random effects, utilizing zip codes as level 2 units. Intra-class correlation, which is the proportion of the total variance that is between zip codes relative to the amount that is within zip codes was only minimal (1.63). The level-2 residual variance was accordingly not significant ($p=.06$)¹. Therefore, traditional OLS regressions were employed.

Univariate Relationships

The sample consisted of 41% males and 59% females, with a mean age of 48. The majority (78%) were married. Also, more than half (58%) of the respondents had at least a bachelor's degree, a phenomenon that is not unique among East Asian immigrants. Sixty-six percent of the respondents reported their annual household income as more than \$30,000. Compared to the general population of Chinese immigrants in Houston, our sample is relatively skewed toward females and older individuals. According to the U.S. Census 2000 Summary File, fifty-two percent of Chinese immigrants in Houston are female. The median age group is between 25 and 34 years old, and the median household income range is \$35,000 to \$39,999. Consistent with our sample, 57% of them hold at least bachelor's degree (U.S. Census, 2008).

With regard to criminal victimization experiences, 19% of the respondents reported having experienced at least one violent criminal victimization, while more than one quarter (27%) reported property crime victimization. Those who sought medical treatment due to injury after victimization were 8% of the total sample. Slightly more than a quarter (26%) of the respondents said that criminal activity in their own community was more serious than other communities in Houston. The average length of stay in the U.S. soil was 117 months, approximately 13 years. More than half (52%) were citizens, and permanent residency was held by 32% of the respondents.

Bivariate Relationships

The bivariate correlations among the variables in the model are illustrated in Table 1. Consistent with the tenets of the physical vulnerability thesis, females were more fearful than males ($r=.16$, $p<.05$). The inverse associations between fear of crime and education ($r=-.25$, $p<.05$) and household income ($r=-.24$, $p<.05$) coincide with the social vulnerability argument put forth in the extant literature. However, age, although not significant at the bivariate level, was negatively associated with fear of crime. This inverse association is at odds with previous findings pertaining to the general population in the U.S., but it supports the findings of Liu et al.'s (2009) study of the Chinese sample in mainland China.

—Table 1 About Here—

All the variables related to criminal victimization were positively associated with fear of crime, although property crime victimization did not achieve statistical significance. Those who have experienced violent victimization ($r=.25$, $p<.05$) and those who have been injured due to criminal victimization ($r=.20$, $p<.05$) were significantly more likely to be fearful than non-victims. Table 1 also reveals that Chinese immigrants who perceived their current neighborhoods' crime problem as more serious than other neighborhoods in Houston reported significantly increased fear of crime ($r=.39$, $p<.05$).

Among the four immigrant-specific variables, only acculturation exhibited statistically discernable effect on fear of crime. As expected, those with higher acculturation score reported a lower degree of fear of crime than those who were less acculturated ($r=-.15$, $p<.05$). The direction of the coefficient for the length of stay was consistent with previous findings, although not statistically significant. Nor did the two dummy variables reflecting immigrant status emerge as significant.

¹ This does not necessarily mean that there exists no variability in residents' fear of crime among neighborhoods. The observed null finding seems to stem from the large level of aggregation—that is, Zip Codes (see Perkins & Taylor, 1996). If smaller units, such as census tracts or blocks, had been utilized, the findings might have been substantially different.

Multivariate Relationships

Table 2 shows the results of OLS regression where fear of crime is regressed on the twelve independent variables. For the sake of interpretation, both unstandardized and standardized regression coefficients are presented. First, the effect of age on fear of crime is negative, consistent with the bivariate correlation in Table 1. However, the observed statistical significance of the estimated coefficient is a surprise, given the non-significant bivariate coefficient. This is a case of classical suppression, where the association between a predictor and criterion becomes even stronger after controlling for other predictors in the model (Kline, 2005). The significant and negative effect of age on fear of crime is anomalous given the western literature, although it is consistent with Liu et al.'s (2009) finding.

—Table 2 About Here—

The direction of the effects of other socio-demographic predictors is consistent with our predictions. However, only household income remains as a statistically meaningful predictor ($b = -.30$, $p < .01$). As with the general population in the U.S., Chinese immigrants with low income seem to feel more vulnerable, thereby reporting increased levels of fear of crime. Moving to the effects of the victimization-related predictors, victims of both violent and property crime reported more fear of crime than non-victims. Injury, however, is not significant when victimization experiences are controlled for.

In support of the inverse association between acculturation and fear of crime observed among different ethnic immigrants (Ackah, 2000; Brown & Benedict, 2004; Lee & Ulmer, 2000; Sundeen, 1984), more acculturated Chinese immigrants also reported lower levels of fear of crime. However, length of stay in U.S. showed no statistically discernable effects when the acculturation scale was controlled for. In other words, longer duration in the U.S. does not seem necessarily to translate into more acculturation. Neither citizens nor permanent residents exhibited reduced fear of crime as compared to those with other immigration statuses.

Among the twelve independent variables in the model, the one with the largest impact on the fear of crime was the final predictor, perception of the seriousness of crime problem in one's neighborhood ($B = .27$). That is, those who perceived that the crime problem in their own neighborhood was more serious than in other neighborhoods in Houston were significantly more fearful than those who did not perceive such. Despite the largest magnitude of the coefficient associated with this particular variable, it is not certain, however, whether respondents' such perception is grounded in actual crime problems of one's neighborhood. It may be that such perception is simply an artifact of one's perceived vulnerability, irrespective of the magnitude of crime problem. Scholars suggest that individuals' judgment of neighborhood safety is partially affected by their own physical and social vulnerability, regardless of objective crime rates (Yin, 1985; Ackah, 2000). It might be that immigrants' socio-demographic characteristics, acculturation, or the duration of residence influence their perception of neighborhood safety. As such, we estimated an auxiliary regression model with perception of the crime problem in one's neighborhood as the dependent variable and all other independent variables in Table 2 as predictors.

The results of the auxiliary regression model, shown in Table 3, are clearly contrary to the prediction suggested above. That is, the regression coefficients in Table 3 manifestly demonstrate that Chinese immigrants' perception of their neighborhood dangerousness is grounded in objective facts and reality. Among the only four predictors that exhibit statistical significance, the negative effect of household income ($b = -.38$, $p < .05$) indicates that Chinese immigrants who are poor tend to perceive the crime problem of their neighborhood more serious than other areas in Houston. This stands to reason because low income families tend to live in neighborhoods with higher crime rates (Shaw & McKay, 1942; Sampson, Raudenbush, & Earls, 1997).

—Table 3 About Here—

Three other predictors with significant coefficient estimates are all criminal victimization-related. Simply put, those who have been criminally victimized perceive their own neighborhood as more dangerous than other neighborhoods. Further, those who have been injured due to criminal victimization also felt that their neighborhoods were less safe. All other socio-demographic variables and immigrant-specific variables did not predict Chinese immigrants' perception of their neighborhood. In sum, it is clear that Chinese immigrants who live in poor neighborhoods and who have been victimized perceive their neighborhoods' crime problem as more serious, and this perception, in turn, increases their level of fear of crime.

The final analytical step concerns the anomalous finding on the effect of age on fear of crime. As noted, Liu et al. (2009) interpreted similar findings from their mainland Chinese sample resorting to different media exposure by age. That is, the observed negative effect of age on fear of crime was explained by the fact that younger people consume the emerging mass media such as the Internet, which are typically violence-ridden, while older people mainly consume less violence-ridden state-issued newspapers. Whether or not such an *a posteriori* theorization applies to the Chinese immigrants in the United States is investigated as follows.

Previous studies of the general population highlight the influence of mass media, such as newspapers, radio, and especially television, on fear of crime (Liska & Baccglini, 1990; O'Keefe & Reid-Nash, 1987). In addition, Lee & Ulmer's (2000) study indicates that Asian immigrants' ethnic media outlets are less likely than the U.S. mass media to contain violence. Thus, if Liu et al.'s (2009) differential medial exposure thesis holds true with Chinese immigrants in the U.S., we can hypothesize that Chinese immigrants who are exposed more to the U.S. mass media will report higher levels of fear of crime than those who are primarily exposed to Chinese ethnic media. To test this hypothesis, we created an additional *Media Exposure* variable by separating it from the six-item acculturation scale. This item asks respondents in what language they mostly consume mass media, with a response category ranging from Chinese Only (1) to English Only (5). Provided that Liu et al.'s theorization applies to Chinese immigrants, the significant negative effect of age on fear of crime in Table 2 will disappear, or at minimum significantly dissipate, once the media exposure variable is independently included in the regression model.

Accordingly, we estimated an additional model including *Media Exposure* as a separate variable (Results shown in Appendix 1). The resultant regression coefficient for media exposure (.02, $p > .05$) indicates that, although more exposure to the U.S. mass media leads to higher levels of fear of crime, such an effect is only minimal and not reliable. Moreover, the coefficient estimate for Age remains significant (-.04, $p < .05$), and the reduction of the age effect due to the inclusion of the media exposure variable is almost negligible (from -.05 to -.04). In essence, Liu et al.'s explication of the inverse association between age and fear of crime does not seem to apply to Chinese immigrants in the United States. Clearly, a different explanation is needed to better understand the negative effect of age on fear of crime discovered in our study.

Discussion

Western scholars implicitly assume that the correlates of fear of crime discovered in the extant literature are also applicable to populations of different culture and ethnic backgrounds. The current study investigated whether such an assumption is valid, drawing on survey data of Chinese immigrants in Houston. This study provides the first account on the fear of crime among Chinese immigrants in the United States. The results indicate that certain findings converge with previous studies of the general population, but we also observed findings that seem to be unique to Chinese immigrants. The key findings are as follows:

- (1) Age was a significant predictor of fear of crime. Contrary to previous findings among the general population, however, the effect of age was negative net of the effects of all other predictors in the model. That is, older Chinese immigrants were less fearful of crime than their younger counterparts.
- (2) Household income exhibited a negative association with fear. This result is consistent with prior Western studies which show that people of low SES tend to be more fearful due to perceived social vulnerability.
- (3) Criminal victimization experience, both violent and property, increased the level of fear of crime among the Chinese immigrants.
- (4) Acculturation, irrespective of the length of stay, was a significant predictor of fear of crime. The more acculturated Chinese immigrants were, the less fearful of crime.
- (5) Perception of the crime problem in one's neighborhood was the strongest predictor of fear of crime. In addition, Chinese immigrants' perception of the crime problem of their neighborhood was not simply a perceptual artifact, but was rooted in objective factors such as their own criminal victimization experiences and low household income.

In order to explain the perplexing finding of the negative effect of age on fear, we tested Liu et al.'s (2009) hypothesis of differential media exposure by age. The result of our analysis did not support their argument. Nor can the inverse association be explained away drawing on the vulnerability thesis that is otherwise supported in the literature.

Under the circumstances, we offer a few remarks based the unique Chinese cultural context. Originating from the centuries-old Confucius teachings, the Chinese emphasize familism and collectivism (Reid, 1999). And at the heart of the Confucian familism resides filial piety (*xiao* 孝) (Legge, 1970; Tai, 1989). Filial piety is considered such an important virtue that it should be extended even to the dead parents. As such, parents in China retain very close relationships with their children as well as their extended family members. Coupled with collectivism, older people are far less likely to live alone in China (Lau, 1981; Ting & Chiu, 2002). In addition, communities in China are organized by grass roots neighborhood committees called *Ju Wei Hui*. One important function of these committees is to organize recreational activities especially for elderly residents in the community (Zhang, Messner, Liu, & Zhuo, 2009). It is quite likely that this unique Chinese culture has been brought over by Chinese immigrants to the United States. One evidence of such is that the average age of this study's Chinese immigrants sample was nearly 50 years. Recall that the sample was recruited at two Chinese community centers, where a great deal of recreational activities was routinely offered. It is very likely, therefore, that the active involvement of the old Chinese with extended families and their communities reduces fear of crime. In sum, the unique Chinese culture stemming from Confucianism can help gain an understanding of the anomalous relationship between age and fear of crime found both in mainland China and in Houston.

Consistent with previous studies on immigrants' fear of crime (Brown & Benedict, 2004; Sundeen, 1984; Lee & Ulmer, 2000), this study also showed that acculturation reduces fear of crime among immigrants. Given that this finding is consistently observed among different immigrant groups, it appears that the effect of acculturation is independent of race/ethnicity.

Also, in support of Ackah's (2000) study of Ghanaian immigrants, the negative effect of acculturation on fear of crime among the Chinese immigrants in this study was irrespective of the length of duration in the U.S. This suggests that a longer stay in the U.S. does not necessarily translate into higher level of acculturation; there exist immigrants who cloister themselves in ethnic communities and limit their interactions with the wider community regardless of the duration in the host country. They exhibit higher level of fear of crime than their more acculturated immigrant counterparts.

Our measure of acculturation was primarily of language dimension. The literature also suggests that language acquisition is the most salient aspect of the acculturation process (Lyons, 1981; Marin & Sabogal, 1987). In addition, people sustain a sense of self-efficacy, if they believe that they are capable of expressing themselves and persuade others when encountering difficulties such as criminal victimization (Bandura, 1993). It follows that, therefore, Chinese immigrants as well as immigrants of other backgrounds are less fearful of crime when they acquire English proficiency. It is likely that, due to their ability to understand English, they judge themselves more competent and effective even at the prospect of future victimization in their new homeland. In contrast, immigrants with a poor command of English perceive themselves less efficacious in warding off potential criminals as well as in dealing with the aftereffects of victimization. For instance, the literature indicates that recent immigrants with limited English are quite reluctant even to call the police when they are victimized (Lee & Ulmer, 2000; Pogrebin & Poole, 1990). In terms of policy implications, therefore, expanding free or low-cost English education for immigrants makes sense. Also, inducing immigrants to widen their social interactions with different ethnic and cultural groups might reduce suspicion, stereotyping, and fear of crime.

To summarize, these findings demonstrate that there are common correlates of fear of crime between the general population and the Chinese immigrants. They include household income, criminal victimization experiences, and perceived safety level in the neighborhood. Nevertheless, this study also shows that some correlates of fear of crime operate distinctively differently between the two populations. Due to the unique Chinese culture, age reduces, rather than increases, fear of crime. Acculturation, a concept that is not applicable to the native-born population, exerts a noticeable impact on the fear of crime among immigrants. It is unknown whether the same dynamics apply to immigrants from other countries in Asia, such as Japan, Thailand, or Vietnam. Although they are all located in Asia, Asia is as diverse as the number of nations in it: each country has its unique historical, cultural, and language characteristics. It would be interesting, therefore, to replicate this study with other understudied Asian immigrant groups in the United States.

Several limitations of the current study warrant mentioning. The nature of immigrant population precluded us from obtaining a probability sample of Chinese immigrants. In its strictest sense, the logic of inferential statistics and generalization only applies to a probability sample. Our study, thus, coupled with a low response rate, is essentially an exploratory endeavor. We caution readers to be wary when extrapolating our findings beyond the sample of this study. Further, this study may have suffered specification error, due to omission of some relevant independent variables. The modest magnitude of the adjusted R squared (.27) suggests the existence of some other promising explanatory variables that have not been examined in the current study. Environmental factors, such as physical and social incivilities, appear to be part of such promising variables. For immigrants, it is possible that the unfamiliarity of the physical and social environment of the host country could be an important cause of fear of crime. The failure to include such salient variables inevitably undermines the significance of the current study. However, we estimated an unconditional multilevel model with our data using zip codes as neighborhood level units. The result suggests that, insofar as large level-2 units such as zip codes are used, there exists only minimal variance that can be accounted for by neighborhood-level variables. Notwithstanding this and other limitations, this study seems a worthwhile endeavor in that it is the first empirical study that examined the correlates of fear of crime among Chinese immigrants in the United States.

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Table 1. Bivariate correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Fear of crime	1												
2. Age	-.03	1											
3. Female	.16*	-.13*	1										
4. Education	-.25*	-.14*	-.16*	1									
5. Household income	-.24*	-.25*	.00	.57*	1								
6. Violent crime victimization	.25*	.07	.09*	-.18*	-.13*	1							
7. Property crime victimization	.05	-.06	-.05	-.02	.04	-.28*	1						
8. Injury	.20*	.11*	.01	-.12*	-.11*	.45*	-.09*	1					
9. Perception of dangerousness of neighborhood	.39*	.12*	.04	-.20*	-.24*	.35*	.00	.35*	1				
1. Acculturation	-.15*	-.28*	.05	.36*	.39*	-.09	.02	-.09*	-.18*	1			
11. Length of stay	-.03	.34*	.05	.15*	.33*	.07	.00	-.04	-.04	.35*	1		
12. Citizen	.01	.33*	.04	.04	.14*	.10*	-.02	.02	-.01	.25*	.61*	1	
13. Permanent resident	.01	-.09*	.05	-.06	-.03	-.04	.04	.03	.08	-.22*	-.40*	-.71*	1

* p<.05

Table 2. OLS regression of fear of crime

	b	S.E.	B
Age	-.05*	.02	-.15
Female	.55	.47	.06
Education	-.30	.17	-.10
Household income	-.30**	.11	-.17
Violent crime victimization	1.66*	.71	.13
Property crime victimization	1.15*	.53	.10
Injury	1.35	.95	.08
Acculturation	-.18*	.08	-.13
Length of stay in U.S.	.00	.00	.07
Citizen	1.03	.84	.11
Permanent resident	.66	.75	.06
Perception of the crime problem in one's neighborhood	1.16***	.22	.27
Adjusted R squared	.27		

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

Table 3. OLS regression of perception of crime problem of one's neighborhood

	b	S.E.	B
Age	-.05	.02	-.14
Female	.76	.49	.08
Education	-.33	.18	-.11
Household income	-.38*	.12	-.22
Violent crime victimization	2.38***	.72	.19
Property crime victimization	1.47*	.54	.13
Injury	2.49***	.96	.14
Acculturation	-.20	.08	-.15
Length of stay in U.S.	.00	.00	.07
Citizen	1.15	.87	.12
Permanent resident	.92	.78	.09
Adjusted R squared	.21		

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

Appendix I

OLS regression of fear of crime: Media exposure as a separate predictor

	b	S.E.	B
Age	-.04*	.02	-.13
Female	.54	.47	.05
Education	-.32	.17	-.11
Household income	-.27*	.11	-.16
Violent crime victimization	1.94**	.69	.16
Property crime victimization	1.11*	.53	.10
Injury	.96	.92	.06
Acculturation	-.21*	.11	-.12
Media exposure	.02	.25	.00
Length of stay in U.S.	.00	.00	.05
Citizen	1.00	.82	.10
Permanent resident	.59	.74	.06
Perception of dangerousness of one's neighborhood	1.18***	.22	.28
Adjusted R squared	.26		

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