The Effects of Income and Neighbourhood Incivilities on Perceived Risk

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Introduction

Over the course of the previous two decades the public's fear of crime has gained popularity in sociological and criminological research. The growing interest among social scientists regarding public perceptions of crime may be attributed to the desire of public policy to pacify these fears and encourage citizens to feel secure. This paper intends to investigate contributory factors in measuring risk perception. Income has been shown to be an important concept when analyzing risk perception (Ho & McKean, 2004; Rountree & Land, 1996; Moore & Shepherd, 2006; Moore & Shepherd, 2007; Vacha & McLaughlin, 2005). More specifically, the intention of this paper is to analyze the effects of income and neighbourhood dynamics, while addressing issues of victimization and confidence in the Criminal Justice System on individual's perception of risk.

Literature Review

The literature available indicates a significant relationship between fear of crime/victimization and household income (Ho & McKean, 2004; Rountree & Land, 1996; Moore & Shepherd, 2006; Moore & Shepherd, 2007). Rountree and Land's (1996) study of distinctions between risk perception and burglar-specific fear observed an inverse relationship between income and risk perception; alternatively when considering burglar-specific fear, income was not a significant predictor. Income was also found to be a significant factor when considering risk perception in Ho and McKean's (2004) evaluation of a reciprocal relationship between police confidence and perceived risk of victimization. Household income has also been found to have an inverse affect on fear of personal harm, but this finding did not hold when considering crimes resulting in

property loss (Moore & Shepherd, 2007). Although there has been some indication of variability, income is overall an important consideration when assessing fear of victimization.

Income is also an important factor when considering fear of crime and risk perception because low income households are often located in riskier neighbourhoods (Ho & McKean, 2004; Vacha & McLaughlin, 2004). In their study involving risky firearm behaviour relative to fear of crime, crime victimization and income, Vacha and McLaughlin (2004) found that the low income parents of students surveyed believed the pressures and realities present in their lives were vastly different from their middle-class counterparts. Ho & McKean (2004) also concluded that individuals of lower income status were more likely to reside in areas in which high crime is an issue.

A number of researchers have also indicated neighbourhood incivilities as a significant aspect in determining risk perception (Kanan & Pruitt, 2002; LaGrange et al, 1992; Moore & Shepherd, 2007; Rader, et al, 2007; Rountree & Land, 1996; Wyant, 2008). LaGrange et al, defines incivilities as:

> Low-level breaches of community standards that signal an erosion of conventionally accepted norms and values. Included in this definition are (a) disorderly physical surroundings (e.g. trash, litter, unkept lots, condemned houses, burned-out store fronts, graffiti, abandoned cars) and (b) disruptive social behaviours (e.g. drinking, rowdy youth, loiterers, beggars, inconsiderate neighbors). (LaGrange et al 1992:312)

Neighbourhood incivilities were found to have a positive relationship with perception of fear in Kanan & Pruitt's (2002) study of neighbourhood effects on fear of crime and perception of risk. This indicates that as a neighbourhood becomes increasingly

disordered and indicators of deterioration become more prevalent, residents' perception of risk and fear of crime will increase as well (Kanan & Pruitt, 2002). LaGrange et al, (1992) suggests we have a tendency to discount the effects of unconventional, disorderly people regardless of the actual legality of their actions.

Neighbourhood incivilities are likely to increase risk perception based on the fact that they are encountered on a daily basis (LaGrange et al, 1992). In lower class neighbourhoods these signals of deterioration are prevalent and indicate to residents that more dangers lurk below the surface (Kanan & Pruitt, 2002; LaGrange et al, 1992; Vacha & McLaughlin, 2004). Rountree & Land (1996) also concluded that incivilities were found to be positively correlated to burglar specific fear and risk perception. Neighbourhood cohesion has also been found to be a considerably important indicator of risk perception and fear of crime (Kanan & Pruitt, 2002; Rountree & Land, 1996). This negative relationship supports the suggestion that communities in which residents feel a sense of integration are less likely to perceive the area as unsafe; this sense of integration is more commonly found in higher income neighbourhoods rather than lower (Kanan & Pruitt, 2002; Rountree & Land, 1996).

It is also worthwhile mentioning that previous incidents of victimization are also an important contributing factor to consider when examining fear of crime and risk perception. Not only do incidents of previous victimization result in heightened fear of crime and increased perception of risk, but also direct experience with the legal system, or lack thereof, may result in increased or decreased confidence in the criminal justice system (AuCoin & Beauchamp, 2007). Exposure to previous victimization, even as a

witness, results in increased fear of crime and risk perception (AuCoin & Beauchamp, 2007; Vacha & McLaughlin, 2004).

Although much of the previous research regarding fear of crime and risk perception has primarily focused on trends specific to the United States and United Kingdom, very little attention has been paid to Canadian trends. Do results differ greatly in Canada and if so, why? How can we identify cases in which fear of crime and risk perception may have increased, and what methods may be employed to reduce these instances? Identifying significant contributory factors of increased fear and risk perception is essential in discovering methods of decreasing these fears. Limiting and reducing risks and fears is important when developing public policy regarding victimization; this not only encourages citizens to feel safe but also persuades productivity and economic investment in communities.

Research Question or Hypothesis

A distinction must be made between fear of crime and perceived risk. A number of researchers have identified that the two concepts are often considered one in the same but in actuality must be regarded separately (Ho & McKean, 2004; Rountree & Land, 1996). Perceived risk measures a respondent's assessment of risk in a given situation (i.e. "How safe do you feel walking in your neighbourhood at night/day?"), while fear of crime measures a more personal and emotionally based response such as "How fearful are you of being raped?" (Rountree & Land, 1996). For the purposes of this paper perceived risk will be used as a measure of fear of victimization, because while emotional

responses are significant, it is perceived risk that will likely influence behaviour and patterns of respondents rather than specific fear of crime (Rader et al, 2007).

Perceived risk has become a subject of interest to many social scientists in recent years. Studies have concluded strong negative associations between risk perception and income (Ho & McKean 2004; Kanan & Pruitt, 2002; Rountree & Land, 1996; Moore & Shepherd, 2006) as well as dynamics of neighbourhood (particularly incivilities; Ho & McKean, 2004; Kanan & Pruitt, 2002; LaGrange et al, 1992; Rountree & Land, 1996 Vacha & McLaughlin, 2004; Wyant, 2008). Considering these concepts it is the contention of this paper that income will be a significant predictor in explaining risk perception. Though neighbourhood incivilities will likely weaken this relationship, this is because with increased income comes opportunity to relocate to more insular and safe areas in which to reside (Ho & McKean, 2004; Kanan & Pruitt, 2002; Vacha & McLaughlin, 2004; Wyant, 2008) therefore a causal chain is expected in this instance. The variables that will be held constant while testing this hypothesis are police effectiveness as well as previous victimization. The General Social Survey of Victimization 2004 provides information of all the variables included.

Data and Variables

This study relies on data collected by the eighteenth cycle of the General Social Survey of Victimization in 2004. The survey took place from January through to December, 2004 and consisted of 23, 766 respondents all 15 years of age or older residing in Canada, excluding residents of territories and full-time residents of institutions. Data was collected via computer assisted telephone interviews and target

populations were divided into geographical sections. A random digit dialling method was employed to ensure equal opportunity for each telephone number within a given section to be selected. One person from each household over 15 was randomly selected to participate in the survey; respondents were permitted to respond in the official language of their choice.

In order to test the hypothesis, this study will use the variable assessing the amount of evening activities a respondent is likely to engage in each month as the determinant in considering a respondent's risk perception. The decision to employ this particular variable as dependent is unique to this study because the author believes that respondent's actual behaviour is an important factor to consider when gauging perceived risk. In consideration of income, total household income is the determinant variable employed here because it is often the combined household income that determines location of residence and even insulation against external threats of victimization (Kanan & Pruitt, 2002; Rountree & Land, 1996; Vacha & McLaughlin, 2004).

In order to determine neighbourhood incivilities, an additive scale of nine questions asked of each respondent, is applied to establish a score of neighbourhood signs of deterioration. Each of these questions assists in determining the perceived risk of victimization in a neighbourhood and has been used by previous researchers to determine similar concepts (LaGrange et al, 1992). This additive scale includes rating the occurrence of particular incivilities such as: the presence of prostitution, people sleeping in the streets, people using or dealing drugs, the prevalence of hate-based crimes, graffiti/vandalism, etc. Each respondent was asked to answer "How much of a problem are" specific incivilities in their neighbourhood. Respondents were provided with four

responses from which to choose, these included: “Very big problem, fairly big problem, not a very big problem, not a problem at all”. These responses were recoded to create a consistently increasing scale, therefore 4 (or not a problem at all) was recoded to 0, 3 transformed to 1, 2 to 2 and finally 1 to 3. The Cronbach Alpha value for this particular scale is .848 indicating the neighbourhood incivilities score to be a reliable measure.

Previous incidents of victimization are measured by two separate variables; the first determines the respondent’s contact with police, in the past 12 months, as a victim of crime. The second variable assesses police contact as a witness to crime, within the past 12 months. Each of these questions required a “yes” or “no” response and as such dummy variables were needed; “no” was therefore recoded as 0 and “yes” remained 1 in both instances.

In order to determine confidence in the police an additive scale of six questions was used. Each question selected to achieve a score of police confidence was asked of all respondents. This scale is significant in assessing a respondent’s level of confidence in their local police force and encompasses many aspects of interaction with police. This additive scale involves rating particular tasks performed by officers in the community and assesses whether or not they do a good job, average job or poor job. Selected tasks include: enforcing the laws, prompt response to calls, approachability, ensuring safety of citizens, etc. Responses were recoded to achieve a consistently increasing scale, therefore 3 (poor job) was recoded as 0, 2 as 1 and 1 as 2. The Cronbach Alpha value for this score determining police confidence is .857 indicating that it is a reliable measure.

It is worth mentioning the criticisms which may arise regarding the chosen variables. Neighbourhood incivilities and police confidence are variables which must be

addressed considering potential measurement issues. It is likely that some respondents may be influenced by the social desirability affect which can potentially sway an individual's tendency to over emphasize positive attitudes and behaviours while de-emphasizing the negative attitudes and behaviours. Due to the sensitive nature attributed to both variables respondents may be likely to avoid exhibiting attitudes reflective of low confidence in their police force; respondents may also be unlikely to report their neighbourhood in a negative light out of a desire to avoid the appearance of residing in a dangerous or lower class neighbourhood. There is also the possibility for complete or partial non-response in terms of the questions required of these additive scales. Second, household income may also be considered by some to be a sensitive subject and thus responses may range from over estimating, under estimating and even response refusals. These issues must be considered when examining the results of this study.

Results

The results of this study have been properly weighted in order to produce unbiased estimates of the population. In terms of missing cases, this has been accounted for by selecting pairwise regression in order to maintain robust results. With regard to income, a positive moderate relationship between household income and number of evening activities/month was observed (beta=.179; p-value < .01); this relationship may be observed in Tables 1 and 2 - Model 1. The R square value associated with this relationship is .032 which indicates that 3.2% of variance within the dependent variable (number of evening activities/month) may be explained by the independent variable (household income).

The second relationship to be explained is between neighbourhood incivilities and number of evening activities/month (see Tables 1 and 2, model 2). This relationship is again found to be statistically significant, with a positive moderate relationship between neighbourhood incivilities and number of evening activities/month (Beta =.131; p-value <.01) The R square value associate with model 2 is .017; therefore, 1.7% of the total variance in the dependent variable number of evening activities/month can be explained by the independent variable neighbourhood incivilities.

Table 1 model 3 describes the multivariate relationship between our dependent variable and both household income and neighbourhood incivilities. This relationship has increased in both variables with unstandardized values of 1.349 and .677, respectively. These results are statistically significant with both p-values less than .001. The standardized slopes associated with both independent variables have increased as well to .193 for household income and .149 for neighbourhood incivilities. This evidence refutes the hypothesis presented earlier suggesting that the effect of income will decrease when neighbourhood incivilities are accounted for; but rather suggests direct and indirect effects of household income on number of evening activities/month. The R square value associated with model 3 is .054 which indicates that 5.4% of the variance in the dependent variable is explained by the independent variables household income and neighbourhood incivilities.

Finally, model 4 in both tables 1 and 2 displays results of the multivariate regression including controls: police confidence and previous victimization in addition to household income and neighbourhood incivilities. Within this expanded model all variables remained statistically significant with each alpha level equivalent to .000. By

including these controls the relationships weakened slightly and the standardized slopes decreased slightly for both household income and neighbourhood incivilities but remained positive, moderate relationships. The R square value indicates that 7.4% of the total variance observed in the dependent number of evening activities/month could be explained by all of these independent variables.

Table 1. Evening Activities Regressed on Selected Independent Variables, 2004 General Social Survey
Unstandardized Coefficients (weighted and missing cases removed pairwise)

Independent variables	*Model 1 (N=18503)*		*Model 2 (N=21161)*		*Model 3 (N=16983)*		*Model 4 (N=13571)*	
	COEFFICIENT	STANDARD ERROR	COEFFICIENT	STANDARD ERROR	COEFFICIENT	STANDARD ERROR	COEFFICIENT	STANDARD ERROR
Y intercept	12.556	.467**	22.263	.138**	10.089	.498**	24.679	1.030**
Household Income	1.252	.051**			1.349	.052**	1.285	.058**
Neighbourhood incivilities			.597	.031**	.677	.034**	.519	.039**
Police confidence							-2.471	.566**
Victim							-7.008	.598**
Witness							-.509	.052**
Adjusted R^2	.032		.017		.054		.074	

**Statistically significant at p<.001 for two tail test.

Table 5. Evening Activities Regressed on Selected Independent Variables, 2004 General Social Survey,
Standardized Coefficients (weighted and missing cases removed pairwise)

Independent Variables	*Model 1 (N=18503)*	*Model 2 (N=21161)*	*Model 3 (N=16983)*	*Model 4 (N=13571)*
	COEFFICIENT	COEFFICIENT	COEFFICIENT	COEFFICIENT
Household Income	.179**		.193**	.183**
Neighbourhood incivilities		.131**	.149**	.114**
Police Confidence				-.037**
Victim				-.099**
Witness				-.083**
Adjusted R^2	.032	.017	.054	.074

**Statistically significant at p<.001 for two tail test.

Discussion and Conclusion

This study has focused on the effects of a range of variables on a respondent's perceived risk. Initially, the evidence confirmed a relationship between income and perceived risk and the results were statistically significant. The same proved true when studying the effects of neighbourhood incivilities upon perceived risk. These findings may be corroborated by a number of similar studies conducted in this field. Rountree and Land (1996) found income to be significantly correlated to perceived risk, as previously noted; this was confirmed by Ho and McKean (2004) and Moore and Shepherd (2006; 2007). Additionally, the effects of our surrounding, such as neighbourhood incivilities, upon perceived is well documented within this field of study specifically the works of Kanan and Pruitt (2002), LaGrange et al. (1992), and Vacha and McLaughlin (2004). When taken alone, analysis of the bivariate relationships of both income effects on perceived risk and neighbourhood incivilities effects on perceived risk it becomes clear that a stronger relationship is evident with respect to income over neighbourhood incivilities with a beta of .179 to .131, respectively.

A further objective of this study was to determine the combined affects of both income and neighbourhood incivilities on perceived risk. This resulted in increased effects of both independent variables upon the dependent variable; again income remained the more significant variable over neighbourhood incivilities. This is especially significant as it suggests both direct and indirect effects of income on perceived risk indicating that income itself increases the

likelihood of respondent's number of evening activities/month and therefore reduction of perceived risk; but further proposes that increased income provides greater opportunity to relocate to more insular and safe areas and therein resultant lowered neighbourhood incivilities. Kanan and Pruitt (2002) found similar results suggesting that increased income affords subjects the ability to reside in neighbourhoods where there is less concern for risk. These results are considerable when determining appropriate policy in response to the perceived risk of among individuals. Certainly movements to eliminate visible deterioration of an area, such as vagrancy, graffiti/litter, substance abuse, etc. would have the effect of increased feelings of safety and potentially social cohesion in the area; income must be addressed through social service agencies. Implementation of social policy aimed at increasing possibilities within the labour force and programs effectively providing opportunity for further education and higher employment would result in a much greater impact on perceived risk and fear of crime.

The final multiple regression which included both independent variables, income and neighbourhood incivilities, as well as the control variables considered, police confidence, previous encounters with police as both a victim of and witness to a crime, resulted in all variables being of statistical significance. This is expected due to the large body of knowledge which has established these controls to be of significant relevance regarding perceived risk (AuCoin & Beauchamp, 2007; Ho & McKean, 2004; Vacha & McLaughlin, 2004). This study found that when controlling for important factors such as previous incidents

of victimization and police confidence, both income and neighbourhood incivilities resulted in weakened effects on the number of evening activities/month. Income remained the strongest association with a beta of .183, followed by neighbourhood incivilities with a beta .114. While income remained stronger in this multivariate regression as opposed to the initial simple regression, neighbourhood incivilities weakened further beyond the initial simple regression. This may be explained by the fact that neighbourhoods experiencing high rates of incivilities are often correctly associated with increased criminal activity and an overall feeling of distrust for authorities (Vacha & McLaughlin, 2004).

Though the hypothesis of a weakened effect of income on perceived risk after controlling for neighbourhood incivilities was unsubstantiated, the results followed previous research conclusions regarding the lowered effects of neighbourhood incivilities (Kanan & Pruitt, 2004). Regardless, neighbourhood incivilities were found to be statistically significant and can not be ignored as a predictive factor of perceived risk. Admittedly, the variables contain limitations which were discussed at length in the Data and Variable sections. Furthermore, additional variables that have previously been acknowledged as significant predictors of risk perception are not present in this study and may further explain the variance observed in perceived risk. Additional variables include gender (AuCoin & Beauchamp, 2007) as well as category of previous offence victimization such as personal crime versus property crime (Moore & Shepherd, 2007). Further research may be made regarding issues of urban versus rural residence as well.

References

AuCoin, Kathy & Diane L. Beauchamp. 2007. "Impacts and Consequences of Victimization, GSS 2004." *Statistics Canada*. 27(1). Retrieved: February 5, 2008. http://www.statcan.ca/english/freepub/85-002-XIE/85-002-XIE2007001.pdf.

Ho, Taiping & Jerome McKean. 2004. "Confidence in the Police and Perceptions of Risk." *Western Criminology Review*. 5(2): pp 108 – 118.

Kanan, James W. & Matthew V. Pruitt. 2002. "Modelling Fear of Crime and Perceived Victimization Risk: The (In)Significance of Neighborhood Integration." *Sociological Inquiry*. 72(4): pp. 527 – 548.

Moore, Simon & Jonathan Shepherd. 2006. "The cost of fear: Shadow pricing the intangible costs of crime." *Applied Economics*. 38(3): pp 293 – 300.

Moore, Simon & Jonathan Shepherd. 2007. "The Elements and Prevalence of Fear." *British Journal of Criminology*. 47(1): pp 154 – 162.

LaGrange, Randy L., Kenneth F. Ferraro & Michael Supancic. "Perceived Risk and Fear of Crime: Role of Social and Physical Incivilities." *Journal of Research in Crime and Delinquency*. 29(3): pp 311 – 334.

Rader, Nicole E., David C. May & Sarah Goodrum. "An Empirical Assessment of the 'Threat of Victimization': Considering Fear of Crime, Perceived Risk, Avoidance, and Defensive Behaviours." *Sociological Spectrum*. 27(5): pp 475 – 505.

Rountree, Pamela Wilcox & Kenneth C. Land. 1996. "Perceived Risk versus Fear of Crime: Empirical Evidence of Conceptually Distinct Reactions in Survey Data." *Social Forces*. 74(4): pp. 1353 – 1376.

Vacha, Edward F. & T. F. McLaughlin. 2004. "Risky Firearms Behaviour in Low-Income Families of Elementary School Children: The Impact of Poverty, Fear of Crime, and Crime Victimization on Keeping and Storing Firearms." *Journal of Family Violence*. 19(3): pp 175 – 184.

Wyant, Brian R. 2008. "Multilevel Impacts of Perceived Incivilities and Perceptions of Crime Risk on Fear of Crime: Isolating Endogenous Impacts." *Journal of Research in Crime and Delinquency*. 45(1): pp. 39 – 64.