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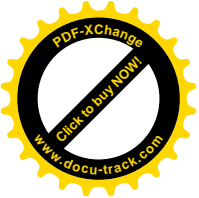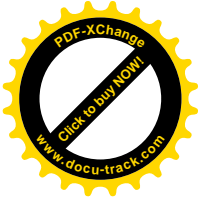
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School of Human and Health Sciences

HOW DOES PROXIMITY TO CRIME INFLUENCE PEOPLE'S PERCEPTIONS OF SAFETY?

Charlotte Emily Sanson

A thesis submitted to the University of Huddersfield in partial fulfilment of the requirements for the degree of Master of Science by Research
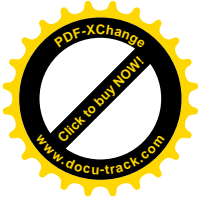
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November 2014

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Abstract

Individuals may put themselves at risk of criminal victimisation through a misguided sense of safety born from the optimistic notion that crime happens "elsewhere". Despite the analogous nature of fear and perceived safety, the latter has received far less research attention within the criminological literature. As perceptions of safety are guided by cognitive appraisals of the threat a danger poses, the present study aimed to investigate whether crimes that occur in nearby locations affect perceptions of safety more so than those that occur further away, due to the proximity of the danger or threat thereof.

Respondents were given a number of fictitious scenarios within which a crime was presented as having occurred at one of four locations, ranging in distance from the respondents' hometown (i.e. the independent variable). The respondents rated each scenario in terms of its seriousness, how safe they would perceive themselves to be following the news of the crimes and how likely they would be to engage in precautionary measures following the crimes (i.e. the dependent variables). The relationship between crime seriousness, perceived safety and a number of prominent sociodemographic factors that have emerged from the fear of crime literature were also examined.

Proximate crimes were found to produce lower perceptions of safety; higher crime seriousness ratings; and greater likelihood of engaging in reactive behaviours than distant crimes, as hypothesised. It was found that young people, females and those who get most of their crime information from local news sources tended to report lower safety perceptions, although several findings were inconsistent with previous research. Possible explanations and implications of the findings are discussed and an argument is made for the importance of increasing individuals' knowledge and awareness of victimisation risks, rather than attempting to reduce fear of crime as has been a major research focus to date.
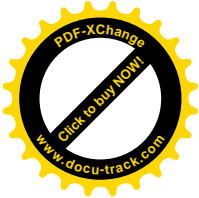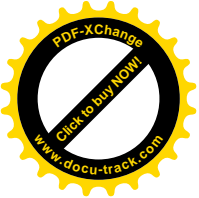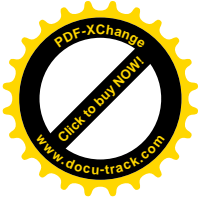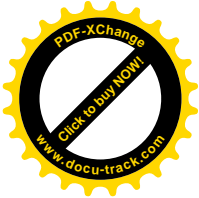
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Chapter 1: Introduction

1.1 Fear of crime and perceptions of safety

It is common for people to use the terms fear of crime and feelings of safety interchangeably, but are they synonymous? Being afraid of crime does not necessarily reflect the actual risk of becoming a victim as it is about perceptions and not necessarily about realities and so it cannot be reliably employed to predict changes in individual levels of personal safety. Although high levels of fear may ultimately lead to conditions which interfere with everyday life such as agoraphobia or acute paranoia, or at least to the feeling that one is' unsafe', the more rational response is that feeling fearful of crime will not in itself be enough to increase the likelihood of crime victimisation; it is not a self-fulfilling prophecy. If we are fearful of something, such as being afraid of becoming a victim of a crime, then we tend to avoid it at all costs (e.g. by staying at home after dark) thereby reducing the risk substantially and restoring our feelings of personal safety to manageable levels.   When one perceives themselves to be at relative risk of victimisation (i.e. unsafe from crime), however, this is likely to have a more predictable and stable knock-on effect of increasing feelings of fear; as heightened emotional arousal and awareness (in the form of fear) have long been identified as biological and psychological responses to threats to one's safety (Gabriel & Greve, 2003) shaped by evolution (Roach & Pease, 2013).

Fear of crime does not simply impact on lives at an individual level, such as avoidance behaviours, restriction of activities, and a decline in mental or physical health; it is also represents a social malaise which if left untreated can lead to a wider range of problems, such as a lack of social integration, diminished community cohesion and an increase in security costs (Ferraro 1995). Although undoubtedly fear of crime and perceptions of personal safety are two sides of the same coin, they cannot be considered synonymous and so should not be used interchangeably. Perceptions of safety follow a cognitive assessment of the dangers of the situation whereas fear is triggered by the situation itself as an emotional response to potential danger (Warr, 2000). According to Ferraro fear is "…a fundamentally different psychological experience than perceived risk (safety). While risk entails a cognitive judgement, fear is far more emotive in character. Fear activates a series of complex bodily changes alerting the actor to the possibility of danger" (1995, p.24). Gabriel and Greve (2003) maintain that although fear and safety are indeed separate constructs, fear cannot exist without the cognitive appraisal of one's own safety. Moreover, they suggest that in order for 'fear' to be correctly labelled so, three main components must be present; a cognitive (appraisal) component, an emotive (or affective) component, and a behavioural (reactive) component. The cognitive component comprises of a risk assessment of the perceived threat or danger associated with a situation such as the risk of being the victim of a crime. The emotive component is characterised by the emotional 'feeling' of fear that is generated by a situation such as anxiety, dread or a sense of foreboding. The final component refers to the resulting behavioural reaction caused by the perceived threatening (or fear-inducing) situation such as avoiding such
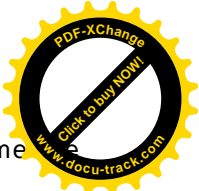
situations and contexts (e.g. avoiding dark alleys) or taking defensive precautions (e.g. arranging for a lift home at night). Through a process of cognitive appraisal an individual may consider a particular situation to be dangerous (i.e. unsafe), however Gabriel and Greve (2003) argue it does not necessarily follow that the individual will experience fear as it is impossible for a state to be determined as 'fear' unless all three of the aforementioned components are present. Feeling at least a little unsafe is therefore a necessary component in the experience of fear even if the experience of fear does not necessarily have to be present for one to feel unsafe (or at risk/in danger). Warr (2000, p.454) supports this notion by claiming that fear is a "consequence" of perceived risk and relative unsafety. If something is perceived to be dangerous, by definition it must present some potential danger and therefore it is unsafe. If something is unsafe, there must be a relative risk of harm or some level of danger associated with the situation/stimuli (in order to justify the situation's lack of safety); therefore the 'dangerousness' and 'safety' elements of a situation are best regarded as separate measures of the same construct. Contrary to popular opinion, the relationship between fear and safety, therefore, is not straight forward. For example, if an individual perceives themselves to be in a dangerous situation (i.e. they feel unsafe to some degree) it does not necessarily follow that they will go on to experience fear in that situation. If we think of extreme sports, combat sports or other activities with questionable, limited or non-existent safety measures, those that do them do not commonly experience fear as a result. On a similar note, when an individual experiences fear in a particular situation it does not necessarily mean that the situation is a dangerous one, or that the individual is immediately unsafe, as with the viewing of horror films. Looked at logically, the relative danger or risk of harm in a given situation is often equal for anyone who finds themselves in it. For example, when flying in an aeroplane the relative danger or risk of harm posed to the individual is very low as it has been proved time and time again that this mode of travel is far safer than driving on the roads (see National Safety Council, 2014). Levels of fear in such situations will, however, vary greatly between individuals due to factors associated with both a person's previous experiences of fear and their related individual cognitive appraisals of their personal safety (see Gabriel & Greve, 2003). For example, in the aftermath of the September 11th attacks many US citizens avoided travelling by plane due to the exaggerated fear and perceived risk of flying. This resulted however in a sharp increase in the number of road traffic accidents (Gigerenzer, 2006) as people (wrongly) believed that they were safer travelling by car.

From an evolutionary perspective fear is best explained as an instinctive emotional reaction to stimuli that are perceived as representing a threat to one's survival and/or offspring. As such, despite the potential danger or lack of safety associated with a situation, fear is unlikely to be experienced if there is little or no perceived threat of such kind (Andrews & Gatersleben, 2010). As an illustrative example, it is posited that higher levels of fear of crime (and so lower levels of personal safety) are common among older people in society for evolutionary reasons, as aged members of a species are more likely to be the targets of predatory animals (or conspecifics). Seen in this light, fear of crime can be viewed instead as a natural, survival default of the more vulnerable members of society (Sidebottom & Tilley, 2008) rather than as the result of irrational risk assessment.
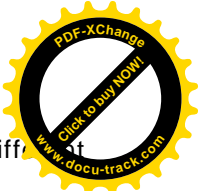
To reiterate, the experience of fear and perception of safety although undoubtedly connected, are different constructs. Within the context of crime Ferraro writes that fear is "an emotional response of dread or anxiety to crime or symbols a person associates with crime" (1995, p.4), whereas perceptions of safety in the context of crime are determined by a conscious risk assessment of the likelihood of victimisation. Feeling safe is a 'non-feeling' as people do not go around proclaiming how very safe they feel. Feeling unsafe, however, is simply a reduction in, or deviation from, feeling safe. Therefore although fear of crime and perceived likelihood of victimisation have an influence on the degree to which someone feels unsafe, perceptions of safety comprise of much more than just fear of crime.

In their review of the effectiveness of environmental interventions in reducing fear of crime, Lorenc et al. (2013) highlight the issue of heterogeneity between the outcome measures and tools used to assess fear and safety from crime. The authors separated the outcome measures used across the 47 studies into eight distinct categories[1], however further differences were found even between those studies that used measures from the same category, as they did not necessarily use the same measures. They found that of the 47 studies, all purporting to measure the construct 'fear of crime'; 31 made use of items regarding 'feelings of safety' whereas less than half (n=22) included 'fear of specific crime types' items and only eight studies measured 'fear of crime in general'. In further support of the authors' concerns regarding the wide variance in outcome measures used, no single measure was collectively employed by all 47 studies. This has huge implications for the interpretation of literature purporting to measure one construct or the other, as the heterogeneity of outcome measures used in fear and safety from crime research hinders, if not prevents, the comparability of study results. The authors posit that differences and contradictions between research results may be due to the variety of subjective definitions of fear and safety, and the subsequent measures employed in order to assess these constructs (Lorenc et al., 2013). As the experience of fear and feelings of safety in a situation regarding crime in general, or relating to a specific criminal event, are defined as separate conditions they should be discussed and measured as such (Ferraro, 1995; Hardyns & Pauwels, 2010; Rountree & Land, 1996). Warr (2000, p.454) writes that "…fear is not perceived risk; by all indications, it is its consequence." and as such it is as important, if not more so, to address issues surrounding perceptions of safety as it is feelings of fear. Having acknowledged these distinctions the construct of interest driving the present research is that of safety from, rather than fear of, crime.

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[1]

- Affective measures of fear (e.g. How afraid / concerned / worried are you..?) about crime in general;
- Affective measures of fear (e.g. How afraid / concerned / worried are you..?) about specific types of crime;
- Cognitive measures of perceived risk, safety or likelihood of victimisation about crime in general;
- Cognitive measures of perceived risk, safety or likelihood of victimisation about specific types of crime;
- The effects of fear (e.g. How much is your quality of life affected by fear of crime?);
- Avoidance behaviours (e.g. avoiding certain areas), either explicitly due to fear of crime or more generally;
- Feelings of safety (e.g. How safe do you feel..?) or unsafety;
- Perceptions of the fear or risk experienced by others (e.g. How risky is it for women to go out alone after dark?).

1.2 Theoretical frameworks (and the relevance of proximity)

Within environmental criminology several similar theoretical frameworks exist for understanding, explaining, predicting and preventing criminal behaviour in terms of criminal opportunities and situational contexts (i.e. the spatial distribution of crime and offender behaviour, geographical proximity of victims to crime). These 'opportunity' theories include Lifestyle Exposure theory (Hindelang, Gottfredson, & Garofalo, 1978), Routine Activities theory (Cohen & Felson, 1979), Rational Choice perspective (Cornish & Clarke, 1986) and Crime Pattern theory (Brantingham & Brantingham, 1993; 2008).

Lifestyle theories posit that individuals' lifestyle choices influence the extent to which they put themselves at risk of victimisation from crime, as these specific choices often dictate the locations that individuals frequent, the activities they engage in, and the people that they are exposed to. Individuals' lifestyles can inadvertently create opportunities for crime, particularly when individuals engage in risky behaviours such as being out late at night, consuming alcohol (and/or drugs), or being involved with large male-only peer groups (Gover, 2004; Siegel, 2013). These behaviours often occur in close proximity to potential offenders and in the absence of capable guardians (i.e. when out at drinking late at night or taking recreational drugs). Furthermore certain risky lifestyle choices (i.e. alcohol/drug consumption) make individuals vulnerable targets, unable to effectively defend themselves, in potentially dangerous situations (Gover, 2004).

The importance of lifestyle and day-to-day actions is also at the heart of routine activities theory although the focus is shifted toward the environments, shaped by daily routines, which facilitate the convergence of offenders and victims in time and space, thus creating criminal opportunities. These opportunities arise when an individual, motivated to offend, becomes aware of an attractive target in the absence of capable guardians (Felson & Boba, 2010, p.28; Spano & Freilich, 2009). Descriptions of the characteristics needed for a target to be seen as suitable or 'attractive' can be found in the VIVA model (value, inertia, visibility and access: Cohen & Felson, 1979) and Clarke's (1999) CRAVED model (concealable, removable, available, valuable, enjoyable and disposable). Guardians refer to anybody (or thing) whose presence (or proximity) deters criminal behaviour; these can be formal guardians (i.e. police, security guards, CCTV) or informal guardians (i.e. neighbours, friends, parents).

The rational choice perspective explains criminal behaviour as being the result of systematic and rational (albeit often 'bounded'[2]) decision-making processes, in which crime will occur if the benefits and rewards are considered to be greater than, or worth, the effort and potential risks involved with committing the crime (Cornish & Clarke, 1986; 2003). Consideration is given to factors such as the potential value of the crime, the immediacy of

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[2]

Bounded rationality in decision-making (Simon, 1979) refers to the idea that individuals' decisions are limited by the information available to them (about the alternative actions that could be taken), their cognitive capabilities (required to process and evaluate information), and the time constraints surrounding decision-making. As decision-makers often lack the resources, ability or time to consider the utility of each and every alternative course of action, they tend to make satisficing choices (i.e. they seek satisfactory rather than optimal solutions) through rational consideration of their limited options.

reward, the risk of apprehension and the severity of the punishment if apprehended (Aronowitz, Theuermann, & Tyurykanova, 2010, p.29). In addition, the offender must decide which will be the best course of action to take with regard to carrying out the crime in terms of minimising cost and effort (Potchak, McGloin, & Zgoba, 2002). In terms of crime-site location and target selection this decision-making process usually results in decisions to offend locally due to the low effort and travel costs involved. The rational choice perspective provides the theoretical underpinning for crime reduction methods such as situational crime prevention (SCP) (Clarke, 1997; 2009). SCP utilises measures such as 'target hardening' whereby the risks and effort associated with specific crime types are increased and the rewards of committing the offence are decreased, thus reducing criminal opportunities (Clarke, 1997; 2009).

Crime pattern theory integrates these frameworks to provide an overarching explanation of how and why crime occurs and how patterns develop that can be used to explain and predict criminal behaviour (see Brantingham & Brantingham, 1993; 2008). Crime pattern theory posits that the processes through which an offender interacts with their environment are important in understanding the spatial distribution of crime. The spatial distribution of individuals' routine activities (offenders and non-offender alike) are described in terms of 'activity nodes' and 'paths'; 'nodes' are the activity centres that people spend most of their time at such as their home, place of work, shops and leisure facilities or recreational areas, 'paths' refer to the routes that individuals travel in order to move between these nodes. The areas around and between nodes and paths are referred to as 'activity spaces' and areas within sight of these spaces make up an individual's 'awareness space'. It is around offenders' activity spaces (and within their awareness space) that crimes are most often committed; the rational offender would generally consider committing crime within the nodes themselves as being too risky due to the high risk of being recognised at frequently visited areas. As non-offenders often share nodes with offenders (a place of work or shopping centre for example) victimisation is also most likely to occur within innocent individuals' activity spaces. As with routine activities theory, crime pattern theory assumes the presence of a motivated offender. As motivated individuals move around their activity spaces and travel along the paths between their various activity nodes, they create cognitive maps of their surrounding environment (their awareness space). Increased exposure to an environment through engaging in routine activities strengthens these maps and increases confidence in decision-making due to familiarity with the area (Brantingham & Brantingham, 1993; 2008). Cognitive maps for areas outside of an individual's awareness space are poor, and so as distance from the nodes and paths developed through routine activities increases, knowledge and familiarity of the environment decreases and along with it, the likelihood of criminal action. Thus motivated individuals are more likely to search for targets and offend within areas that are well-known to them (i.e. cognitively-mapped). Criminal opportunities may present themselves through cues in the environment indicating that an area provides high opportunity and low risk of apprehension for committing crime (i.e. low guardianship, lack of place managers). Using these positively-reinforcing environmental cues (in terms of likelihood of crime success), offenders are able to search for and locate a potential target, the suitability of which is assessed through a series of decision-making processes (Brantingham & Brantingham, 1993; 2008). If the effort and possible risks associated with the particular target are low, and the potential benefits or rewards are high then a motivated individual will offend. Target-specific cognitive 'templates' are developed in the same manner as

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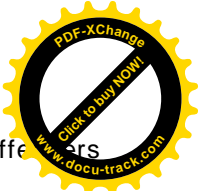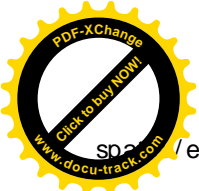
space / environmental cognitive maps; following the successful completion of criminal offences, motivated offenders learn which characteristics and environmental cues are associated with 'good' targets. Subsequent potential targets are then compared against these templates in order to quickly assess suitability based on knowledge and prior experience.

Thus, opportunity theories of crime suggest that an offender is most likely to commit crime near to their own home, as choosing targets within a close proximity increases the frequency of target exposure, availability and opportunity (lifestyle theory, routine activities) and reduces the time, cost and effort involved with travelling further afield in order to find suitable targets (rational choice, crime pattern theory). Together these provide an explanation for offenders' consistently short-distance journey-to-crime patterns and the equally consistent patterns of distance-decay in offender behaviour (e.g. Kinney 2010; Wiles & Costello, 2000). As offenders' preferred targets will therefore be within close proximity to their own home, the risk of victimisation increases as proximity to a potential, or motivated, offender decreases. Furthermore, with all of the above considered it would be logical to assume that local crimes will most likely be committed by local offenders; and so to be within close proximity to a crime-site is to be within close proximity to an offender's activity space (and certainly within their awareness space). Thus, geographical proximity to the location of a crime increases an individual's chance of offender-interaction, either directly or indirectly through frequent exposure, this in turn increases the opportunity for crime to occur and thus increases the risk of victimisation (Brown, Esbensen, & Geis, 2010; Fisher, Cullen, & Turner, 2002). If one is aware that the risk of crime victimisation in a particular area is statistically higher than in others, it is likely to have a negative effect on the perceived safety felt by those living in that area. For example during the late 1970s when serial killer Peter Sutcliffe (aka the Yorkshire Ripper) was murdering women in Yorkshire, many women in the region stopped going out after dark or at the least ensured that they were accompanied by their husbands, boyfriends or friends for safety reasons.

Given the supporting literature and theoretical frameworks, it is hypothesised that individuals' perceptions of personal safety from crime will be influenced by their geographical proximity to crime locations, or high-crime areas, due to the increased risk of subsequent personal victimisation. Although proximity to crime has been established and researched in relation to likelihood of offending and victimisation, few studies thus far have investigated this hypothesis specifically. Research to date has tended to place greater emphasis on the existence, explanations and social implications of fear of crime as opposed to perceived safety from crime. The present study will therefore focus on the impact that proximity to the location of crime has on individuals' perceptions of personal safety. To clarify, the present research discusses subjective safety in terms of perceptions rather than feelings. As previously discussed, feelings are largely emotive and unconscious, in that 'feeling unsafe' is likely to reflect a gut reaction to a situation (in a similar manner to feeling fearful); however perceiving oneself to be unsafe requires a conscious (albeit brief) assessment of risk and danger. It is therefore argued that subjective safety is determined following conscious consideration of the relative threat a danger poses. That people have at least a vague awareness

about their relative location and the distance between themselves and the 'danger' is an underpinning assumption of the hypothesis that judgements of one's safety are influenced by proximity to crime.

Chapter 2: Literature review

2.1 Prior research

2.1.1 Gender

The general consensus within the extant literature is that women report feeling less safe and more fearful about becoming a victim of crime than men (e.g. Brennan, 2011; Longdill, 2012; Shafer, Huebner, & Bynum, 2006; Truman, 2007). Several theoretical explanations for the gender difference observed in levels of fear and safety have been suggested including the theory of physical vulnerability which is based around the assumption that women are generally smaller, weaker, and therefore more vulnerable than men (Skogan & Maxfield, 1981). The theory of differential socialisation posits that men and women behave according to how they are labelled in society, whereby women are seen as fragile and submissive and men are supposed to be strong and dominant (Hollander, 2001). Finally, the shadow of sexual assault hypothesis (Ferraro, 1995;1996) posits that the high levels of fear of crime displayed by women are actually reflective of their fear of sexual assault; particularly their fear of being raped and the potential physical and emotional consequences that would follow. Fear of sexual assault has been found to strongly predict fear of property, violent, and gang related crime among women (e.g. Lane, Gover, & Dahod, 2009; Lane & Fox, 2013; Schafer et al., 2006; Truman, 2007), lending support for the shadow of sexual assault hypothesis. Some research suggests that the risk of crime-victimisation is higher for women than men throughout their entire lifespan, particularly for sexually-motivated offences (e.g. Wittebrood & Nieuwbeerta, 2000). From an evolutionary perspective the inflated risk of sexually-motivated attacks against women could be explained in terms of males' (somewhat aggressive) determination to pass on their genes through sexual reproduction, while preventing their competition from doing the same. Through coercion and rape, ancestral men were able to increase their number of mates, thus leading to greater chances of reproductive success (Thornhill & Palmer, 2000). Research has found that rapists are often of poor socioeconomic status (Thornhill & Thornhill, 1983; Vaughan, 2001) and exhibit visible indicators of poor genetic quality, such as low facial symmetry, which reduces their attractiveness as a potential mate (Thornhill & Palmer, 2000). The 'disadvantaged male', or 'mate deprivation', hypothesis posits that men may resort to sexual coercion and rape if they are otherwise unable to secure a mate. For these men it is particularly important, in terms of maximising the chance for reproductive success, that the woman is likely or able to become pregnant. The fact that young women in their 20s (the most fertile period of a woman's life) are over-represented in rape cases (Greenfeld, 1997; Thornhill & Palmer, 2000; Thornhill & Thornhill, 1983) supports the hypothesis that rapists are more likely to target fertile women. The 'shadow' theory reflects this risk and posits that women are acutely aware that any crime in which they are the victim has the possibility to become a sexual crime (Ferraro, 1995; Lane & Fox, 2013) and it is this possibility that women fear most. Furthermore, a study conducted by Hilinski (2009) found that once fear of sexual assault had been controlled for, men were actually more fearful than women of several crime types; supporting the theory that it is the overarching fear of sexual assault among women that causes the observed gender differences in fear of non-sexual crime.

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It has also been suggested that gender differences in the crime literature may not be due to women experiencing high levels of victimisation, fear and unsafety, but rather men 'discounting' or underreporting victimisation, feelings of fear and feeling unsafe (e.g. Maxfield, 1984; Mayhew & Reilly, 2007; Smith & Torstensson, 1997). Indeed several studies and official reports have found that men are statistically more likely to become victims of crime than women (see Cooper & Smith, 2011; Hall & Innes, 2010; Truman & Langton, 2014) but this is not reflected in self-reported fear and safety measures. However, as the theory of differential socialisation (Hollander, 2001) posits; the stereotypical masculine role discourages demonstrations of emotion or vulnerability, such as fear or lack of safety, whereas the females' role in society actively encourages such emotions to be felt, admitted and discussed. Self-report measures of attitudes and feelings are likely (and have indeed been found) to be influenced by gender-specific social desirability biases (Goodey, 1997; Hardyns & Pauwels, 2010; Sutton & Farrall, 2005). Asking men directly if they feel fearful or unsafe is therefore likely to result in inaccurate reflections of true feelings due to the male tendency to answer such questions in a 'socially desirable' (i.e. masculine) manner (Sutton & Farrall, 2005). However, indirect questions (such as asking about precautionary safety measures or reactive behaviours) may provoke more accurate responses in the absence of perceived gender-specific socially desirable response behaviour in a similar way to the observed increase in response-accuracy for sexual assault questionnaires that ask behaviourally-specific questions rather than using the 'stigmatising' label of "rape" (see Kolivas & Gross, 2007). Research findings have been less consistent when 'indirect' questions and methodologies that control for social desirability bias have been employed in order to assess feelings of fear and safety, finding that gender differences become far less pronounced through use of these methods (e.g. Hardyns & Pauwels, 2010; Kolivas & Gross, 2007; Sutton & Farrall, 2005). This raises the fundamental issue of whether using direct questions about personal safety is the most appropriate means by which to obtain objective data from men (particularly young men). To this end, a review of the existing research and methods of data collection is needed before a definitive conclusion regarding gender differences in safety perceptions can be drawn. It is hypothesised that gender differences will be less pronounced when individuals are asked about their perceived personal safety through indirect questions (i.e. likelihood of behaviour change) as opposed to using direct questions (i.e. "How safe would you feel..?"). Additionally it is predicted that a relationship will exist between perceived safety and likelihood of behaviour change in that the likelihood will be greater when perceived safety is lower.

2.1.2 Age

Wittebrood and Nieuwbeerta (2000) found that for all types of crime the risk of victimisation is highest for younger people, particularly students, supporting much previous research that has found a negative relationship between age and risk of victimisation. Rountree (1998) suggests that this is due to the increased likelihood of younger people having risky lifestyles or patterns of routine activities that put them at greater risk of victimization, therefore despite being less physically vulnerable than older people, younger people are exposed to greater opportunities for crime-victimisation (Brown et al, 2010; Gover, 2004). In line with victimisation trends among the
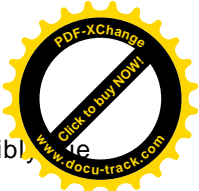
age groups several studies have found that younger individuals report the lowest perceptions of safety, possibly due to their increased risk of becoming a victim of crime, than do older respondents. For example Truman (2007) and Ziegler and Mitchell (2010) found that older respondents reported higher feelings of safety and lower levels of fear regarding crime than did younger respondents. However the research findings have been less than consistent as more often than not research has found older adults to report higher levels of crime-related fear than younger people (e.g. Shafer et al., 2006; Weinrath & Gartrell, 1996), despite being less at risk of victimisation; a paradox which has become a prominent feature in the literature (see Ziegler & Mitchell, 2010).

The exaggerated prevalence of 'temporal discounting' (tendency to place higher value on instant rather than delayed benefits) among the young may help in explaining such age differences, as younger people are more present-minded and less concerned with future events than what is happening in the here-and-now (Wilke, 2006). This discounting of the future can be explained in evolutionary terms as young people (particularly men) are less certain of the world around them and so in a bid to ensure reproductive success they are more likely to make impulsive decisions, engage in risky behaviours, and concentrate on what is happening at present (Daly & Wilson, 1997; Rogers, 1994), rather than wasting resources thinking or worrying about what may happen. As people grow older, however, and become surer of the world they begin to discount the future less due to the diminishing uncertainty present in earlier life (Sozou & Seymour, 2003), allowing them to consider future events, and the consequences thereof, more comprehensively . Accordingly, with greater certainty and investment in the future, and thus more to lose, older adults are likely to worry more about the consequences of events, such as becoming a victim of crime.

Another explanation for the high fear-levels reported among the elderly is that of vulnerability (e.g. Park et al., 2011). Physical vulnerability arises from age-related illnesses and health problems as well as decreased physical strength and stamina, thus reducing the capability to defend oneself, fight back, or run away in dangerous situations. Vulnerability may also refer to social vulnerability. Park et al. (2011) found that the presence of 'normal' (i.e. non-suspicious or threatening) people was the most frequently stated reason among elderly men and women for feeling safe while navigating around streets in a virtual environment; that is, elderly people felt safest when they were around others. The authors note, however, that elderly people are likely to live alone (possibly due to being widowed or their family moving away) and so may feel more vulnerable, less safe and more fearful of crime due to reduced social interaction and possible isolation.

Lane and Fox (2013) suggest that early studies which made use of poor measurement techniques were most often the ones that found older people to be more fearful, whereas recent findings of higher fear among younger respondents are reflective of more appropriate measures being employed. For instance crime-specific measures employed in recent years are more sensitive to variations among demographic populations than the older, more general, measures of 'fear of crime'. They claim that specific types of crime may elicit higher fear and lower perceived safety among different age groups. The results of Lane and Fox's (2013) study indicate that fear is highest among younger people for violent crimes (i.e. physical and sexual assault) but highest among older people for

property crimes (i.e. burglary). The authors suggest that this could be due to younger people's lifestyle choices put them at greater risk of violent crime victimisation, and older people's likelihood of owning more, or better, things than younger people (and therefore having more property to be concerned about). Ferraro (1995) found a curvilinear relationship between age and crime-related fear; whereby fear was found to be highest among younger people (possibly due to the increased perceived risk of victimisation) before decreasing throughout adulthood and finally increasing again for older people (possibly due to perceived vulnerability and having more to lose). Due to their increased risk of victimisation across all crime types, it is hypothesised that younger respondents will generally report lower feelings of safety than older respondents; older respondents will report feeling less safe following news of property-related crime and younger respondents will feel less safe following news of crimes against the person.

2.1.3 Victimisation

As the majority of research regarding risk of victimisation has found that those who have been victimised in the past are significantly more likely to experience repeat victimisation (e.g. Farrell, Phillips, & Pease, 1995; Weisel, 2005; Wittebrood & Nieuwbeerta, 2000) it is perhaps unsurprising that prior victimisation has been found to have a negative effect on perceived safety and fear of crime (e.g. Brennan, 2011). Longdill (2012) found significantly lower perceptions of personal safety within a variety of locations and situations among those who had recently experienced victimisation compared to those who had not. It should be noted, however, that the effect of prior victimisation may not be that straight forward as some research has failed to find any significant effect of prior victimisation on fear of crime or perceived safety. For example Cook and Fox (2011) found that neither personal victimisation nor indirect victimisation were significant predictors of fear of property crime, although perceived risk of future victimisation was a significant predictor. Also, Truman (2007) reported no significant differences in fear of crime or perceived risk of victimisation between those who had been a victim of violent crime, non-violent crime and those who had not been victimised at all. Weinrath and Gartrell (1996) found that age had a mediating effect on the influence of prior victimisation when assessing fear of crime, in that younger victims displayed increased levels of fear yet older victims reported less fear. A possible explanation for this finding was that the younger victims became sensitised to crime whereas older victims became desensitised following their experiences.

Truman (2007) found that indirect victimisation (through knowing a friend or relative that had been victimised) leads to lower scores of perceived personal safety from crime. Repeated exposure to crime (either through personal victimisation or indirectly through awareness of crime being committed locally) may cause victims, and indirect victims, to feel unsafe as they perceive the frequency with which crime is being committed as being indicative of an increase in the number of individuals disregarding social norms. This common, or frequent, disregard for social and moral norms may be perceived as an erosion of values within a community which in turn threatens the normative systems that govern and regulate social conduct (Tyler & Boeckmann, 1997). The consequences of crime, therefore, can extend beyond the victim(s) as mere awareness of local crime has been found to be sufficient for perceived safety to be compromised within a community. It is hypothesised that prior victimisation (both direct and

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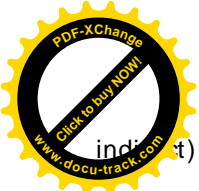
indirect) will be associated with a decrease in perception of personal safety from crime. Furthermore, the closer the relationship between non-victim and victim, the greater the impact indirect victimisation is expected to have in terms of decreasing non-victims' perceptions of safety.

2.1.4 Crime information sources and the media

Many studies have revealed a paradox whereby people tend to report unjustifiably high levels of fear of crime and lack of safety despite the actual crime rates and risk of victimisation being relatively low. The fear of becoming a victim of crime appears to be disproportionately high in comparison with actual likelihood of experiencing or becoming a victim of said crime. For instance a report into crime and safety perceptions in West Mercia (see Boarer, Lee, Shakeshaft, Small and Champion, 2011) found that over 20% of respondents reported feeling fearful of house burglary in the previous three months even though within the same time frame less than 2% had actually experienced house burglary. Overall experience of any type of crime was calculated at just over 8% of the sample population, while almost half (47.6%) felt fearful about crime in their neighbourhood. As previously discussed, indirect victimisation, as experienced through news of local crime, can have a significant impact on community-wide perceptions of safety (Fitzgerald, 2008). Chadee (1999) suggests that experience of indirect victimisation within a community, characterised by elevated fear and reduced perceptions of safety following news of a local crime, is influenced by exposure to both internal (e.g. word of mouth) and external (e.g. media) sources of crime information.

The influence that media coverage of crime has on public perception has been demonstrated throughout the literature, for example; Romer, Jamieson and Aday (2003) found that exposure to news reports of local crime on television lead to a decrease in perceived personal safety and an increase in perceptions of crime frequency and severity within the local area. Heath (1984) reported higher levels of fear among readers of newspapers that emphasised local crime, while Truman (2007) found that increased media exposure was related to lower feelings of safety, higher levels of fear of crime and increased use of precautionary safety measures. Similarly, through the use of a crime safety survey conducted in the Auckland region of New Zealand, Longdill (2012) found that almost a quarter of respondents (24%) reported that their perceptions of location safety were influenced by the locations' reputations as described by news reports and crime statistics. Several theories within the criminology, media and communications literature have been proposed in order to explain and understand the powerful effect the media has in terms of shaping the public's perceptions. These include strain theory, the hypodermic-needle model and the two-step flow of communication model, to name a few. Strain theory suggests that criminal, or deviant, behaviour results from the desire to achieve culturally-endorsed goals (conveyed by society and the media) and the lack of legitimate means of doing so. Merton (1938) writes: "The equilibrium between culturally designated means and ends becomes highly unstable with the progressive emphasis on attaining the prestige-laden ends by any means whatsoever" (1938, p.679). The theory posits that society (through the media) puts greater emphasis on the importance, benefits and desirability of wealth, possession of material goods and fame, for example, than on the

appropriate paths needed to achieve these things which may encourage some to pursue such goals through illegitimate means (Jewkes, 2011; Merton, 1938; 1957/1968). Although not directly applicable to non-criminals, the underlying assumption of the theory (that the media has great influence over the knowledge, beliefs and desires of its audience) can be generalised to the wider public. The hypodermic-needle model asserts that the media "injects" messages and values directly into their audiences who, according to the theory, are passive recipients of information; unquestioning and accepting of the information and values that are presented to them (see Jewkes, 2011). The two-step flow of communication model claims not to assume passiveness among media audiences, rather it suggests that 'opinion leaders' (popular or respected members of social groups/societies) receive and interpret media messages in line with their own beliefs and values which are then shared with, and accepted by, others within their social group (Katz, 1957). Similarly to the hypodermic-needle model, however, it is assumed that individuals accept and absorb the information and values presented to them (albeit by opinion leaders rather than the media directly) and so a degree of passiveness among the audience remains.

Keeping in mind, then, the influence that media reports and news coverage have on public perceptions (and the fact that the overwhelming majority of the public rely on the mass media for obtaining information about crime; see Warr, 2000), one explanation for the aforementioned fear-risk paradox is the way in which the media portrays crime. Misrepresentation (or overrepresentation of specific types) of crime in the news may lead to disproportionately high levels of fear and low perceptions of safety based on distorted perceptions of actual crime rates. It tends to be the case that (in reality) the most serious crimes occur the least frequently (e.g. murder) while less serious crimes (e.g. burglary) occur more often; however, in terms of presenting crimes as news stories it is the more serious crimes that make better headlines and are seen as 'newsworthy' and thus are most likely to be reported (Chadee & Ditton, 2005; Warr, 2000). For example, Dorfman, Thorson and Stevens (2001) found that 80% of all murders in Los Angeles were reported in the LA Times newspaper compared to just 2% of the physical and sexual assaults that occurred locally; this overrepresentation of murder in the news could understandably cause an increase in fear of murder despite the occurrence of such cases being far lower than that of physical and sexual assault (which was hugely underrepresented). Warr (2000) argues that due to the media's tendency to favour more serious crimes in terms of 'newsworthiness' and the subsequent distribution/allocation of news coverage "…the media are most likely to report precisely those crimes that are least likely to occur" (p.467). He further claims that such biased reporting of crime is mirrored by public perceptions; whereby people overestimate the occurrences of the most serious and rare crime types and underestimate the frequency of less serious, more common offences (see also Jewkes, 2011).

Biased news coverage of crime type, perpetrator and victim characteristics and relative crime rates can influence perceptions of local crime and the relative risk of victimisation (Warr, 2000). While the majority of the relevant literature discusses the consequences of this reporting bias in terms of increased fear and perceived risk of victimisation, a separate outcome with potentially dangerous consequences is a misinformed increase in perceived safety from crime. For example if news reports frequently highlight the shared characteristics of otherwise unrelated

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victims, a victim stereotype begins to emerge that individuals may compare themselves to so as to assess their personal risk of victimisation. However such news reports may focus on certain shared characteristics between the victims (e.g. age, gender or ethnicity) while ignoring other factors that may have played a larger role in their victimisation. For example if a series of muggings were to occur locally over the course of a week in which all of the victims were reported as being young white females, the coverage could suggest that these characteristics contributed to, or even caused, those particular individuals being victimised (when in fact it could have been that the perpetrator had seen the women withdraw money from the same cash machine in each case and the fact they were all young and white was merely coincidental). Victims of muggings are most likely to be young people being relieved of their mobile phones, yet a 'stereotypical street mugging' may elicit images of old ladies having their handbags stolen, as is often the case in the media (see Leishman & Mason, 2003). Also, despite marital rape being more common than stranger rape (see Martin, Taft, & Resick, 2007) it is the latter which receives the most news coverage, suggesting to the public that rape is a predominantly stranger-perpetrated offence (Edwards, Turchik, Dardis, Reynolds, & Gidycz, 2011). Similarly a review of the coverage of child sexual abuse cases in UK newspapers revealed that more than 80% of reported cases were those involving abuse by a stranger, and almost all placed emphasis on the threat and danger of strangers (96%) compared to persons known to the child (Kitzinger, 2004), despite the fact that the majority of sexual abuse incidents involving children are actually perpetrated by somebody who is known to the family (see also Cheit, 2003). This biased reporting may lead to an increased perception of personal safety among groups who believe that they do not fit the victim stereotype and are therefore safe, which in turn could result in a number of individuals ignoring the warnings (or following inappropriate advice) and inadvertently putting themselves at risk. For instance those who frequently see, read or hear news reports of crime occurring in other neighbourhoods, towns or regions are likely to feel safer and be less vigilant about their safety behaviours within their own local area as their belief that crime happens "elsewhere" and to "other people" is reinforced (Heath, 1984).

The manner and method in which news of crime is reported can influence the recipients' perceptions of fear and safety, on both a local and national level, and so identifying the sources most often accessed for crime news and information (i.e. local news/national news/social network) may help to explain some of the existing variance in self-reported safety by determining whether individuals are drawing on their knowledge of local or national crime when discussing their perceptions of personal safety. It is therefore hypothesised that those who most often use local news sources (including social network and word of mouth) in order to obtain crime information will demonstrate lower perceived safety than those who more often use national-level news sources, due to increased awareness of local crimes and subsequently higher perception of victimisation risk.

2.1.5 The frequency and seriousness of crime

The complex relationship between crime seriousness, crime frequency, fear and safety extends far beyond the scope of the present study, however the relationship is briefly considered here. The more serious the crime, the

most fearful individuals will be of it as 'serious' crimes are generally those characterised by the most severe outcomes (i.e. murder results in death of the victim, sexual assault can have devastating physical and mental consequences) (e.g. Victoria Sentencing Advisory Council, 2012). However, crime seriousness alone should not affect individuals' perceptions of safety as such. For instance, murder may be considered as being the most serious offence that can be committed yet most people would consider themselves to be safe from the risk of it happening to them due to the relative infrequency of murder and other 'serious' crimes. Despite the public's exaggerated perception of the frequency with which serious crimes are committed (due to mass media exposure as discussed previously), it has been found that people have an impressively accurate knowledge of the frequency of crime relative to other crime types (e.g. Warr, 2000). Many studies have also found significant levels of agreement both within and between various social groups with regards to ratings of crime seriousness. That is, the perceived seriousness of a broad range of criminal offences appears to have remained surprisingly stable over time, cross-culturally, and throughout different social and demographic groups (see Roberts & Stalans, 1998; Victoria Sentencing Advisory Council, 2012). Findings from early research concerning the development of publically-informed crime-seriousness hierarchies (e.g. Pease, 1988; Sellin & Wolfgang, 1964; Wolfgang, Figlio, Tracy, & Singer, 1985) have been consistently replicated within a vast array of participant samples (e.g. Indermaur, 1990; Victoria Sentencing Advisory Council, 2012), indicating that individuals' perceptions of crime seriousness are reasonably similar.

A negative relationship exists between crime severity and frequency (i.e. the most serious crimes are the least frequent and vice versa; Warr, 2000). Individuals may therefore feel less safe from crimes perceived as being less serious (i.e. theft from a garden shed) than more serious crimes (i.e. murder) due to the relatively high frequency with which less serious crimes are committed. Warr (2000) states that crimes must be perceived as being serious and likely to occur in order to elicit feelings of fear or threat. Thus, theft from a garden shed may not be deemed by an individual as being very serious (as the outcome of a lawnmower being stolen, for example, pales into insignificance compared with the outcome of murder); however that same individual may also perceive themselves to be at a much higher risk of victimisation (and therefore less safe) from lawnmower theft than murder.

To summarise, serious crimes elicit higher levels of fear than less serious crimes, and frequently-committed crimes prompt higher perceptions of risk and consequently lower perceived safety than low-frequency crimes. However, the most serious crimes are often also the least frequent types of offence, and low-frequency crimes pose the least personal risk, so perceptions of safety can be high even if feelings of fear are also high. This paradox could account for the discrepancies found between research using measures of fear and safety interchangeably, as they evidently do not measure the same construct. The more serious a crime is rated as being, the less frequent it (presumably) is and so the safer respondents should feel from the threat of victimisation.

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2.1.6 Closeness to crime: location and proximity

It is a well-established fact that offender journey-to-crime patterns are relatively short as offenders are most likely to offend nearby to where they live (Hodgkinson & Tilley, 2007; Rossmo, 1995; Wiles & Costello, 2000) or within their 'awareness space' (Brantingham & Brantingham, 2003). The spatial behaviour of offenders is in fact so consistent that it has inspired and underpinned an entire investigative approach. Geographic profiling utilises the spatial patterns of connected criminal incidents to focus the search area in police investigations to the most likely locations of offender residence and has successfully aided offender apprehension in cases involving murder, rape, arson and other linked crimes (see Rossmo, 2000). Furthermore, the rate of offending decreases dramatically with increased distance from the offender's home, this is known as the pattern of distance-decay (Brantingham & Brantingham, 1995; Capone & Nichols, 1976; Kinney, 2010). It is also well-established that prior victimisation is one of the strongest predictors of victimisation, as previously discussed. Taking the two together, therefore, it is logical to conclude that once an offender has 'successfully' committed a crime they are likely to return to the same target (be that an area, building or person) in order to reoffend, based on the perceived low risk of being caught/reported and the increased likelihood of reward (evaluations of risk and reward here are influenced by the success of the initial offence). The risk of victimisation for those living within a close proximity of the offender is higher, therefore, due to the availability and accessibility of potential targets (facilitated by the low level of effort required in order to reach the targets) and the increased likelihood of repeat offending following a successful offence (Brantingham & Brantingham, 1993; Farrell et al., 1995). Shafer et al. (2006) found higher perceived rates of neighbourhood crime and disorder to be associated with greater fear of crime and lower feelings of safety, reflecting the increased risk of victimisation, suggesting that proximity to crime increases fear and unsafety.

As Gabriel and Greve (2003) discuss, the cognitive facet of fear of crime (i.e. appraisal of the risks or threat to one's personal safety) is influenced by factors specific to the individual such as the relevance and consequences associated with a specific crime. As such a crime committed within close proximity of an individual's home or other frequently visited location, or living within or near to a high-crime area (i.e. close proximity to potential offenders), is likely to provoke feelings of anxiety and fear, as well as an increased perception of personal risk and decreased perception of personal safety. Indeed, ongoing research indicates that the closer a crime is perceived to be the more unsafe individuals are likely to feel due to the spatial relevance of the crime (Huddy, Feldman, Taber, & Lahav, 2005; Roach, Pease, & Sanson, in press). In the precursory study to the present research Roach et al. (in press) examined the effect that manipulating distance from a hypothetical terrorist attack had on perceived safety from a repeat attack; the researchers found, as hypothesised, that shorter geographical distances from the bomb locations were associated with lower safety perceptions regarding subsequent threats. The results supported prior research concerning the spatial patterns of adverse psychological reactions to the September 11th terrorist attacks in which perceived threat, anxiety and fear were found to be highest among those living within close proximity to the attack locations (e.g. Holman & Silver, 2005; Huddy et al., 2005). Conversely if a crime is committed some distance away
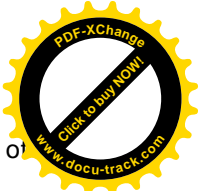
from an individual it is not as likely to elicit anxiety or fear as the personal risk is low and as such perceptions of safety are likely to be unaffected.

Individuals also have a tendency to perceive their own location (i.e. their street, town or county) as being safer than "elsewhere". For example Brennan (2011) found that just over 60% of Canadians in their study believed crime to be lower in their own neighbourhood than in others; around 30% thought it was comparable; and only 8% believed their own neighbourhood to be less safe in terms of crime than other neighbourhoods in Canada. Chapin and Coleman (2006) found that the majority of high school students believed that violence was less likely to occur in their own school than in other schools in the country, displaying a bias for the safety of their own area and an exaggerated view of the dangers "elsewhere". Similarly, Longdill (2012) reports that 57% of their respondents named specific locations that were 'some distance' outside of their own neighbourhood, but within the same region, as being unsafe while 81% perceived their region to be a safe or very safe place. This bias may contribute to the heightened responses of fear and lack of safety following a local crime/event as it violates individuals' assumptions of safety within their local area, whereas crimes/events occurring elsewhere are almost expected and so do not provoke the same reactions.

Heath (1984) found that fear of crime victimisation was highest among readers of newspapers that put emphasis on local crimes and crimes of a bizarre, violent or random nature; however fear was dramatically reduced if such 'sensational' or random crimes had been committed elsewhere (i.e. not local), suggesting that perceptions of fear and safety in terms of crime victimisation are influenced by the proximity or distance between the event and the observer/reader/listener. This may lead to an optimistically biased (although misguided) perception of one's own safety. Optimistic bias refers to individuals' unrealistically optimistic view of the likelihood of positive events happening to them compared with other people, and negative events being perceived as more likely to happen to others than to themselves (Weinstein, 1980). In a crime and victimisation context, optimistic bias is the belief that other people are more likely to become victims of crime, or that crime happens "elsewhere". For example in the days following the September 11th terrorist attacks 80% of Americans believed more terrorist attacks were very, or somewhat, likely (compared to just 36% who had worried about terrorist attacks prior to 9/11), yet only 24% believed that it was likely to happen near where they lived (Gray & Ropeik, 2002). This tendency to believe that crime and risks (even those we are most afraid of) happen "elsewhere" can create a misguided and potentially dangerous sense of safety.

As mentioned previously, cognitive appraisal of the risk(s) a situation poses influences perceptions of danger and safety. These appraisals of safety in turn affect the level of precautions one takes before engaging in risky behaviours. Thus if one has an unrealistically optimistic view regarding the likelihood of experiencing negative events (i.e. becoming a victim of crime), this is likely to affect their attitudes and behaviours towards personal safety and engaging in risky behaviours. The consequence, therefore, is that if an event is perceived as happening 'far enough away' this could impact evaluations of the events' seriousness and consequent behaviours and/or attitudes, specifically those regarding personal safety. If one associates certain events as occurring "elsewhere" (and therefore
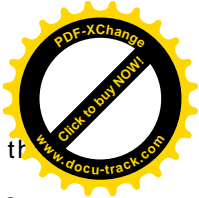
posing little or no threat to one's safety) they may fail to take appropriate precautionary measures to ensure their personal safety should a similar situation occur in the future. This of course assumes that judgements of crime seriousness and personal safety are in fact influenced by proximity to the event, an assumption that the present study aims to investigate. The effect of distance from crime on such perceptions has thus far received little research attention, indeed Warr (2000, p.459) states the need for research on the geographic variation in perceptions and reactions to crime, posing the question "How far does the fear inspired by a particular incident spread, and how does it vary with the nature of the offense?" The present study aims to serve as a basis for answering such questions. It is hypothesised that news of proximate crimes will elicit stronger negative reactions than distant crimes in terms of perceived safety and crime seriousness.

2.2 The present thesis
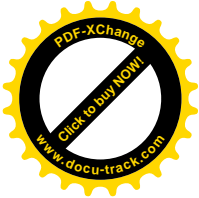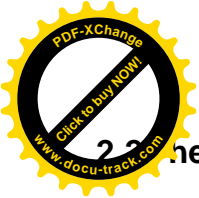
2.2.1 Outline and rationale

Precautionary measures or 'constrained behaviours' that are carried out in order to reduce the probability of, or the opportunity for, victimisation are at least partly driven by fear of crime, or more specifically fear of becoming a victim of crime (Hickman & Meuhlenhard, 1997). Fear is (at least partly) influenced by cognitive appraisal of danger (Gabriel & Greve, 2003). Danger is a key indicator of safety in that the perceived dangerousness of a situation in turn dictates how safe that situation is perceived to be. Therefore if a situation is perceived as being safe or if one feels that they are safe in or from a particular situation, and the relative danger is perceived as being low, it logically follows that the relative fear experienced within the situation will also be low. This lack of fear may then reduce the likelihood of, or even prevent, the individual taking appropriate precautionary measures, thus increasing the probability of, or opportunity for, victimisation. If we think about people in those countries which regularly experience heavy snow; they take precautionary measures (i.e. stocking up on rock salt, investing in a shovel, keeping a blanket in the boot of the car) so that if it happens they are better prepared and are more able to effectively handle the situation; whereas other countries where it could happen but rarely does are not prepared at all and so if/when it does then happen they find themselves overwhelmed by the situation and not able to cope. If you take the previous example and change 'countries' to 'neighbourhoods', 'heavy snow' to 'house burglaries' and 'rock salt, shovels and blankets' to 'burglar alarms, security lights and locking the windows and doors' it is easy to see how this precautionary mentality can be applied to crime prevention and victimisation reduction. Just because it never has happened to you there is no guarantee that it never will, similarly just because it could does not mean that it will; but to be naïve and assume that it will not only means that you are not going to be prepared if it does. In short, one should prepare for the worst and hope for the best.

It is ironic, but those who are least at risk and have greater perceptions of safety may be inadvertently putting themselves at greater risk through complacency and the optimistic bias that crime happens "elsewhere" and to "other people" (Weinstein, 1980). The aim is not to scare those who believe themselves to be safe, rather to draw attention to the fact that anybody can become a victim of crime if they are not vigilant and mindful of their own behaviours and attitudes towards personal safety. For example Jennings, Gover, and Pudrzynska (2007) found that males were more likely to be victimised for personal crime, property crime and overall crime than females, yet males perceived themselves to be safer, less fearful, less likely to be victimised and less likely to use precautionary safety measures than their female counterparts. The authors argue that more needs to be done to educate individuals on group-specific risks and rates of victimisation (i.e. closing the gap between perceived risk and actual risk by making males aware of their actual risk of victimisation and how much more likely it is to happen than they currently believe). The majority of the extant literature is concerned with the disproportionate or unjustifiably high levels of fear and unsafety with an aim to reduce these exaggerated perceptions. However, less research has looked at raising the awareness of those whose positive perceptions of safety are furthest from reality; those who arguably should be given more attention (Jennings et al., 2007). One study which has attempted to address this issue focused on

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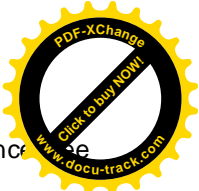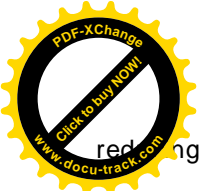
reducing optimistic bias in middle- and high-school students regarding their risk of experiencing school violence (see Chapin & Coleman, 2006). The authors report a successful reduction in optimistic bias through educational programmes designed to increase knowledge, and suggest that this may encourage students to engage in precautionary behaviours thus decreasing their risk of future victimisation. It is important, therefore, to investigate factors that influence individuals' perceptions of safety, or lack thereof, with regard to crime so as to identify those who may be putting themselves at higher risk of victimisation due to the belief that they are 'safe' from crime.

It should also be kept in mind that numerous studies purporting to investigate feelings of fear or perceptions of safety from crime have employed ill-defined concepts and invalid measurement tools (see Farrall, Bannister, Ditton, & Gilchrist, 1997; Hardyns & Pauwels, 2010; Lorenc et al., 2013), such as the use of questions referring to crime in general (often without even mentioning the word crime; i.e. "How safe do you (or would you) feel walking alone in the evening?") rather than specific offences. Although useful for examining differences in safety perceptions regarding crime generally, such items may not be sensitive enough for use in the investigation of all variables and so should not be used as a blanket measure (Ferraro, 1995). One factor that cannot be properly investigated through general measures of safety is distance as it requires the manipulation of a specific event's location so as to examine differences in perceived safety dependent upon proximity to the location of the crime. In order to examine the perceived distance effect (Roach et al., in press) whereby perceptions of safety is reduced as proximity to the location of a crime increases; perceived safety in response to specific criminal events in set locations of varying distance should be investigated through the use of appropriate measures. The present study aims to fill the gap in the existing literature through the controlled investigation of whether or not proximity to the location of a crime affects perceptions of safety. Research has identified certain 'crime hot spot' locations that are perceived as being less safe than others (including parks, alleyways and bus stops; see Loukaitou-Sideris, 2005; Valentine, 1990) due to the high likelihood of victimisation while in these locations (Sherman, 1995); however the present study is interested in whether individuals' perceived personal safety is influenced by proximity to locations where crimes are committed, not by the characteristics of the crime site environment. In addition to the primary research aim, the present study also examines the influence of several demographic variables on the perceived seriousness of, and safety from, specific crime situations as well as the likelihood of engaging in precautionary safety measures.

2.2 Research questions and hypotheses
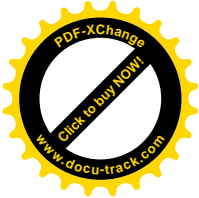
Research question 1:

How does proximity to the location of the crime affect perceived safety from repeat incidents, the perceived seriousness of the crime and the likelihood of engaging in reactive behaviour[3]?

Research question 2:

Is perceived safety from repeat incidents influenced by the perceived seriousness of the crime?

Research question 3:

Are gender differences in perceptions of safety less pronounced when indirect questions are used?

Research question 4:

How do perceptions of safety from crime vary with age?

Research question 5:

Does the relationship between victim and non-victim influence the impact that indirect victimisation has on non-victims' perceptions of safety?

Hypothesis 1:

As the distance between a respondent's hometown and the crime location decreases; perceptions of safety will decrease, crime seriousness ratings will increase and the likelihood of engaging in reactive behaviour will increase.

Hypothesis 2:

Overall, females will report lower perceptions of safety, higher likelihood of engaging in reactive behaviour and higher crime seriousness ratings than males.

Hypothesis 3:

Older respondents will report lower perceptions of safety than younger respondents following news of property-related crime, but younger respondents will report lower perceived safety following news of crimes against the person.

Hypothesis 4:

Respondents who have recently (<12 months) experienced direct or indirect victimisation will report lower perceptions of safety, higher likelihood of engaging in reactive behaviour and higher crime seriousness ratings than those with no recent victimisation experience.

Hypothesis 5:

Respondents who most often use local news sources (including social network and word of mouth) to obtain crime information will report lower perceptions of safety than those who use national-level news sources.

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[3] For the purpose of the present study 'reactive behaviour' is assessed in terms of individuals evaluating their attitudes towards personal safety, altering their behaviour or taking precautionary measures following news of a crime
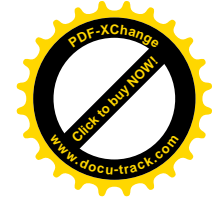
Chapter 3: Methodology

3.1 Research methods

The present study aimed to determine whether or not distance, or geographical proximity, to a criminal event affected individuals' perceptions of the seriousness of said event and the extent to which their subsequent perceptions of safety would be affected upon manipulation of the event's location (i.e. distance from the crime). In order to explore these research questions, it was first necessary to consider the two main epistemological positions in social science research so as to determine an appropriate research methodology. Interpretivist research is concerned with trying to understand human behaviour while positivist research strives to explain behaviour. An interpretivist approach involves subjective interpretation of the meanings and motives behind behaviour, whereas the positivist epistemological position is concerned with establishing cause and effect relationships through the collection and statistical analysis of objective observations and facts using rational, logical and scientific methods (Carson, Gilmore, Perry, & Gronhaug, 2001). As the aim of the present research was to identify quantifiable and statistically significant differences between the different levels of the key variables, it was decided that a positivist quantitative approach would provide the most suitable research methods; facilitating the manipulation of variables within a controlled experiment and the identification, and subsequent statistical analysis, of patterns within the data. As the present study was concerned with identifying any variation between respondents' opinions, it was decided that dichotomous questions (i.e. "yes/no" or "true/false") that force respondents to choose one answer or the other with no middle ground would have had limited usefulness as a measure of opinion, as they provide no indication of the strength of the respondent's answer (i.e. how strongly they agree with the statement). As such, questionnaires using a series of statements and Likert-type items of agreement were created (see appendix A) to capture the degree of variation between participants' responses and to allow more detailed and meaningful patterns in the data to emerge. An interpretivist qualitative methodology involving in-depth interviews and thematic analysis would produce more detailed data regarding why respondents hold their particular opinions, however it was decided that as an initial investigation the present study should focus on whether or not respondents' opinions of crime seriousness and perceptions of safety from crime do in fact vary significantly depending on the crime location. Once these preliminary research questions have been addressed, future research may utilise a qualitative approach for further investigation and expansion of the research findings.

3.2 Participants and design

150 volunteers were recruited to participate in the present study through the use of opportunity sampling in three phases; in the initial phase students at the University of Huddersfield were invited to take part based on their

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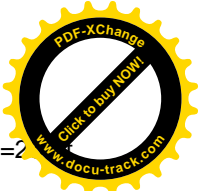
attendance at a scheduled end of year Criminology lecture in which 100 paper copies of the questionnaire (n=25 each version) (see appendix A) were randomly distributed among the attending students. The questionnaires were completed before the lecture commenced and were collected at the end of the lecture (77 fully completed questionnaires (77%) were returned). University staff in the school of Human and Health Sciences were provided with a link to the online version of the questionnaire inviting them to participate via a circular email sent by the project supervisor. Permission was obtained from the Dean of the school prior to contacting university staff. Finally an open recruitment message was posted online using social media with a link to the online version of the questionnaire. In an attempt to obtain a comparable sample size for each condition, the questionnaire web link was changed every three days to direct respondents to one of the four versions. There were no specific inclusion or exclusion criteria for participation in the present study. Due to the nature of anonymous online data collection it is not possible to calculate the response rate from the second two phases of participant recruitment. The aim of utilizing multiple recruitment methods was to obtain a more balanced and representative participant sample encompassing a broader range of age groups and participants from a greater variety of locations within the UK, rather than using an entirely Huddersfield-based student sample which would produce results that could not be generalised to the wider population. Regardless of which recruitment method was used, all potential participants were presented with a brief introduction to the topic, the aims of the study and instructions regarding the completion of the questionnaire and their right to refuse or withdraw from the study (see appendix B). All potential participants were given the aforementioned information as well as being made aware that participation was entirely optional and voluntary; that they would remain anonymous throughout their entire involvement in the study; that all data would be treated with strict confidence; and that information regarding support would be available should they experience any form of distress as a result of their participation, in adherence to the Code of Human Research Ethics guidelines set out by the British Psychological Society (BPS, 2014).

The study made use of a between-subjects independent groups design. In total four versions of the questionnaire were created and randomly distributed during each recruitment phase, thus allocating each respondent to one of four conditions forming the basis of the between-subjects factor. The four questionnaires, or conditions, differed only by the locations within which each crime occurred for four hypothetical scenario questions. In total there were four crime types (burglary, murder, car theft and sexual assault) and four possible locations for each of the crime scenarios to have occurred in (Yorkshire, the North East, the West Midlands or the South of England); reasoning behind the crime type and location choices is discussed later in this section. To investigate and analyse the effect of crime location on public perceptions of crime seriousness four different combinations of crime and location were used to form the conditions. For example participant A may have received a questionnaire in which the burglary scenario occurred within Yorkshire followed by the scenario involving a murder occurring in the North East of England, whereas participant B may have been presented with the burglary scenario occurring in the West Midlands and the murder occurring within Yorkshire. Counterbalancing the questionnaires in this manner served two purposes; to reduce the probability of participant responses being affected by order effects (see Mitchell & Jolley, 2012); and to allow for manipulation of the key independent variable (i.e. crime location). This enabled

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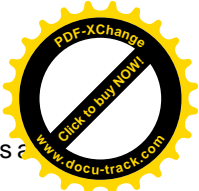
analysis of the effect that 'scenario location' had on participants' perceptions of the seriousness of the crimes and their perceptions of safety and likelihood of taking action following the hypothetical scenarios. By having a number of different scenario location and crime-type combinations it was possible to compare the perceived seriousness of a spate of house burglaries occurring in Yorkshire to if they were to have happened in the West Midlands and determine whether any differences found could be attributed to the geographical proximity of the participants' home location to the location of the crime.

3.3 Procedure

Prior to the participant recruitment process ethical approval was sought and obtained from the University of Huddersfield School Research Ethics Panel to ensure that the study adhered to the school's ethical guidelines and would be conducted following appropriate ethical procedures. These procedures include ensuring the safety of all participants, researchers and research data; the participants' rights to informed consent, anonymity, confidentiality and withdrawal; and the correct handling, storage and dissemination of research data, results and findings. Although every participant was given the opportunity to withdraw their questionnaire responses from the dataset at any time up until the cut-off point (four weeks from the date of recruitment) none chose to do so.

Prior to the present study a similar version of the questionnaire was piloted on a separate sample of participants (see Roach et al., in press) and feedback sought on the layout and ease with which questions and instructions were understood. This version of the questionnaire related specifically to feelings of safety from terrorism, although the purpose of the study was the same in that it was to determine whether perceived distance from an event affected respondents' feelings of safety (Roach et al., in press). The feedback obtained following the pilot study related to the structure, wording and order of the questions and instructions and so despite the differences in content between the two questionnaires, the feedback was applicable nonetheless and appropriate adjustments were made to the final questionnaire used in the present study. Specific examples of adjustments made following the pilot study are given in the discussion of the questionnaire layout below. The online version of the questionnaire was created using SurveyGizmo, a free online survey software tool used for designing and distributing web-based surveys. Regardless of which format was being used the questions and question order remained the same and the length of time taken to complete the questionnaire was approximately seven minutes in each case.

The questionnaire comprised of five distinct sections. Once participants had read the information page containing information regarding consent, participation and withdrawal (attached to the front of the questionnaire on the paper versions and presented before participants could view the questionnaire online – see appendix B) they were asked to provide brief details of demographic information and prior victimisation experience (see Appendix A, section A). A small number of open- and closed-questions were used to collect respondent demographic information including age, gender and nationality to allow for comparisons to be made between the current and previous research findings regarding the role of such demographics in perceptions of safety from crime. Multiple-answer

checkbox questions were also used in order to collect data regarding prior victimisation (whether the responder or anybody they knew had been a victim of crime within the 12 months preceding their participation); a variable of interest due to the largely inconsistent research findings to date regarding the effect of prior victimisation on subsequent perceptions of safety (i.e. Brennan, 2011; Truman, 2007).

In section B respondents were presented with a list of 12 types of criminal offence and asked to rate each one in terms of seriousness (see appendix A, section B). As previously mentioned, prior to the data collection stage of the present study a pilot questionnaire was conducted with a focus on feelings of safety from terrorism, or the threat thereof (Roach et al., in press). Feedback from the pilot revealed that when presented with the crime seriousness scoring question some respondents did not know the definition of, or the difference between, certain crimes (such as burglary, theft and robbery) which in turn affected their ability to accurately rate the crimes' seriousness. Taking this into consideration in the final questionnaire, examples were provided along with some of the crimes in order to distinguish them from other similar offences in the list (i.e. 'theft' was followed by the example "e.g. shoplifting" to differentiate it from 'robbery' or burglary'). The 12 crime types were taken from Pease's (1988) hierarchy of crime seriousness, representing a mixture of 'low' and 'high' seriousness crimes and including crimes against the person, property offences and victimless crimes so as to reflect a broad range of offence types. In the pilot questionnaire (Roach et al., in press) section B was presented as two separate questions regarding respondents' perceived seriousness of both violent and non-violent crimes; six non-violent crime types were presented beside ten-point Likert scale items ranging from one (not serious) to ten (very serious) and six violent crime types were presented in a box with instructions for respondents to rank them in order of their seriousness from one; most serious, to six; least serious (with each number being allocated to one crime only). The ranking question caused confusion however, with a large portion of the respondents failing to complete the table correctly, in most cases by giving each crime a seriousness score from one to six independently of the other crimes (i.e. rating the crimes' seriousness individually rather than ranking the crimes in terms of seriousness). Although this caused problems due to respondents misunderstanding the instructions, the ranking question was considered an appropriate measure for the specific aims of the pilot questionnaire (i.e. determining how serious terrorism is perceived to be in comparison with other crime types). However, due to the broader focus of the present study (i.e. not restricted to just one type of crime) it was considered prudent to remove the ranking aspect of the question and to present the violent and non-violent offences together instead, in a list of crimes types to be rated independently on Likert scale items reflecting 'crime seriousness'. Crime seriousness was therefore measured using two items; the first item preceded the list of 12 crimes; "Consider each crime type below and rate the seriousness of each crime by circling a number along the corresponding scale". The scale ranged from one (not serious) to ten (very serious) and was used to obtain a baseline seriousness score for each of the 12 context-free crimes. Respondents were later asked "How serious would you consider this/these crime(s) to be?" following a series of hypothetical scenarios (in section E) involving burglary, murder, sexual assault and car theft (chosen to represent both crimes against the person and property offences) and responses were again measured on a scale of one (not serious) to ten (very serious). As the only difference in the presentation of the crime types between their first and second appearance on

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the questionnaire was the location within which they occurred, the use of the two aforementioned measures allowed for comparisons of perceived crime seriousness to be made based on the location of the crime.

In Section C respondents were asked a series of questions in order to gain an understanding of how safe they perceived certain locations to be in comparison to other locations of varying proximity (see appendix A, section C). The purpose of this was to determine whether respondents had an optimistically biased perception regarding the safety of their local area compared with other areas as has been found in some previous research (e.g. Brennan, 2011). Location safety, therefore, was measured using four items regarding the relative safety of varying geographical locations which asked respondents "In general, how safe...":

"...do you feel your (home) town is compared to other towns in your region?"

"...do you feel your (home) region is compared to other regions in the UK?"

"...do you believe the UK to be in comparison with other countries within Europe?"

"...do you believe the UK to be in comparison with countries outside of Europe?"

Response options for each of the five items ranged from one (very safe) to five (not at all safe). Participants also had the option of selecting the response "I don't know".

The aim of the next section was to determine what methods participants used most, and least, to obtain information about crime (i.e. specific criminal events and crime rates). Previous research suggests that the media has an exceptional influence over the public's knowledge and perceptions regarding local and national crime, and that this influence may vary depending on the methods used (i.e. local vs national news sources) to obtain such information (see Longdill, 2012; Romer et al., 2003). Frequently accessing local news reports is likely to increase knowledge of local crime rates and influence perceptions of safety based on actual local news, whereas those who access national news sources are unlikely to have a reliable knowledge of local crime rates and subsequent victimisation risks due to the biased news reporting of the mass media (see Warr, 2000). Respondents were presented with a number of local, national and social sources of news/crime information and were asked to indicate all of the sources they tended to use; which individual source that they used least; as well as which individual source which they used the most often (see appendix A, section D).

The final section of the questionnaire related directly to perceived safety and proximity to crime. It comprised four hypothetical crime scenarios followed by questions asking respondents (i) to determine how serious they would consider the crimes to be in each case, (ii) how safe they would feel following the news of these crimes, and (iii) to what extent they believed they would evaluate and/or alter their behaviours following the events described in the scenarios (see appendix A, section E). Similar hypothetical scenarios were used in the pilot study (Roach et al., in press); however as the specific focus was on terrorism, all of the scenarios involved either a bomb scare or an actual explosion caused by a bomb that had been planted by terrorists. Also, due to the international implications and nature of terrorism (e.g. the 'victim' or 'target' may be an entire country as opposed to most other types of crime in which there is only one, or a few, victim(s)) the hypothetical scenarios were presented as occurring in a range of locations from England to as far away as Syria. As terrorism was not the focus of the present study but

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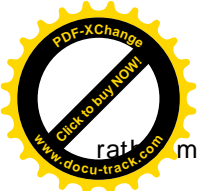
rather more 'localised' types of crime, it was not considered necessary to base these scenarios on such a large global scale nor was it necessary for all of the scenarios to involve the same type of crime or event. As almost all of the potential respondents would live in the UK, with the majority residing in the north of England, it was decided that all four of the scenarios would be set in locations within England to help ensure that all respondents were familiar with the locations and their relative proximity to these locations. Selecting specific towns or cities as locations for the hypothetical crime scenarios posed two main concerns; first, the possibility that respondents may not be familiar enough with the location of specific towns or cities (and as such may not have an awareness of their proximity to said locations); and second, there existed the possibility that certain towns and cities may already have negative reputations or connotations relating to crime which could influence participants' responses due to pre-existing perceptions. As a result it was decided that each of the scenarios would be presented as occurring "somewhere within" one of four UK regions of varying distance from West Yorkshire where the study took place, these were; Yorkshire (the 'home' region); the North East (within close proximity); the West Midlands (relatively far away); and the South of England (very far away). The crime types used within the scenarios comprised of two involving crimes against property (house burglary and car theft) and two involving crimes against the person (murder and sexual assault) so as to represent both categories of offence. This enabled more meaningful comparisons and wider generalisations to be made rather than limiting the validity of the research findings to one category or the other. Previous research has found that perceptions of the seriousness of burglary, car theft, murder and sexual assault remain relatively stable across sample populations and over time (see Roberts & Stalans, 1998; Victoria Sentencing Advisory Council, 2012). As such, variance in participant responses should not be due to significantly different perceptions of the crime types themselves, rather the specific context (i.e. location) within which they are presented. The crime types used within the scenarios were purposefully repeated from section B so that the seriousness scores given could be compared between both questions. This section of the questionnaire was crucial in terms of investigating the main aims of the study (whether perceived distance from a criminal event affects individuals' perceptions of safety and perception of the crime's severity) as it allowed for the observation and analysis of whether crime seriousness scores altered significantly when respondents were given a specific location. The use of these hypothetical scenarios permitted exploration of whether variations in perceptions of safety could be explained by the relative distance of the crime location to the respondents' home location. The manipulation of the location of the crime (i.e. the independent variable) allowed for direct comparisons of perceived safety following a specific criminal event (i.e. the dependent variable) whereby the only feature of the crime that differed between respondents was the location in which it occurred, and therefore the distance from (or proximity to) the respondents' home location. Perceived safety from crime was measured using one item (which was adapted slightly for each crime type) following each hypothetical crime scenario, in which respondents were asked "How safe…":

"…would you personally feel against the threat of [house burglary] following this news?

"…would you feel in your hometown after hearing this news [murder]?

"…would you feel from having your car stolen following this news [car theft]?

"…do you think that you or your female friends/relatives would be in your hometown from this type of [sexual]

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assessment?"

Response options ranged from one (very safe) to five (not at all safe). In addition a sixth response option was available for respondents to select if they believed that their perceived safety would not be affected following the news of the crimes depicted in each scenario and a 'not applicable' option was also included on the car theft question for those who did not own a car.

As previously discussed; the likelihood of individuals taking precautionary safety measures is influenced by how safe they feel in or from a situation following an assessment of the personal danger or risk they perceive that situation to involve. Indeed a large body of literature discusses the main components used to measure 'fear of crime' and 'safety from crime' as being the affective (emotional) component, the cognitive component and the behavioural component (see Gabriel & Greve, 2003). Truman (2007) found perceived lack of safety to be a significant predictor of the use of precautionary safety measures (whereas fear of crime was not found to predict precautionary behaviour). The degree to which an individual will alter their behaviour on hearing news of a crime can therefore be used as an indicator for how safe they feel in the wake (and as a result) of that crime. As several studies have noted the social desirability and gender bias issues raised as a result of asking men about fears and perceived safety (see Mayhew & Reilly, 2006), it is hypothesised that a less direct approach, such as asking about behaviour rather than feelings, should reduce such biases (Hardyns & Pauwels, 2010). As such, in addition to the previously discussed 'safety' measures, likelihood of altering behaviour (i.e. engaging in reactive behaviours) was measured using one item (adapted slightly for each crime type) following each hypothetical crime scenario, in which respondents were asked to rate their level of agreement with the following statements; "Following this news report I would think about…":

"…my own efforts to protect against house burglary"

"…and/or reconsider how I interact with strangers in my hometown"

"…my own efforts to protect against car theft"

"…my own (or my female friends'/ relatives') behaviours/attitudes towards personal protection"

These items were measured on a scale representing the likelihood of the respondent thinking about or actually altering their behaviour and ranged from one (definitely would) to five (definitely would not).

Upon completion of the questionnaire respondents were thanked for their participation and a debriefing statement was presented along with contact details for anybody wishing to discuss any issues raised during their participation or in order to withdraw from the study (see appendix C). Once all of the questionnaires had been completed and collected the responses were either imported directly from the SurveyGizmo website or manually inputted (depending on the format of the questionnaire) into IBM SPSS Statistics, version 22, statistical analysis software.
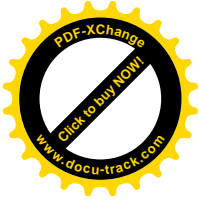
Chapter 4: Results

4.1 Respondent demographics

The respondent sample consisted of 150 participants, of which approximately two-thirds were female (n=98), approximately two-thirds were aged 25 or under (n=97) and almost three-quarters were from, or permanently resided in, the Yorkshire region (determined by the location of their self-reported 'hometown') (n=109). Despite attempts to obtain a comparable sample size for each condition participant numbers were not evenly distributed across the four conditions with 36.7%, 17.3%, 24.7% and 21.3% of the participants being randomly assigned to conditions A, B, C and D respectively.

4.2 Data overview

The majority of the data failed to meet the assumptions of normality and therefore could not be reliably tested using parametric methods of statistical analysis. As such, appropriate non-parametric tests were used in order to assess the statistical significance of observed differences and/or relationships within the data set; these tests included Spearman's Rank Correlation Coefficient (Spearman's ρ), Pearson's Chi-squared test for independence (Chi-squared test) and Kruskal-Wallis one-way analysis of variance by ranks (Kruskal-Wallis H test) among others[4]. In order to conduct inferential statistics on a dataset it is first necessary to examine the characteristics, or descriptive statistics, of the data to use as a basis for describing the data and selecting the most appropriate inferential tests. The central tendency and variability of the distribution of a dataset are the most useful descriptive statistics as they show the average value of a dataset and also the extent to which the data deviates from the average (Szafran, 2012, pp. 97). The mean and standard deviation are most often used in descriptive statistics involving normally-distributed interval data; however for interval or ordinal data that has come from a non-normal distribution, such as that produced by the Likert-type items in the present study, the median and interquartile range are generally regarded as more reliable measures of central tendency and distribution as they are less sensitive to the influence of outliers found in skewed distributions (Szafran, 2012, pp. 111). As such the median and interquartile ranges, as well as the mode and percentage distributions for nominal data (Szafran, 2012, pp. 100), were used to describe the central tendencies and variability of the distributions of the majority of the data

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[4] Raw data is available from the author on request
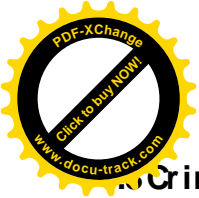
4.3 Crime seriousness and perceived safety

It was hypothesised that as perceived seriousness of a crime increased, perceived safety would also increase due to the observation that the most serious crimes tend to be the least frequent and so risk remains low even if fear is high (see Warr, 2000). No significant relationships were found between seriousness ratings and perceived safety for car theft, murder or sexual assault. A weak relationship was found in the case of house burglary ($\rho = -.22$, p = .01), although the relationship was not in the direction hypothesised (i.e. as seriousness increased, perceived safety decreased). As predicted, likelihood of engaging in reactive behaviours increased as perceived safety decreased. Moderate negative relationships were found between respondents' perceived safety and likelihood of engaging in reactive behaviours following all four scenarios: burglary ($\rho = -.42$, p < .001), murder ($\rho = -.50$, p < .001), car theft ($\rho = -.59$, p < .001) and sexual assault ($\rho = -.48$, p < .001).

4.4 Age

Aside from the main research question (investigating the perceived distance effect on perceptions of safety and crime severity), the present study also examined the influence of several variables already established in the literature including age, gender and prior victimisation. This was done for three reasons; to control for confounding variables other than distance; to gain some insight into the effect that distance has relative to the influence of other such variables; and to ensure that the measures used were sensitive and reliable enough to replicate previous findings. As the effect of age on perceptions of crime and safety has received much research attention (e.g. Wittebrood & Nieuwbeerta, 2000), it was included as an independent variable in the present study.

4.4.1 Crime seriousness

Perceived seriousness of each of the 12 crime types was measured using the item "Consider each crime type below and rate the seriousness of each crime by circling a number along the corresponding scale (1 being, in your opinion, not serious and 10 being very serious)" (see appendix A, section B). The median seriousness scores and interquartile ranges of said scores are displayed in table 1 for each of the five age groups. These differences were tested using inferential statistics in order to determine whether any observed differences in seriousness scores between the age groups were statistically significant at the alpha level 0.05.
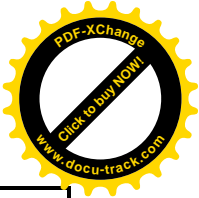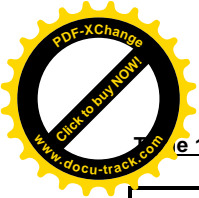
Table 1 Medians and IQRs of crime seriousness scores by age group

Crime type	Age group									
	16-25 (N=94)		26-35 (N=24)		36-45 (N=14)		46-55 (N=11)		56-65 (N=4)	
	Mdn	IQR	Mdn	IQR	Mdn	IQR	Mdn	IQR	Mdn	IQR
Causing death by dangerous driving	10	9-10	9	9-10	9	9-10	10	-	10	9.5-10
Fighting	5	4-7	4.5	3-6	4	3-7	3	2.5-4	3	3-3.5
Vagrancy	2	1-4	2	1-3	1	1-4	3	1.5-4.5	3	2-4
Sexual assault	9	8-10	9	8-10	10	-	10	-	10	9-10
Theft	6	4-7	5	4.5-7	6	5-8	7	4.5-8	7	3.5-8
Being drunk and disorderly	4	2-5	3	3-5.5	5	3-5	4	3-4	3.5	2.5-4.5
Car theft	7	5-8	7	6-8	7	6-8	8	6.5-8.5	6.5	3-8
Murder	10	-	10	-	10	-	10	-	10	-
Burglary	8	7-8	8	7-8	8	7-8	9	8.5-9.5	7.5	6-8.5
Manslaughter	9	8-10	9	8.5-9	9	9-10	10	-	8.5	8-9.5
Robbery	8	7-9	8	7-9	8	8-9	9	8-9	7.5	6-8.5
Child abuse	10	9-10	10	8-10	10	-	10	-	10	9-10

"-" indicates no difference between the first and third quartile values

A Kruskal-Wallis H test showed that there were no statistically significant differences in seriousness scores between the five age groups for the following crime types: dangerous driving (H = 6.74, p = .15), vagrancy (H = 4.59, p = .33), theft (H = 2.38, p = .67), drunk and disorderly behaviour (H = .93, p = .92), car theft (H = 4.81, p = .31), murder (H = 1.51, p = .83), burglary (H = 9.04, p = .06), robbery (H = 2.93, p = .57), or child abuse (H = 5.81, p = .21). However the Kruskal-Wallis H test showed that there was a statistically significant difference in crime seriousness scores between the different age groups for fighting (H = 22.52, p < .001), sexual assault (H = 15.96, p = .003), and manslaughter (H = 9.82, p = .04). A post-hoc test using pairwise comparisons (Mann-Whitney U) revealed the significant differences between age groups for 'fighting seriousness' to be between the 16-25 and 46-55 age groups (U = 47.52, p = .003) and also between the 16-25 and 56-65 age group (U = 61.42, p = .018) with those in the youngest age group rating fighting as being more serious than did those in the older age groups. Adjusted p values using a Bonferroni correction (see Wright, 1992) were calculated, and are reported, for all post-hoc statistics. There was also a significant difference between the 26-35 and 46-55 age groups for 'manslaughter seriousness' (U = -43.25, p = .028) with those in the 46-55 age group rating manslaughter as being more serious than those in the younger age group. Although the Kruskal-Wallis showed a significant difference in perceived 'sexual assault seriousness' between the age groups, further post-hoc tests failed to locate where these differences were; it should however be noted that the differences between the 16-25 and 46-55 age groups, and between the 16-25 and 36-45 age groups were almost significant at the alpha level 0.05 (U = -33.48, p = .051 and U = -30.92, p = .056 respectively) with those in the 16-25 age group rating sexual assault the least serious of the three age groups.

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4.4.2 Location safety
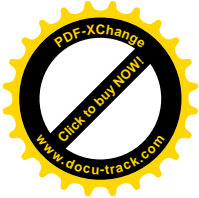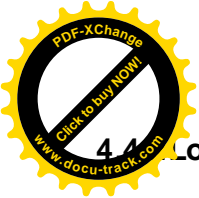
Table 2 shows data from the five age groups regarding perceived safety from crime measured with the questions: "How safe do you feel your (home) town is compared to other towns in your region?"; "How safe do you feel your (home) region is compared to other regions in the UK?"; "How safe do you believe the UK to be in comparison with other countries within Europe?"; and "How safe do you believe the UK to be in comparison with countries outside of Europe?" (see appendix A, section C). The table also includes the median and interquartile range scores for participants' perceived safety from burglary within their hometown ("How safe would you say your hometown is with regard to house burglary?") as, although specific to house burglary, the question taps into the perceived safety of respondents' hometown from crime and so as a measure it was considered to be appropriate to present alongside the other four measures of location safety. Those in the youngest age group (16-25 years old) tended to report the lowest safety ratings, whereas those in the oldest age group (56-65 years old) gave the highest safety ratings. It should be noted, however, that all of the age group/location combinations' ratings were, on average, "reasonably safe" or better.

Table 2 Medians and IQRs of the location safety scores by age group

Location safety	Age group									
	16-25 (N=95)		**26-35** (N=24)		**36-45** (N=14)		**46-55** (N=12)		**56-65** (N=3)	
	Mdn	IQR	Mdn	IQR	Mdn	IQR	Mdn	IQR	Mdn	IQR
UK within Europe	3	2-3	2	2-3	2	2-3	2.5	2-3	2	2-3
Home region in UK	3	2-3	2	2-3	2	2-2	3	2-3	1	1-1.5
Hometown in region	2	2-3	2	2-3	2	1-2	2	1.5-3	2	1.5-2
UK outside Europe	2	1-2.5	2	1-2.5	2	2-3	2	1-2	2	1.5-2
Hometown burglary safety	3	2-3	3	2-3	2	2-3	2.5	2-4	2	1.5-2.5

A Kruskal-Wallis H test was conducted to test for significant differences between the five age groups' perceived safety regarding the four location comparison questions, as well as the perceived safety of the respondents' hometown from house burglary. No significant differences were found between the five age groups for the safety scores of; UK compared to other countries in Europe ($H = 1.10$, $p = .90$); their home region compared to other UK regions ($H = 9.36$, $p = .053$); their hometown compared to other towns within their region ($H = 8.57$, $p = .07$); or the UK compared to countries outside of Europe ($H = 1.52$, $p = .82$). Kruskal-Wallis analysis also found there to be no significant differences between the five age groups with regard to participants' perceived safety from house burglary in their hometown ($H = 3.46$, $p = .48$). Age, therefore, did not appear to effect perceptions of safety in this respect.

4.4.3 Scenario measures

Again displayed by age group, table 3 contains median values and interquartile ranges for the three scores obtained following each of the four crime scenarios; the seriousness of the crime mentioned in the scenario; the respondents' perceived safety following the scenario; and the likelihood of respondents altering their

attitude/behaviour(s) regarding personal safety following the hypothetical crime scenarios (see appendix A, section E). The data shows that the lowest average seriousness scores were awarded by those between the ages of 26-35. A trend in the data also revealed that those in the 36-45 and 56-65 age groups reported the highest average safety scores following each of the four crime scenarios.

Table 3 Medians and IQRs of scenario seriousness, safety and behaviour scores by age group

Scenario crime		Age group								
		16-25 (N=95)*		**26-35** (N=24)		**36-45** (N=14)		**46-55** (N=12)*		**56-65** (N=5)*
		Mdn	IQR	Mdn	IQR	Mdn	IQR	Mdn	IQR	Mdn	IQR
Burglary	**Seriousness**	7	5-8	6	5.5-7	8	6-8	7	6-8	6	5-8
	Safety	3	2-3.5	3	2-3	2.5	2-3	3	2-4	2	2-3
Murder	**Seriousness**	10	9-10	10	-	10	-	10	-	10	-
	Safety	3	2-3.5	3	2.5-4	2	1-3	3	2-3	2.5	2-3
Car theft	**Seriousness**	7	5-8	5	4-7.5	7.5	6-8	7	6-8	7	5-9
	Safety	3	3-4	2	2-3	2	1-2	3	2-3	2	2-3
Sexual assault	**Seriousness**	10	9-10	9	8-10	10	9-10	10	-	10	-
	Safety	3	2-4	3	2-3	2	1-3	3	2-3.5	2	2-3

*Murder; 46-55 (N=11), 56-65 (N=4). Car theft; 16-25 (N=94). Sexual assault; 46-55 (N=11)

"-" indicates no difference between the first and third quartile values

A Kruskal-Wallis H test found a significant difference in seriousness scores for the sexual assault scenario between the age groups (H = 11.02, p = .03). Post-hoc analyses revealed the significant difference to be between the 26-35 and 46-55 age groups (U = 362, p = .02) with the younger age group rating sexual assault as being less serious than did those in the older age group. No significant differences in seriousness scores for the burglary, murder or car theft scenarios were found between any of the five age groups.

With regard to respondents' perceptions of safety, no significant differences were found between the five age groups' answers to the burglary (H = 5.74, p = .22) or murder scenario (H = 6.96, p = .14) questions. However, significant differences were found for both the car theft and sexual assault scenarios (H = 9.80, p = .04, and H = 11.87, p = .02 respectively). Post-hoc pairwise comparisons revealed a significant difference in perceptions of safety between those in the 16-25 and 26-35 age groups and also between the 16-25 and 36-45 groups for safety following the car theft scenario (U = 250, p = .01 and U = 106, p < .001 respectively); and between the 16-25 and 36-45 age groups for the sexual assault scenario (U = 34.32, p = .03). In each case it was found that those in the youngest age group (16-25) reported the lowest perceptions of safety.

No significant differences were found between the five age groups with regard to the likelihood of altering their attitude and/or behaviour following news of the burglary scenario (H = 4.61, p = .33) or murder scenario (H = 4.89, p = .30). The Kruskal-Wallis test did find a significant difference between the age groups with regard to the likelihood of altering their behaviour following the car theft scenario (H = 11.52, p = .02) and also the sexual assault
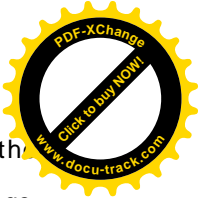
scenario (H = 13.33, p = .010). Post-hoc pairwise comparisons indicated that the difference following the car theft scenario was again between the 16-25 and 36-45 age groups (U = -30.94, p = .02) with those in the younger age group reporting a higher likelihood of altering their behaviour following the scenario. However a post-hoc test failed to show for which age groups differences in answers following the sexual assault scenario were.

4.5 Gender

Similar to the age of respondents, gender has also been well-researched within the crime and safety literature (e.g. Hardyns & Pauwels, 2010; Shafer et al., 2006; Sutton & Farrall, 2005) and so it was considered an important variable to investigate for comparison with prior research.

4.5.1 Crime seriousness

The median scores and interquartile ranges of crime seriousness found for each of the 12 crime types are displayed in table 4 for both males and females. As can be seen, females were found to rate the crime types as being slightly more serious than males did.

Table 4 Medians and IQRs of crime seriousness scores by gender

	Gender			
	Male (n=52)		Female (n=95)	
Crime type	Mdn	IQR	Mdn	IQR
Causing death by dangerous driving	9	8-10	10	9-10
Fighting	5	4-6	5	3.5-7
Vagrancy	2	1-3	2	1-4
Sexual assault	9	8-10	10	9-10
Theft	6	5-7	6	4.5-7
Being drunk and disorderly	4	3-5	4	2.5-5
Car theft	7	5-8	7	6-8
Murder	10	-	10	-
Burglary	8	7-8	8	7-9
Manslaughter	9	9-10	9	9-10
Robbery	8	7-9	8	7-9
Child abuse	9	8-10	10	9-10

"-" indicates no difference between the first and third quartile values

Mann-Whitney U tests showed statistically significant differences between males and females for perceived seriousness of the following crime types; causing death by dangerous driving (U = 1799, p = .001); sexual assault (U = 1872, p = .003); murder (U = 2306, p = .037); and child abuse (U = 1783.5, p = .001). For each crime type the

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seri...ness scores for female respondents were higher than the equivalent scores for males. Gender differenc... the perceived seriousness of the remaining crime types were not found to be statistically significant. Vagrancy and being drunk and disorderly (the two so-called "victimless crimes") received the lowest seriousness scores for both males and females, whereas crimes involving physical harm (causing death by dangerous driving, sexual assault, murder, manslaughter and child abuse) were found to be highest in terms of seriousness, ahead of crimes involving loss of possessions (theft, car theft, burglary and robbery) with the exception of 'fighting' (i.e. common assault) as this was generally rated as being less serious.

4.5.2 Location safety

The median and interquartile range results for perceived safety from crime in the comparative crime location questions (see appendix A, section C) were found to be identical for males and females in the following locations; UK within Europe (Mdn = 2, IQR = 2-3), hometown within the region (Mdn = 2, IQR = 2-3) and hometown safety from burglary (Mdn = 3, IQR = 2-3). "Hometown safety from burglary" scores were included in the analyses as the question related to the perceived safety of the respondents' hometown in comparison with others, and as such it represented a measure of comparative location safety, despite it only focusing on one type of crime. The safety scores for 'home region within the UK' reported by the females were found to be slightly lower on average than those of the males (Mdn = 3, IQR = 2-3 and Mdn = 2, IQR = 2-3 respectively.) Females were also more likely to report lower scores regarding the safety of the UK compared to countries outside of Europe (Mdn = 2, IQR = 1-3 and Mdn = 2, IQR = 1-2 for females and males respectively). No significant differences were found between the males and females regarding perceptions of safety of; the UK in comparison with countries within and outside of Europe (U = 2391.5, p = .65 and U = 2282, p = .26 respectively); participants' home region (U = 2187, p = .13); or hometown (U = 2415.5, p = .66). No significant difference was found in perceived safety of participants' hometown from the threat of house burglary between males and females. That is, regardless of gender, respondents generally perceived the UK to be "quite safe" when compared to other countries both within and outside of Europe and also felt that their hometown and region were "quite safe" compared with other towns and regions in the UK. Both male and female respondent answered less positively when asked about their hometowns' safety from the crime of burglary, with the average response (regardless of gender) being only 'reasonably safe'. This suggests that respondents were generally likely to rate the safety of their hometown quite highly; however when questioned further about a specific type of crime the respondents' reported safety of their hometowns decreased.

4.5.3 Scenario measures

The measures following the four hypothetical crime scenarios (see appendix A, section E) showed that the females tended to consider some crime types to be more serious than males, as well as reporting lower perceptions of safety and a higher probability that they would alter their behaviour following news about the crimes. Medians and interquartile ranges for male and female respondents' perceived seriousness ratings, perceptions of safety and likelihood of altering safety behaviour following the four scenarios are displayed in table 5.

Table 5 Medians and IQRs of scenario seriousness, safety and behaviour scores by gender

Scenario crime		Gender			
		Male (N=51)		Female (N=95)	
		Mdn	IQR	Mdn	IQR
Burglary	Seriousness	6	5-7	7	5-8
	Safety	3	2-3	3	2-4
	Behaviour	3	2-3.5	2	2-3
Murder	Seriousness	10	9-10	10	-
	Safety	2	2-3	3	2-4
	Behaviour	4	3-4	3	2-4
Car theft	Seriousness	7	5-8	7	5-8
	Safety	3	2-3	3	2-4
	Behaviour	2	2-3	3	2-5
Sexual assault	Seriousness	9	8-10	10	9-10
	Safety	3	2-3	3	2-3.5
	Behaviour	2	2-3	2	1-3

"-" indicates no difference between the first and third quartile values

A Mann-Whitney U test showed significant gender differences for the perceived seriousness of the crimes committed in the scenarios concerning burglary (U = 2032, p = .04), murder (U = 2062.5, p = .024) and sexual assault (U = 1968, p = .012). No significant difference was found between males and females in the perceived seriousness of the scenario involving car theft. Similarly, no significant difference was found between males and females with regard to perceptions of safety following any of the four scenarios. A significant difference in the extent to which participants would think about their own safety behaviours following the hypothetical scenarios, however, was found between males and females following the burglary and murder scenarios (U = 2050.5, p = .041 and U = 1738.5, p = .001 respectively) with females being more likely to alter their attitude/behaviour(s) than males; no significant gender differences were found for the car theft or sexual assault scenarios. Although not all of the results here were found to be significantly different, the trends in the data match those found in previous research whereby females had been found to have a tendency to rate crimes as being more serious than their male counterparts and were more likely to feel unsafe than males (e.g. Shafer et al., 2006; Truman, 2007), with females being more likely to take subsequent action upon hearing the news (e.g. Keown, 2010).

4.6 Victimisation

Previous research suggests that prior victimisation is an important variable as the notion of 'fear of crime' and 'safety from crime' can be attributed to the fear and risk of victimisation. Somebody who has been (or known) a victim of crime is likely to recall and be influenced by their past experiences when asked any questions relating to crime and victimisation (see Brennan, 2011; Truman, 2007). For example, if an individual's house was broken into
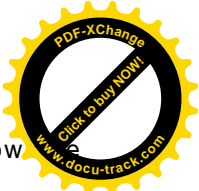
the week before completing a survey that includes questions about the seriousness of house burglary and how they feel from said crime, their answers are likely to differ to any answers that they may have given in the weeks prior to being burgled.

4.6.1 Crime seriousness

Perhaps unsurprisingly, prior personal victimisation appeared to accompany higher seriousness ratings of several crime types (see table 6). However, prior experience of victimisation through a person known to the respondent appeared instead to be associated with lower rather than higher seriousness scores.

Table 6 Medians and IQRs of crime seriousness scores by victimisation experience

Crime type	Been a victim				Knew a victim			
	Yes (n=23)		No (n=124)		Yes (n=89)		No (n=58)	
	Mdn	IQR	Mdn	IQR	Mdn	IQR	Mdn	IQR
Causing death by dangerous driving	10	8.5-10	10	9-10	10	9-10	10	9-10
Fighting	6	4-7.5	5	4-7	4	3-6	5	4-7
Vagrancy	3	2-4	2	1-3	2	1-3	2	1-4
Sexual assault	10	8.5-10	10	9-10	10	9-10	10	9-10
Theft	6	5-7	6	4-7	6	4-7	6.5	5-8
Being drunk and disorderly	4	3-5	4	2-5	4	2-5	4	3-6
Car theft	7	6-8	7	6-8	7	6-8	7	5-8
Murder	10	-	10	-	10	-	10	-
Burglary	8	6.5-8.5	8	7-9	8	7-8	8	7-9
Manslaughter	9	8.5-10	9	9-10	9	8-10	9	9-10
Robbery	8	7-9	8	7-9	8	7-9	8	7-9
Child abuse	10	9.5-10	10	9-10	10	9-10	10	9-10
Sum of seriousness scores	88	84-92.5	87	78.5-93	86	79-92	89	82-95

"-" indicates no difference between the first and third quartile values

Mann-Whitney U tests showed a significant difference in the seriousness scores for vagrancy and murder for those who had been a victim of crime and those who had not (U = 1038, p = .03 and U = 1258.5, p = .02 for vagrancy and murder respectively) with prior victims reporting higher scores of seriousness. Significant differences were also found in the seriousness scores of fighting and manslaughter between those who knew a victim of crime and those who did not (U = 2047.5, p = .02 and U = 2109, p = .02 for fighting and manslaughter respectively). Although in each case the crimes were rated as being less serious by those who knew a victim of crime than by those who did not. Mann-Whitney U tests also found no significant differences in the total crime seriousness score (that is the sum of all 12 values) between those who had personally been victimised and those who had not, or between those who knew a victim of crime and those who did not (U = 1366, p = .62 for personal victimisation and U = 2269.5, p = .124 for victimisation of somebody else).

4.6 Location safety
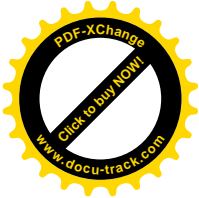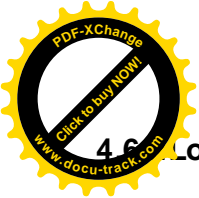
Those respondents who had personally been a victim of crime in the last 12 months rated their home region and hometown as being less safe than those who had not been victimised. The interquartile range for scores of hometown safety both within the region in general, and more specifically from burglary, was also greater for those who had been a victim of crime than for those who had not, with more respondents reporting their hometown as being "not very safe" (see table 7).

Table 7 Medians and IQRs of location safety scores by victimisation experience

Location safety	Been a victim				Knew a victim			
	Yes (n=23)		No (n=125)		Yes (n=91)		No (n=57)	
	Mdn	IQR	Mdn	IQR	Mdn	IQR	Mdn	IQR
UK within Europe	2	2-3	2	2-3	2	2-3	3	2-3
Home region in UK	3	2-3	2	2-3	2	2-3	2	2-3
Hometown in region	3	2-4	2	2-3	2	2-3	2	2-3
UK outside Europe	2	1-2	2	1-2	2	1-2	2	1-3
Hometown burglary safety	3	2-4	3	2-3	3	2-3	3	2-3

A series of Mann-Whitney U tests determined that there were no significant differences in perceived location safety (of the UK within Europe/outside of Europe, participants' hometown and home region or hometown safety from burglary) between victims and non-victims, or between those who knew and those who did not know any victims of crime. However, upon closer inspection the difference in 'safety of hometown' scores between those who had personally been a victim of crime within their hometown and those who had not was significant ($U = 824$, $p = .03$) with prior victims self-reporting lower perceived safety. There were no significant differences between those who did and did not know somebody who had been a victim of crime within their hometown ($U = 2742$, $p = .90$) nor between those who had been and those who had known a victim within their hometown ($U = 254.5$, $p = .06$). Additionally, the relationship between the respondents and the people they knew to have been victimised within their hometown did not have much effect on perceived hometown safety. Those who knew multiple victims (i.e. a family member and a friend, a friend and a neighbour, a family member and a neighbour, or all three) reported the lowest perceived hometown safety, followed by those whose known victims were "family member(s)", "neighbour/colleague(s)" and finally "friend(s)". The difference in perceived hometown safety was only significant, however, between those who knew multiple victims and those whose friend(s) had been victimised ($U = -16.77$, $p = .04$). It was also predicted that experience of criminal victimisation (personal or indirect) outside of respondents' hometowns would increase the perceived safety of their hometown, due to the reinforcement of the notion that bad things happen "elsewhere" (e.g. Heath, 1984). However, no significant differences in the perceived hometown safety were found between those who had and had not been/known a victim of crime "elsewhere".

4.6 Scenario measures

Prior victimisation experience did not appear to affect responses relating to perceived seriousness, safety or behaviour change following any of the four crime scenarios (see table 8).

Table 8 Medians and IQRs of scenario seriousness, safety and behaviour scores by victimisation

Crime and measure		Been a victim				Knew a victim			
		Yes (n=23)		No (n=123)		Yes (n=89)		No (n=57)	
		Mdn	IQR	Mdn	IQR	Mdn	IQR	Mdn	IQR
Burglary	Seriousness	6	5-8	7	5-8	7	5-8	6	5-8
	Safety	3	2-3	3	2-3.5	3	2-4	3	2-3
	Behaviour	3	2-3.5	2	2-3	2	2-3	3	2-3
Murder	Seriousness	10	8-10	10	9-10	10	9-10	10	9-10
	Safety	3	2-3.5	3	2-3	3	2-3	3	2-3
	Behaviour	3	2-4	3	2-4	3	2-4	3	2-4
Car theft	Seriousness	6	4.5-7.5	7	5-8	7	5-8	7	5-8
	Safety	3	2-4	3	2-3	3	2-3.5	3	2-3.5
	Behaviour	2	1-3	3	2-4	3	2-4	3	2-3
Sexual assault	Seriousness	10	9-10	10	9-10	10	9-10	10	8-10
	Safety	3	2.5-3.5	3	2-3	3	2-4	3	2-3
	Behaviour	3	2-3	2	1.5-3	2	2-3	2	1-3

Mann-Whitney U tests did not find any significant differences in crime seriousness ratings, perceived safety or likelihood of behaviour change between (personal or indirect) victims and non-victims (see table 9).

Table 9 Mann-Whitney U test results for differences in scenario scores by victimisation

Scenario crime		Been a victim (yes or no)		Knew a victim (yes or no)	
		U statistic	p value	U statistic	p value
Burglary	Seriousness	1273	.32	2379.5	.26
	Safety	1250.5	.25	2480.5	.45
	Behaviour	1300.5	.39	2597.5	.78
Murder	Seriousness	1298	.33	2550	.67
	Safety	1434.5	.89	2544	.62
	Behaviour	1407	.82	2531.5	.67
Car theft	Seriousness	1209.5	.19	2639	.91
	Safety	523	.32	1225	.65
	Behaviour	574	.13	1519	.69
Sexual assault	Seriousness	1434	.88	2639	.90
	Safety	1287.5	.37	2436	.41
	Behaviour	1290.5	.36	2336	.18

4.7 Location

4.7.1 Crime information source and location safety

An aim of the present study was to investigate whether perceptions of location safety were influenced by the means in which respondents gather their information about crime (see Appendix A, section D), for example whether frequent exposure to national coverage of the negative events unfolding across the rest of the country increases individuals' perceptions of the safety of their own hometown or region (due to the view that it is a safer place to live compared to other areas of the UK). Conversely, an individual who frequently accesses local news sources may be more aware of the negative events and criminal activities that are occurring in their local area, therefore decreasing the perceived safety of their hometown or region.

Table 10 Medians and IQRs of location safety scores by most used news source

Most used information source	Location safety									
	UK within Europe		Home region within UK		Hometown within region		UK outside of Europe		Hometown burglary safety	
	Mdn	IQR	Mdn	IQR	Mdn	IQR	Mdn	IQR	Mdn	IQR
Local TV/Radio	2.5	2-3	2	2-3	2	2-3	2	1-2	3	2-3.5
Local Newspaper/Website(s)	2	1.5-2	2	2-3	3	2.5-3	2	2-2	3	2.5-4.5
National TV/Radio	2	2-3	2	2-3	2	2-3	2	1-3	2	2-3
National Newspaper/Website(s)	3	2-3	2	2-3	2	2-3	2	1-2	2	2-3
Word of Mouth/Social Network	3	2-3	3	2-3	2	2-3	2	1-3	3	2-3
Other	2	2-2	2	2-4	2	1-4	2	2-2	2	2-3

A Kruskal-Wallis H test found no significant differences in respondents' perceptions of location safety based on their preferred method of obtaining information regarding crime (medians and interquartile ranges of safety scores are displayed in table 10 above). However, a significant difference with regard to respondents' perceptions of safety from house burglary in their hometown was found to be based on their most frequent method of obtaining information regarding crime (H = 12.14, p = .016). Post-hoc tests showed that significant differences in 'hometown safety from burglary' perceptions existed between those respondents whose most used information source were National TV/Radio and Social network/Word of mouth (U = 308.5, p = .016); National TV/Radio and Local TV/Radio (U = 380, p = .033); National TV/Radio and Local Newspaper/Website (U = 87, p = .044); National Newspaper/Website and Social network/Word of mouth (U = 307.5, p = .028). The differences found in perceptions of safety were almost significant between National Newspaper/Website and Local Newspaper/Website (U = 86, p = .073) and also between National Newspaper/Website and Local TV/Radio (U = 375.5, p = .052). In each case perceptions of safety were lower when the most frequently used method of obtaining information was on a local level as opposed to national. This could be due to those individuals who access news locally having a greater

awareness of actual crime rates in their local area than those who tend to follow national news coverage (which is inevitably unlikely to provide very much information about specific areas).

4.7.2 Home region and location safety

Perceptions of location safety were also compared between respondents from different home regions (Yorkshire; the North East; the South of England; the west Midlands; other UK region(s); and also from outside of the UK). The analysis showed little variation in perceived safety of any of the locations based on respondents' home region, with the majority of respondents describing their hometown, region and the UK as either 'quite' or 'reasonably safe' (see table 11).

Table 11 Medians and IQRs of location safety scores by respondents' home region

	Location safety									
	UK within Europe		Home region within UK		Hometown within region		UK outside of Europe		Hometown safety from burglary	
Home region	Mdn	IQR	Mdn	IQR	Mdn	IQR	Mdn	IQR	Mdn	IQR
Yorkshire	2	2-3	2	2-3	2	2-3	2	1-2	3	2-3
North East	2	1.5-3	3	3-3	2	1.5-2.5	2	1.5-2	2	1.5-3
South	3	2-3	2	2-3	3	2-4	2	2-3	2	2-3
West Midlands	3	1-3	2.5	2-5	3	2-4	2	1-3	2	1-3
Other UK region	3	2-3.5	3	2-3	3	2-3.5	2	2-3	3	2-3.5
Not in the UK	2.5	2-3	2	1-3	2	1-3	2	1-3	3	3-4

A Kruskal-Wallis H test found no significant differences between the six home region groups (non-UK, Yorkshire, North East, West Midlands, South and Other UK) for the perception of safety scores obtained from the four location comparison questions; $H = 4.57$, $p = .471$ for UK within Europe; $H = 4.68$, $p = .46$ for home region compared with other UK regions; $H = 6.48$, $p = .26$ for hometown compared with other towns in the region; and $H = 4.62$, $p = .46$ for safety of the UK compared with countries outside of Europe). No significant differences were found between the home region groups for perceived safety of respondents' hometown from house burglary ($H = 6.08$, $p = .30$). Region of respondents' hometown therefore appeared to have little effect of their perceptions of location safety.

4.8 Distance from crime (Yorkshire respondents only)

Of the 150 respondents 72.7% (n=109) resided in Yorkshire; 2% (n=3) in the North East; 6.7% (n=10) in the South of England; 4% (n=6) in the West Midlands; 10.7% (n=16) lived elsewhere in the UK; and 4% (n=6) reported their hometown as being somewhere outside of the UK. In order to examine whether perceptions of crime seriousness, perceptions of safety and likelihood of altering behaviour (i.e. the dependent variables) were influenced

by geographical proximity to crime, the locations of the crime scenarios (i.e. the independent variable) were manipulated so that they differed depending on which version of the questionnaire (i.e. experimental condition) the respondents had been randomly assigned to. This enabled comparison and analysis of the seriousness, safety and behaviour scores dependent on whether the scenario had occurred in the respondents' home region or not. As the vast majority of the respondents were from Yorkshire, for the purpose of the following analyses only the scores given by these participants were compared and analysed based on whether the scenarios had occurred within Yorkshire or not. As can be seen from the table below, with the exception of sexual assault, median scores and interquartile range data for 'crime seriousness' were highest for the crimes that occurred in Yorkshire; lower perceived safety scores were found more frequently following the scenarios set in Yorkshire; and respondents reported being more likely to alter their behaviour following the Yorkshire based scenarios than did those who were presented with the same scenario in a different location. Additionally the seriousness scores for burglary, murder, car theft and sexual assault following the hypothetical crime scenarios were compared with the seriousness scores given during an earlier section of the questionnaire in which the same crime types appeared in a list, free of context (see appendix A, section B). The purpose of this was to determine whether the scenario crimes which occurred closer to home were rated higher in terms of perceived seriousness than the average baseline score taken from the same participant sample.

Table 12 Medians and IQRs of Yorkshire respondents' scores for Yorkshire/ non-Yorkshire scenarios

Measure and crime region		Crime scenario							
		Burglary		Murder		Car theft		Sexual assault	
		Mdn	IQR	Mdn	IQR	Mdn	IQR	Mdn	IQR
Seriousness of crime	Yorkshire	7	6-8	10	-	7	5-9	9	9-10
	Not Yorkshire	6	5-8	10	9-10	7	5-8	10	9-10
Safety following crime	Yorkshire	3	2-4	3	3-4	4	3-4	3	2.5-4
	Not Yorkshire	3	2-3	3	2-3	3	2-3	3	2-3
Behaviour following crime	Yorkshire	2	2-3	3	2-4	1.5	1-2	2	1-2.5
	Not Yorkshire	2	2-4	3	2-4	3	2-4	2	2-3

"-" indicates no difference between the first and third quartile values

4.8.1 Scenario seriousness (Yorkshire/ Not-Yorkshire)

A series of Mann-Whitney tests were used in order to determine whether any of the aforementioned observed differences were statistically significant between the Yorkshire and non-Yorkshire based scenarios. Scores of perceived crime seriousness were significantly higher following the Yorkshire-based scenarios involving house burglary (U = 1044, p =.008) and murder (U = 607, p = .04). Although the Yorkshire-based car theft scenarios were rated higher in terms of seriousness the difference in scores between the scenario locations was not statistically

significant (U = 694.5, p = .20) nor were they for the sexual assault scenarios (U = 887.5, p = .40). Although seriousness scores do appear to be slightly higher for the Yorkshire-based scenarios than the non-Yorkshire scenarios when compared to the baseline scores, the seriousness scores for the Yorkshire-based murder, car theft and sexual assault scenarios did not differ significantly from their respective baseline scores, as determined by a Wilcoxon signed-rank test of related samples (Z = -1.41, p = .16; Z = -.88, p = .38; and Z = -.07, p = .94 for murder, car theft and sexual assault respectively). It was found that the seriousness scores given for the Yorkshire burglary scenario were actually significantly lower than the baseline seriousness score (Z = 3.87, p < .001), as were the scores given for the non-Yorkshire burglary and murder scenarios (Z = -5.76, p < .001 and Z = 5.27, p < .001 for the non-Yorkshire burglary and murder scenarios respectively). The seriousness scores given for the 'non-Yorkshire' car thefts and sexual assault scenarios did not differ significantly from their respective baseline scores (Z = -1.37, p = .17 and Z = -.31, p = .76).

4.8.2 Scenario safety (Yorkshire/ Not-Yorkshire)

Perceived safety following all four crime types was lower following the Yorkshire-based scenarios, with respondents selecting the option "not very safe" more frequently than they did following the non-Yorkshire scenarios. Although this was only found to be statistically significant in the case of car theft (U = 194.5, p < .001), it should also be noted that the differences in safety scores following the murder scenario were almost significant between the Yorkshire and non-Yorkshire scenarios in the direction hypothesised (U = 578, p = .057).

4.8.3 Scenario behaviour (Yorkshire/ Not-Yorkshire)

The likelihood of respondents altering their behaviour following a crime scenario was significantly higher following the Yorkshire-based scenarios compared to the non-Yorkshire scenarios involving car theft (U = 259, p = .001) and sexual assault (U = 670, p = .01). The differences in likelihood of behaviour change between the Yorkshire and non-Yorkshire based murder scenarios were not found to be statistically significant, although 44.4% of respondents answered that they would "definitely" or "probably" alter their behaviour following the Yorkshire-based murder scenario compared to 32.2% following the non-Yorkshire scenarios (see table 13).

Table 13 Yorkshire respondents' likelihood of behaviour change by Yorkshire/ non-Yorkshire scenario

Scenario crime and location		Likelihood of altering behaviour following scenario crime				
		Definitely would	Probably would	Maybe	Probably not	Definitely not
Burglary	Yorkshire	22.4%	38.8%	28.6%	8.2%	2%
	Not Yorkshire	15%	36.7%	20%	23.3%	5%
Murder	Yorkshire	16.7%	27.8%	22.2%	22.2%	11.1%
	Not Yorkshire	10%	22.2%	21.1%	36.7%	10%
Car theft	Yorkshire	46.7%	33.3%	13.3%	0%	6.7%
	Not Yorkshire	10.8%	25.7%	25.7%	28.4%	9.5%
Sexual assault	Yorkshire	47.8%	26.1%	17.4%	4.3%	4.3%
	Not Yorkshire	19.8%	33.7%	24.4%	20.9%	1.2%

The differences in likelihood of behaviour change between the Yorkshire and non-Yorkshire based burglary scenarios were also found not to be statistically significant, however respondents were almost three times as likely to answer that they would "probably not" or "definitely not" alter their behaviour following the non-Yorkshire scenarios (28.3%) than those presented with the Yorkshire-based scenario (10.2%). Although not all resulting in statistically significant differences, patterns were observable between the Yorkshire and non-Yorkshire based scenarios which supported the main hypotheses that; individuals tend to perceive crimes as being more serious as they occur closer to home; will report higher perceptions of safety as crimes occur further away from their home; and will be more likely to alter their attitudes/behaviours following the news of a crime having been committed in their home region than if the same crime was to have occurred elsewhere.

4.8.4 Scenario seriousness (By region)

To further investigate any perceived distance effect, the scores of the three measures (perceived crime seriousness, perceived safety and likelihood of behaviour change) were compared with the four separate scenario locations; Yorkshire, the North East, the West Midlands and the South (rather than combining the latter three to form the 'non-Yorkshire' category used previously). The purpose here was to test the hypothesis that as distance from the crime location increases, perceptions of safety increase and perceptions of crime seriousness decrease. It was expected, therefore, that seriousness scores would be highest for the Yorkshire-based scenarios followed by those set in the North East (as this was the closest region to Yorkshire), then the West Midlands and finally the lowest seriousness scores were expected to be given to those scenarios based in the South (as this was the furthest region from Yorkshire).

As can be seen from the table below seriousness scores tended to be highest following the scenarios based in Yorkshire compared to the other three regions, as was predicted. However, the rest of the data does not appear to follow the expected pattern, as the seriousness scores for the scenarios based in the South of England were actually higher on average than those which had occurred in the North East and West Midlands (see table 14).

Table 14 Medians and IQRs of Yorkshire respondents' scenario seriousness scores by location

Perceived crime seriousness score							
Scenario crime							
Scenario location	Burglary		Murder		Car theft		Sexual assault	
	Mdn	IQR	Mdn	IQR	Mdn	IQR	Mdn	IQR
Yorkshire	7	6-8	10	-	8	6-9	9	9-10
North East	6	4-7	10	9-10	6	4-7	9	9-10
West Midlands	6	5-7	10	9-10	5.5	5-8	10	9-10
South	7	6-8	10	9-10	7	6-8	9	9-10

"-" indicates no difference between the first and third quartile values

For the burglary scenario the Kruskal-Wallis test revealed a significant difference between the seriousness scores based on the scenario location; $H = 10.09$, $p = .02$. Post-hoc analyses revealed that the significant differences were between seriousness scores for the Yorkshire-based burglary scenario and the West Midlands scenario, and also between Yorkshire and the North East ($U = 476.5$, $p = .003$ and $U = 256.5$, $p = .008$ respectively). However, the difference in seriousness scores between Yorkshire and the South was not found to be significant ($U = 822$, $p = .45$). In each case the crimes that had occurred within Yorkshire elicited the highest seriousness scores. The Kruskal-Wallis test found no significant differences in seriousness scores between the four scenario locations for murder ($H = 6.80$, $p = .08$), the car theft scenario ($H = 6.59$, $p = 0.86$) or sexual assault ($H = 3.22$, $p = .36$). As expected, seriousness scores were generally highest when the crime scenario was based within the Yorkshire region. Rather than the North East scenarios producing the next highest scores (as hypothesised due to the proximity of the two regions), however, it was found that respondents tended to give higher seriousness ratings to crimes that had occurred in the South than in the North East or West Midlands. A possible explanation for this could be that because specific locations were not named respondents may have associated "the South of England" with London, due to it being the capital city and by far the largest, most populated and most visited city in the country. Owing to these attributes London features prominently across all forms of the media and so even individuals from the North of England may feel somewhat familiar with London (despite it being 200 miles "down South"), perhaps more so than with the North East, or the West Midlands, which in comparison receive little attention and thus are not as familiar to Yorkshire respondents.

4.8.5 Scenario safety (By region)

The results of respondents' self-reported safety following the hypothetical crime scenarios appeared to follow the pattern hypothesised as perceptions of safety (represented by median and interquartile range values in table 15) were lowest following the Yorkshire-based scenarios for all four crime types, and highest following the scenarios based in the South, with safety scores increasing as distance from the scenario location increased.

Table 15 Medians and IQRs of Yorkshire respondents' scenario safety scores by location

| Perceptions of safety score								
Scenario crime								
Scenario location	Burglary		Murder		Car theft		Sexual assault	
	Mdn	IQR	Mdn	IQR	Mdn	IQR	Mdn	IQR
Yorkshire	3	2-3.5	3	3-4	4	3-4	3	2.5-4
North East	3	2.5-3	3	2-3	3	2-3	3	3-4
West Midlands	3	2-3	3	2-3	3	2-3	3	2-3
South	3	2-3	2	2-3	2	2-3	2	2-3

Kruskal-Wallis H tests were used to examine whether any significant differences existed between the 'perception of safety' scores reported by the respondents following the hypothetical crime scenarios depending on whether the crime had been committed in the respondents' home region or not. No significant differences were found in reported perceptions of safety regardless of the location for the burglary or murder scenarios (H = 1.44, p = .70 and H = 2.65, p = .45 respectively). Although not found to be significantly so, safety scores following the murder scenarios were lowest when the scenario occurred within Yorkshire. The safety scores reported following the car theft and sexual assault scenarios were found to differ significantly depending on the region the scenario occurred in (H = 14.08, p = .003 and H = 8.03, p = .045 for car theft and sexual assault respectively). Post-hoc pairwise comparisons found the differences in safety scores following the car theft scenario were significant between Yorkshire and the North East (U = 56.5, p = .005), between Yorkshire and the West Midlands (U = 72.5, p =.02) and also between Yorkshire and the South (U = 109.5, p = .001). With each case, perceptions of safety were significantly lower following the Yorkshire-based scenario. Post-hoc analyses for the sexual assault scenario revealed that the differences in safety scores were significant between the North East and West Midlands (U = 343.5, p = .02) with lower perceptions of safety found when the scenario took place in the North East. The difference in safety scores between Yorkshire and the West Midlands was almost significant at the alpha level 0.05 (U = 453.5, p = .051) with lower perceptions of safety reported when the scenario occurred within Yorkshire.

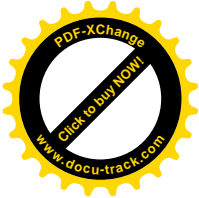## 4.8.6 Scenario behaviour (By region)

The descriptive statistics relating to the likelihood of respondents altering their behaviour following the crime scenarios showed a pattern which supported the hypothesis that individuals will be more likely to take action (i.e. evaluating their attitudes towards personal safety, altering their behaviour, taking precautionary measures) when a crime occurred within close proximity to them. This appeared to be the case particularly for car theft and sexual assault, as table 16 shows, likelihood of behaviour change is greatest following the Yorkshire-based scenario and decreases consistently as the distance to the scenario location increases.

Table 16 Medians and IQRs of Yorkshire respondents' scenario behaviour scores by location

Likelihood of behaviour change								
Scenario crime								
Scenario location	Burglary		Murder		Car theft		Sexual assault	
	Mdn	IQR	Mdn	IQR	Mdn	IQR	Mdn	IQR
Yorkshire	2	2-3	3	2-4	1.5	1-2	2	1-2.5
North East	3	2-3	3	2-4	2	2-3	2	1-2
West Midlands	2	2-4	3	2-4	3	2-4	3	2-4
South	2	2-3	3.5	2-4	3	2-4	3	2-3
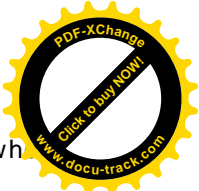
Differences in the likelihood of respondents altering their safety behaviour/attitudes depending on wh___ each of the four crimes was reported to have occurred were also tested for significance using a Kruskal-Wallis H test. For all four crime types the likelihood of respondents altering their safety behaviour/attitudes following the news of said crime was greatest when the crime was reported as having occurred within Yorkshire as opposed to the other three regions. This difference was found to be significant for the car theft and sexual assault scenarios ($H = 15.56$, $p = .001$ and $H = 12.57$, $p = .006$ respectively). For the car theft scenario the differences in likelihood of altering safety behaviour/attitudes were significant between Yorkshire and the South ($U = -28.68$, $p = .001$) and between Yorkshire and the West Midlands ($U = -24.47$, $p = .04$); in each case respondents were significantly more likely to alter their behaviour following the Yorkshire-based scenarios. For the sexual assault scenario significant differences were found between Yorkshire and the West Midlands ($U = 393$, $p = .007$) and between the North East and the West Midlands ($U = 336.5$, $p = .02$). The likelihood, therefore, of respondents altering their behaviour was significantly greater if the crimes had been committed in the North East compared to the West Midlands and, as hypothesised, greater still following the Yorkshire-based scenario.

Chapter 5: Discussion

5.1 Findings

The primary aim of the present study was to investigate what effect proximity to a crime location has on individuals' perceptions of safety. The hypothesis that proximate crimes would elicit lower perceptions of safety than distant crimes was largely supported. Additionally crime seriousness ratings and likelihood of engaging in reactive behaviour were highest following proximate crimes, as hypothesised. For a number of measures younger respondents reported lower perceptions of safety and higher likelihood of engaging in reactive behaviour than older respondents; females reported lower perceptions of safety, were more likely to engage in reactive behaviours and rated crimes as being more serious than males; and those who gain most of their crime information from local news sources felt less safe than those who use national sources. The seriousness ratings given to the various crime types in the present study closely match those reported in prior hierarchies of crime seriousness research (e.g. Pease, 1988) as crimes involving harm against the person were rated as being most serious (murder, death by dangerous driving, child abuse, sexual assault and manslaughter) followed by property offences (robbery, house burglary, car theft, theft) and "victimless" crimes were rated as being the least serious (being drunk and disorderly and vagrancy). The only crime type that did not follow this pattern was fighting (i.e. common assault) which was perceived as being less serious than property offences but more serious than the victimless offences, as was the case in Pease's (1988) hierarchy of crime seriousness.

The principal hypothesis regarding perceptions of safety and proximity to, or distance from, the location of a crime was supported. It was found that self-reported perceptions of safety were lowest when the hypothetical crime scenarios were reported as having occurred within the respondents' home region as opposed to other regions of the UK. Furthermore the data revealed a pattern supportive of the perceived distance effect (Roach et al., in press) whereby perceptions of safety appeared to increase as distance from the crime location increased. Although the differences were not always found to be statistically significant, ratings of crime seriousness were consistently higher for crimes that had occurred within the respondents' home region compared to elsewhere in the UK. The likelihood of respondents engaging in reactive behaviour was also highest following the news of a locally-occurring crime and, as predicted, a pattern emerged as increasing distance from the crime location reduced the likelihood of attitude/behaviour change. Regardless of gender, age group, prior victimisation experience, home region and duration spent living at current home address; respondents generally perceived the UK, their home region and their hometown to be "quite safe" in comparison to other towns, regions and countries. No significant differences in safety perceptions were found between the different groups within any of the aforementioned dependent variables and so it is unlikely that individual differences would have influenced the findings regarding safety and crime proximity, as the 'baseline' level of perceived location safety was approximately the same for all respondents.

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Perceptions of the safety of respondents' hometowns from the threat of house burglary were found to be significantly lower when the most often used method of obtaining information was on a local level as opposed to national (including local newspapers, television, word of mouth and social network). This finding suggests that perceptions of safety are related to knowledge of local crime, as those who access local news more frequently have a greater understanding of actual crime rates in their area (and thus a greater awareness of their proximity to crime) than those who follow national news coverage.

It is acknowledged that factors such as the type of crime and perceived seriousness of the offence in question may take priority over the crime's location; for example a neighbour becoming the victim of online identity theft is unlikely to have as much of an impact on an individual's perception of safety as a neighbour having their house burgled (due to the spatial relevance and patterns of house burglary compared to the spatially-random patterns of online identity theft targets). Therefore even though an offence may occur within close proximity to an individual if it is not perceived as being 'relevant' (perhaps the individual does not use the internet and so has very little risk of becoming the victim of internet-related crimes), or particularly serious (e.g. no threat to survival), then it is presumably no more likely to affect perceptions of safety than if it were to have happened hundreds of miles away. Future research may wish to investigate whether or not such spatially ambiguous offences follow the perceived distance effect.

In line with previous research findings, females tended to rate crimes as being more serious than males, reported lower perceptions of safety and a higher likelihood of engaging in reactive behaviour (i.e. Longdill, 2012) following news of crime. However, the majority of these differences were not statistically significant; gender appeared to have had little influence over individuals' perceptions of seriousness and safety from crime. Prior research has found that men and women report similar levels of fear and unsafety regarding property crimes and victimisation, and that gender differences become more apparent when crimes involve physical harm to the victim, or the threat thereof (i.e. Shafer et al., 2006; Truman, 2007). Within the present study there were no gender differences in perceptions or likelihood of behaviour change following news of car theft, a finding similar to that presented by Truman (2007) whereby no differences emerged in feelings of fear relating to car theft or property damage. However, unlike the car theft scenario, it was found that females were significantly more likely to engage in reactive behaviours following news of house burglaries, contradicting the assumption that property crimes elicit similar reactions between the genders. This result mirrors that of several studies which have found women to report higher levels of fear of burglary than men (e.g. Cook & Fox, 2012; Hirtenlehner & Farrall, 2014; Lane & Meeker, 2003). This may be due to the characteristic differences between the two types of property offence insofar as the likelihood of being at home at the time of a house burglary is far greater than the likelihood of being in a car at the time of its theft. Thus the overshadowing fear of sexual assault associated with offender-victim contact among women may provide an explanation for this seemingly contradictory finding (see Cook & Fox, 2012; Hirtenlehner & Farrall, 2014).

It was hypothesised that gender differences would be less pronounced if respondents were asked indir questions about their perceived safety from crime (i.e. their likelihood of engaging in reactive behaviour) as opposed to direct questions (i.e. how safe they would feel). This hypothesis rested on the assumption, however, that there would be significant gender differences in self-reported perceived safety following direct questions; an assumption based on the existing literature that has consistently found females to report lower perceptions of safety than males. As no significant gender differences emerged following the direct questions, this hypothesis could not be adequately tested. Furthermore females were significantly more likely than males to engage in reactive behaviours, a finding that mirrors previous research such as that conducted by Keown (2010). Keown found that, despite perceiving similar volumes of local crime, women were seven times more likely than men to engage in avoidance behaviours specific to reducing victimisation risk (i.e. avoiding going out alone at night) and almost six times more likely to engage in precautionary behaviours such as planning travel routes with safety in mind and locking car doors when travelling alone. Even after controlling for sociodemographic variables such as age, prior victimisation, education and income, women were still significantly more likely to engage in precautionary safety measures than men (Keown, 2010). Given the absence of significant gender differences following the direct questions used in the present study, if anything the indirect questions increased the gender gap rather than reduced it as had been predicted. As gender differences in the use of reactive (i.e. avoidance and precautionary) behaviours appear to be consistently pronounced, its utility as an outcome measure in the present study was perhaps inappropriate in assessing perceived safety, as the decision to engage in such behaviours appears to occur independently, at least from a gender perspective. Future research should seek to employ a broader range of valid questions, both direct and indirect, in order to attain the most accurate reflections of perceived safety among both genders.

The seriousness of sexual assault was one of only three crime types for which significant age differences were observed (alongside fighting and manslaughter). Younger respondents rated the seriousness of sexual assault significantly lower than older respondents, perhaps due to the modern "rape culture" within which young people are exposed to "societal norms and attitudes that condone, normalise or minimise sexual violence against women" (Powell, 2014). Although research findings have been inconsistent with regard to age differences in perceptions of sexual assault seriousness, some studies have found younger people to endorse rape myths (i.e. "husbands cannot rape their wives", "women enjoy rape" and "women ask to be raped"; Edwards et al., 2011) more so than those of older generations (e.g. Ferro, Cermele, & Saltzman, 2008) indicating greater tolerance and lower perceived seriousness among younger age groups. Despite rating the seriousness of sexual assault lower than older respondents, younger respondents reported significantly lower perceptions of safety and higher likelihood of engaging in reactive behaviour following the sexual assault scenario. Young people, particularly those of typical student age (i.e. 16-24), are more likely to engage in risky behaviours and have lifestyles that put them in greater danger of victimisation (Gover, 2004; Johnson & Kercher, 2009). Young women, in particular, may put themselves at greater risk of sexual victimisation due to lifestyle habits which increase their exposure to potential offenders, such as nights out spent drinking and visiting bars and clubs (Fisher, Cullen, & Turner, 2000; Mustaine & Tewksbury, 2007). Indeed research has consistently cited alcohol consumption as a prevalent factor among victims of sexual

assault, with around 50% of victims reporting at least some degree of intoxication at the time of the assault (for review see Abbey, Zawacki, Buck, Clinton, & McAuslan, 2004). As alcohol consumption clouds judgement, increases the likelihood of engaging in risky behaviours and puts young women in vulnerable states, such lifestyles increase exposure to potentially dangerous situations (Gover, 2004; Mustaine & Tewksbury, 2002). The findings of the present research would suggest that those in the younger age groups are quite aware of the risks they face as a consequence of their age and subsequent lifestyles. This is reflected in the younger respondents' lower perceived safety and higher likelihood of engaging in reactive behaviour following the news of recent sexual assaults compared to those in the older age groups (whose lifestyles are less likely to involve the same risks due, perhaps, to work or family commitments).

Prior personal or indirect victimisation was predicted to result in lower safety perceptions, higher likelihood of engaging in reactive behaviours and higher ratings of offence seriousness within the present study. The perceived safety of respondents' hometowns (in comparison with other towns within the region) was markedly lower among those who had been a victim of crime than those who had not. More specifically those who had been personally victimised within their hometown reported significantly lower perceived hometown safety than those who had not, lending some support towards the hypothesis that prior victimisation has a negative effect on perceived safety. Furthermore, those who knew multiple victims or had family members who had been victimised reported lower perceived safety than those whose neighbours, colleagues or friends had been victimised. Future research could explore this link further to investigate the extent to which perceptions of safety are influenced by relationship to crime victims. The remainder of the results were less in keeping with prior research. Individuals who had been personally victimised within the previous twelve months rated several crime types as being more serious than those who had not been victimised, although this difference was only found to be significant in the case of murder and vagrancy. Considering that it would be impossible for the respondents to have been a personal victim of murder, or of vagrancy (a "victimless" crime), it is most likely that these significant differences were due to factors other than prior victimisation. Furthermore, those who had known a victim of crime in the previous twelve months tended to rate crimes as being less serious than did those who did not know a victim, significantly so in the case of fighting and manslaughter. These indeterminate results are, at least, consistent with prior research which to date has generated mixed results with regard to prior victimisation, perceived safety and fear of crime (e.g. Cook & Fox, 2012; Rountree & Land, 1996; Wilcox, Jordan, & Pritchard, 2006). As details regarding the types of crime that victims had experienced were not obtained it is not possible to infer whether offence-specific prior victimisation directly influenced perceptions among these respondents. For instance would an individual who had recently been mugged be more likely to report reduced perceptions of safety from house burglary (due to the recent experience of theft) or assault (due to the recent experience of being approached/attacked)? Further research is needed in order to address this research question.

Other characteristics that future research should consider include the frequency, recency and outcome of prior experience with crime. It has been suggested, for example, that the frequency with which crime is experienced

has more influence over perceptions of safety than the type of crime victims are subjected to. In 2009 a Canadian survey of perceptions of safety from crime found that although crime victims reported lower perceptions of safety than non-victims, there were no differences between victims of violent and non-violent crime (see Brennan, 2011). This suggests that the experience of having been a victim of crime was sufficient enough to have reduced respondents' general perceptions of safety regardless of the nature of their victimisation. Additionally the findings revealed that those respondents who had experienced victimisation on more than one occasion in the twelve months prior to the survey reported significantly lower perceptions of safety than those who had been victimised on just one occasion.

As well as discussing how prior victimisation reduces perceptions of safety, Brennan's (2011) report also suggests how, through engagement with reactive behaviours, victims are able to increase their perceived safety. Those who had been victims of crime were almost twice as likely as those who had no victimisation experience to have used crime prevention methods in the twelve months prior to the survey (Brennan, 2011). Similarly, Johnson and Kercher (2009) found victims of crime to be significantly more likely than non-victims to take safety precautions such as carrying mace, asking somebody to escort them to their destination and avoiding certain areas due to fear of victimisation. Therefore, crime victims may initially experience a reduction in perceptions of safety but are then more likely to take preventative and precautionary measures in the future (Jennings et al., 2007) thus increasing their preparedness and perceived safety. This could explain the lack of significant differences between victims' and non-victims' perceptions of safety within the present findings. An investigation into the effect of victimisation frequency, offence type and subsequent safety measures taken should be incorporated into future research concerned with the relationship between prior victimisation and perceptions of safety in order to explore the relevance of these factors.

5.2 Implications

Contradictory to the optimistic bias that negative events are more likely to happen to others (Weinstein, 1980), research continues to find that fear of crime is disproportionately high compared with the actual risk of victimisation. From an evolutionary perspective unduly high levels of fear are more of a help than a hindrance to society, as over-estimations of risk would have corresponded with better survival outcomes than statistically accurate estimates. This is because natural selection would have favoured those adaptations which allowed for greater identification and avoidance of dangers that posed a threat to one's survival, however when confronted with such dangers the ability to accurately calculate the legitimacy of the threat would be a complex and time-consuming process (Sidebottom & Tilley, 2008). As such natural selection would have favoured speed and economy over staunch accuracy in the process of gauging potential threat, as false positives would ultimately be less costly than false negatives. Within the context of crime, Jackson and Gray (2010) suggest that the experience of feeling fearful or unsafe (whether these feelings are justified or not) may reduce the likelihood of crime victimisation due to

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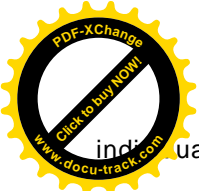
individuals exercising greater caution in light of their fears. The authors describe this as a helpful, functional worry which "motivates vigilance and routine precaution" (p.1) thus reducing the risk of becoming a victim of crime. Similarly Sidebottom and Tilley (2008) claim that seemingly 'irrational' fear is desirable, as in the authors' words; it is "better to regularly cry wolf than occasionally be eaten by one" (p.170). Ropeik (2004) highlights a number of modern-day situations in which risk over-estimation is (or would be) beneficial to survival. For example he discusses the use of car seatbelts, reporting that (at the time of publication) approximately 20% of Americans chose not to use them, possibly due to the perceived situational control that one has when driving which can reduce the estimation of risk or danger. Quoting from official traffic safety figures, Ropeik points out that if the number of non-users was to have reduced by just five percent, almost 3000 deaths could have been prevented during the previous year alone. In cases such as the aforementioned, under-estimation of risk can have serious consequences; indeed, such statistics and situations support the notion that it is "better to be safe than to be sorry". To put this in to a crime context, how many house burglaries occur each year as a result of homeowners' failure to lock their doors or windows? Perhaps being present in the house elicits the same perception of control as being behind the wheel of a vehicle. If the decision by those five percent of Americans to wear a seatbelt could potentially save the lives of nearly 3000 people a year, how many opportunistic burglaries could be prevented by simply turning a key in a lock? The potential benefits of over-estimating a risk surely prevail over the potential consequences of under-estimation.

Wittebrood and Nieuwbeerta (2000) found that making changes to lifestyles and daily activities can significantly reduce the likelihood of repeat victimisation across victims' lifetimes. However, as Avni-Babad (2011) posits, individuals feel safest when carrying out familiar (i.e. routine) activities and less safe in unfamiliar situations. This may consequently prevent individuals from changing their routines, thus putting them in greater danger of becoming a victim of crime. Lifestyle and routine activities theories have been criticised for their apparent "victim-blaming" as the theories suggests that, through their daily choices and activities, victims allow themselves to become attractive targets for motivated offenders. This suggests that individuals who are targeted by offenders play an active role in their victimisation by choosing to engage in certain routine behaviours. It would be absurd, however, to suggest that individuals deliberately put themselves in such situations with the intention of becoming a victim of crime; it is more logical to assume that this occurs through sheer lack of awareness of the potential dangers posed by routinely engaging in certain behaviours and activities. As the present study found, those who feel that they are safe from crime due to their perceived distance from it are generally not inclined to alter their routines (i.e. behaviours, attitudes, activities). These individuals may therefore be increasing their likelihood of victimisation although not through deliberate intent, rather due to a lack of awareness or knowledge of safety measures and/or a false sense of security (e.g. crime happens "elsewhere"). This supports the main argument proposed by the present research, that those individuals whom believe themselves to be safe from crime due to their perceived distance from it may in fact be increasing their risk of victimisation through failure to acknowledge the importance of engaging in precautionary safety measures.

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Through risk communication the public receive information regarding crime and victimisation with the primary aim of reducing fear of crime and improving perceptions of safety in order to bring perceptions in line with actual crime rates and victimisation-risks (Warr, 2000). However, as the extant literature has tended to emphasise the negative impacts that fear of crime can have, the focus of risk communication has been on reducing fear. As has been argued within this report, feelings of fear and unsafety regarding crime can have positive consequences in terms of engagement with precautionary or reactive safety measures, increased vigilance and subsequently reduced likelihood of crime victimisation. As previously discussed it is far more advantageous to over-estimate risk than to under-estimate it, and to worry "too much" than not enough. Rather than attempting to reduce 'unnecessary' fear and increase perceived safety, perhaps more needs to be done to bring the perceptions of those who do not worry enough in line with actual crime rates and victimisation-risks. Jennings et al. (2007) posit that through appropriately focussed educational and informational programmes important messages can be delivered to raise the awareness and perceived risk of those whose optimistic, positive perceptions of safety are furthest from reality (i.e. young males who are seemingly unaware of their elevated risk of victimisation). The authors suggest that these are the most important groups to focus risk communication towards and that more should be done to ensure that their fear and safety perceptions reflect actual risk (Jennings et al., 2007). Chapin and Coleman (2006) found adolescents displayed distorted perceptions of safety and optimistic bias about the likelihood of violence occurring to them personally or within their school. Through specifically-designed programmes the children were educated about actual crime rates and their realistic risks; this was found to increase knowledge and awareness of risk as well as significantly reducing optimistic bias which in turn was expected to reduce school violence due to greater numbers adopting self-protective attitudes and behaviours. There exists a strong argument here for the possibility of crime-reduction through increasing knowledge of local crime rates and victimisation-risks, and reducing the commonly-held optimistic bias that "bad things happen elsewhere".

5.3 Limitations

The present study is not without limitations, many of which are the result of methodological issues common within the literature. The use of fictitious crime scenarios and the subsequent hypothetical questions regarding perceived safety, such as those used in the present study, have received criticism due to their utility only in gauging possible reactions to threats, rather than reflecting actual perceptions. Ferraro (1995) criticises the use of hypothetical questions within crime surveys as they force the respondent to try and imagine themselves in a situation that they may never have experienced, or may have taken steps to actively avoid experiencing, and so responses are only useful in assessing how fearful or unsafe one imagines they may feel. However, methodological problems notwithstanding, Warr defends the continued use of "How safe would you feel..?" measures as "the routine use of the item permits longitudinal comparisons of fear, if only in relative terms" (2000, p. 458). Thus, although not a perfect measurement tool, its broad application within the relevant research literature does allow for reliable comparisons to be made between present and existing findings. Although beyond the scope of the present
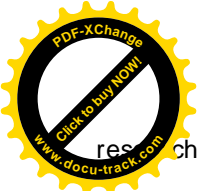
research, Geographical Information Systems (GIS) and spatial statistics techniques have been used to map changed levels, shifting patterns and composition of criminal offences over time (e.g. Ceccato, 2011). This type of research could be accompanied by assessments of perceptions of safety among residents in the areas of interest to see if shifts in patterns of offence locations are also reflected in perceptions of safety from crime, thus negating the need for hypothetical scenarios and questions. Future studies could explore this avenue of research using a longitudinal design.

Previous research has been criticised for its generalisation of "crime" within fear of crime surveys, in that many fail to make reference to specific offence types, thus implying to an extent that all crime is comparable. Also, generalised "crime" questions require a great deal of cognitive effort to answer as the respondent is essentially being asked to draw upon all of their relevant knowledge without being certain what is actually being asked of them. Clearly focussed questions relating to specific crimes require less cognitive effort and as such the relevant information is easier to retrieve, thus improving the likelihood that the respondent will interpret the question accurately and answer accordingly. For example within the present study the majority of the respondents rated the safety of their hometown as being high, however when further questioned about a specific type of crime (house burglary) the self-reported safety of the respondents' hometowns decreased. Brennan (2011) found a similar trend as when respondents were asked about their perceptions of safety from crime around 94% answered that they felt either 'very safe' or 'somewhat safe'. However, when the respondents were asked about their perceptions of safety from crime in specific situations the percentage who felt 'very' or 'somewhat' safe in their neighbourhood fell markedly. For example; 90% felt safe walking alone after dark; 83% felt safe while home alone in the evening and only 58% felt safe using public transport after dark. Furthermore, almost 60% of respondents reported that they did not use public transport as often in the evenings because of safety concerns and almost 40% admitted that they would be more likely to walk alone in their neighbourhood after dark if they were to feel safer from crime. Despite reporting high perceptions of safety from crime generally within their neighbourhood, almost 40% of respondents had taken precautionary safety measures within the twelve months prior to the survey. This example highlights the differences between framing crime questions within general and specific contexts. The present research questions were drafted with this in mind, and as such attempts were made to frame questions within the context of specific crimes, although it is acknowledged that the present study included only a fraction of the possible number of criminal offences that could, and indeed have been, investigated (Shafer et al., 2006).

A limitation which could be argued of most questionnaire-based research is that of measurement tool reliability. Farrall et al. (1997), for instance, found a staggering number of inconsistencies between (the same) respondents' answers to identical crime fear and safety survey questions, only one month apart, depending upon which format (quantitative questionnaire or qualitative interview) the questions were presented in. The authors found that less than a quarter of respondents' answers remained consistent between the two survey phases, despite no difference in the questions being asked. More alarmingly still, Ditton and Farrall (2000) found that during the course of one survey in which respondents were asked twice how worried they were about burglary, 13% apparently

became more worried and 18% became less worried between being asked the first and second time. The fact that the respondents gave different answers to the same question within one survey is of concern and raises doubts about the stability of the measures used and also the stability of individuals' responses. Although not a limitation specific to the present research, it should be kept in mind that questionnaire-based research is inherently problematic and as such findings should be interpreted with caution and frequent attempts to replicate results should be made.

5.4 Conclusion

The present study offers some support to the general findings that age, gender and prior victimisation influence perceptions of safety from crime. However, although some significant differences and relationships were found they were not necessarily in the directions hypothesised. This highlights the need for further investigation into the relative influence of such variables on perceptions of safety, as opposed to feelings of fear. As the majority of the extant literature has been concerned with the construct of fear, there is little relevant research with which direct comparisons can be made regarding the results of the present study. As the hypotheses tested within this research were largely inspired by previous findings within the fear literature, it could be argued that the failure to find significant results in the directions hypothesised reflects the differences between the constructs of fear and safety and further emphasises the need for construct-specific measurement tools and research.
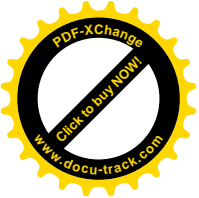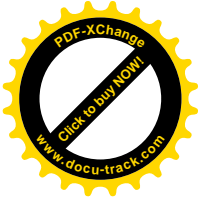
The primary aim of the current study was to assess the influence that geographical proximity to the location of a crime has on individuals' perceptions of personal safety, crime seriousness and their likelihood of engaging in reactive behaviours. To date few studies have examined the link between proximity to crime and perceptions of safety. It was hypothesised that respondents' perceptions of personal safety would decrease, and perceived crime seriousness and likelihood of engaging in reactive behaviours would increase as distance from the crime location decreased. The present findings support these hypotheses and indicate that crimes which are perceived as occurring 'far enough away' are not perceived to pose a threat to one's own safety and as such the likelihood of engaging in reactive behaviours (i.e. re-evaluating attitudes towards personal safety or taking precautionary safety measures) is greatly reduced. These findings, although in need of further empirical investigation and replication, have important implications and provide useful insights into attitudes surrounding personal risk of victimisation and the use of precautionary safety measures.

Geographical proximity to crime was found to affects individuals' perceptions of safety from subsequent similar threats. It would appear that as distance from a criminal event increases, so too do perceptions of safety and, consequently, the likelihood that one will fail to assess or alter their own safety behaviours. Thus the present research supports the 'perceived distance effect' as proposed by Roach et al. (in press) whereby the reactions elicited by news of criminal events decrease as a function of distance, or relative location, to the perceived danger. Holman and Silver (2005) liken the effect to the decreasing impact of earthquakes as distance from the epicentre
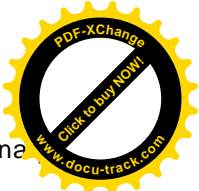
increases. Failure to realise one's own risk of victimisation can affect the probability of engaging in precautionary behaviours; thus inadvertently increasing the likelihood of falling victim to what could have been a preventable crime. Through appropriate methods of risk communication and education: knowledge of crime rates, awareness of actual victimisation risk and engagement in self-protective attitudes and behaviours can be improved; and engagement in risky behaviours, optimistic biases regarding personal safety and, subsequently, likelihood of victimisation can be reduced. The decline in number of road traffic accidents following road safety education campaigns (see Plant & Scott, 2009) demonstrate that rates of preventable incidents can successfully be reduced by increasing public awareness through the use of educational strategies.

That people are optimistically biased about the unlikelihood of negative events happening to them is a fact of life; bad things happen to "other people" and horrific events and tragedies happen "elsewhere". If this were true, however, and bad things really did only happen elsewhere or to others then surely everybody would be safe? Unfortunately, however, it is more realistic to assume that nobody is safe: as everybody is included in somebody else's "other people" and everybody's hometown is somebody else's "elsewhere".

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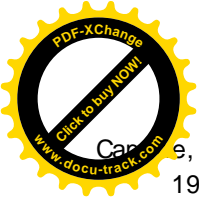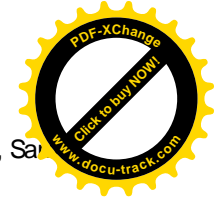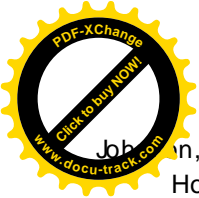
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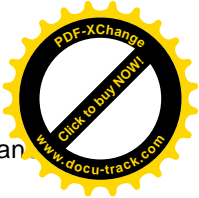
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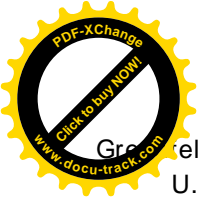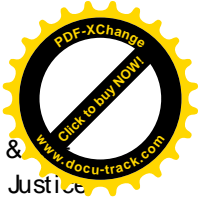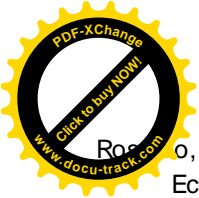
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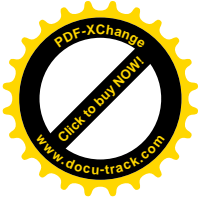Jewkes, Y. (2011). Media and crime (2nd Ed.). London: Sage. http://dx.doi.org/02-Jewkes-4114-Ch-01.indd

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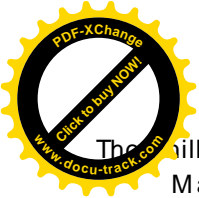
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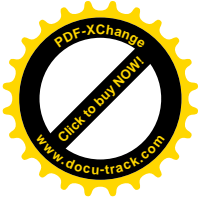
Appendices

AppendixA.–Questionnaire

Section A.

Please fill in the following information about yourself in the spaces provided:

1a. Gender (please circle):   Male   Female

1b. Age:_____.

1c. Nationality:_____.

1d. Hometown/city:_____.

1e. Term time town/city (if different to home):_____.

1f. How long have you lived at your current **home** address:_____.

Have you or anybody that you know been the victim of a crime in the last 12 months (whether it was reported to the police or not):   (Tick all that apply)

2a. While in your hometown/city:

Me □   Family member(s) □ Friend(s) □   Neighbour/colleague/classmate(s) □   No □

2b. In your term-time town/city (ONLY APPLICABLE IF DIFFERENT TO HOME):

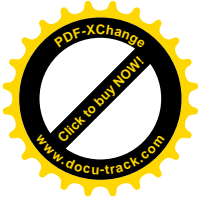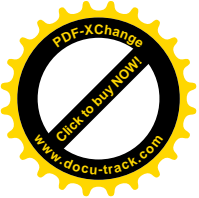Me □   Family member(s) □ Friend(s) □   Neighbour/colleague/classmate(s) □   No □   N/A□

2c. While outside of your home/term-time town or city:

Me □   Family member(s) □ Friend(s) □   Neighbour/colleague/classmate(s) □   No □

Section B.

3. Consider each crime type below and rate the seriousness of each crime by circling a number along the corresponding scale (1 being, in your opinion, not serious and 10 being very serious). There are no right or wrong answers, you are being asked for your opinion.

	Not serious								Very serious	
Causing death by dangerous driving	1	2	3	4	5	6	7	8	9	10
Fighting (common assault)	1	2	3	4	5	6	7	8	9	10
Vagrancy (homelessness/sleeping rough/begging)	1	2	3	4	5	6	7	8	9	10
Sexual assault against a woman	1	2	3	4	5	6	7	8	9	10
Theft (e.g. Shoplifting)	1	2	3	4	5	6	7	8	9	10
Being drunk and disorderly	1	2	3	4	5	6	7	8	9	10
Car theft	1	2	3	4	5	6	7	8	9	10
Murder	1	2	3	4	5	6	7	8	9	10
Burglary (e.g. House burglary)	1	2	3	4	5	6	7	8	9	10
Manslaughter	1	2	3	4	5	6	7	8	9	10
Robbery (e.g. Bank robbery)	1	2	3	4	5	6	7	8	9	10
Child abuse (not involving sexual assault)	1	2	3	4	5	6	7	8	9	10

Section C.

Consider the following questions with regards to crime rates and your personal feelings of safety from crime (at home, in the town centre, in public places, in the evenings etc.). Please circle the response that you feel is most appropriate for each question below.

In general <u>how safe</u>…

4a.   …do you believe the UK to be in comparison with other countries within Europe?

Very safe	Quite safe	Reasonably safe	Not very safe	Not at all safe	I don't know
1	2	3	4	5	0

4b.   …do you feel your (home) region (e.g. Yorkshire and the Humber; North East; West Midlands) is compared to other regions in the UK?

Very safe	Quite safe	Reasonably safe	Not very safe	Not at all safe	I don't know
1	2	3	4	5	0

4c.   …do you feel your (home) town is compared to other towns in your region?

Very safe	Quite safe	Reasonably safe	Not very safe	Not at all safe	I don't know
1	2	3	4	5	0

4d.   …do you believe the UK to be in comparison with countries outside of Europe?

Very safe	Quite safe	Reasonably safe	Not very safe	Not at all safe	I don't know
1	2	3	4	5	0

Section D.

5a. <u>Which of the following sources do you get your information about crime from (specific crimes, criminal events, crime rates and figures etc.)?</u> (Tick all that apply)

Local news TV programme(s)	□	National news TV programme(s)	□
Local newspaper(s)	□	National newspaper(s)	□
Local news website/app(s)	□	National news website/app(s)	□
Local radio station(s)	□	National radio station(s)	□
Social network platform(s)	□	Word of mouth	□

Other (please state): _____.

5b. Which <u>one</u> of the above sources do you get <u>most</u> of your information about crime from?

_____.

5c. Which <u>one</u> of the above sources do you use <u>the least</u> to inform you about crime?

_____.

Section E.

You will now be presented with brief descriptions of four fictitious events. All of the scenarios follow the same question and answer format; circle the response that would be most appropriate for you personally if the following scenarios were to happen.

Scenario 1

You hear on the news that there have been a number of house burglaries in a town in the south of England over the past week

6a. How serious would you consider these crimes to be? Circle the number that best matches your response:

Very serious	1	2	3	4	Fairly serious 5	6	7	8	9	10	Not serious

6b. How safe would you say your hometown is with regards to house burglary?

Very safe	Quite safe	Reasonably safe 3	Not very safe	Not at all safe	Unaffected by event
1	2		4	5	0

6c. How safe would you personally feel against the threat of house burglary following this news?

Very safe	Quite safe	Reasonably safe 3	Not very safe	Not at all safe	Unaffected by event
1	2		4	5	0

6d. Following this news report I would think about my own efforts to protect against house burglary

Definitely would 1	Probably	Maybe	Probably not	Definitely would not
	2	3	4	5

Scenario 2

You hear on the news that the West Midlands police are investigating a recent murder in which the perpetrator and victim are not thought to have known one another

7a. How serious would you consider this crime to be? Circle the number that best matches your response:

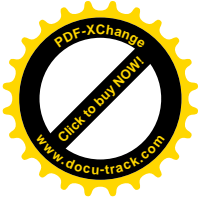| Very serious	1	2	3	4	Fairly serious 5	6	7	8	9	10	Not serious

7b. How safe would you feel in your hometown after hearing this news?

Very safe	Quite safe	Reasonably safe 3	Not very safe	Not at all safe	Unaffected by event
1	2		4	5	0

7c. Following this news report I would think about and/or reconsider how I interact with strangers in my hometown

Definitely would 1	Probably	Maybe	Probably not	Definitely would not
	2	3	4	5

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Scenario 3

You hear on the news that the number of car thefts in Yorkshire has more than tripled in the past month due to vehicle **theft gangs operating in the region**

8a. How serious would you consider these crimes to be? Circle the number that best matches your response:

| Very serious | 1 | 2 | 3 | 4 | Fairly serious 5 | 6 | 7 | 8 | 9 | 10 | Not serious |

8b. How safe would you feel from having your car stolen following this news? (Tick **N/A** if not a car owner)

Very safe	Quite safe	Reasonably safe	Not very safe	Not at all safe	Unaffected by event	N/A
1	2	3	4	5	0	☐

8c. Following this news report I would think about my own efforts to protect against car theft

Definitely would	Probably	Maybe	Probably not	Definitely would not	N/A
1	2	3	4	5	☐

Scenario 4

You hear on the news that a number of women across the North East have been targeted in a seemingly connected series of sexual assaults

9a. How serious would you consider these crimes to be? Circle the number that best matches your response:

| Very serious | 1 | 2 | 3 | 4 | Fairly serious 5 | 6 | 7 | 8 | 9 | 10 | Not serious |

9b. How safe do you think that you or your female friends/relatives would be in your hometown from this type of assault?
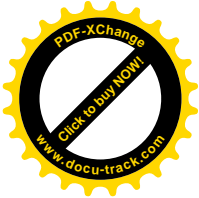
Very safe	Quite safe	Reasonably safe	Not very safe	Not at all safe	Unaffected by event
1	2	3	4	5	0

9c. Following this news report I would think about my own (or my female friends'/relatives') behaviours/attitudes towards personal protection

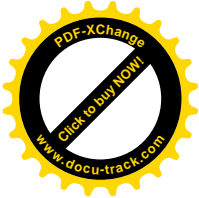| Definitely would	Probably	Maybe	Probably not	Definitely would not
1	2	3	4	5

_____   End of questionnaire   _____

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AppendixB.–Participantinformationandconsent

Thank you for taking the time to consider participating in this study. The following questionnaire is part of a piece of research which aims to investigate non-victims' feelings of safety with regards to criminal activities. There are no foreseeable risks or dangers associated with participation in this study, however contact details are provided at the end of the questionnaire should any issues arise that you feel are as a result of your participation.

Participation in this study is entirely optional and voluntary. Should you wish to take part your responses will be treated in strict confidence; to ensure the confidentiality of all research data the information that you provide will be coded and added to the group data before being stored in a secure database (accessible only by the researchers) and will remain anonymous; raw data (i.e. your individual responses) will be properly disposed of once data analysis has been completed. The data obtained from this research is expected to be included within an MSc thesis and so a discussion of the group data will likely be published in a thesis/journal article (a copy of the thesis will also be submitted to the University repository), all data will remain anonymous and published materials will only refer to group data.

By completing and returning the following questionnaire you are consenting to participate and giving permission for your responses to be used as data for this study and for the data to be reproduced, should the need arise, for the purposes of relevant future research or publication. You do not have to provide an answer for any question that you do not feel comfortable answering. You have the right to withdraw from this study at any time prior to the data analysis stage of the research (this will be **Monday 5th May**); details of how and when to do so can be found at the end of the questionnaire.

AppendixC.–Debriefingstatement

Thank you for taking the time to take part in this study, your participation is greatly appreciated and will contribute to a greater understanding of the factors that influence the attitudes, behaviors and feelings of safety of non-victims, indirect victims and observers of crime. If you have any questions or concerns regarding this research feel free to email either Charlotte Sanson (lead researcher) at u1057100@hud.ac.uk or Dr Jason Roach (research supervisor) at J.Roach@hud.ac.uk.

Please detach this sheet and retain for future reference. Your unique identification number is located at the top of this page and must be quoted in the eventuality you wish to have your responses withdrawn from the data set. If you do decide that you would like to withdraw from this study then please send an email stating your ID number to u1057100@hud.ac.uk so that your responses can be located and removed from the data set. The deadline for withdrawal will be **Monday 5th May 2014**. Please note that once the data analysis stage has begun you will be unable to withdraw your data as all identifying information, including individual ID numbers, will be discarded to ensure participant anonymity and confidentiality.

If you feel you have been affected by any of the issues raised or implied by this research and would like to speak with somebody you can contact the university's student support service at internalcounsel@hud.ac.uk. If you want to report a crime 101 is the national non-emergency phone number for contacting the police in the UK. Alternatively you can visit your local police station; the closest one to the university is Huddersfield Police Station (Castlegate, HD1 2NJ) which is open 24 hours a day.