Deliverable 3.4: Factors affecting insecurity

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1. Introduction

The research undertaken in Work Package 3 has identified a number of indicators of insecurity following the analysis of victimisation surveys and police recorded crime data from each study region of the MARGIN project. From this analysis, it is clear that insecurity is a multi-faceted concept, with different factors acting at the individual, neighbourhood and even country levels. Despite this complexity, the analysis has identified several robust correlates of insecurity that should be focused on in the subsequent research of the MARGIN project. In this report, we discuss these factors with the intention of guiding future research.

Work package 3 was designed to undertake analysis of the MARGIN database. Resulting from this analysis, a taxonomy to enable the selection of two neighbourhoods in each of the five cities of the MARGIN project—in which future research will be conducted—was defined. More detailed descriptions of these findings can be found in Deliverables 3.1 – 3.3. In this report, we give an overview of our findings and comment on how they largely conform to concepts and trends found in the existing research literature (which overwhelmingly focusses on trends *within* rather than *between* countries). We also discuss the limitations of our findings. Many of these limitations are familiar problems associated with cross-national comparisons of administrative surveys with little consistency in survey design. A further factor limiting any survey based research is that there will inevitably be questions that could have been asked but were not. In the final part of this report, we consider whether there are any areas of enquiry that could usefully be included in the MARGIN survey, which would help us to further understand the emergence of insecurity within marginalised communities.

2. Factors associated with insecurity

The factors that impact on an individual's feelings of insecurity, as indicated by the analysis of work package 3, fall into three distinct categories: victimisation, individual characteristics, and neighbourhood characteristics. The next three sections discuss each of these in turn.

2.1 Victimisation and insecurity

Many studies have identified an association between victimisation and feelings of insecurity (see deliverable 2.2 of the MARGIN project for a review). The hypothesised link between victimisation and insecurity can be either direct, in which the individual is a victim of a crime, or indirect, in which an individual alters their belief about the likelihood of experiencing victimisation based on stories of victimisation from friends, family, or the media. In either case, higher levels of victimisation is thought to be associated with higher levels of perceived insecurity.

At the country level, the victimisation hypothesis suggests that regions with higher levels of crime prevalence will have more direct and indirect levels of victimisation and, thus, will have populations who experience higher levels of insecurity. Note, though, that country-level victimisation rates are not an adequate measure of indirect criminal victimisation, which may be exaggerated due to, for instance, sensationalist reporting in the media. In order to provide a clear confirmation of the victimisation-insecurity hypothesis at the country-level, consistent measures of victimisation rates and perceived insecurity are required across all study regions in the project. Unfortunately, due to differences in the design of the five nationally administered

surveys, and due to variation in the definitions of crime and reporting practices, such data were not available in the MARGIN project. Differences in survey design arise from variation in the questions that are asked and also the responses that are possible to each question. These are discussed further, with specific examples, in deliverable 3.2. Deliverable 3.2 also reports on efforts to ensure a consistent definition of crime types across the study regions but notes that some variation is still present.

Instead, the association between victimisation and feelings of insecurity is considered at the individual level via regression models that directly link the respondents' experience of victimisation to their perceptions of insecurity. An advantage of this approach is that it enables a more direct test of the association between an individual's crime experience and perceived levels of insecurity, so no inferences are made between the area level and the individual level (which can lead to an issue known as the 'ecological fallacy'). The analysis presented in deliverable 3.2 demonstrates that direct victimisation does indeed have a significant association with heightened feelings of insecurity, consistent with expectation (and in line with previous literature as reported in deliverable 2.2). In these models, it was demonstrated that victimisation of a range of crime types in the time frame of the survey was strongly and positively associated with all forms of insecurity. Victimisation, therefore, appears to play an important role in perceived insecurity.

2.2 Individual characteristics and insecurity
Previous work on perceptions of insecurity and fear of crime has indicated that different types of individuals are likely to perceive different levels of insecurity, regardless of their experiences of victimisation. Demographic characteristics such as being female or being older have been consistently associated with higher levels of insecurity, despite males and younger people being more likely to experience victimisation (see deliverable 2.2). Thus, direct victimisation is not necessary to develop heightened feelings of perceived insecurity.

A theory that attempts to explain the apparent mismatch between insecurity and direct criminal victimisation is the *vulnerability hypothesis*, which asserts that those individuals who 1) have a higher exposure to risk; 2) are likely to incur more serious consequences should they be the victim of a crime; and 3) are less likely to be able to control a situation in which they become a victim, are more likely to develop higher levels of fear of crime (Killias, 1990; Hale, 1996). Other explanations point out that, in many cases, the higher level of fear of crime commonly exhibited by vulnerable individuals/populations is associated with higher rates of victimisation for crimes that are not readily and accurately captured by surveys or police recorded crime data, such as sexual assault and harassment (for reasons of underreporting), and that those particular crimes are more likely to generate fear, which in turn spills over to greater levels of fear of crime more generally (Stanko, 1993; Pain, 1995). Further work has suggested that the method of capturing information on such insecurities plays to certain social pressures which can bias results. Sutton and Farrell (2005) demonstrate, for instance, that males are more likely to downplay fear of crime than females, helping to explain some of the observed discrepancy when it comes to gender and fear of crime.

The analysis conducted in Work Package 3, and reported in deliverable 3.2, identifies a number of demographic variables as indicators of insecurity. For the most part, these indicators have also been identified in the literature as indicators of insecurity. However, in interpreting the results of our analysis, a number of differences in the direction and significance of these indicators were identified both across the countries that were studied and across the different aspects of insecurity that were considered.

Using traditional global measures of fear of crime, which capture the personal judgements about general feelings towards insecurity and neighbourhood safety[1], it was confirmed that females are significantly more likely to experience higher levels of insecurity across all five study areas (England and Wales, Catalonia, France, Italy and Hungary). Unemployed respondents, those with a low income, and those without a university degree were also less likely to feel safe in their neighbourhood, although the results were not significant in all five study areas. These conclusions are largely in agreement with previous studies (Hale, 1996).

Although age was positively and significantly associated with heightened feelings of insecurity in England and Wales, Hungary, and Italy, in France the reverse was true. This finding runs counter to expectation given both the vulnerability hypothesis described above and previous research in this area. This difference might be attributed to the different style of response to the question that is asked in France. Unlike the standard survey format of answering the question with a general judgement as to how safe the respondent feels (such as "very safe", "quite safe", etc.), respondents in France instead are asked to answer the question of safety in their neighbourhood using a frequency measure (i.e. choosing between "often", "sometimes", "hardly ever" and "never" when asked whether they feel unsafe in their neighbourhood). It has been argued that such frequency based measures may be more successful at capturing fear of crime, as opposed to more diffuse anxieties associated with traditional intensity based measures (Gray et al., 2011; 2008). If such frequency measures do indeed better capture fear of crime then this finding supports the view that fear of crime in the elderly has been traditionally overestimated (LaGrange and Ferraro, 1989; Pain, 1995).

Students and those born outside the country in which the survey was administered were two further variables that had significant effects in opposite directions across the study areas examined. Students were more likely to feel safer in their neighbourhoods in Barcelona, and in their municipalities in Catalonia, but were more likely to feel unsafe in France and Italy. Similarly, those born outside the UK were more likely to feel unsafe in their neighbourhood (in England and Wales), as were those born outside of France (in France). In Catalonia and Italy, however, respondents born outside the survey country were more likely to feel safer. The explanation for these contrasting findings between countries is unclear. As discussed above in the case of France, such differences may be due to methodological differences, in particular to variation in the wording of the questions or the manner in which responses are captured. Another source of these differences could come from actual country level variation in perceptions of insecurity. Such variation might arise from country specific factors including culture, history, politics and the perception of the national police. Certain demographic groups may feel more integrated and secure in one country than another. In the case of England and Wales and Italy, differences from the specific wording of the question can be discounted when comparing the responses of those born outside the country in which the survey is administered. In these two surveys, the same question is asked concerning feelings of safety when walking alone at night and, in England and Wales, those respondents born outside the UK and are more likely to respond negatively than those born in the UK. In Italy, those born outside Italy are more likely to respond positively than those born in Italy. This suggests that country-level differences do indeed play an important role. These particular differences may be reflecting the different immigrant structure in these two countries, which is likely to vary substantially. Nevertheless, the variation in indicators of insecurity across the study regions should be borne in mind.

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[1]These questions included "How safe do you feel walking alone in this area when dark?" (England and Wales); "How safe do you feel in your neighbourhood?" (Catalonia); "Do you personally feel unsafe in your neighbourhood or village?" (France); "How safe do you feel when you are alone in your local street during the day?" (Hungary); and "How safe do you feel when you walk alone at night in your neighbourhood?" (Italy).

The abovementioned analyses used feelings of safety in the neighbourhood as the outcome measure. This measure of insecurity has attracted much criticism (see Lagrange and Ferraro, 1989; Hale, 1996). Two reasons for objecting to measures of feelings of safety in the neighbourhood is that the responses may not be a direct consequence of fear of crime (instead being a more diffuse notion of anxiety and insecurity) and that they do not capture behaviours and habits that may result from anxiety regarding crime and insecurity. Such habits may include quite functional behaviours, such as taking steps to reduce vulnerability to victimisation (like locking doors and windows), but may also include dysfunctional unhealthy behaviours, such as remaining indoors to avoid the risk of crime (Gray et al., 2011). The influence of feelings of insecurity on the behaviours of individuals is an important consideration since it is those behaviours that can be directly targeted by policy interventions.

To counter concerns about inappropriate measures of perceived insecurity, deliverable 3.2 presented models for a number of different types of question for which quantitative data were available, including questions that ask specifically whether fear of crime has a detrimental impact on the respondent's life[2], questions that ask about the perceived risk of victimisation[3], and questions on concerns about crime in general[4].

The results of these models again suggest that being female is the most significant and consistent indicator of being likely to respond in a way that implies greater feelings of insecurity. For these questions, however, being older is generally associated with answering in a way that implies more security, supporting the argument that general questions about neighbourhood safety bias the influence of age. In England and Wales, for example, older people were less likely to let fear of crime affect their quality of life than younger people. France, again, is an exception in this regard: older respondents in France are more likely than their younger counterparts to be personally preoccupied with the problem of delinquency.

Unemployed people in Italy were more likely to concede that fear of crime influences their habits, in agreement with the victimisation hypothesis, but, in England and Wales, were more likely to underplay the crime risk in cognitive questions, which are those that require an attempt to estimate the crime risk or the likelihood of victimisation (e.g. "how likely do you think you personally are to be a victim of crime in the next year?") (Hale, 1996). Students and being born outside of the country were again found to lack any consistency in their tendency to respond in certain ways, highlighting that these variables are poor universal indicators of insecurity. Educational attainment (as measured by holding a university degree) was negatively associated with the extent to which fear of crime influences habits in Italy. No association was found with this variable for a similar question in England and Wales. In contrast, for questions that required individuals to estimate crime risk, educational attainment was associated with higher subjectively reported rates of crime. Degree educated respondents are, therefore, likely to overstate the risk of victimisation but not to let this risk influence their habits or their feelings of safety. Consequently, degree educated respondents potentially underplay the consequences of being a victim of crime.

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[2] The question in England and Wales is "How much is your own quality of life affected by fear of crime?". In Italy, the question is "How much does the fear of crime influence your habits?".

[3] In England and Wales, the questions "How much of a problem, if at all, do you think crime is in your area?" and "How likely do you think you personally are to be a victim of crime in the next year?" are asked. In Italy, the question "How would you define the area/neighbourhood you live in in terms of crime risk?" is asked.

[4] In France, the question is "You cited delinquency as a problem concerning your neighbourhood or village. Do you personally feel preoccupied by this problem for yourself?" and in England and Wales the question is "How much is your own quality of life affected by crime?".

In all questions considered, poor health was a significant indicator of higher perceived insecurity. However, this measure was only available in England and Wales (in deliverable 3.2) and later also in France (which confirmed this finding). Presently, little research has investigated the link between health and perceived or actual levels of insecurity, be that at the individual or national level. Health might plausibly influence perceived insecurity in several ways. For example, poor health might impair the capability of an individual to protect themselves against crime. They, therefore, judge themselves as vulnerable. An exception to the lack of research on health and insecurity is the study by Jackson and Stafford (2009). Our finding supports their recent work in identifying a strong link between health and fear of crime. The directionality of the relationship between health and fear of crime is difficult to determine and Jackson and Stafford (2009) argue that a feedback model should be used. In this model, poor health leads to greater perceived insecurities via increased vulnerability, decreased community participation and greater general anxiety. This, in turn, leads to reduced physical activity and social capital, which can have a subsequent detrimental affect on health. Future research in the MARGIN project might consider whether there are survey questions that might help disentangle the causal mechanisms relating to health and perceived insecurity.

Deliverable 3.2 reports on a number of household characteristics and their association with different aspects of insecurity. It was found that the length of time that a respondent has lived in a neighbourhood is a significant indicator of higher levels of perceived insecurity. This is a somewhat surprising finding because individuals who have resided for longer in a neighbourhood might be expected to have higher levels of social capital via integration and participation with their local community. Nevertheless, a study by Tseloni et al. (2004) supports our finding by demonstrating that shorter times spent at a particular residence are associated with a decreased chance of victimisation. Tseloni et al. attribute this finding to a decreased risk of exposure. Another explanation for this finding may be that respondents who have lived in an area for a long time have seen those areas change, due to processes such as gentrification or migration. These changes may reflect a change in the level of social cohesion of an area which may, in turn, lead to increased insecurity. Furthermore, this relationship might also be capturing the feelings of those who have lived in a more deprived area for a long time and who lack the resources to move from that area. It might additionally be capturing a further effect of age, since the length of time in an area is positively correlated with age (although not so much as to generate substantial concerns about inference).

Other household variables included whether the respondent lived with their partner, which led to more feelings of safety in the neighbourhood. Home owners were also more likely to be concerned about crime in England and Wales, but tend to think that their neighbourhoods have relatively low levels of crime.

The analysis presented in deliverable 3.2 is limited, both by the availability of demographic variables contained in the surveys and by the variation in the questions that are asked relating to perceived insecurity. In deliverable 3.2, the impact of the latter was mitigated by clustering perceived insecurity questions into seven different categories where, within each category, questions across countries touched on similar aspects of perceived insecurity. The precise wording of the question is less of an issue when performing multivariate regression analyses, since we are more interested in the tendency of certain demographic groups to respond in particular ways. As long as the questions asked are capturing similar notions of insecurity across countries, then a cross-national comparison can be made. In particular, differences in survey design and question wording will not affect the conclusions of multivariate models if these differences are not correlated with the predictors. However, even slight differences in phrasing need to be acknowledged when interpreting the results of this exercise.

With regards to the lack of availability of demographic variables, there is little that can be done when utilising such secondary data sources. In order to capture more detailed and complex variables that could be incorporated into the model, new survey questions need to be designed and administered (Killias, 2010). This speaks to Work Package 4. The MARGIN project has an opportunity to design, modify and include questions in its survey that permit hitherto impossible and/or inappropriate analyses. In the sections that follow, some guidance will be given on the inclusion of variables that might provide more detailed insight into the correlates of insecurity.

2.3 Neighbourhood characteristics and insecurity

Presently, most fear of crime research has focused on *individual level* determinants of insecurity. Doran and Burgess (2012) point out that, despite a large number of studies on the individual factors affecting fear of crime, theories associated with such factors are far from universally accepted. They argue that there are likely to be a number of other sources of fear of crime, including those operating at higher levels of abstraction, most notably neighbourhood-level effects. For example, if a person lives in or very close to an area of high crime, but have themselves not been a victim of crime, does this lead to the person expressing a heightened fear of crime? Attending to these broader sources of perceived insecurity might help explain the observed discrepancy between victimisation and fear of crime.

A common unit of analysis for examining mechanisms relating to fear of crime is the neighbourhood and a substantial literature has considered the effect that perception of victimisation risk and the degree of disorder and incivility in the local neighbourhood has on an individual's perception of insecurity. In a recent article, Brunton-Smith and Sturgis (2011) give an overview of this research. They go on to examine four mechanisms by which neighbourhoods can influence perceptions of insecurity: the actual crime rate in the neighbourhood, the degree of social organisation in the neighbourhood, visual signs of disorder, and from neighbourhood effects that moderate some of the individual characteristics described in Section 2.2. They conclude that all four of these pathways have a direct and independent affect on an individual's level of insecurity. Neighbourhood effects are, therefore, an important consideration in understanding different notions of individual insecurity.

Analysis of the victimisation survey data to link characteristics of neighbourhoods to feelings of insecurity was not undertaken by the MARGIN project for a number of reasons. First and primarily, this was due simply to a lack of data on either the residential locations of survey respondents (which were only available at the neighbourhood level in Barcelona) and the lack of data on any objective measures of the neighbourhoods in which those respondents resided (neighbourhood deprivation indices were available in the crime survey of England and Wales only). Second, small sample sizes at the neighbourhood level in surveys where more fine-scale information was available would have led to substantial uncertainty in any findings. Instead, the neighbourhood effects on insecurity were conceptualised via measures of crime in the police recorded crime data, which were available for four of the five cities considered in the project (with the exception being Milan).

An analysis of police recorded crime data at the neighbourhood level in Barcelona is presented in deliverable 3.2. A significant relationship between land use and neighbourhood robbery rates is found, with more robberies expected around tourist and office areas and fewer robberies in areas dominated by housing. To control for spatial autocorrelation and the influence of extraneous spatially heterogeneous variables, the relationships were tested using geographically weighted regression. This revealed relationships, such as those between robbery and land use, vary spatially, rather than being consistent globally (i.e., the relationship between robbery and land use was stronger in some areas of Barcelona than in others). This means we may also expect the relationship between individual characteristics and perceptions of insecurity to also vary

geographically between neighbourhoods rather than the relationship being of the same strength in all areas across a city.

The analysis presented in deliverable 3.2 also highlights the difficulty in obtaining consistent data sources for analysing neighbourhood effects on perceptions of insecurity. It is important for the future work packages of the MARGIN project that neighbourhoods with distinguishing characteristics relevant to insecurity are identified for future survey and focus group administration. Available data that could be used for such purposes in Barcelona and London were found to differ quite substantially. Deliverable 3.3 elaborates on this and explains how the assessment of likely neighbourhood effects on insecurity in the study regions were largely determined by the availability of particular variables in each city. Table 1 shows how neighbourhood effects in each city were measured for the selection of neighbourhoods.

	Neighbourhood effects
Barcelona	Household income index
Budapest	Property prices
London	Index of Multiple Deprivation
Paris	Poverty rate
Milan	Building disadvantage

Table 1: Variables used and described in deliverable 3.3 for the selection of two neighbourhoods in each of the five cities in the study region.

In summary, neighbourhood effects were difficult to quantify in the analysis stage of the MARGIN project due to a lack of available data on insecurity at the neighbourhood level. Nevertheless, a number of variables were identified in each city—albeit at different geographic resolutions—in an effort to capture such effects during the selection of neighbourhoods for the subsequent research of the project. These variables and their justification for capturing neighbourhood effects are described in more detail in deliverable 3.3. In assessing their relevance to future pursuits, inferences were made about the potential variation in insecurity in different neighbourhoods on the basis of other features of these places. An important question for the forthcoming qualitative research in the project is to understand more about *how* neighbourhood effects influence perceptions of insecurity, i.e. the causal mechanism(s) judged to link neighbourhood characteristics and perceptions of insecurity, and how these might differ by location.

3. Guidance for further research

In this section, we consider how the analysis in Work Package 3 can be used to guide the research to be conducted in the remainder of the MARGIN project. We begin by considering the limitations of the analysis discussed above (which is presented in more detail in deliverables 3.1-3.3). One of the most frequent challenges encountered during Work Package 3 was the lack of data available at appropriate resolutions to conduct the required analysis. In the victimisation surveys, there were two types of variables whose availability would have substantially improved the insights that could have been obtained. First, there was a lack of independent variables containing

information about the survey respondents, which were desirable in order to test a number of hypotheses concerning perceived insecurity. Second, there was a lack of consistency and comprehensiveness in the range of possible measures of perceived insecurity available in the surveys. In some surveys (notably in England and Wales and in Italy) a much broader range of questions were asked, which could be used to better capture different aspects of insecurity. In the sections that follow, we discuss these two types of variable in more detail, with a view to inform the development of the MARGIN survey.

3.1 Independent variables

The victimisation surveys analysed in this project contained a number of independent variables that were used to analyse associations between individual characteristics and perceived insecurity. Of the sometimes long list of possible variables contained in the surveys, only six were consistently asked in each of the five surveys. These were gender, age, employment status, whether the respondent is a student, whether they were born outside the country in which the survey was conducted, and whether or not they had a degree.

Even within these six variables, there may be subtle cross-country differences in the way that they are measured which may lead to complications when comparing findings across countries. For instance, definitions of unemployment will vary across countries, depending on the type of work which is being referred to (e.g. full time/part time), how long the respondent has been unemployed, and whether they are receiving any financial support from the government. International definitions of unemployment have been proposed previously (e.g. by the International Labour Organisation and by Eurostat) and may be utilised in the future research of the MARGIN project.

Similar definitional issues also arise in the case of being born outside the country. In the analysis presented, this variable was operationalised using slightly different questions. In Italy, for instance, this variable is operationalised by considering a question concerning the citizenship of the respondent. In Hungary, however, the same variable is obtained by considering a question on the country of birth, since questions regarding citizenship are not available. In the survey of England and Wales, questions regarding both nationality and the country of birth of the respondent are asked. To understand the effect that these different questions might have had, both of these variables were tested in the models presented in deliverable 3.2. There was little difference to the results. Nevertheless, these definitional differences should be borne in mind. In terms of considering the causal effect of being born outside of the county on the subsequent level of perceived insecurity, there are other variables that are likely to be of equal importance and which were largely not included in the victimisation surveys. For instance, an important variable is the length of time the respondent has lived in the country, or whether their parents were also born outside the country. Some of these variables, however, may be too sensitive (or even illegal) to collect in such surveys.

As a measure of educational attainment, whether or not the respondent has a university degree was chosen as a measure that was fairly consistent across the countries considered. Other educational attainment variables might also be considered, provided that they can be consistently defined across the five countries. Since obtaining a degree is only achieved by a relatively small proportion of some populations, a measure of low educational attainment might additionally capture some important variation in feelings of insecurity. Such a variable could be defined by asking if the respondent had achieved a minimum level of education by a certain age, which would enable cross-country comparison.

The marital status of survey respondents was asked in all but the survey of Catalonia. However, many of these questions had different response options, making comparison and variable construction difficult. Furthermore, aggregations of possible responses can be problematic as they might lose details which can have different influences on the dependent variable. For instance, when a respondent is characterised as "married", it is important to determine whether they are separated or living alone since this may influence perceptions of insecurity. One solution to this issue is used by the French survey which first asks the respondent if they are legally married and then asks a follow-up question to determine whether he or she lives with their spouse.

In the majority of the surveys analysed, questions concerning household composition were not detailed enough to fully capture how these immediate environmental effects influence perceptions of insecurity. For the most part, questions concerning household characteristics were primarily focused on the size of the household as opposed to the more detailed structure of the household. Questions such as the number of adults employed in the household or the number of dependents can generate more precise insights into the characteristics of households and their resulting impact on perceptions of insecurity.

Self-reported health status was a significant variable indicating all forms of insecurity in the analysis of deliverable 3.2, agreeing with recent research on health-related issues and fear of crime (Jackson and Stafford, 2009). Perceptions of health were only asked in two of the five surveys analysed (England and Wales and France). Given the apparent importance of this variable, and the potential for positive feedback between feelings of insecurity and mental and physical health, it is important to capture some indication of the health of respondents in crime victimisation surveys. There are practical considerations to doing so, however, with definitional and sensitivity issues posing problems for objective measures of health. Self-reporting of the general health status of respondents, as is done in England and Wales, seems a promising approach. Other proxy measures for the health of respondents might also be considered, such as mobility or the temperature of the home. It should also be recognised that self-assessments of health are prone to error or distortion. There are certain circumstances in which survey respondents may opt to feign illness, such as to justify unemployment. Despite this possibility, for diabetes at least, previous research suggests relatively high levels of concordance between self-assessments and official reports (Kriegsman, Penninx, van Eijk, Boeke and Deeg, 1996).

Although victimisation was shown to be consistently positively associated with heightened feelings of insecurity at the individual level, there is more information that could have been collected to better understand the mechanisms linking these two concepts, such as more historical victimisation experiences both towards the respondent and their family. Information on the concentration of victimisation would also be useful. Repeat or chronic victims, both of whom have experienced multiple crimes, are an important sub-category of respondents, likely to display strong emotions concerning security. Anti-social behaviour also tends to be neglected in such questionnaires, which is problematic as research has suggested that the link between signs of disorder and fear of crime is not only strong, but is likely to affect larger proportions of the population than crime alone (Innes, 2004).

3.2 Dependent variables: measuring 'insecurity'
In order to examine factors that have a likely impact on levels of insecurity it is essential that a quantifiable, reliable and comparable measure of insecurity is identified, otherwise any research using this concept will be subject to measurement bias and therefore have a low level of validity. Previous research has identified a number of facets to fear of crime and there are disputes as to how best to measure it (Hale, 1996). In our analysis, whilst wanting a measure that accurately captured such fear, the choice of measure was also made to ensure consistency in the survey questions. All surveys asked questions concerning feelings of neighbourhood safety and trust in police performance. For this reason, our analysis initially focused on these areas.

However, in some of the surveys, a much broader range of questions were also asked, some of which, it has been argued previously, capture different aspects of fear of crime or feelings of insecurity. We also performed analyses of these questions, even though some of them were not available in all five surveys, in order to provide a comprehensive assessment in countries where such analysis was possible and in order to check the consistency and robustness of our conclusions.

If identical questions were asked across the five countries, then it would have been possible to undertake a multi-level analysis, in which country-level effects were estimated alongside individual-level effects (see, for instance, Visser et al., 2013 and Hummelsheim et al., 2011, who both analyse the results of the European Social Survey).

Although a lot of progress has been made with regard to measuring insecurity, such as by asking questions relating to frequency of fear of crime feelings, it is important to retain consistency with measures that have been used previously in the same study area. In this way, measures of insecurity can be considered over time. Because of this, many proposed measures may face difficulty in being introduced to crime surveys. In some cases, such as in the survey of England and Wales, a number of questions relating to different notions of insecurity are included in the surveys, which may be the best approach.

Other questions that might be considered with further analysis across countries include whether the risk of victimisation is improving or declining, whether the fear of crime or feelings of insecurity actually influence the behaviour of the respondent, and what changes, if any, victimisation brought about in the routine activities of victims (e.g. through physical security features). Furthermore, many existing surveys ask questions concerning crime in a broad sense, as opposed to asking questions specifically about certain types of crime. As alluded to in section 2.2, certain crime types, most notably sex crimes, are thought to be more fear inducing and have a spillover effect to fear more generally. Moreover, from a prevention/mediation perspective, knowledge on the specific crime types that are associated with greater levels of insecurity can usefully inform attempts to reduce excessive fear.

4. What is missing?
In this final section, we consider a number of possible avenues and theoretical perspectives for further research, each of which is considered an important factor in influencing feelings of insecurity. In what follows, we briefly outline each perspective and explain its relevance to the MARGIN project.

4.1 The situational perspective
A number of recent studies have argued that fear of crime—and, by extension, feelings of insecurity—is a dynamic phenomenon, being influenced by particular locations, times and activities (Solymosi et al 2015). A criticism of existing surveys is that they only capture static feelings of insecurity (Gray et al., 2008). Some survey questions attempt to capture the routine activities and lifestyles of respondents. For example, in the surveys of England and Wales and Italy, the respondent is asked about the frequency with which they go out and the types of activities that they engage in. It would seem that such factors are important: recent research has demonstrated the value of understanding the variation in the activities and exposure of individuals in terms of both their risk of victimisation (Bernasco et al., 2013; Lemieux and Felson, 2012) and their fear of crime (Doran and Burgess, 2012).

More directly aimed at understanding the situational causes of the fear of crime are questions that ask specifically about the situation when the respondent felt insecure. Within the framework of existing surveys, however, it is difficult to fully capture the coincidence of the activities of the respondent with their fear of crime. Data collection methods including activity diaries and

mobile phone applications have attempted to capture these aspects to better understand the micro-level variation in feelings of insecurity (Solymosi et al,. 2015; Doran and Burgess, 2012).

Importantly, the situational perspective often enables a direct link between times and places where victimisation and feelings of insecurity are more likely to occur, and to potential policies that might help reduce this risk. Environmental design interventions such as improved street lighting is one way of reducing fear of crime in certain areas (Painter, 1996; Cozens et al., 2003). The situational perspective also allows for the variation over time and place in individuals' feelings of fear, which helps to distinguish between general background levels of anxiety or fear and fear of crime 'events' as situated in daily activities (Solymosi et al 2015).

A further element for future consideration lies with the meaning of the word 'neighbourhood'. This term is much debated in the crime literature and is often used in a vague sense. Individuals have many different ideas of what constitutes their neighbourhood and will feel very different in places that they are more and less familiar with. In the absence of methods that can track physical locations, careful wording and definition of factors relating to place is likely to help advance understanding.

4.2 Social networks

Social networks play an important role in people's beliefs and feelings of insecurity. The indirect victimisation hypothesis suggests that feelings of insecurity can increase when close friends and family members experience victimisation. Conversely, some studies have demonstrated that social networks and informal social ties can have a positive effect on the fear of crime, particularly in marginalised communities (Ross and Jang, 2000). Other than household characteristics, existing surveys do not capture the influences that social networks can have on fear of crime. Such questions might take the form of asking whether any of the respondent's friends or family have been the victim of crime in the past 12 months.

The nature and diversity of social relations are worth considering in relation to feelings of insecurity. Roché (1993), for example, distinguishes between two types of social networks: uniplex and multiplex. Respondents with uniplex networks tend to know a lot of people, but these people all have different social roles (e.g. knowing a person who is a work colleague, another one who is a friend, and another one who is a family member). On the contrary, respondents with multiplex networks tend to know less people but these people have several social roles (e.g. knowing only one person who is a colleague, friend and family member at the same time). Roché suggests that the perceptions of insecurity, notably in urban settings, change depending on the nature of the social network[5].

4.3 Cross-national cultural differences

An interesting opportunity that the MARGIN project offers is the potential to assess how different country contexts affect people's assessment of their risks or their likeliness to become anxious about victimisation. As demonstrated above, it is clear that when people move country they are not necessarily going to experience security issues in the same way as those born there. If these variations remain after controlling for other influencing factors, then it is reasonable to assume that there are potentially cultural differences between countries in terms of what is and isn't a concern and what is and isn't acceptable. Exploring how people value both their objective safety and their perceptions of it in relation to other aspects of their wellbeing and quality of life, and how this varies across countries is a possible avenue for research.

4.4 Cybercrime and perceived insecurity

[5] Thanks to Hugo d'Arbois de Jubainville for articulating this point.

Cybercrime is an emerging crime type whose relationship with fear and insecurity has to date been understudied. Recently, questions relating to cybercrime were trialled in the Crime Survey of England and Wales and recommendations were made for their future inclusion in the survey to better represent this type of victimisation. The MARGIN project might consider the effects of such victimisation in relation to perceived insecurity. This is an important question because it is not clear that many of our existing theories regarding fear of crime—such as vulnerability or neighbourhood effects—also hold in the context of cyber-victimisation. Furthermore, very little research has been conducted on the influence of marginalised communities on the relationship between cybercrime and perceived insecurity. In conducting any research on cybercrime, it is important to be clear about the different definitions of offences that might be included since there are a wide variety of potential crimes that might be included.

5. Conclusion

The research in Work Package 3 has identified a number of indicators of insecurity but has also highlighted a number of limitations, particularly with regards to measures of insecurity and independent variables which are hypothesised by the literature to play an important role. We have given an overview of the indicators identified and have proposed a number of additional variables that might be collected to better understand what influences insecurity at the individual, neighbourhood and country levels. The next step of the MARGIN project is to develop a victimisation survey to be administered in the five study regions. Unfortunately, as with any survey, there will be a limit to the number of questions that can be asked of respondents. What is required then, is to distill different measures and factors associated with insecurity into a small number of questions. It is important to retain some consistency with previous surveys, in order to enable some form of comparison, but also to ensure that factors influencing feelings of insecurity, as well as appropriate measures of that insecurity in marginalised communities, are fully captured.

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