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FEAR OF CRIME: METHODOLOGICAL CONSIDERATIONS AND RESULTS FROM A BIANNUAL SURVEY IN THE CITY OF OPORTO

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Abstract

This article presents the main results of a biannual inquiry on fear of crime in the city of Oporto (Portugal). Given the ongoing controversy on fear of crime measurement, we developed an instrument that: (a) differentiates between fear, risk and perceived seriousness of crime, (b) includes multiple levels of measurement, both general and specific, and (c) provides multiple measures of fear. Data were also collected on contextual clues that increase judgments of risk, defensive measures adopted by subjects and fear narratives. This instrument was first applied in 1997, to a sample of 467 subjects and again in 1999, to a sample of 500 subjects. Both studies evidence a high level of fear from crime in the population of Oporto, accompanied by a global perception of raising crime rates. Consistent with these high fear results, subjects resort to several defensive measures, mostly of an avoiding nature. Women and lower class subjects tend to report higher fear levels. Despite these global findings, fear levels (both general and between age groups) vary substantially according to the different measures used, providing a more complex analysis of the pattern of results usually found in fear of crime research.

Keywords: crime, fear, measurement, narratives, Portugal

Resumen

Este trabajo presenta los resultados más sobresalientes de una encuesta bianual de miedo al crimen en Oporto (Portugal). Dada la controversia en torno a la medida del medio al crimen, hemos desarrollado un instrumento que: (a) diferencia entre el miedo, la percepción de riesgo y gravedad del delito, (b) incluye múltiples niveles de medida, tanto generales como específicos, y (c) proporciona múltiples medidas de miedo. Los datos fueron recogidos en contextos que incrementan los juicios de riesgo, las medidas defensivas adoptadas por los sujetos y las narrativas de miedo. Este instrumento se aplicó por primera vez en 1997, a una muestra de 467 sujetos, y de nuevo en 1999, a una muestra de 500 sujetos. En ambos estudios se evidencia un alto nivel de miedo a la victimización de un crimen en la población de Oporto, acompañado por una percepción global de incremento de las tasas de delincuencia. En línea con estos resultados de miedo elevado, los sujetos recurren a diferentes estrategias defensivas, principalmente de naturaleza evitativa. Las mujeres y los sujetos de clases inferiores tienden a informar de niveles más altos de miedo. A pesar de estos hallazgos, los niveles de miedo (tanto general como entre los grupos de edad) varían sustancialmente en función de las diferentes medidas utilizadas, proporcionando un análisis más complejo del patrón de los resultados que el informado en la investigación del miedo a la victimización de un crimen.

Palabras clave: crimen, miedo, medida, narrativas, Portugal.
Introduction

Fear of crime has become the object of a growing social and political concern. This social relevance has been accompanied by a considerable scientific interest, transforming fear of crime in one of the most researched themes within criminology (Farral, Bannister, Ditton, & Gilchrist, 1997; Pantazis, 2000).

Although this line of research has repeatedly established fear of crime as a significant social problem (Gabriel & Greve, 2003), its focus has changed over time, and several concerns over the way fear of crime is conceptualized and measured have been raised (Walklate & Mythen, 2008). This paper will try to address some of the problems of fear of crime research and measurement, and examine them through a two-wave survey on fear of crime conducted in the city of Oporto (Portugal).

One of the most common findings of fear of crime research, together with the identification of high fear levels, is the discrepancy between fear and risk. In fact, much more people worry about being victimized than those that in fact become so (Chadee, Austen, & Ditton, 2007) and, as a result, fear levels are frequently described as “irrational” or “paradoxical” (e.g., Haghigi & Sorensen, 1996).

This discrepancy is not only found when comparing fear levels to objective victimization; it also verifies between fear and subjective perceptions of risk. This has been noticed from the very beginning of fear of crime research (Furstenberg, 1971) and frequently repeated in subsequent studies. According to Chadee, Austen & Ditton (2007), in the twenty studies that explicitly addressed this relationship, correlations varied among .09 to .76, depending on the measures used. This result has lead these authors to conclude that fear and risk are two related but independent concepts, while others tried to formulate theoretical models that establish the relationship between these
variables. The most well-known is probably the distinction between an affective and a cognitive component of fear (Ferraro & LaGrange, 1987). Other authors have proposed different conceptual relationships: for instance Warr (1995) considers that fear is an emotional reaction that results from the intersection of risk perception and the level of seriousness attributed to crime and Madriz (1997) accepts the emotional/cognitive distinction but adds a third dimension: the behavioral expression of fear, traduced by self-protection behaviors.

This brief exposure clearly shows the lack on consensus regarding the definition of fear of crime and its relationship with other concepts, such as risk, perception of crime seriousness and self-protective behaviors. This confusion is frequently translated in the measures used in order to evaluate fear. In fact, most studies do not address this multiple dimensions and proceed to measure fear relying in single item general questions (the most common being “how safe would you feel walking alone after night in your neighborhood?”). Others, while trying to assess some of these dimensions, frequently confound them (see for a review Chadee, Austen, & Ditton, 2007).

Concerns over definition and measurement remain present when we analyse the literature about the socio-demographic correlates of fear. This line of research has come to a set of relatively uncontested results, such as the higher fear felt by urban residents, women, ethnic minorities, and subjects living in economically deprived and degraded neighborhoods.

These results rise, once again, interesting questions in what concerns the more or less “realistic” character of fear of crime. In fact, while the higher fear of urban, deprived, minority subjects can be attributed to their higher degree of criminal victimization (Haghighi & Sorensen, 1996; Mawby & Walklate, 1994), women’s fear can not be explained that easily, since their official victimization levels are significant
lesser than men’s. Several hypothesis have been advanced to explain this “fear-risk paradox” (Thompson & Norris, 1992): the higher perceived vulnerability of women, both physical and social (Keane, 1992), women’s lower levels of perceived competency and perception of control over the environment (Braus, 1994; Vittelli & Endler, 1993), and women’s fear of sexual assault (Miethe, 1995). More recently, feminist research has discussed the way in which hidden domestic and sexual violence may be contributing to women’s fear and has also highlighted the way in which fear of crime may well express more than fear of “crime” in itself, in fact tapping more global perceptions of insecurity, lack of control and vulnerability. Some authors have also interpreted the higher fear of deprived, minority subjects in this sense (e.g., Keane, 1992).

The relationship between other variables and fear is more disputable and it seems to be highly dependent on the measures used by researchers – that is the case of victimization and, most particularly, of age. In fact, several authors (e.g., Ferraro & LaGrange, 1992; Keane, 1992; Rountree & Land, 1996) have stressed that common measures of fear used in survey methodology may well be responsible for the higher reported fear of older subjects, once again frequently labeled as “irrational”. The common reliance on single item fear measures that may, as said before, reflect more that fear of crime itself, or the use of questions that refer to activities that are quite unusual for women and older citizens (e.g., “walking alone in the neighborhood after dark”) are some of the aspects frequently criticized by these authors. Ferraro & LaGrange (1992) and, more recently, Chadee & Ditton (2003), have stressed that when multiple measures of fear are introduced (e.g., the distinction between general and specific levels of fear) and fear is distinguished from risk, results do not support the idea that fear linearly increases with age.
Other important methodological critiques made to fear of crime research as a whole address the fact that fear is not a static concept, varying with time and place (Farral et al., 1997). The role of contextual clues that induce fear, especially environmental and behavioral signs of disorder and lack of social control (incivilities), has been the object of extensive criminological research and debate (e.g., Taylor & Covington, 1993), but fear of crime measurement has rarely tried to integrate these contributions.

Finally some authors (e.g., Farral et al., 1997) consider that the sole reliance on closed questions does not provide enough information to understand the narrative context in which people formulate their fear of crime judgments.

Given these results and criticisms, our research project had two main objectives. The first one was to assess fear of crime levels in the second most important Portuguese city (Oporto), knowing which segments of society are more affected by it (allowing us to trace relations between our findings and international research). The second one was to develop a research measure that overcame some of the problems pointed out by studies such as the mentioned above.

The data presented in this paper are part of a research project on the subjective experience of crime and fear in the city of Oporto, Portugal¹. Two administrations of an inquiry on fear of crime have been conducted and this paper will present their main results.

¹ This project was one of the lines of study that the city’s Permanent Observatory of Safety has developed, together with other domains of research (e.g., victimization inquiries, delinquency self-report studies). The extinction of the Observatory lead to the interruption of the project and explains the fact that the results obtained have not been published until now.
STUDY I: 1997 SURVEY

Method

Sample

The sample was selected through an extension of the cluster sampling method. First, a list of the city blocks was obtained from the City Hall and then we randomly selected 15 of them. In each block, all housing units were integrated into the sample. In each house, only one member answered the questionnaire (the last one to have celebrated a birthday, in order to assure randomness).

Data were collected between April and August of 1997, by a team of ten psychologists. They were trained comprehensively in the sampling requirements and in the administration of the instruments used in the study. Each subject was personally contacted at their house, by a researcher and invited to participate in the study. No economic compensation was provided, and the participants were guaranteed full confidentiality. The questionnaires were completed by the participant or by the researcher, if the individual claimed reading or comprehension difficulties.

The final sample was composed by 467 subjects, 37.5% male and 62.5% female, aged between 16 and 92 years old, with a mean age of 40.0 (SD=17.14). The participants’ social status was distributed as follows: higher class 8.6%; middle-high 18.6%; middle-class 18.3%; middle-low 20.2%; lower class 34.3%. 26.7% of the sample participants reported to have been victims of some type of crime. Criminality experienced by the sample was mostly property crime (82.3%).

Instruments
Given the methodological criticism pointed out above, our quantitative research instrument was developed both through the analysis of the questions usually asked in fear of crime research and through a preliminary study conducted with 74 subjects (convenience sample). Through qualitative interviews, we explored the main categories of meaning associated with crime and fear and we developed the first version of the questionnaire, used in the 1997 survey.

This questionnaire was composed both by closed and open questions. Closed questions measured:

a) Perception of crime rate variation during the last year, both in the city of Oporto and in Portugal (response option were “has diminished”, “has grown” or “has remained constant”).

b) General fear level (6 point Likert scale, 1 corresponding to “not fearful at all” and 6 to “extremely fearful”).

c) Crimes more or less feared – participants had to choose the three crimes they feared most and the three they feared less (the options were: theft, assault, drug abuse, rape, homicide, fraud and burglary).

d) Contextualization of fear - participants were asked to say which was the day of the week the most feared in Oporto (alternatives were: weekends, monday to friday, every day, or no special day) and what was the time of the day they most feared (morning, afternoon, night, every time, no special hour). An open question was also included in this section, asking what were the places in the city subjects feared most and if they have ever gone to those places.

e) Self-protection behaviors - participants had to reply if, due to crime, they engaged or not in each one of the following behaviors: to acquire or to carry a personal defense object or weapon, being alert while outdoors, to avoid going out alone, to avoid
dangerous areas, to install security locks in the house or the car, not talking to strangers, not carrying to much money or valuable objects, to keep someone’s contact easily accessible, carefully locking doors and windows.

Open questions included:

a) A question on fear narratives (inviting subjects to describe their most feared situation in relation to crime).

b) Questions about the perceived causes of crime (“In your opinion, what is/are the reason(s) why crime exists?”).

c) Questions about tolerance towards crime (“From all the crimes you know, is there any that can be, in some circumstances, justifiable? Which one? In which circumstances?”).

Questions were also asked about a set of socio-demographic variables, such as age, gender, education, profession, and victimization during the last year.

Data analyses

All quantitative analyses were conducted using SPSS for Windows. Firstly, we concentrated on the descriptive data for each of the questionnaire topics presented above. Secondly, we investigated its socio-demographic correlates. Gender differences were analyzed through Mann-Whitney tests (general fear), qui-square tests (perception of crime rate variation; crimes more and less feared) and t tests (number of defensive strategies used). The same tests were used to investigate the relationship between these variables and personal victimization.

The relation between age and general fear was analyzed through a Spearman correlation, and a Pearson correlation was used to investigate its’ association with the number of defensive strategies. Differences between social strata were checked by
Kruskal—Wallis (general fear level), chi-square tests (perception of crime rate variations), and ANOVA (defensive strategies).

Open answers were subjected to a categorical content analysis (Bardin, 1977) by two independent raters, reaching an index of fidelity of 0.80, which is considered a substantial level of agreement.

Results

Descriptive results

Perception of crime rates

Most subjects thought crime in the city had been growing (61.9%), although not so many as those that believed that that had been happening in the rest of the country (82.2%). The rest of the sample mostly believed that crime levels remain identical (27.8% Oporto, 12.8% Portugal), only a minority (6.6% Oporto, 2.1% Portugal) saying that crime had decreased.

Fear levels

63.2% of the subjects reported a high level of general fear (4 to 6 in a 6 point Likert scale), with 20.6% positioned in the higher level of the scale. Only 11.1% say that they are “not fearful at all” (1 in the 6 point Likert scale).

Violent crimes were the most feared, with homicide, rape and assault being mentioned as the crimes subjects were more concerned about, respectively by 67.5%, 58.7% and 43.7% of the sample. The crime less feared is fraud (chosen by 37.7% of the subjects).
**Contextual clues to fear**

Most subjects (50.7%) say they are fearful every day of the week. When subjects establish differentiations, weekends (27.6%) tend to be more feared than workdays (11.3%). Subjects also report more fear of the night period (69.4%), although some of the participants say they feel fearful every time (21.6%).

Fear was associated with specific areas of the city, namely the historic neighborhoods and areas of economic housing. We must signal that a significant portion of subjects that feared these places (21%) had never gone there. Content analysis of what people said about these places makes us believe that fear is fed by a set of social discourses that connect danger with deprived areas of the city, through representations of their inhabitants (e.g., “poor people”, “ethnic minorities”), behaviors (e.g., “drug consumption and traffic”) and spatial characteristics (e.g., “closure”, “darkness”).

**Defensive strategies**

Most subjects (93.4%) report the use of several strategies to prevent crime. The most common are carefully locking doors and windows (84.6%), being alert while outdoors (82.7%), not carrying to much money or valuable objects (63.4%), and avoiding dangerous places (76.2%). Used by almost half of the sample are measures like: not talking to strangers (48.6%), not going out alone (41.3%), and installing safety locks (44.8%). 9.2% of the subjects carry with them defensive objects or weapons.

**Fear narratives**

The most common theme referred in these narratives was violent victimization, perpetrated by a young male stranger, usually described as a drug addict. Sceneries of
imagined crime usually involved public spaces, isolated and dark. Sometimes narratives of fear place crime indoors, but domestic violence was only mentioned by one woman. When house is the setting of crime the reference is always to offences perpetrated by a stranger that invades the place.

**Causal attributions to crime and tolerance towards criminal acts**

Most subjects (51.2%) perceived drug addiction as the main cause of crime. This can be pointed out as an isolated cause or as something that is associated with other problems (economic deprivation) that may conduce to crime.

Most subjects didn’t find this kind of criminality easily excusable. Although 60% of the participants said they would forgive crime under some circumstances, they reserved their sympathy to theft due to extreme poverty (19.5%) or to crimes committed in self-defense (12.4%).

**Socio-demographic correlates of fear**

**Gender**

Women scored higher in all fear measures: they rate higher on the general measure of fear (U=15962.0; p<.001), they tend to think more that crime is growing in the city ($\chi^2=12.977$; p<.01) and they use more defensive strategies ($t=-2.057$; p<.05). We also found significant differences in what concerns the type of crimes most feared: women present a higher tendency to say rape is the crime they fear most ($\chi^2=13.948$; p<.001), while men ascribe that position to robbery ($\chi^2=5.839$; p<.05). Men select more frequently assault as the crime they fear less ($\chi^2=4.884$; p<.05).
Socio-economic status

Socio-economic status was also related to fear, more affluent subjects being less generally fearful (k-w=22.650; p<.001). Other variables, such as perception of crime rates in Oporto ($\chi^2= 4.010; p=.856$) and number of defensive strategies ($F=.553; p=.697$) don’t discriminate subjects’ socio-economic level.

Age

Although fear is positively correlated with age ($\rho=.116; p<.05$), it must be emphasized the low variance explained by this correlation. Subjects’ age was not correlated to the number of defensive strategies used ($r=.033; p=.478$).

Victimization

There are no differences between self-reported victims and non-victims in what concerns fear levels ($U=20711.0; p=.844$), perceived fluctuations of crime in Oporto ($\chi^2=4.514; p=.105$) or number of reported defensive strategies ($t=-1.274; p=.203$).

STUDY II: 1999 SURVEY

Method

Sample

The sample was selected through the same methodology as described before. In an effort to widen the sample, we randomly selected 33 blocks from the list provided by the City Hall. In each block, all housings were integrated in the sample and only one
house member answered the questionnaire. Data were collected between June and October of 1999.

The final sample was composed by 500 subjects, 32.8% male and 67.2% female, aged between 16 and 91 years old, with a mean age of 48.2 (SD=19.00). The participants’ social status was distributed as follows: higher class 3.4%; middle-high 13.8%; middle-class 24.8%; middle-low 33%; lower class 25%. 38.2% of the sample participants reported to have been victims of some type of crime. Criminality experienced by the sample was mostly property crime (85.9%).

Instruments

In the 1999 survey a modified version of the previous questionnaire was used. Some of the questions used in the 1997 inquiry were deleted and some were refined, in order to overcome problems identified in the previous questionnaire. Measurement suggestions produced by the growing fear of crime literature, some of them described in the introduction of this paper, were also considered in order to reach a final version of the instrument that obeys to a set of standards:

a) Differentiation between fear, risk and perceived seriousness of crime.

b) Inclusion of multiple levels of measurement of these three dimensions. For each one, we formulated questions focused on: (i) crime in general, (ii) six specific crimes (homicide, rape, aggression, theft, burglary and theft from cars).

c) Inclusion of multiple measures of fear: (i) a global replication measure, using the same general question that was used in the 1997 study, (ii) the international “standard” global measure (“how safe would you feel walking alone, in the neighborhood, after dark?”), and (iii) the specific fear of the different six crimes considered.

The questionnaire, therefore, measured the following variables:
a) Perception of crime rate variation during the last year (response options were the same as in the 1997 survey).

b) General fear level, assessed through two questions: the same measure used in the 1997 survey and the measure most commonly used in international inquiries about fear of crime (“how safe would you feel walking alone in your neighborhood after dark?”), answered in a 4 point Likert scale: “very safe”, “reasonably safe”, “a bit unsafe” and “very unsafe”).

c) Specific fear levels – in a 6 point Likert scale participants were asked to rate how fearful they were concerning three property crimes (theft, burglary and theft of objects from the car) and three violent crimes (homicide, rape, assault).

d) Risk perceptions, both general (“how probable is it that you will be the victim of a crime during the next year?”, to be answered in a 6 point Likert scale) and specific (probability of being the victim of each of the 6 crimes mentioned in the previous paragraph during the next year, also to be answered in a 6 point Likert scale).

e) Perceived seriousness of crime (perceived seriousness of each one of the six crimes mentioned, measured in a 6 point Likert scale). Mean global perceived seriousness of crime was also computed.

f) Contextualization of fear (measured in the same way as in the 1997 survey).

g) Defensive measures (also measured in the same way as in the 1997 survey).

The open question about fear narratives was maintained in the survey.

Statistical and qualitative analyses

All quantitative analyses were also conducted using SPSS for Windows. Firstly, we concentrated on the descriptive data for each of the questionnaire topics presented above. Secondly, we investigated its socio-demographic correlates, using the same type
of analysis previously described. Open answers were again subjected to a categorical content analysis (Bardin, 1977) by two independent raters, reaching an index of fidelity of 0.82.

Results

Results of this second inquiry replicated 1997 findings in several dimensions but they introduced a more detailed and systematic examination of different dimensions involved in fear judgments. They also allowed us to discriminate better the relationship between type of measures and results.

Descriptive results

Perception of crime rates

As it happened in the 1997 study, most subjects referred that they thought crime has been raising, more in the rest of the country (79.4%) than in their city (75.0%). The rest of the sample mostly believed that crime levels remain identical (18.8% Oporto, 15.8% Portugal), only a minority (5.4% Oporto, 3.8% Portugal) saying that crime had decreased.

General and specific fear levels

General fear levels in 1999 are also very similar to those previously found using the same question: 64.8% of the subjects reported a high level of fear (4 to 6 in a 6 point Likert scale), 20.4% saying that they are extremely fearful. Only 5.8% say that they are “not fearful at all”. Nonetheless, if we resort to the question most commonly used in this kind of survey (“how safe would you feel walking alone in your neighborhood after
numbers are quite lower: 19.6% report that they feel “very unsafe”, 22.2% “a bit unsafe”, 31.0% “fairly safe” and 26.6% “very safe”.

Assault is the most feared crime (64.1% report fear levels between 4 and 6 in a 6 point Likert scale), followed by homicide (62.2%), burglary (62%), theft (60.4%), rape (58.9%) and theft from cars (56.8%).

**General and specific risk perceptions**

52.2% of the subjects evaluate as high (4 to 6 in a 6 point Likert scale) their probability of being victimized during the following year.

Although both general fear levels and risk perceptions are quite high, we can observe a considerable difference between fear and risk if we take a look into perceptions of risk of the different crimes considered. While fear levels of different crimes are quite similar, risk perceptions seem to trace a clear distinction between violent and property offences. These last ones are clearly perceived as the most probable (theft – 66.8% report risk perceptions between 4 and 6 in the 6 point Likert scale; theft from cars – 60.7%; burglary – 50%), although we can still say that perceptions of risk from violent crimes are quite high (assault – 43%; homicide – 23.9%; rape – 23.2%).

**General and specific seriousness of crime**

Congruent with the high fear levels manifested by our sample, the mean level of seriousness attributed to different crimes is very high: 85% of the sample rates the mean seriousness of the different crimes considered above 4 in a 6 point Likert scale. Violent crimes occupy the top of the hierarchy: homicide is rated as serious (4 to 6 in a 6 point Likert scale) by 98.8% of the sample, rape by 97.2%, assault by 84.0%. Burglary is
perceived as the most serious property crime (79.8%), followed by theft (60.4%), and by theft of objects from the car (48.0%).

**Contextual clues to fear**

As it happened in the previous study, subjects describe fear levels intensifying during night periods (57.0%), although 30.2% say they feel fearful regardless of the hour. Weekends (15.0%) are more feared than working days (4.8%) but we should notice that most subjects (65.8%) say they are equally fearful, regardless of the day.

Feared places in the city are quite similar to those of the 1997 study, mostly historical neighborhoods and social housing quarters.

**Defensive strategies**

Most subjects (97.2%) resort to several situational prevention strategies, in the same order obtained by the 1997 study. The most common one is “carefully locking doors and windows” (89.6%) and the least common is to carry a defensive object or weapon (12.4%).

**Fear narratives**

Fear narratives did not reveal very different from those found in the 1997 study. They tend to refer to the perpetration of violent crimes by strangers that predate innocent victims in public places, mostly during night. The criminal is frequently described as a drug addict (37.5% of the narratives that include the description of the criminal), who acts pressured by his craving or under the influence of drugs.

A few number of subjects refer only to property offences (7.6%), but the association between property and violent crimes is quite frequent. The most common
one is between theft and assault (23.2%), but some subjects also consider that theft can lead to murder (14.4%). The idea of crime precipitation is also present when people refer to murder in the context of rape (6.4%).

**Relationship between fear, risk, seriousness of crime and self-protection behaviors**

The two general measures of crime used were significantly but moderately correlated ($\rho=.395; p<.001$). These two measures of fear were also moderately correlated with risk perceptions ($\rho=.355; p<.001$ and $\rho=.220; p<.001$, respectively), with perceived seriousness of crime ($\rho=.169; p<.001$ and $\rho=.218; p<.001$, respectively), and with self-protection behaviors ($\rho=.313; p<.001$ and $\rho=.201; p<.001$, respectively). Besides fear, risk perceptions were only correlated with self-protection behaviors ($\rho=.191; p<.001$). Perceived seriousness of crime was also very modestly correlated with self-defensive behaviors ($\rho=.094; p<.05$).

**Socio-demographic correlates of fear**

**Gender**

The strong association of female gender and fear persists, whatever measure is applied. Women score higher in the general fear measures, both the question used in the previous survey ($U=17251.0; p<.001$) and the question about walking alone in the neighborhood during the night ($U=19950.0; p<.001$). They also tend to think more that crime has been rising in the city ($\chi^2=13.112; p=.01$).

If we try to analyze fear in a more concrete level, we find that women are more fearful of all crimes, except theft from cars ($U=22370.5; p=.575$). Women are more
fearful of homicide ($U=17939.5; \ p<.001$), rape ($U=14087.0; \ p<.001$), assault ($U=19646.0; \ p<.001$), burglary ($U=19462.0; \ p<.001$), and theft ($U=19677.5; \ p<.001$).

Women also perceive as higher their general possibility of becoming crime victims ($U=23308.0; \ p<.05$), especially their risk of being stolen ($U=21556.5; \ p<.001$), burglarized ($U=22968.0; \ p<.01$) and raped ($U=21147.0; \ p<.001$). However, they are not different from men in their risk perceptions of homicide ($U=25039.5; \ p=.144$), assault ($U=25574.0; \ p=.288$) or car theft ($U=22391.0; \ p=.407$).

Finally, women generally evaluate crime as more serious ($U=20613.0; \ p<.001$), and use a higher number of defensive strategies ($t=-3.214; \ p<.01$).

**Socio-economic status**

If we use the same general question about fear used in the 1997 survey, as it happened then, lower status is connected with higher fear levels ($k-w=40.130; \ p<.001$). However, the question about fear of walking alone outside during the night does not differentiate among socio-economic groups ($k-w=7.353; \ p=.118$). It was not also found an association between socio-economic status and perception of crime rates in the city ($\chi^2=4.185; \ p=.840$).

If we analyze different crimes, lower class subjects report being significantly more afraid of homicide ($k-w=22.093; \ p<.001$), theft ($k-w=24.590; \ p<.001$), and assault ($k-w=10.286; \ p<.05$). No status differences were found regarding rape ($k-w=3.752; \ p=.441$), burglary ($k-w=5.031; \ p=.284$) and theft of objects from the car ($k-w=3.414; \ p=.491$).

The risk of being a victim is judged higher by lower class subjects ($k-w=17.466; \ p<.01$), namely the risk of being murdered ($k-w=21.638; \ p<.001$) or assaulted ($k-w=15.426; \ p<.01$). On the contrary, the risk of theft of objects from the car is perceived
as higher by more affluent subjects (k-w=22.780; p<.001). There are no class differences in risk perception regarding rape (k-w=5.454; p=.244), theft (k-w=5.888; p=.208) or burglary (k-w=4.461; p=.347).

Lower class subjects consider crime as generally more serious (k-w=11.288; p<.05) but no differences were found regarding the number of defensive strategies used (F=.988; p=.414).

**Age**

Age was positively correlated with the general fear level, such as measured in the previous survey (rhô=.252, p<.001), as well as with fear of walking alone outside during the night (rhô=.281, p<.001).

When we considered each one of the specific crimes included in our instrument, age was positively correlated with fear from theft (rhô=.185; p<0.001) and negatively correlated with fear of being raped (rhô=-.158; p<.001) or subjected to theft of objects from the car (rhô=-.125; p<0.01). No correlations were found between age and fear from homicide (rhô=.033; p=.458), assault (rhô=.005; p=.912) or burglary (rhô=.179; p=.498).

The general risk measure shows no correlation with age (rhô=.045; p=.324), although this relation appears on some of the specific risk measures. In fact, there is a positive correlation between age and risk perceptions regarding homicide (rhô=.120; p<.01), burglary (rhô=.158; p<.001) and theft (rhô=.119; p<.01) and a negative correlation between age and perceptions of risk from rape (rhô=-.162; p<.001) and theft of objects from the car (rhô=-.162; p<.001). No correlations were found between age and perception of risk from assault (rhô=-.004; p=.921).
Results in what concerns perceived seriousness of crime show a positive correlation with age ($\rho=.096; p<.05$), but age is not correlated with the number of defensive strategies used by our subjects ($r=.069; p=.127$).

**Victimization**

As it happened in the 1997 inquiry, victims and non-victims during the year previous to the study did not differentiate in any of the global fear measures we used, either the global estimate of fear ($U=29246.5; p=.913$) or fear of walking alone after dark ($U=26843.5; p=.122$). No differences between victims and non-victims were also found in any of the specific fear measures: homicide ($U=29350.5; p=.914$), rape ($U=28646.5; p=.683$), assault ($U=28975.5; p=.932$), theft ($U=28144.5; p<.376$), burglary ($U=29247.5; p=.865$) or theft of objects from the car ($U=23724.5; p=.394$).

In the same line, general risk perception ($U=26402.5; p=.183$) was not discriminative of victims and non-victims. The only differences found concerned theft ($U=25228.5; p<.01$), perceived as more likely by former victims. No differences were found regarding perception of risk from homicide ($U=28507.5; p=.632$), rape ($U=28587.0; p=.715$), assault ($U=27872.0; p=.377$), burglary ($U=26176.5; p=.054$) or theft of objects from the car ($U=24286.5; p=.589$).

General perceived seriousness of offences was also not discriminative of victims and non-victims ($U=27929.5; p=.700$), although victims do tend to adopt a higher number of defensive strategies than non-victims ($t=2.667; p<0.01$).

**Discussion**

Both studies evidence a high level of fear of crime in the population of Oporto, accompanied by a global perception of raising crime rates. These results are quite
similar to those that have been found in other European countries (Stangeland, 1997; Warr, 1995). It must be stressed, however, that in both studies subjects report a belief that crime is rising more in the rest of the country that in their own city, confirming Davidson’s (1981) remark that, for most persons, crime is still perceived as a non-local phenomenon.

The 1999 study also showed that this feeling is associated with a perception of criminal offences as being very serious, and with a global overestimation of risk. In fact, in spite the fact that people are aware that most probable crimes are property ones, risk perceptions - both for property and violent offenses - are quite far away from criminal reality in our country.

Consistent with these high fear results, subjects resort to several defensive measures, mostly of an avoiding nature. Smith, Steadman, Minton, & Towsend (1999) also reported avoidance (not going out alone, not going out at night, avoiding certain areas) as the most common measure adopted by fearful subjects. Several authors have emphasized that this kind of retreat from public life decreases the quality of life in urban areas (Lurigio, Skogan, & Davis, 1990) and makes public spaces even more dangerous. Others have stressed the economic, social and emotional costs of the efforts developed in order to avoid victimization and of the loss of freedom they imply (Dolan & Peasgood, 2007).

As literature on methodology would predict, we found a considerable variation in fear levels according to the different measures used. In fact, in the 1999 study, while the answer to the global fear question portrayed 64.8% of the subjects as fearful (20.4% as extremely fearful), the question about walking alone in the area of residence during the night shown that only 41.8% of the sample would feel unsafe in that specific circumstance. Our hypothesis is that, even tough both these measures address general
fear levels, the first one appeals to subjects’ global feelings of unsafety and vulnerability (Keane, 1992), while the second confronts them with a more specific situation. Some subjects may not find this so fearful, either because they evaluate their specific neighborhood environment as quite safe or because their way of life makes that kind of behavior quite common. In any case, these results reinforce the importance, pointed out by authors such as Ferraro & LaGrange (1992), of using more than a unique measure of fear.

We must, however, recognize that fear of crime seems to be high, whatever the specific offence considered. In fact, when we measured, as suggested by the same authors, fear from six different types of crimes, all of them were feared by most of the subjects. Differentiation does, however, re-emerge when we consider risk perceptions, property crimes being clearly perceived as more probable than violent offences.

Relating fear with risk, perceived seriousness of crime and defensive measures shown that these are related variables. However, the correlation coefficients are not large and common variance between fear and these other measures ranged from 2% to 13%. This may be taken, as some authors suggest (Chadee, Austen, & Ditton, 2007), as some evidence that these variables are substantially independent.

If we displace our attention from fear levels to fearful narratives, we can see that they are, in both studies, organized around the theme of violent victimization, committed by perpetrators that are unknown to the victims. This organization of different types of fear around the image of a predatory stranger has been noticed by several authors (e.g., Stanko, 1995), leading Pickering (1995, p. 16) to write about a “culturally obsessive” fear of random violence committed by strangers.

In public perceptions, these individuals are closely connected to drugs, drug addiction being understood as the main cause of crime and drug addicts as the most
common criminal actors. Historical quarters and economically deprived areas are represented as the places these agents inhabit or where they develop their criminal activities. Social-spatial stereotypes are, therefore, fed by fearful discourses, reproducing class differences by the cognitive mapping of risk (Caldeira, 1992).

These subjects are imagined as acting mainly during night periods and in public places. Both the stranger stereotype and this emphasis on the public dimension of crime lead us to conclude that popular narratives offer a quite conventional image of crime, describing fear as a matter of public safety and ignoring violence within the family.

In what concerns the research question of “who is most fearful of crime?” results confirm, in both studies, the strong association of fear and gender. Women are more fearful, perceive themselves as more probable victims, assess crime impact as more serious and use a higher number of defensive strategies than men. This seems to be so whatever the measure or level of fear we consider. This tendency remains the same concerning risk perceptions, even tough men and women do not differentiate in their estimate of probability of being killed, assaulted or subjected to car theft.

Taken together, these results confirm the tendency established by the literature in the field and further suggest that, as pointed out by Miethe (1995), gender differences maintain whatever the fear measures used. Our results do not, in this sense, support the hypothesis that women’s higher fear is mainly explained by fear of violence and, especially, by their fear of rape (LaGrange & Ferraro, 1989; Haghighi & Sorensen, 1996). Factors such as the perceived vulnerability of women, both physical and social (Keane, 1992), and lower levels of perceived control over the environment (Braus, 1994; Vittelli & Endler, 1993), associated to gender roles and expectatives, seem to be more able to explain this stable pattern of gender differentiation.
Considering the relationship between fear and socio-economic level, both studies seem to suggest that lower class subjects tend to be more fearful, although the pattern varies substantially across the different measures used. In fact, in both studies, lower class subjects tend to report higher general fear levels but this differentiation disappears when we resort to the question about fear of walking alone after night. Lower class subjects do, however, tend to represent their global risk as higher and to consider crime as more serious than more affluent participants. Differences of status are especially noticeable when we consider violent crimes such as homicide or assault, both more feared and perceived as more likely by lower class subjects. This result is congruent with the idea that risk is differentially distributed among social class, more deprived subjects being more in risk of violent victimization (Mawby & Walklate, 1994).

Taken together, our results concerning the relationship between social status and fear are compatible with the hypothesis that the higher fear of the more deprived is explained by a combination of both a global sense of social vulnerability (Keane, 1992) – translated into global fear levels and estimations of crime seriousness – and a realistic appraisal of the higher risks of violent victimization experienced by those subjects (Haghighi & Sorensen, 1996; Mawby & Walklate, 1994).

In what concerns age and fear, relationships seem to be even more complex and more dependent on the measures used. Both in the 1997 and in the 1999 study general measures tend to show a positive correlation between fear and age: that happened both in the general fear question as in the fear of walking alone after night item and in the perception of seriousness of crime mean rate. This tendency becomes, however, less clear when we resort to more specific measures of crime and risk perception. These show that, although older subjects do fear more (and perceive some crimes, such as
theft, as more likely), they in fact perceive other crimes (e.g., rape, theft of objects from the car) as both less probable and less fear inducing. These results corroborate, therefore, the idea expressed by several authors (Ferraro & LaGrange, 1992; Keane, 1992) that general measures produce higher fear results in older people but that age differences become less straightforward when more specific questions are considered. These results can be interpreted according to the idea (LaGrange & Ferraro, 1989; Red, 1988) that fear of older citizens can be overestimated by questions that refer to situations uncommon to that population (such as walking alone after dark) or that reflect their social vulnerability (the general fear question, the perception of crime seriousness mean rate). On the other hand, older subjects can be realistic when they consider less probable being victims of some specific crimes, such as rape or theft of objects from cars, since these forms of crime do, indeed, target more the young in our country (Gabinete de Estudos e Planeamento do Ministério da Justiça, 1997).

Finally, in what concerns victimization, our results are consistent with international studies that find few or no relations between exposure to crime and fear (e.g., Perkins & Taylor, 1996). The more detailed analysis allowed by the 1999 study leads us to consider that maybe victimization increases the need to protect oneself from crime (by the adoption of more defensive strategies) and it also influences the degree of consciousness of exposure to specific risks (theft). We base this hypothesis on the fact that victimized subjects were mainly subjected to property offences and that these are precisely the crimes they seem to be more risk–aware. As Hale (1996, p. 104) would say, “being criminally victimized may make one more wary and more cautious, but whether it makes one more fearful is still an open question”.

Globally, we believe that these results bring three main contributions to fear of crime research. First, they represent an effort to develop an incipient field of research in
Portugal, presenting data collected with meaningful samples and from two different time periods. Although fear of crime is, for the last decades, a well established area of study within criminology, it has clearly been dominated by American and (to a lesser extent) British researchers, whose results, however important, should not be confounded with the reality of countries with different cultural backgrounds, such as Southern European countries.

Second, this research allowed the development of an instrument that we find quite promising and that considers both the suggestions advanced by the literature as well as the results from the 1977 inquiry. This is an instrument that integrates both general and specific fear measures and that also evaluates risk perception and seriousness of crime perception. The inclusion of these multiple measures was clearly shown as relevant by our results concerning status and age differences. The fact that women, lower class subjects and older subjects scored higher in most global fear measures but that some of these differences disappear or even invert when specific crimes were considered suggests, in our opinion, that global measures are strongly influenced by subjects sense of social vulnerability, while specific measures are more focused and sometimes more realistic appraisals of their situation in relation to crime.

Third, this study shows that fear of crime is a significant social problem in Portugal, one that is fed by an imaginary of violent victimization by drug addicted strangers, from the poor quarters of the city. Being fear, in itself, a phenomenon that impacts severely on the quality of life of people (Lurigio, Skogan, & Davis, 1990), it also brings the problem, evidenced by our results, of feeding negative social-spatial stereotypes and feelings of resentment towards those perceived as potential threats (the poor, the emigrant). The dramatic effects of these representations of danger are have been widely demonstrated by recent international ethnic and social conflicts. At the same time, other
crimes (e.g., domestic violence, child abuse) that have been the object of systematic
campaigns and public efforts in the last years, both in Portugal as in Spain, seem to keep
on not being represented as “crimes”. We would, therefore, suggest that both the
reduction of fear levels and a more accurate representation of crime and its risks
constitute relevant objectives for intervention in this field.

Notes
1 This validity index was calculated using the formula suggested by Vala (1986), \( F = \frac{2 (C1, 2)}{C1 + C2} \),
dividing the number of agreements among encoders for the sum of categorizations made by each one.

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CONTENTS

Articles

Adolescent violence against parents. Is it a consequence of gender inequality?
Izaskun Ibabe, Joana Jaureguiza and Óscar Díaz 3

Perceived neighborhood social disorder and attitudes toward domestic violence against women among Latin-American immigrants
Enrique Gracia, Juan Herrero, Marisol Lila and Asur Fuente 25

Aggressive symbolic model identification in 13 year-old youths
Miguel Clemente, Pablo Espinosa and Miguel Ángel Vidal 45

Fear of crime: Methodological considerations and results from a biannual survey in the city of Oporto
Carla Machado and Celina Manita 69

Discerning truth from deception: The sincere witness profile
Luca Bensi, Elisa Gambetti, Raffaella Nori and Fiorella Giusberti 101

Social perception of violence against women: Individual and psychosocial characteristics of victims and abusers
Francisca Expósito and Mª Carmen Herrera 123

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