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Abstract

This article assesses the association between national welfare state regimes and public insecurities about crime across Europe. The point of departure is the idea that fear of crime expresses not just insecurities about safety but also broader societal anxieties. A multi-level analysis of respondents in 23 countries sampled in the 2004-05 European Social Survey finds a strong relationship between insecurities about crime and national levels of social expenditure and decommodification of social welfare policy. Some social protection measures seem more effective in preventing fear of crime than others, especially public non-monetary support for children and families which strengthen the individual's capacity to cope with problems on their own. We conclude with the notion that state-level social protections buffer the development of widespread fear of crime by mitigating various social and economic fears.

Key words: fear of crime; social protection; welfare state; multi-level analysis; family

1. Introduction

The negative consequences of crime extend well beyond victims and offenders. Fear of crime damages individual health and community cohesion (Hale, 1996; Warr, 2000; Stafford *et al.,* 2007), heightens the attractiveness of hard-line crime control strategies (Simon, 2007), and contributes more broadly to the highly politicized and emotively represented nature of crime and justice in some European societies (cf. Garland, 2001; Pratt, 2007). Yet public insecurities about crime and safety are often said to be out of proportion to a more calmly judged reality of crime. Common explanations of widespread fear of crime include: (a) a graphic and sensationalising mass media, (b) politicians who use the politics of fear, and (c) public intolerance of certain social conditions and social groups.

Repeated cross-sectional surveys such as the European Social Survey, the Eurobarometer and the International Crime Victimization Survey (Aromaa and Heiskanen, 2002; Mayhew and van Dijk, 1997; Nieuwbeerta, 2004; European Opinion Research Group, 2003; van Dijk *et al.*, 2008; van Dijk *et al.,* 2007; van Kesteren *et al.,* 2000) have found the highest rates of insecurity in the Mediterranean countries in Southern Europe, in the UK and in Eastern European societies. The lowest levels of insecurity are normally found in Scandinavia and selected Middle European welfare states (e.g. Switzerland, Austria, the Netherlands). Yet thus far the European evidence base remains descriptive. No study has gone beyond the top-line findings of cross-national surveys to explain key individual and ecological factors. Why are insecurities about crime higher in some European countries than others? What factors explain national-level variation?

This study is the first comparative, European analysis to approach fear of crime through the lens of wider social insecurities and public concerns about social stability. Drawing on data from the second round of the European Social Survey (ESS) we find that welfare state arrangements are associated with levels of public insecurities about crime. The data we present are only correlational; we make no claims about causality; the central finding is that welfare state regimes of various European countries help explain national-level variance of fear of crime. Yet our examination of the association between national-level state arrangements and the national-level variance of fear of crime provides a significant first step in the development of comparative work in this field of enquiry. Overall our findings contribute to an emerging perspective in sociology and criminology – one that views fear of crime as a response not just to the perceived crime problem, but also to the form, texture and perceived health of the social and political structures.

2. The Social and Cultural Significance of the Fear of Crime

In exploring the notion that public insecurities might operate as a compound of public concerns about social stability and order, we follow a line of research that sees public anxieties about crime as more intelligible against the backdrop of public perceptions of neighbourhood and societal cohesion and moral decline. There is qualitative evidence that insecurities about crime are bound up in beliefs about declining social trust, intergroup conflict and concerns about the pace and direction of social change (see for example Merry*,* 1981; Taylor, *et al.,* 1996; Girling, *et al.*, 2000). Crime may thus act as a cipher for a variety of social, economic and existential insecurities that are rooted in the transformations of contemporary late-modern societies (Hirtenlehner, 2006, 2008; Sessar, 1998, 2008). And a series of UK studies has found that the effect of broader anxieties on worry about crime is mediated by perceptions of neighbourhood disorder and cohesion (Jackson, 2004; Jackson and Sunshine, 2007; Farrall *et al.,* 2009). As Hope and Sparks (2000: 5) suggest, fear of crime may '…intersect with the larger consequences of modernity, [finding] its lived social meaning among people's senses of change, decay, optimism and

foreboding in the neighbourhoods, towns, cities and wider political communities in which they live and move.'

In fact, the idea that public insecurities about crime are rooted in concerns about neighborhood breakdown and stability can be traced back to the beginnings of this field of enquiry. In the US in the 1960s a number of victim surveys that were conducted on behalf of the President's Commission on Law Enforcement and Administration of Justice (1967) sought to explore experiences of crime and anxieties about crime. Fear of crime was assumed by the researchers to be a consequence of personal victimization and representing a distinct concern clearly separable from other anxieties. Yet counter-evidence quickly accrued. Neither personal experiences of victimization nor vicarious victimizations nor aggregate crime rates seemed to exercise a decisive influence on the extent of fear of crime (Boers, 2003; Hale, 1996; Warr, 2000). Garofalo and Laub (1978: 243) first summarized the doubts and posed the critical question that was to guide further research: 'Is fear of crime simply the fear of crime? … Does what researchers and theorists have been measuring and conceptualizing as the fear of crime have a simple correspondence with immediate citizen fears about being personally victimized in specific types of criminal acts?'.

These questions marked the starting point of an interpretation of fear of crime as a generalized social insecurity. Research quickly focused on so-called 'incivility' or 'disorder' as a driver of public feelings and judgements about crime (Lewis and Salem, 1986; Skogan, 1990). Scholars examined how public perceptions of risk were embedded in concerns about the social and moral order of community, about signs of disruption and loss of control, and about the cohesion and stability of social organization. Signs of norms and values in flux; the presence of certain individuals, particularly adolescents, behaving in intimidating manners or judged along certain stereotypical lines; a lack of social trust and informal social control – numerous studies attest to the importance of how people make sense of their environment (Merry, 1981; Skogan and Maxfield, 1981; Taylor *et al.*, 1985; Smith, 1986; Taylor and Hale, 1986; Box *et al.*, 1988; Skogan, 1990; Warr, 1990; Covington and Taylor, 1991; LaGrange *et al.*, 1992; Perkins *et al.,* 1993; Hough, 1995; Ferraro, 1995; Rountree and Land, 1996a, 1996b; Perkins and Taylor, 1996). Public perceptions of disorder have also been linked to implicit stereotypes about race and deprivation (Sampson and Raudenbush, 2004) and broader attitudes towards social change and moral decline (Jackson, 2004; Farrall *et al.,* 2009).

Increasingly, fear of crime was treated less as a specific fear of offences and more as a compound of wider feelings of insecurity and a lack of social trust. Scholars began to draw on the even more generalized, abstract and removed social theory of Bauman (1997, 2006), Beck (1992) and Giddens (1990). Insecurities about crime were here seen as an entity symbolically loaded with even more general social and existential anxieties (cf. Hollway and Jefferson, 1997) – a sponge that mops up generalized sentiments and insecurities that can be understood in the context of the radical transformations of late-modern contemporary societies (Hirtenlehner, 2006, 2008; cf. Maruna and King, 2004). And whereas some, mostly Anglo-Saxon, scholars accentuate the local structuring of the feelings of security – mostly in the form of concerns about the erosion of the common social and moral order of the community (Girling *et al.*, 2000; Jackson, 2004; Taylor *et al.*, 1996; Oberwittler, 2008; Farrall *et al.*, 2009) – some continental European scholars have emphasized broader themes, connecting crime-related feelings of insecurity and broader socio-economic fears of the future, fears of falling, and ontological insecurity widely conceived (Hirtenlehner, 2006, 2008; Sessar, 1998, 2008). For example the steep increase of fear of crime levels in Eastern Germany after the end of communism, at a time of rapid social and economic transformation, may be best explained by this perspective (Boers and Kurz, 2001; Kury and Ferdinand, 1998; Reuband, 1999; for a review of the German, Swiss and Austrian literature on public insecurities about crime, see Gerber and Jackson, 2009).

The symbolic nature of deviance and crime may thus express deeply felt concerns about social conditions and 'ontological insecurities' in the face of an unknown future. To contribute to

this literature we capitalize in this paper on ESS data (Jowell *et al.,* 2007) to show substantial country-level differences in insecurities about crime across Europe. We find that public perceptions of the safety of their streets can be explained, not by different levels of crime, but by different socio-economic and socio-political conditions and institutions that affect subjective perceptions of social order, trust, security, and ultimately human well-being. In particular, we draw on insights from comparative welfare state research to motivate our study and interpret the findings (Arts and Gelissen, 2002; Castles, 1993; Esping-Anderson, 1990).

3. The Welfare State: Public Manager of Social Risks

Why might social security provision protect from fear of crime? Which specific aspects of national welfare regimes might be more effective in achieving this? If fear of crime can be both a specific concern about crime and a more general projection of a range of connected social anxieties, then fear of crime should be closely connected with feelings of social insecurity and the perception of being unprotected and helpless against accidents that could endanger one's social status. In life situations like illness, unemployment, disability or old-age, people are potentially dependent on help from other persons or institutions. Accordingly, a *social risk* can be defined as *an event that confines an individual's ability to care for his or her own social independence.* People who are not insured against these social risks are said to live in insecurity (Castel, 2005).

The dependence on labor market income is a characteristic of industrialized and post-industrialized countries. In the course of industrialization – as a result of increasing urbanization and poverty of broad levels of the population – social policy measures were established with the core idea to safeguard persons against social risks that arise when working capacities fail. Classic fields of social policy intervention are income losses due to unemployment, sickness, disability, old age, and the birth of children. Thus, social protection consists of diverse policies and programs designed to reduce poverty and vulnerability by diminishing people's exposure to risks and enhancing their capacity to protect themselves against hazards and loss of income. But the extent of and the means by which people are protected and supported by the state varies considerably between different countries.

Classifying welfare states: Esping-Andersen's three worlds of welfare

The studies of Esping-Andersen (1990, 1999) provide a conceptual starting point to compare models of social policy. In order to distinguish between different models of welfare states, Esping-Andersen emphasizes the specific relation between the three main providers of individual welfare – the state, the (labour) market and the family – and introduces his central concept of decommodification. Decommodification describes the dependency on labour market income or in other words the degree to which '…a person can maintain a livelihood without reliance on the market' (Esping-Andersen, 1990: 22). So public welfare and social policies affect the degree to which citizens are decommodified.[1] Furthermore Esping-Andersen examines which kind of social stratification (intensity of redistribution) is promoted by social policy and if the welfare state builds narrow or broad solidarities (level of universalism). As a further criterion he considers the role of the state and the market in pension regimes (private-public mix).

Mainly based on the two first dimensions – the level of decommodification and the manner of stratification – Esping-Andersen comes to the conclusion that welfare states cluster into three distinct regime-types: liberal, conservative-corporatist and social-democratic. In *liberal welfare states* like the Anglo-Saxon countries UK, Ireland, USA, Canada and Australia[2] social policy is characterized by only modest transfers and means-tested assistance. The entitlements to social transfers are often strict and associated with stigma. Liberal welfare states are characterized by the dominance of the market, low social spending and accordingly a low level of

decommodification. In contrast *social democratic welfare states* (like the northern countries Denmark, Sweden and Norway) are strongly interventionist and provide generous and universal benefits. Corresponding they dispose of a high level of decommodification. The *conservative welfare states* (like the continental and southern European countries of Germany, France, Austria, Belgium and Italy) can finally be placed between the low decommodifying liberal regime and the highly decommodifying social democratic regime (1990: 27). Both in terms of decommodification and defamilisation the Nordic countries are at one extreme. At the other extreme we find the Anglo-Saxon countries with the lowest degree of decommodification and the continental and southern European countries an intermediate degree of decommodification and the lowest degree of defamilisation. However, the number of country groups has always been discussed in research (cf. Arts and Gelissen, 2002), for instance if there is an independent southern European type of welfare with a stronger emphasis on the family as social security provider (cf. Ferrera, 1996; Flaquer, 2000; Trifiletti, 1999). In the course of the eastern European expansion of the European Union post-socialist countries are becoming increasingly the object of social policy research. Several authors have tried to apply the welfare regime typology to eastern Europe (Fenger, 2007). Since the eastern European countries are still in the process of transformation and very heterogeneous it is hard to characterize them in terms of welfare characteristics. One cannot implicitly assume that they form an independent welfare cluster. But due to the great political and social upheavals in the past decades it seems reasonably that their citizens dispose of comparatively high levels of insecurity feelings.

Expanding the scope of opportunities

Esping-Andersen's welfare state typology sensitizes us to the fact that there are not only country differences in the extent of state intervention and welfare provision, but there are also differences in the manner how welfare is 'produced.' Ways and instruments of social protection by the state differ considerably between welfare regimes. Therefore, the generalization of all forms of social policy intervention ignores the fact that welfare states also vary in the relative emphasis that they place upon different policy areas (family, employment, poverty reduction, education, etc.) and upon different instruments, for instance cash benefits and services (Bambra, 2005).

Based on these considerations, our assumption is that not all social protection measures lead to the same result. We propose to distinguish idealtypically between two types of welfare state intervention. On the one hand are measures which accumulate and sustain individual resources; on the other hand are measures which in the first instance are designed to reduce poverty by providing income maintenance. While the first type of measures prevents against hazards and loss of income by supporting the individual income formation process, the second type has a more repairing function by compensating for a lack of income. Public provision of education and early childcare are examples for the first type. Examples of the second type are unemployment benefits, social assistance, child allowance and other cash benefits. This kind of intervention works rather ex post as reaction on results (for instance poverty, unemployment, disability, illness, etc.).

Following social psychological research we argue that these two types of social policy measures should have different effects on people's fear disposition. Namely we assume that they have unequal effects on individual's ability to cope with hazards and risky situations. In doing so, we draw upon the psychological concept of 'locus of control' (Rotter, 1966) and related concepts (like 'self-efficacy', see Bandura, 2004, or 'sense of coherence', see Antonovsky, 1987). Within the framework of social learning theory Rotter developed this concept which denominates generalized expectations of an individual with regard to its ability to influence situations and events in his life by own behavior (internal control) or not (external control). People with an internal locus of control have a stronger belief in their ability to influence events, feel less helpless, more independent and are as a result less fearful than people with an external locus of

control (for a discussion of the role of perceived control in fear of crime, see Killias, 1990; Tulloch, 2003; Jackson, in press).

Considering the proposed two prototypes of welfare measures, we suggest that the conditions of social protection shaped by the welfare state are related to the extent to which people perceive their lives as internally controllable by their own actions or as externally controlled by chance or outside forces (cf. Figure 1; cf. definition of 'locus of control' by Myers, 1996). Welfare investment in public education and childcare increases individual resources and opportunities in different respects, for instance by enhancing children's social and cognitive capacities and by enabling both parents to work. In this way, the type of state intervention has an activating effect on the individual and promotes an internal locus of control. Although income compensating measures are indispensable in a welfare state because they cushion structural problems and ease poverty, they treat citizens as passive recipients of welfare benefits and do not contribute to a strengthening of individual coping skills. In fact, one can assume that welfare states without any activating measures rather promote an external locus of control and feelings of helplessness.

Figure 1: Theoretical link between welfare state policy and fear of crime

| Welfare state measures enhancing cognitive + social skills | → | Internal Locus of Control | → | Confidence in dealing with demanding situations | → | Lower level of anxieties |
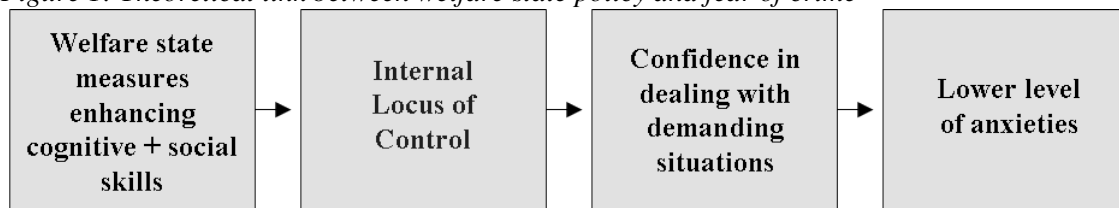
Based on these theoretical remarks we hypothesize that the extent of welfare provision in general has a negative impact on crime-related feelings of insecurity. The higher the capacity of the welfare state to cushion social and economic risks, the less existential insecurity should be left to be projected onto crime. But at the same time we assume that some welfare measures are more appropriate and more effective in reducing fear of crime than other ones. Programs which enhance people's capacity to protect themselves against hazards and loss of income should be more effective in reducing feelings of insecurity than income compensating measures that are mainly applied when the income formation process already failed.

4. Data, Measurement, and Methods

Data

The analyses are based on individual-level data from Round 2 of the European Social Survey (ESS) 2004/05 (Jowell *et al.*, 2007) complemented with country-level data from various official statistics. The ESS is a cross-national comparative survey containing data from over 20 European Union Member States. The following 23 countries are included in our study: Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Great Britain, Greece, Hungary, Iceland, Ireland, Luxembourg, the Netherlands, Norway, Poland, Portugal, Slovenia, Slovakia, Spain, Sweden and Switzerland. For methodological reasons we had to exclude Turkey and Ukraine since for these countries no comparable country-level data are available. All together, we have data on about 43,000 individuals, approximately 2,000 for each country. In all analyses the design weight provided with the ESS data is applied to correct for unequal selection probabilities of the individuals in all countries.

Response Variable: Public Insecurities about Crime

Our response variable is the so-called 'standard indicator' of fear of crime. The question is: "How safe do you – or would you – feel walking alone in this area after dark?" This item has frequently been criticized for its vagueness and its feeble semantic association with actual crime, whereas alternative questions more directly gauge concrete fears, e.g. the degree of worry connected to a specific crime (Boers, 2003; see also Farrall *et al.,* 2009). However, precisely for this reason we believe that this standard item is highly suitable to measure general feelings of insecurity projected onto the symbolic issue of crime. The answer categories to this question are on a scale from 1 (very safe) to 4 (very unsafe). When looking at the distribution of the variable it appears that most of the respondents feel safe (51%) or very safe (25%). Just 19% feel unsafe and 5% feel very unsafe. In our main analyses we use this ordinal variable without modification in order to maintain the differentiation between the four categories.

Explanatory variables

Among our explanatory variables, we distinguish between country-level and individual-level characteristics. Our main research question concerns country-level characteristics, more precisely the influence of social protection measures on fear of crime. The country-level variables should reflect both the extent of social protection provided by the welfare state as well as spending priorities. We use country's total spending for social protection and social spending subdivided for the following areas: health, families/children, unemployment, pensions, disability/physical handicaps, housing conditions and social exclusion. Furthermore we account for different forms of social spending by distinguishing between cash benefits and benefits in kind. Finally we regard public expenditures on education as a social protection measure by the welfare state (cf. Allmendinger, 1999; Hega and Hokenmaier, 2002; Hokenmaier, 1998). The conventional measure in cross-national comparisons is spending as a percentage of the gross domestic product (GDP) which demonstrates the spending priorities of countries. The data are taken from Eurostat/ESSPROS.[3] Due to reasons of availability we decided to use data that refer to the year 2004. This might be seen by some as problematic when assuming a lagged effect, yet country differences in social expenditures do show a high level of inertia over time.

At country level we also control for the impact of other relevant characteristics (cf. Appendix, Table A1). First, registered crime rates and survey-based victimization rates have to be considered in order to reject the alternative hypothesis that fear of crime is a reflection of factual victimization risks. The official crime rates (offences per 100,000 population in 2003) are taken from European Sourcebook of Crime and Criminal Justice Statistics (2006).[4] The survey-based victimization rates are constructed by aggregating an ESS-item measuring whether the respondent or a member of his household has been the victim of a burglary or an assault in the last five years. Second, we allow for many other structural variables like the poverty risk before and after social transfers, the degree of income inequality (Gini index), the employment and unemployment rate, the share of urban population and, the share of persons aged 65 and older. These data are taken from the Eurostat or the OECD database.[5] Moreover we constructed an indicator which reflects a country's degree of decommodification. Decommodification refers to the liberation of the citizens from the forces of the labour market, to the extent '…a person can maintain a livelihood without reliance on the market' (Esping-Anderson, 1990: 22). As such, it may serve as a general indicator for the strength of the welfare state.[6] Following the strategy proposed by Messner and Rosenfeld (1997) we created a proxy-measure of decommodification based on total social expenditure in % of GDP, on annual social expenditures per capita and on expenditures allocated to employment injuries in % of total social expenditures.[7]

On the individual level of respondents, we control for the main socio-demographic variables age, gender, education, and employment status. Age is modeled as a non-linear predictor because previous research has shown that younger and older persons are more fearful than middle-aged persons (Greve, 1998). Education is measured in years of full-time education. A

negative correlation between level of education and fear of crime has been one of the most robust findings in the research literature. A dummy variable indicates whether the respondent is employed (1) or not (0). Furthermore we control for the size of the hometown as indicator for local incivilities and finally, whether the person or a household member has already been a victim of burglary or assault during the past five years.[8]

In order to control for compositional socio-demographic effects (see below), all individual- and country-level predictors are centered around the grand mean (Enders and Tofighi, 2007).

Analysis Strategy: Multilevel Modeling

Using data on countries as well as on individuals enables us to disentangle the influence of individual-level and country-level characteristics on fear of crime. Moreover we get quantitative estimates of the extent to which welfare protection measures account for differences in national fear of crime levels by simultaneously taking into account the effect of individual characteristics. The appropriate method to evaluate the relationship between fear of crime and the explanatory variables on individual and country level is multilevel analysis (Snijders and Bosker, 1999; Hox, 2002; Raudenbush and Bryk, 2002). Multilevel modeling is attractive because it provides a statistical tool for analyzing data sets in which respondents are nested in higher-level units - in this case countries. In multilevel models, it is possible to examine the influence of individual characteristics (level 1) and national characteristics (level 2) net of each other. By controlling relevant individual level influences on fear, we thus account for potential compositional effects which may explain country-level variations of our outcome variable. The effects of level 2 predictors are then interpreted as contextual effects – as 'true' effects of the macro-level context independent of individual effects. As we are interested in explaining country-level mean differences in fear (not differences in coefficients), we employ random-intercept models in which the slopes (coefficients) remain fixed.

We perform non-linear, ordinal regression (with listwise deletion) using the unmodified fear of crime standard item. This type of modeling is most appropriate since the dependent variable has ordered categories (1=very safe to 4= very unsafe), and a logistic regression using a dichotomized outcome would unduly reduce the breadth of information. The calculations for this study were performed using HLM 6 (Raudenbush *et al.*, 2004).

After presenting some first descriptive results we proceed step by step, beginning with an estimation of an empty model (Model 0) without any predictors in order to establish the general variance of country differences in fear of crime. In a further step, we include the individual-level variables (Model 1). Finally we incorporate alternately single welfare and structural indicators on country-level to test which country characteristics explain best country-level variability in fear of crime. We also tested a number of models with two or more level 2 predictors. However, very few coefficients reached significance when added alongside the strongest predictor, or else multicollinearity became a problem. This is often observed in aggregate data analyses on very high geographical levels. Very small sample sizes and high levels of inter-correlations between independent variables render complex modeling difficult, and the comparison of alternative models with few or only one predictor on the critical context level becomes the more successful strategy.

One final remark on the general difficulty to empirically identify higher-level, contextual effects on individual behavior or attitudes is warranted. Compared to pure individual-level analyses where the association between independent and dependent variables rests within single units (persons), multi-level analysis is faced with the more complex task to model associations across units, i.e. influences from a macro level on the micro-level. The macro-micro-link generally assumes that individuals think or behave differently according to structural restraints or cultural conditions which are constant within each macro-level unit but vary between macro-level

units. Yet, this rather detached influence from a macro- to a micro level can hardly be 'observed' in a direct way which raises the question of social mechanisms and causality (Bunge, 1997; Hedström and Swedberg, 1998). Thus, theoretical explications about social mechanisms translating macro-level influences into individual behavior are harder to test empirically than in individual-level analysis.

5. Empirical Findings

5.1 Descriptive results: Fear of crime in Europe

Figure 2 shows the share of population feeling unsafe or very unsafe walking alone in their area after dark[9]. By far the highest levels of insecurity can be observed in Estonia and Slovakia where more than one third of the population reports fear of crime. Next, other Eastern European countries (Hungary, Poland and the Czech Republic but not Slovenia) together with the Anglo-Saxon countries Ireland and Great Britain show high fear levels, too. On the other end of the list, the Northern countries Iceland, Finland, Norway, Denmark and Sweden as well as Slovenia display low fear levels, while the Middle and Southern European countries range in between.

Figure 2:   Percentage of the population with fear of crime (feeling unsafe or very unsafe walking alone in the dark)
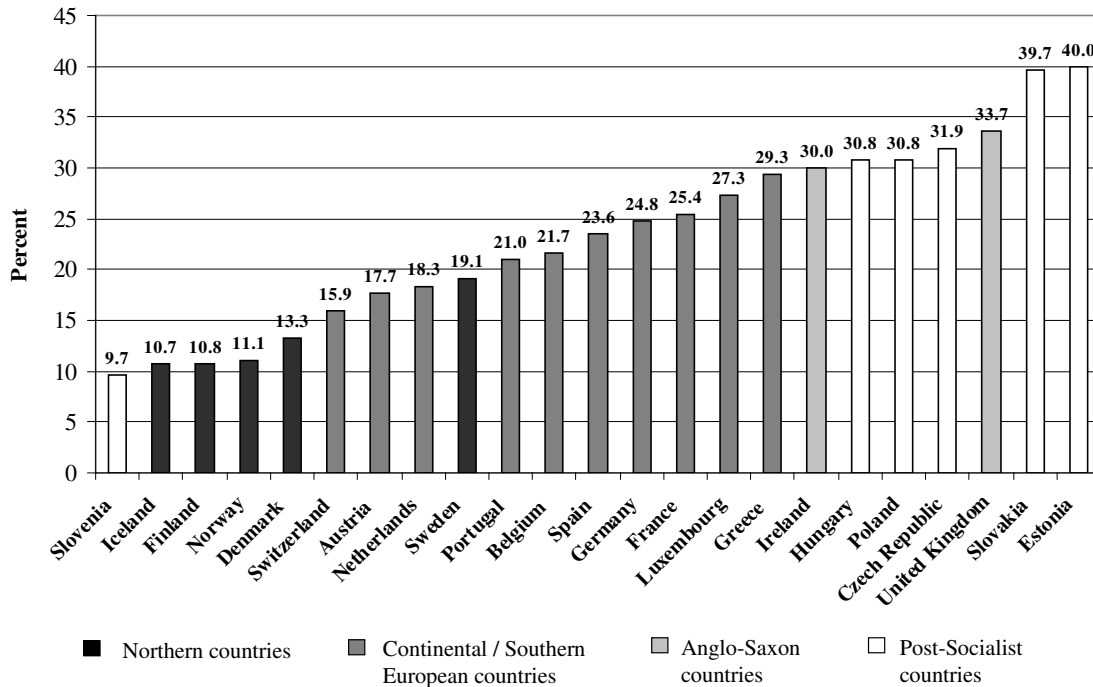
Considering the level of social protection according to Esping-Andersen's welfare state typology this clustering of countries corresponds with our basic hypothesis: the Nordic social-democratic countries display high levels of social protection and low levels of fear. In contrast the Anglo-Saxon and Eastern European countries have low levels of social protection and high levels of insecurity feelings. The continental European countries range in both terms in between. Hence, these descriptive results already support the expected negative association between the extent of social protection and fear of crime.

5. 2 Multivariate Results: individual-level determinants

Starting the multivariate analysis and following usual multilevel modeling strategies, we first estimate an empty model without any explanatory variables at either individual or country level (cf. Table 1, Model 0). The empty model serves as a starting point for partitioning the variance of the dependent variable into a between- and a within-country component and for comparing the reduction of these variance components in subsequent models. A special feature of ordinal regression analysis is to estimate thresholds (D2 and D3) which represent the odds that respondents chose a certain category *above* the lowest category which is represented by the intercept.[10]

The variance components of Model 0 show that the between-country variation is statistically significant. In order to get a rough impression what share of total variance in fear is attributable to between-country differences we compute the intraclass correlation coefficient (ICC) switching to a linear regression model because nonlinear regression does not allow for a straight-forward computation of ICC (Snyders and Bosker, 1999: 224). 8.2% of the variance is due to country-level variability which constitutes a sizable proportion (Raudenbush and Sampson, 1999).

Model 1 introduces in a second step the key individual characteristics associated with fear of crime at respondents' level. The slight increase of the country-level variance component U_o from 0.361 in model 0 to 0.381 in model 1 indicates that country differences become even larger when socio-demographic composition is controlled for. In effect, differences in socio-economic characteristics have slightly suppressed the magnitude of between-country differences in fear.

Looking in detail at the influences of individual-level characteristics on fear of crime in model 1, well-known findings from previous criminological research are confirmed. The association between age and fear is u-shaped: younger and older persons are more fearful than middle-aged persons. Women feel much more insecure than men[11]. Higher education and labor market participation has a fear-reducing effect whereas feelings of insecurity rise with increasing size of the place of residence being largest in big cities and smallest in country villages. Finally, former victimization experiences raise the fear level by 25%.

Table 1: Results of ordinal multilevel analyses on fear of crime

	Model 0 (Empty Model)			Model 1 (Level 1 - Model)		
	Coef.	**OR**	**P**	**Coef.**	**OR**	**P**
Intercept	-3.122	0.0441	***	-3.339	0.035	***
D2	1.811	6.1167	***	1.921	6.827	***
D3	4.206	67.061	***	4.564	95.978	***
Individual-level variables [a]						
Age				-0.255	0.775	*
Age squared				0.427	1.532	***
Gender				0.486	1.626	***
Education (years of full-time education) (max. 21)				-0.180	0.835	***
In paid work				-0.071	0.932	***
Dom1: big city				0.152	1.164	***
Dom2: suburbs or outskirts of a big city				0.054	1.055	**
Dom3: town or small city				reference		
Dom4: country village				-0.257	0.773	***
Dom5: farm or home in the countryside				-0.192	0.826	***
Victimization past 5 years				0.225	1.252	***
Country-level variable [a]						
N	42015			42015		
INTRCPT1, B0 (Reliability estimate)	0.994			0.994		
INTRCPT1, U0 (Variance components)	0.361	***		0.381	***	

Notes:
[a] z-standardized values
Significance: *** P<=0.001 ** P<0.01 * P<0.05

5.3 Multivariate analyses: macro-level determinants

Our study looks at the impact of national social protection measures on fear of crime. In a third step we therefore test the effect of welfare measures on the country-level (Level 2). We use social protection indicators subdivided for different areas (health, family/children, old age, etc.) and forms of spending (cash benefits versus benefits in kind) as well as some general indicators. Proceeding from model 1, we add welfare and structural indicators on level 2 alternatively, each one at a time. The aim of this procedure is to determine the explanatory power of every single indicator (net of individual and compositional effects) as expressed in its contribution to the reduction of variance at the country level. Instead of printing a multitude of model tables we present the findings of this step of modeling by graphically displaying the respective reduction of country-level variance in percent compared to model 1 (cf. Figure 3).

Figure 3: Explanatory power of welfare measures and other country characteristics on fear of crime; results from ordinal multilevel analyses

Benefits in kind for families/children	64.6
Expenditure on Education	63.9
Employment rate	51
Expenditure on Disability/Physical Handicap	50.9
Index of decommodification	42
Social protection expenditure (total)	33.9
Unemployment rate	30.2
Poverty rate after social transfers	27.2
Percentage of persons with tertiary education	25.8
Expenditure on Health	24.2
Expenditure on Social Exclusion	18.2
Registered crime	14.2
Victimization rate	8.6
Expenditure on Unemployment	5.7
Expenditure on Old-Age	5.2
Income inequality (Gini-Index)	4.8
Expenditure on Pensions	4.4
Expenditure on Housing	0.7
Cash benefits for families/children	0.4

country-level variance reduction in % compared to level-1-model

■ expenditure on social protection as % of GDP   ▢ other country-level characteristics

It is obvious that the explanatory power differs considerably between different social protection indicators. Total expenditure on social protection indeed explains 33.9% of the country-level variance. Our index of decommodification, another general indicator for the strength of the welfare state, reproduces 42% of the intercept variance. But the differentiation in terms of areas and forms of welfare support reveals that some measures are much more powerful than others in explaining fear of crime.

Family benefits in kind and education expenditures are by far the most effective welfare indicators in our models, explaining the largest amount of variation in fear of crime across the 23 examined countries. The programs subsumed under family benefits in kind are mainly early childhood education and care and home-help services. The effect of family benefits in kind is highly significant and reduces the country-level variance compared to model 1 (cf. Table 1) by 64.6%. Expenditure on education is the second most effective welfare indicator, explaining 63.9% of the country-level variance. Expenditure for disabilities and physical handicaps also still explains a substantial amount of country-level variability (50.9%). By contrast, other welfare measures like cash benefits for families, expenditures on pensions, old-age and housing are of almost no importance. The crucial relevance of the mode of welfare intervention becomes very evident when comparing the cash benefits for families which have no significant explanatory power with benefits in kind for families which have the strongest explanatory power.

In order to detect the relative importance of social protection measures in comparison to other country-level characteristics and to guard against the spuriousness of our findings we tested the impact of different alternative, structural variables on our dependent variable. The results in Figure 3 show that some of them are also closely connected with fear of crime, for instance the employment rate (51%) or the unemployment rate (30.2%), while others which are conceptionally

more closely associated with fear of crime - like the registered crime rate or the victimization rate - have little explanatory power, again confirming previous research.

Figure 4 visualizes the strong negative association between fear of crime and family benefits in kind. For this scatter plot, we predicted the mean country values of fear of crime (again using the same individual variables in order to control for compositional effects) from multilevel *logistic* regression because the different thresholds of the ordinal regression model cannot be easily visualized. The plot shows a pattern of country clusters corresponding to Esping-Andersen's welfare regimes. There are three discernable country clusters: the Northern countries with the highest family benefits in kind and the lowest fear levels; the Anglo-Saxon and the Eastern-European countries (with exception of Hungary and Slovenia) with the lowest family benefits in kind and the highest fear levels; and the Southern- and Continental-European countries in between.

Figure 4: Correlation between fear of crime (predicted probabilities) and family benefits in kind; results from logistic multilevel modeling
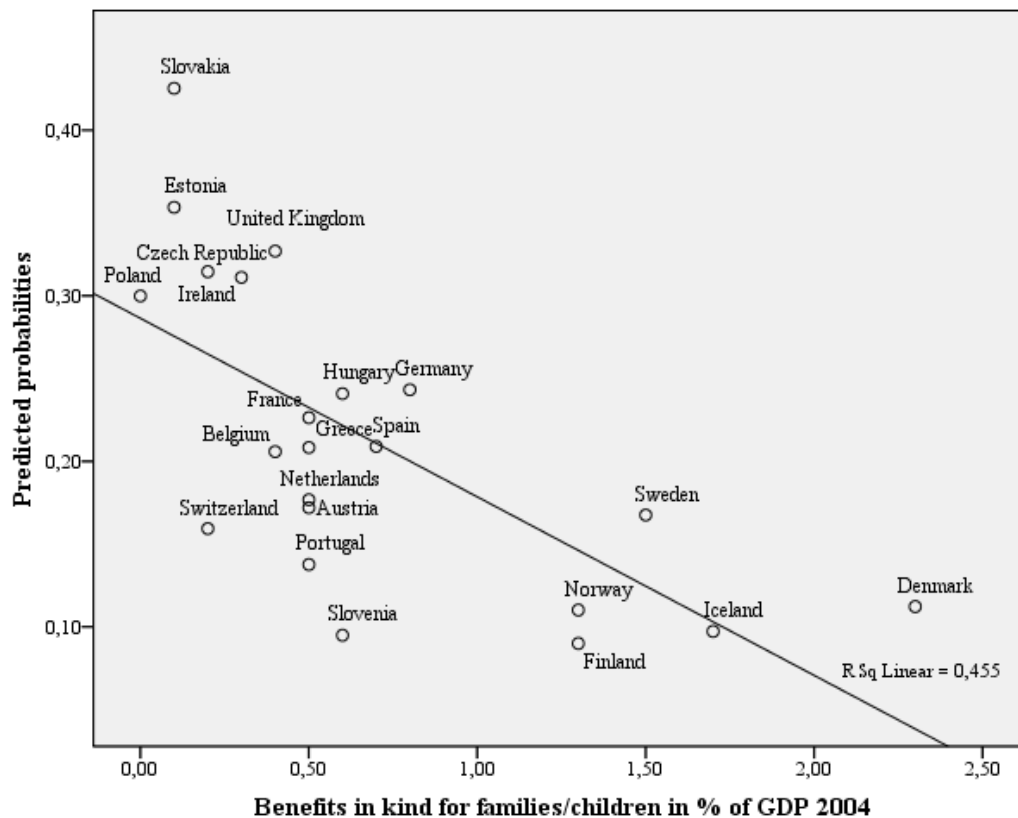
5.4 Robustness checks

Multivariate analysis of cross-national phenomena is particularly susceptible to statistical problems due to small Ns on country level. Therefore we employed different strategies to test the robustness of our results. First, we estimated alternative multilevel models comparing ordinal with logistic non-linear regression based on a dichotomized outcome variable. Logistic regression yielded basically the same results but ordinal regression turned out to produce stronger findings in terms of odds ratios of level 2 predictors. Second, the explanatory power of our most influencing country-level variables – family benefits in kind and education expenditure – remains stable when

including country-level control variables as the Gini-Index of income inequality, the employment rate, the victimization or official crime rate.[12] Third, the strong association between family benefits in kind and fear of crime persists when excluding whole country clusters (either the Nordic countries or the Eastern European countries) from the sample. Thus, the association between family benefits in kind and fear of crime is not due to regional cluster effects. And finally, no influential outliers were detected; the highest value of Cook's distance is 0.64 for Denmark.

6. Conclusion

Capitalizing on two different lines of contemporary research in fear of crime – the generalized insecurity approach, and the analysis of cross-national differences in the extent of fear of crime – this article has examined the relationship between social security and anxieties about crime. If fear of crime operates 'as a sponge, absorbing all sorts of anxieties … from family to community to society' (Jackson, 2006: 261) then state-level social protection measures may buffer the development of widespread fear of crime by mitigating various social and economic fears which would otherwise be projected onto crime. One mechanism by which this works may be the locus of control: social security may help people feel in control of their lives, thus protecting against specific social anxieties. We live in an era of rapid social change and fundamental societal transformations. The more public insecurities are neutralized by welfare security arrangements the less social anxieties may be channeled into crime. Our empirical findings are consistent with this idea: higher social expenditure was associated with lower fear of crime; a higher degree of decommodification of social welfare policy was accompanied by lower levels of crime-related feelings of insecurity.

A second goal of our research was to identify those welfare programs that are most effective in reducing fear of crime. We hypothesized that preventative-activating measures, which strengthen the individual's capacity to cope with problems on their own, are more promising in this respect than pure income compensating measures that are mainly applied when the income formation process already failed. The empirical findings were in line with our theoretical assumptions about underlying micro-level mechanisms. Country-level variables which are linked with individuals' capacities and activities to care for own economic and social independence, primarily social protection measures on early childcare and education, but also employment and unemployment rates, seem to have the strongest fear-reducing effect. In contrast, social protection measures and other indicators that rather rely on mere financial support, for example unemployment, old-age and other cash benefits, are not associated with fewer public insecurities about crime. Social support in form of cash benefits is rather reactive, i.e. it occurs in particular in situations where the ability to earn a livelihood is (temporarily) restricted (unemployment, sickness) or when economic needs increased (e.g. at the birth of children). All these situations are linked with the risk that one's own financial resources fall short to assure livelihood, leaving people dependent on help from other people or institutions. Consequently, feelings of (social) security can hardly arise from this kind of welfare state support. In contrast welfare measures which contribute to people's ability to care for their own social independence (by offering education, care and other services) are apparently able to protect against feelings of helplessness, lack of protection and finally fear of crime.

One could phrase this distinction in terms of the dichotomy of inclusion vs. exclusion which has been a prominent theme in the recent literature on social policy (Byrne, 1999; Silver and Miller, 2003). In this perspective, welfare measures that help people to participate actively in the educational and employment systems are inclusive while measures which simply replace a loss of income or alleviate deprivation through cash transfers do not really prevent exclusion. Socially disadvantaged children and families like immigrants, poor and low-educated families,

very large and single-parent families profit most from universal family services and education because they enable them to participate in society, to develop cognitive and social skills that lead to social inclusion and labor market participation and reduce the future dependency on state support.

Governments are often frustrated by high levels of public fear of crime. Not only do public insecurities about crime seem to both outweigh the reality of crime. They are also widely held to exert their own negative costs on individuals and communities. Yet our findings are consistent with the idea that public insecurities about crime operate as a compound of broader social insecurities that are linked to the fundamental social and political conditions of a society. Public insecurities about crime were associated not with the level of crime in a country but rather with the degree of social security provided in a country through its welfare state provision. While we were unable to investigate the mechanisms that link the macro to the micro, we have suggested that self-efficacy may be one key intervening variable.

Future work might explore the idea that those people who feel able to cope with hazards and risk situations may be less fearful of crime, and furthermore, the broader provision of social security through the welfare state may help partly determine such coping abilities. Such an explanation may drill further into the idea that fear of crime, with all its attendant social consequences, may itself be an expression of public concerns about social security writ large across a society.

Notes

[1] The welfare state does not only limit the market but it also affects the degree to which families absorb social risks (cf. the corresponding concept of 'defamilisation', Esping-Andersen, 1999: 51).

[2] There are countries whose position in the standard typology of welfare states is controversial because they incorporate elements from different regime types (for example Ireland, Belgium and the Netherlands). But one has to recognize that typologies consist of ideal types in terms of Max Weber. Also Esping-Andersen points out that welfare states cluster but that there is no single pure case (Esping-Andersen 1990, p.28).

[3] ESSPROS is the European System of integrated Social Protection Statistics developed by Eurostat. It is a harmonized system providing a means of analyzing and comparing social protection expenditures between states. The data are available at the Eurostat website: http://epp.eurostat.ec.europa.eu. For detailed definitions of the various social protection benefits see ESSPROS Manual 1996, online available: http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/CA-99-96-641/EN/CA-99-96-641-EN.PDF.

[4] We are well aware of the problematic nature of registered crime rates. In cross-national comparative research official crime rates might tell us more about trust in the police, availability of informal conflict resolution strategies or insurance density than about the actual amount of crime in a society. Nevertheless controlling for registered crime rates is never a mistake.

[5] See http://epp.eurostat.ec.europa.eu and http://stats.oecd.org. Most of the data can also be found in published form in Eurostat (2008) and OECD (2008).

[6] For critical remarks on Esping-Andersen's decommodification index see e.g. Castles and Mitchell, 1993; Kangas, 1994; Ragin, 1994; Pitruzello, 1999.

[7] Expenditures for employment injuries (in % of total social expenditures) were inversely recoded, then the Z-scores for the three indicators were summed up.

[8] Besides these main variables, we also controlled for further individual characteristics associated with fear of crime. However, we did not include them in the final model for different reasons (for example because of too much missing values or the risk of over-specification). In further analyzes which are not reported here we found the already well-known associations: television-consumption and ill health increase fear of crime, while the frequency of meeting other people, the possibility to get help from the private network, higher household income and higher occupational prestige lowers fear of crime. Size and composition of the household had no significant effect.

[9] For this purpose the fear of crime item has been recoded into a dichotomous variable that combines the values 1 and 2 as not being fearful and the values 3 and 4 as being fearful.

[10] The D2 and D3 thresholds are the cumulative odds to choose the second or third category, whereas the cumulative odds to choose the fourth, highest category (which include all other categories) is by definition 1 and serves as the reference category. In this logic, all coefficients estimate the effect to 'move down' from the reference category and thus have a positive sign if a predictor *decreases* fear, and a negative sign if a predictor *increases* fear. In order to allow an intuitive interpretation of our models analogous to standard regression, we decided to recode the dependent variable so that 1 is the highest fear level (very unsafe) and 4 is the lowest fear level (very safe). Positive coefficients now indicate an increase in fear, while negative coefficients indicate a decrease in fear.

[11] For further reading on gender differences in fear of crime, see Sutton and Farrall 2005.

[12] The same is true for the influence of our two general indicators of the strength of the welfare state: total social expenditure and the index of decommodification.

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Table A1: Macro-level Variables

Welfare measures *(Expenditure in % of GDP; total/cash benefits/ benefits in kind)*	Year	Data Source
Social Protection in general	2004	Eurostat/ESSPROS
Health	2004	Eurostat/ESSPROS
Families/Children	2004	Eurostat/ESSPROS
Unemployment	2004	Eurostat/ESSPROS
Pensions	2004	Eurostat/ESSPROS
Disability/Physical Handicap	2004	Eurostat/ESSPROS
Housing Conditions	2004	Eurostat/ESSPROS
Social Exclusion	2004	Eurostat/ESSPROS
Labour Market Policy: measures and benefits total	2004	Eurostat/ESSPROS
Total expenditure on Education	2004	Eurostat/ESSPROS

Other Indicators	Year	Data Source
Crime Rate, offences per 100.000 population - Criminal offences: Total	2003	European Sourcebook 2006
Victimization Rate, Aggregated individual data: country %	2004	ESS, Round 2
Employment rate	2004	Eurostat/ESSPROS
Unemployment rate	2004	Eurostat/ESSPROS
Unemployment rate of persons under 25, annual average in %	2004	Eurostat/ESSPROS
Female Employment rate	2004	Eurostat/ESSPROS
Income Inequality (Gini Index)	2004	Eurostat/ESSPROS
Poverty Risk before social transfers, < 60% of median equivalized income	2004	Eurostat/ESSPROS
Poverty Risk after social transfers, < 60% of median equivalized income	2004	Eurostat/ESSPROS
Decommodification Index (proxy-measure according to Messner and Rosenfeld 1997)	2004	Eurostat/ESSPROS and ILO
Early School Leavers, % of population aged 18-24 with at most lower secundary education and not in further education or training	2004	Eurostat/ESSPROS
Percentage of population aged 20-24 having completed at least upper secondary education	2004	Eurostat/ESSPROS
Percentage of population aged 25-64 having completed at least upper secondary education	2004	Eurostat/ESSPROS
Percentage of population aged 25-64 having completed tertiary education	2004	Eurostat/ESSPROS
Urban population in %	2004	OECD
Priority of family in life, Aggregated individual data: country means	2004	ESS, Round 2

Table A2: Zero-order correlation (Pearson) between macro-level variables

zero-order correlations of level 2 indicators

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
(1) Social Protection Expenditure (total)																		
(2) Expenditure on health	0,70 **																	
(3) Cash benefits for families/children	0,11	0,05																
(4) Benefits in kind for families/children	0,51 *	0,34	0,07															
(5) Expenditure on unemployment	0,63 **	0,33	0,03	0,34														
(6) Expenditure on pensions	0,74 **	0,28	-0,09	0,03	0,43 *													
(7) Expenditure on disability/physical	0,61 **	0,34	0,07	0,72 **	0,14	0,27												
(8) Expenditure on housing	0,39	0,36	0,04	0,24	0,13	0,12	0,15											
(9) Expenditure on social exclusion	0,46 *	0,38	-0,08	0,43 *	0,23	0,20	0,48 *	0,02										
(10) Expenditure on old-age	0,76 **	0,31	-0,15	0,12	0,39	0,91 **	0,27	0,24	0,19									
(11) Unemployment rate	-0,38	-0,62 **	-0,24	-0,40	0,01	0,03	-0,40	-0,28	-0,33	0,01								
(12) Expenditure on education	0,53 **	0,38	-0,03	0,79 **	0,21	0,11	0,77 **	0,19	0,38	0,23	-0,37							
(13) Registered Crime	0,77 **	0,50 *	0,17	0,51 *	0,47 *	0,46 *	0,60 **	0,51 *	0,27	0,49 *	-0,35	0,51 *						
(14) Victimization rate	0,11	0,01	-0,08	0,40	0,26	-0,17	0,35	0,38	-0,07	-0,22	-0,06	0,40	0,40					
(15) Employment rate	0,46 *	0,60 **	-0,05	0,61 **	0,01	0,01	0,65 **	0,24	0,57 **	0,09	-0,74 **	0,64 **	0,42 *	0,15				
(16) Income inequality (Gini-Index)	-0,16	-0,13	-0,41	-0,39	-0,06	0,15	-0,38	0,15	-0,31	0,08	0,10	-0,43 *	-0,30	-0,08	-0,16			
(17) Poverty rate after social transfers	-0,39	-0,34	-0,27	-0,49 *	0,01	-0,14	-0,56 **	0,04	-0,46 *	-0,13	0,44 *	-0,52 *	-0,39	-0,18	-0,40	0,73 **		
(18) Index of decommodification	0,83 **	0,64 **	0,08	0,57 **	0,34	0,49 *	0,71 **	0,49 *	0,46 *	0,54 **	-0,47 *	0,67 **	0,69 **	0,16	0,65 **	-0,09	-0,22	
(19) Percentage tertiary education	0,41	0,34	0,07	0,55 **	0,38	-0,06	0,52 *	0,38	0,34	0,00	-0,44 *	0,54 **	0,62 **	0,62 **	0,57 **	-0,17	-0,21	0,55 **

**. Correlation is significant at the 0.01 level (2-tailed)

*. Correlation is significant at the 0.05 level (2-tailed)

Table A3: Results of ordinal multilevel analyses on fear of crime (only contextual level findings)

Contextual Predictor	Coef.	OR	p	U0 Variance Comp.	$R^2_{(Level\ 2)}$
Benefits in kind for families/children	-0.497	0.608	0.000	0.135	64.6
Expenditure on Education	-0.516	0.597	0.000	0.138	63.9
Employment rate	-0.445	0.641	0.000	0.187	51.0
Expenditure on Disability/Physical Handicap	-0.441	0.643	0.000	0.187	50.9
Index of decommodification	-0.403	0.669	0.000	0.221	42.0
Social Protection Expenditure (total)	-0.358	0.699	0.000	0.252	33.9
Unemployment rate	0.343	1.409	0.003	0.266	30.2
Poverty rate after social transfers	0.328	1.387	0.035	0.277	27.2
Percentage of persons with tertiary education	-0.313	0.731	0.009	0.283	25.8
Expenditure on Health	-0.311	0.733	0.005	0.289	24.2
Expenditure on Social Exclusion	-0.263	0.769	0.040	0.311	18.2
Registered crime	-0.232	0.793	0.048	0.327	14.2
Victimization rate	-0.183	0.833	0.131	0.348	8.6
Expenditure on Unemployment	-0.147	0.863	0.304	0.359	5.7
Expenditure on Old-Age	-0.146	0.864	0.312	0.361	5.2
Income inequality (Gini-Index)	0.136	1.145	0.271	0.363	4.8
Expenditure on Pensions	-0.128	0.880	0.372	0.364	4.4
Expenditure on Housing	-0.053	0.949	0.709	0.378	0.7
Cash benefits for families/children	-0.050	0.952	0.550	0.379	0.4