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Is fear of crime social and economic insecurity in disguise? A multilevel multinational analysis

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Is fear of crime mainly social and economic insecurity in disguise? A multilevel multinational analysis

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| Abstract: | Using the 2006 Eurobarometer data (representative sample of the European population, N = 16,306, 27 Countries), we performed a multilevel analysis aimed at predicting fear of crime. A significant proportion of the variation in fear of crime was at country level. Of the individual predictors included, being a woman, being poorly educated, being unemployed, and being an urban dweller showed positive relations with fear of crime. Fear was highest among people who considered themselves to be socially marginal, among those with negative expectations regarding themselves and their country's future, and among people who considered their nation's welfare system to be unsatisfactory. Among the ecological predictors we took into consideration, nations' degree of economic inequality and low expenditure on education and on social protection showed a positive association with fear of crime, while the crime, immigration, and employment rates did not. Implications and limitations of this research are discussed. |

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6 analysis
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11 Abstract

12 Using the 2006 Eurobarometer data (representative sample of the European population, $N =$
13 16,306, 27 Countries), we performed a multilevel analysis aimed at predicting fear of crime. A
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44 Key words: Fear of crime; Economic insecurity; Social insecurity; Social marginality; Multilevel
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46 analysis
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4 Studies aimed to explain the determining role of specific features of the context in which fear
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6 of crime develops have recently proliferated. These ecological analyses included independent
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8 variables describing people's proximal context, mainly their neighborhood (Ferguson & Mindel,
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10 2007; Sampson & Raudenbush, 2004; Vieno, Nation, Perkins, Pastore, & Santinello, 2010; Wyant,
11
12 2008). Results showed that living in neighborhoods characterized by low social capital or social
13
14 disorganization, low SES, low land use, low street lighting, and low access to recreational settings
15
16 increases residents' fear of crime. Above all, high crime rates showed to significantly increase
17
18 residents' fear of crime. Even if community psychologists have widely theorized about the
19
20 important role played by large social, political, and economic forces in determining individual
21
22 well-being (e.g. Montero, 2009), there has been relatively little discussion about the connection
23
24 between countries' broader societal conditions and citizens' fear of crime (Hummelsheim,
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26 Hirtenehner, Jackson, & Oberwittler, 2011). This study aimed to examine the influence exerted on
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28 fear of crime by individual characteristics and contextual objective features of the nation people live
29
30 in, explicitly testing the radical hypothesis that fear of crime is mainly social and economic
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32 insecurity in disguise.
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37 Fear of crime in Western people's minds

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39 People living today in the Western world are objectively much more secure than those who
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41 lived there in past centuries (Le Goff, 1988) and than those who live at present in less advantaged
42
43 areas (Walklate & Mythen, 2008). However, many social forces promote Western citizens'
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45 insecurity. Among them: (a) the spread of new unforeseeable domestic and international conflicts
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47 and of terrorism, which make everyone a potential victim, irrespective of their behavior; (b)
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49 universal deregulation, which reduces people's confidence about their professional future; (c)
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51 work's growing flexibility and insecurity, which undermine workers' perception of their lives'
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53 continuity; and (d) the increase in social inequality, the reduction of social mobility, and the crisis
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55 of the welfare state, which weaken the social support and protection people can gain from the
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4 institutions (Bauman, 1999; Füredi, 2002; Garland, 1996; Walklate & Mythen, 2008). Thus, it is far
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6 from surprising that insecurity is systematically immanent in the minds of the people living in the
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8 *risk society* (Beck, 1992) or in the *age of uncertainty* (Bauman, 1999), even in the absence of
9
10 incumbent disasters, and that a feeling of insecurity permeates their psychological states (Sennett,
11
12 1998).

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15 However, studies aimed at analyzing insecurity conceptualizing it in such a wide manner are
16
17 rare. Indeed, researchers tend to approach insecurity based on a reductionist approach, mainly in
18
19 terms of fear of crime. According to the literature, two main families of individual variables predict
20
21 this construct. On the one hand, victimization. Obtained results have been rather contrasting (for a
22
23 review, see Hale, 1996): Thus, at present the links between victimization and fear of crime are
24
25 much less straightforward that one could expect. On the other hand, people's personal
26
27 characteristics, mainly in terms of physical and social vulnerability (Pantazis, 2000). These forms of
28
29 vulnerability—typically assessed using socio-demographic variables—mainly characterize the
30
31 elderly (Fitzgerald, 2008), women (Ferraro, 1995), and low socio-economic status groups,
32
33 especially the poor (Pantazis, 2000) and poorly educated people (Austin, Woolever, & Baba 1994).
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38 Research performed at the ecological level showed that three families of contextual variables
39
40 predict fear of crime. First, actual crime spread. Even though fear of crime is more widespread than
41
42 actual crime (Taylor 1995), their association is quite consistent (Miceli, Roccato, & Rosato, 2004;
43
44 Roman & Chaflin 2008; but for opposing results, see Perkins & Taylor, 1996). Second, actual
45
46 neighborhood characteristics, mainly in terms of: (a) economic disadvantage (Franklin, Franklin, &
47
48 Fearn 2008; Roman & Chaflin 2008), which weakens residents' control, efficacy, and physical
49
50 health; and (b) immigration concentration (Sampson & Raudenbush, 2004; Taylor & Covington,
51
52 1993), especially if residents feel that their community has been "invaded" by people from different
53
54 ethnic groups (Skogan, 1995). Third, the spread of social disorder (such as loiterers, unruly and
55
56 rowdy teenagers, gangs, begging, public drunkenness, prostitution, and public drug use or dealing)
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4 and physical disorder (such as abandoned cars, vandalized property, litter, graffiti, vacant houses,
5
6 and dilapidated homes) (LaGrange, Ferraro, & Supancic, 1992).
7

8 9 Social and cultural relevance of fear of crime

10
11 This corpus of research led to rich and interesting results. However, according to some
12
13 researchers, the choice of studying fear of crime instead of the much wider construct of insecurity
14
15 should be considered negatively. Generally speaking, their conception (which we will label as
16
17 “radical”) can be summarized in Mathieu’s (1995) claim, according to which people feel insecure
18
19 and show high levels of fear of crime mainly as a consequence of social inequality. In this light, fear
20
21 of crime—which should be primarily considered as an “umbrella sentiment” people develop to
22
23 disguise their high levels of social and economic insecurity (Bauman, 1999)— finds “its lived social
24
25 meaning among people’s senses of change, decay, optimism and foreboding in the neighborhoods,
26
27 towns, cities, and wider political communities in which they live and move” (Hope & Sparks, 2000,
28
29 p. 5). Consistently, according to researchers into moral panics (e.g. Young, 2009), politicians and
30
31 dominant classes strategically foster this disguise among common citizens, both to give them the
32
33 idea of dealing with a problem that politics can manage successfully and to maintain the *status quo*.
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35 In this light, the loss of existential security and of cognitive certainty is strategically transformed
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37 into safety problems (Bauman, 1999). Thus, following this line of reasoning, traditional researchers
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39 into fear of crime collude with people and groups who try to distract public opinion’s attention from
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41 the actual causes of people’s problems.
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47 Consistently, many sociologists consider fear of crime not as a fear of specific offences, but as
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49 a compound of wider feelings of insecurity and a lack of social trust (Bauman, 1999; Beck, 1992).
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51 Based on a psychological perspective, Greenberg and Paulsen (1996) argued that concern for
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53 neighborhood’s economic condition makes people feel vulnerable to events which are beyond their
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55 control, among which crime. Thus, in this light, fear of crime may be considered as an entity
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4 symbolically loaded with general anxieties and social and economic fears, which can be framed in
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6 the context of the radical transformations of our societies.
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9 However, we believe that fear of crime itself deserves to be studied, because of it has several
10 negative consequences. This would not be inconsistent with the claims of the radical approach, as
11 fear of crime itself should be considered as a social problem that national institutions have to deal
12 with. Indeed, at the individual level, fear of crime lowers people's wellbeing and their state of
13 health, precluding them the opportunity to perform physical activities outside their home (Kilgour,
14 2003; Stafford, Chandola, & Marmot, 2007), and leads to relevant losses (leading people to use
15 taxis instead of underground trains, to spend money buying alarms instead of cultivating their
16 hobbies, etc.) (Dolan & Peasgood, 2007). For instance, Anderson (1999) showed that, on average,
17 each U.S. citizen spends two minutes per day opening and closing locks, which translates into a
18 diminishing returns equivalent of \$ 400 *per capita*. At the community level, fear of crime
19 contributes to some places turning into "no-go" areas via a withdrawal from community, to drain
20 community cohesion, trust, and neighborhood stability (Dupéré & Perkins, 2007).
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36 Nonetheless, we are not aware of any research in which the claims of the radical approach
37 have been formally tested. In this paper we aimed to do so, testing the hypothesis that fear of crime
38 mainly operates as a compound of individual and public concerns about social stability and as a
39 concern about the welfare state and the future trajectories of individuals and their country.
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44 Predicting fear of crime using multilevel models

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46 As stated above, people's fear of crime depends both on individual and environmental
47 characteristics. The former are realistically clustered within geographic areas. Moreover, fear of
48 crime may be drawn both from actual and from perceived features of the social environments in
49 which people live. For instance, it may depend on the low expenditure on social protection provided
50 by the nation, which may contribute to people's feeling of being under-protected and socially
51 marginal. Thus, hierarchical linear models (HLMs) provide the most appropriate approach to
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4 predict fear of crime, because they allow the researcher to measure both the impact exerted by
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6 individual and ecological variables, net of each other.
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9 Using HLMs, some researchers identified lagged impacts on fear of crime at the individual
10 and the ecological level; the proportion of total variation in fear attributable to the neighborhood
11 level ranged between 6% and 12% (Lindström, Merlo, & Östergren 2003; Russo, Roccato, &
12 Vieno, 2011; Taylor, Repetti, & Seeman 1997; Wyant 2008). The incidence of reported crime,
13 visible signs of disorder, and weak social, economic, and structural characteristics fostered fear of
14 crime (Brunton-Smith & Sturgis, 2011; Perkins & Taylor, 1996). However, these studies have been
15 conducted at the neighborhood or at the county level. To our knowledge, just Hummelsheim and
16 colleagues (2011) worked at the country level, detecting strong links between fear of crime and
17 national levels of social expenditure and decommodification of social welfare policy. However,
18 these authors did not control for individual perceptions of the welfare system and of their
19 marginality. Moreover, they adopted a step by step approach when including their contextual
20 variables (or at least including two predictors at a time). Thus, since they could not measure the
21 impact exerted by each of their ecological predictors on fear of crime net of all the others, they
22 concluded their results should be considered only as a preliminary multilevel exploration of fear of
23 crime predictors, to be more deeply analyzed in further research. In this work we tried to overcome
24 this study's limitations, and to further expand its results.
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45 Goals and hypotheses

46 Our purpose was to test the radical researchers' idea that fear of crime is mainly social and
47 economic insecurity in disguise, analyzing the effects exerted by individual and country level
48 characteristics on such variable using HLMs.
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51 We tested two families of hypotheses. The first one—referred to the individual level—was
52 compatible both with the traditional and the radical approach: According to both of them,
53 vulnerability should be positively linked with people's fear of crime. Based on the literature (e.g.,
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4 Amerio & Roccato 2005; Austin et al. 1994; Hipp, 2010; Roccato, Russo, & Vieno, 2011), we
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6 hypothesized women (HP1), elderly (HP2), unemployed (HP3), poorly educated (HP4), and people
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8 feeling socially marginal (HP5) to exhibit higher levels of fear of crime than their counterparts.
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10 Moreover, we expected people perceiving their country's welfare system as unsatisfactory (HP6)
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12 and people holding bad expectations for their future (HP7) and for that of their country (HP8)
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14 would be more fearful than those who do not (Bauman, 1999; Beck, 1992). Finally, we
15
16 hypothesized people living vs. not living in disordered environments to be more fearful (HP9).
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20 As concerns the second family of hypotheses—referred to the ecological level—we made
21
22 compete two sets of alternative expectations. If the radical approach were correct, fear of crime
23
24 should be associated with ecological variables assessing social, economic, and existential insecurity.
25
26 We focused on the impact exerted by welfare state measures on fear of crime. Previous research
27
28 showed that not all welfare policies are related to feelings of insecurity: Hummelsheim and
29
30 colleagues (2011) provided empirical evidence supporting the idea that welfare measures that
31
32 sustain individual resources and enhance citizens' ability to care for their own social and economic
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34 independence (e.g., family benefits in kind and education expenditures) reduce fear of crime. On the
35
36 contrary, welfare measures that aim to reduce poverty through a repairing function (e.g.,
37
38 unemployment benefits) are unlikely to strengthen people coping skills and, ultimately, to reduce
39
40 fear of crime. Thus, based on Hummelsheim et al. (2011) we hypothesized nations' expenditure in
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42 education (HP10a) and benefits in kind for children and family (HP10b) to show negative relations
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44 with fear of crime. Moreover, as economic inequality reduces social protection, by increasing the
45
46 general concern about the erosion of the social and moral order and reducing people's capacity to
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48 cope with their own problems (Füredi, 2002; Hummelsheim et al., 2011; Jackson, 2004), we
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50 hypothesized economic inequality to be positively linked with fear of crime (HP10c). Finally, as the
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52 employment rate represents a proxy for people's security to keep their job, and thus a relevant
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54 source of economic security (Hummelsheim et al., 2011; Walklate & Mythen, 2008) we
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4 hypothesized the employment rate to show a negative association with fear of crime (HP10d).

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6 However, if fear of crime is mainly social and economic insecurity in disguise, the crime and the
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8 immigration rates should not be associated with it. If the traditional approach were correct, the
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10 crime (HP11a) and the immigration (HP11b) rates should be positively linked with fear of crime,
11
12 while national expenditure on education and on social protection, economic inequality, and the
13
14 employment rate should not.
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16

17 Method

18 19 *Data Set*

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21 We performed a secondary analysis on the 2006 Eurobarometer data, complemented with
22
23 country-level data from Eurostat/ESSPROS. The sample ($N = 16,306$) was representative of the
24
25 population living in 27 European countries (see Table 1).
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27

28 29 *Dependent variable*

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31 We assessed fear of crime using the British Crime Survey standard item “How safe do you
32
33 feel walking alone in the area where you live after dark?”, with four answers categories ranging
34
35 from “Very safe” to “Very unsafe” (cf. Flatley, Kershaw, Smith, Chaplin, & Moon, 2010).
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38 39 *Individual level predictors*

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41 We used two sets of individual-level variables to predict fear of crime. First, participants’
42
43 socio-demographic characteristics: gender (0 = woman, 1 = man), age, occupational status (0 =
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45 employed, 1 = unemployed), years of education (1 = <15, 2 = 16-19, 3 = 20+), and size of their area
46
47 of residence (1 = small rural village, 2 = small or middle sized town, 3 = large town). Based on
48
49 Cates, Dian, and Schnepf (2003), we used the latter variable as a proxy for living in a disordered
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51 environment.
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54 Second, people’s welfare and marginality perceptions and expectations about personal and
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56 country future. People’s welfare perception was assessed using three three-category items: “For
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58 each of the following please tell me whether you think it applies to the (country) social welfare
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4 system. Our social welfare system..." (1) "Provides wide enough coverage", (2) "Could serve as a
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6 model for other countries", (3) "Is too expensive for (country) society". Based on $\alpha = .65$, a
7
8 synthetic measure was computed by averaging these responses.
9

10
11 Marginality perception was assessed by three five-category items, measuring participants' self
12
13 evaluation of "inclusion" in their society: "To what extent do you agree or disagree with the
14
15 following statements?" (a) "I feel left out of society", (b) "Some people look down on me because
16
17 of my income or job situation", and (c) "I feel that there is a risk that I could fall into poverty".
18
19 Based on $\alpha = .73$, responses were averaged to obtain a synthetic measure.
20
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23 Expectations about personal future were assessed using three three-category items: "What are
24
25 your expectations for the next twelve months: Will the next twelve months be better, worse or the
26
27 same, when it comes to...? (a) Your life in general, (b) The financial situation of your household,
28
29 and (c) Your personal job situation". Based on $\alpha = .77$, responses were averaged to obtain a
30
31 synthetic measure.
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34 Expectations about the future of participants' country were assessed by two three-category
35
36 items: "What are your expectations for the next twelve months: Will the next twelve months be
37
38 better, worse or the same, when it comes to...? (a) The economic situation in (respective country),
39
40 and (b) The employment situation in (respective country)". Based on $r = .47$, $p < .001$, responses
41
42 were averaged to obtain a synthetic measure.
43

44 Country level predictors

45
46 Six country-level variables were included in the analysis: (a) the crime rate, i.e., the ratio
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48 between the amount of crimes reported to the police force during 2006 and the number of people
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50 living in each country; (b) the employment rate, as the quota of employed residents out of the
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52 country's entire population; (c) the immigration rate, as the ratio between the number of immigrants
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54 living in each country and the country population; (d) income inequality, assessed by the Gini
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4 index; (e) benefits in kind for families /children; and (f) the percentage of the GDP expended on
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6 education. These data allowed us to have 27 contextual units of analysis.
7

8 9 *Data analysis*

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11 Since the data we used were inherently clustered, with individuals having been sampled
12
13 within countries, we analyzed our data using the multilevel ordinal logit regression technique
14
15 implemented in HLM6 (Raudenbush & Bryk, 2002). The analysis involves simultaneously fitting
16
17 two ordinal logit regression models for the dependent variable: a *within-country model* (Model A),
18
19 and a *between-country model* (Model B). The within-country model estimated the links between the
20
21 individual predictors and fear of crime for individual i in country j . The between-country model
22
23 estimated the influence of the countries characteristics on country-level adjusted fear of crime.
24
25 Given that in our analyses we did not analyze any cross-level interaction, based on Raudenbush &
26
27 Bryk (2002) we did not center the individual level variables, while we grand mean centered the
28
29 country variables . Thus we examined the impact exerted on fear of crime by each of the predictors
30
31 we entered in the model (see Appendix 1 for the equation), discriminating between the independent
32
33 variables lying at the individual and at the country level.
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38 Ordinal logit regression models allowed us to estimate the logit of the increase in fear of
39
40 crime as a function of a unitary increase of the country and individual characteristic we took into
41
42 account. Threshold concept was applied in which it was assumed that a latent continuous variable
43
44 (y) was related to responses in the four possible categories of our dependent variable. Our model
45
46 computed the odds ratio of fear of crime at any level or more, as compared to the less level of fear
47
48 (very safe).
49

50 51 Results

52 53 *Preliminary Analyses*

54
55 Descriptive statistics for the individual and country variables are shown in Table 1. The
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57 lowest level of fear emerged in the Scandinavian countries (e.g. Denmark and Finland), whereas the
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4 Eastern European countries (Lithuania and Bulgaria) showed the highest levels of fear. Moreover,
5
6 among the western countries, fear tended to increase from Northern to Southern Europe (cf. Figure
7
8 1). Table 2 shows the correlations among our individual and among our contextual variables.
9
10 Although some of our contextual variables showed strong correlations, no collinearity distorted our
11
12 results (VIFs ranged between 1.19 and 3.28, and the model's Cook distance was 0 (Kutner,
13
14 Nachtsheim, Neter, & Li, 2004).
15
16

17
18 A preliminary step in HLM involves fitting an unconditional model and examining the
19
20 variance of the dependent variable, partitioning it into individual- and ecological-level components.
21
22 In our sample, the variation in fear of crime at country level was significant $\chi^2(26) = 2849.23, p <$
23
24 $.001$, with a random coefficient reliability of $.990$.
25

26 27 *Predictors of Fear of Crime at the Individual and the National Levels*

28
29 The HLM model for individuals' fear of crime is shown in Table 3 (first column, Model A).
30
31 Consistent with HP1, HP2, HP3, and HP4, being a woman, being an older person, being
32
33 unemployed, and having a low level of education predicted higher levels of our dependent variable.
34
35 Moreover, consistent with HP5, HP6, HP7, and HP8, participants' perception of being socially
36
37 marginalized, a negative evaluation of the welfare system in their country, and negative
38
39 expectations for their country and themselves showed positive relations with it. Finally, consistent
40
41 with HP9, living in a big city—and thus having strong probabilities of living in a disordered
42
43 environment—was positively associated with fear of crime.
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47 To test our second family of hypotheses, we included as predictors at Level 2 (Model B) the
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49 expenditure on education, benefit in kind for families/children, and the Gini index (after controlling
50
51 for the non-effects of the crime, the immigration and employment rates). Consistent with HP10a,
52
53 HP10b, and HP1c, expenditure on education and benefit in kind for families/children were
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55 negatively linked with fear of crime, while economic inequality, as measured by the Gini index,
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57 showed a positive relation with it. However, contrary to HP10d, HP11a, and HP11b, the
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4 immigration, employment, and crime rates showed non-significant relations with fear of crime.¹

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6 Various parallel multilevel regressions models (performed, as previously done by Hummelsheim,
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8 entering our ecological predictors one step at the time) showed that our results have been pretty
9
10 stable (results available upon request).

11 12 Discussion

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14
15 Using multilevel analysis, we modeled fear of crime among European citizens living across
16
17 27 countries. Our principal aim was to examine predict fear of crime as a function of individual
18
19 characteristics and contextual objective features of the society people live in, to test the radical
20
21 hypothesis that fear of crime is mainly social and economic insecurity in disguise.
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25 Three main results stemmed from our study, two compatible with both the traditional and the
26
27 radical approach to fear of crime and one more consistent with the latter than the former.

28
29 First, living in a disordered community—indirectly assessed in terms of living in a large
30
31 town—was a powerful predictor of fear of crime, even if we have controlled for the main individual
32
33 and the societal variables. In the literature three interpretations of the positive link between disorder
34
35 and fear of crime are available (Russo, Roccato, & Vieno, in press). First, disorder may frighten
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37 people because they consider it as a sign of the incapacity of residents to manage their
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39 neighborhood, and of law agencies to preserve order (Hunter, 1978). Second, disorder may frighten
40
41 residents because they conclude that social control has broken down (Skogan, 1990). Third, the
42
43 disordered environments are actually dangerous, because they are also characterized by the
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45 presence of high crime rates (Nardi, 2003). Our data did not allow us to make these interpretations
46
47 compete to detect the most correct one. New research aimed at tackling this issue will be
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49 interesting.
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53 Second, our results indirectly confirmed Panzatis's (2000) idea that fear of crime is positively
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55 linked with vulnerability. In our dataset no vulnerability scales were available. However, according
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57 to the literature (e.g., Hale, 1996), the links between the socio-demographics we used and
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4 vulnerability are strong. Nonetheless, new research based on a direct assessment of such construct
5
6 would be interesting. Nonetheless, even without performing such research, we showed that,
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8 consistent with Amerio and Roccato (2005) and Hipp (2010), fear of crime was positively
9
10 associated with the socio-demographic characteristics indirectly accounting for social marginality
11
12 (being a woman, an older, a poorly educated, and an unemployed person). We could extend this
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14 idea in two directions. First, perceiving the welfare system as malfunctioning and having negative
15
16 expectations for one's own personal and country future showed positive associations with fear of
17
18 crime. Plausibly, concerns for themselves and for their country make people feel vulnerable to
19
20 events which are beyond their control (Greenberg & Paulsen, 1996). Thus, a psychosocial
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22 vulnerability was indirectly shown to concur with the classic socio-demographic vulnerability in
23
24 shaping people's levels of fear of crime. Second, as having a negative economic and job situation
25
26 showed positive relations with fear of crime, our results indirectly showed that people's actual
27
28 vulnerability positively influenced our dependent variable. Hence, as a whole, we believe that
29
30 researchers should tackle fear of crime using a more multifaceted conception and assessment of
31
32 people's vulnerability than that typically used.
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38 Third, the Level-2 relations we detected helped making this picture complete, in two ways.
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40 On the one side, income equality was associated with low levels of fear of crime. According to the
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42 literature on "future income worry" (e.g. Hershey, Henkens, & Van Dalen, 2010), income
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44 re-distribution can provide citizens with a solid sense of security. On the other side, fear of crime
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46 was negatively associated with the degree of countries' expenditure on education and benefits in
47
48 kind for children and family. According to the studies on population health outcomes (e.g. Chung &
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50 Muntaner, 2007), welfare and educational services foster people's physical and psychosocial well-
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52 being, and prevent their marginalization. Moreover, welfare measures that sustain individual
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54 resources may foster people's empowerment and may strengthen their capacity to cope with
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56 negative life events, protecting them against many social anxieties (Hummelsheim et al., 2011).
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4 Thus, as a whole, our Level-2 results indirectly confirmed what emerged at the individual-level: A
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6 wide conception of vulnerability is required to analyze fear of crime.
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9 With the exception we will discuss below, our country-level results were consistent with the
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11 radical thesis that people show high levels of fear of crime mainly as a consequence of income
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13 inequality, social benefits, and expenditure on education. Moreover, they did not confirm the
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15 traditional thesis on the “rationality” of fear of crime (cf. Lupton & Tulloch, 1999), because our
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17 dependent variable showed no association with the crime and the immigration rates. Thus, in spite
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19 of its emotional and subjective dimension, fear of crime did not seem to be exclusively an
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21 individual or a private psychological experience. On the contrary, it showed to be at least in part
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23 historically and socially specific. In this light, our analyses resonated with Bauman’s (1999) idea
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25 that fear of crime should be considered as an “umbrella sentiment” people develop to disguise their
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27 high levels of social and economic insecurity. More generally, our study supported the radical idea
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29 that fear of crime may be considered, at least in part, as social and economic insecurity in disguise:
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31 This was especially true when considering country-level variables. However, as individual-level
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33 results did support both the traditional and the radical approach, we should conclude that fear of
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35 crime plausibly conveys social and economic as well as more crime-related insecurities.
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40 As stated above, we found an exception in this picture: The employment rate, contrary to what
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42 a radical researcher should expect, did not influence participants’ fear of crime. One methodological
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44 conjecture may be developed to interpret this unexpected result: The employment rate may be an
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46 inaccurate measure of the number of employed people, especially in nations with a high “under the
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48 table” job rate (Ricolfi, 2010). Thus, we believe that, before closing the book on the links between
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50 these two variables, more research will be germane.
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54 The present study had some limitations, mainly because it was based on secondary analysis.
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56 Advantages and drawbacks of this method are well-known (e.g., Kiekolt & Nathan, 1985). In our
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58 case, the use of secondary analysis made it possible to obtain low-cost, high-quality data gathered
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4 from a representative sample of the population living in 27 European countries. This was
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6 particularly important because representative samples are still seldom used in psychological
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8 research. On the other hand, limitations had to do with the nature of the variables we were able to
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10 use, in at least four senses. First, as we wrote above, in the dataset we analyzed a measure of
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12 psychological vulnerability was not available. Future research, performed explicitly assessing such
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14 construct, could help researchers deepening their understanding of the origins of fear of crime.
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18 Second, our assessment of fear of crime was not completely satisfactory, mainly because it
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20 consisted of a single item. As a matter of fact, the item we could use was a pretty standard measure,
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22 widely used in this field of research (cf. Flatley et al., 2010). Moreover, according to Hummelsheim
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24 and colleagues (2011, pp. 332) it is “highly suitable to measure general feelings of insecurity
25
26 projected onto the symbolic issue of crime”. However, in future studies it would be beneficial to
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28 expand this measure into a multiple-items scale, and to examine this construct in relation to more
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30 traditional psychometric indicators of the variables included. For instance, Rader (2004; Rader et al.
31
32 2007) recently developed an integrated model of the psychological reactions to crime, focused on a
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34 new dependent variable, labelled as “threat of victimization”, and composed of three dimensions:
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36 (a) crime risk perception, which is the cognitive dimension of the construct; (b) fear of crime, which
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38 is the emotional dimension; and (c) constrained behaviours, which are the behavioral dimension.
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40 Rader’s approach has been often quoted (e.g. Carro, Valera, & Vidal, 2010; Randa & Wilcox 2010),
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42 but seldom used. A multilevel study aimed at predicting this variable is not available yet. Such a
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44 study would be really interesting.
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49 Third, our study was partially weakened by the absence, in the data set we analyzed, of items
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51 directly assessing physical and social disorder in the participants’ community. The literature shows
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53 that the proxy variable we used to indirectly assess disorder (the size of participants’ town of
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55 residence) strongly correlates with actual and perceived disorder (Cates et al., 2003). Moreover, this
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57 result was consistent with those stemming from the literature on the links between disorder and fear
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4 of crime (e.g. Skogan, 1990; Taylor & Shumaker, 1990). Thus, we conjecture that using a direct
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6 measure of social and physical disorder instead of our proxy variable would not dramatically
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8 influence the picture we have drawn. However, new research performed with a direct assessment of
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10 actual and/or perceived disorder in participants' community will be welcome.

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13 Fourth, in the 2006 Eurobarometer file a variable assessing participants' victimization was not
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15 available. Thus, we could not use victimization in our models predicting fear of crime. In fact, the
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17 links between victimization and fear of crime are much less straightforward than one could expect:
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19 The literature shows that these links are often weak or even non significant (for a review, see Hale,
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21 1996). Vieno, Russo, and Roccato (2011) recently performed a multilevel analysis aimed at
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23 predicting fear of crime in Italy taking into account many contextual and individual variables,
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25 among which victimization. An *ad hoc* re-analysis of their data set, performed excluding
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27 victimization, left unchanged the picture of the influences exerted on fear of crime by the other
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29 individual and contextual variables they used (results available upon request). Thus, it is plausible
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31 that not using victimization did not dramatically bias our results. However, further research
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33 including this predictor of fear of crime would be interesting.
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38 In conclusion, in spite of these limitations, our multilevel multinational study improved our
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40 understanding of the origins of fear of crime. Our findings show that fear of crime is, at least in part,
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42 rooted in social and economic insecurity but not in crime and immigration rates, and substantially
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44 supported the radical idea that this construct operates as a compound of broader social insecurities
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46 and is associated with the fundamental need for social inclusion. Thus, results of the present study
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48 show that, beyond the more commonly studied neighborhood features, the analysis of country level
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50 characteristics may lead to a better understanding of fear of crime. In turn, depicting an accurate
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52 picture of the socioeconomic context in which fear of crime develops may help in planning
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54 prevention policies and interventions. In discussing the relationship between poverty and actual
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56 crime rates, Braithwaite offered the rather grim conclusion that focusing on groups living in poverty
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4 would never have a significant effect on overall crime rates (Braithwaite, 1979). On the contrary, he
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6 argued, only “gross economic measures to reduce the gap between the rich and the poor” (p. 231)
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8 could effectively reduce overall crime rates. This pertains to the objective level. Working at the
9
10 subjective level, we argued that redistributing wealth and creating more egalitarian societies with
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12 adequate welfare and educational systems would do more for reducing fear of crime than actually
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14 protecting citizens and resorting to “zero tolerance” policies.
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Appendix

Final model for:

$$\eta = \gamma_{00} + \gamma_{10} (\text{age}) + \gamma_{20} (\text{man}) + \gamma_{30} (\text{not working}) + \gamma_{40} (\text{medu}) + \gamma_{50} (\text{hedu}) + \gamma_{60} (\text{area of residence}) + \gamma_{70} (\text{marginality perception}) + \gamma_{80} (\text{bad welfare evaluation}) + \gamma_{90} (\text{individual bad expectations}) + \gamma_{100} (\text{country bad expectation}) + \gamma_{01} (\text{crime rate}) + \gamma_{02} (\text{expenditure on education}) + \gamma_{03} (\text{Gini index}) + \gamma_{04} (\text{benefits for families/children}) + \gamma_{05} (\text{immigration rate}) + \gamma_{06} (\text{employment rate}) + \delta_2 + \delta_3 + u_0$$

For Peer Review

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Table 1.

Number of participants and scores for the variables included in the analysis

| Country | Level 1 – Individual (N = 16,306) | | | | | | | | | | Level 2 – Country level (N = 27) | | | | | |
|----------------------|-----------------------------------|----------------|------------------|------------|----------------------------------|--------------------------|-----------------------------|--|------------------------------------|---------------------|----------------------------------|--------------------------------|---------------|----------------------------|---------------------|--------------------|
| | N (% male) | Not working | Mean age | Education | Width of area of Residence | Perceived marginality | Perceived bad welfare | Individual negative expectations | County negative expectations | Fear of crime | Crime Rate | Expenditure on education | Gini Index | Benefit family/children | Immigration rate | Employment rate |
| Austria | 728 (47.72%) | 41.21% | 46.68 (16.00) | 1.94 (.67) | 1.91 (0.86) | 2.29 (1.04) | 2.79 (0.27) | 1.91 (0.45) | 1.92 (0.53) | 2.03 (.78) | 2.03 (0.78) | 5.46 | 25.3 | .42 | 9.62 | 4.8 |
| Belgium | 852 (46.88%) | 53.02% | 47.37 (18.37) | 2.26 (.71) | 1.58 (0.72) | 2.06 (0.85) | 2.95 (0.15) | 1.81 (0.44) | 2.24 (0.50) | 2.00 (.89) | 2.00 (0.89) | 6.00 | 27.8 | .38 | 8.51 | 8.3 |
| Bulgaria | 329 (44.18%) | 60.31% | 48.90 (17.99) | 2.07 (.67) | 2.15 (0.86) | 2.61 (0.97) | 2.60 (0.39) | 2.09 (0.54) | 2.26 (0.63) | 2.64 (1.00) | 2.64 (1.00) | 4.24 | 31.2 | .14 | .34 | 9.0 |
| Cyprus (Republic) | 196 (39.48%) | 57.54% | 49.13 (18.47) | 1.73 (.72) | 1.67 (0.47) | 1.62 (0.68) | 2.80 (0.33) | 1.85 (0.44) | 2.27 (0.56) | 2.07 (.97) | 2.07 (0.97) | 7.02 | 28.8 | .25 | 14.15 | 4.6 |
| Czech Republic | 786 (42.70%) | 44.17% | 46.58 (17.12) | 2.08 (.53) | 1.97 (0.76) | 2.04 (0.78) | 2.91 (0.20) | 1.89 (0.47) | 2.11 (0.54) | 2.34 (.82) | 2.34 (0.82) | 4.60 | 25.3 | .23 | 2.51 | 7.2 |
| Denmark | 817 (49.18%) | 45.71% | 50.83 (17.57) | 2.73 (.56) | 2.03 (0.80) | 1.78 (0.73) | 2.99 (0.06) | 1.74 (0.41) | 1.83 (0.39) | 1.54 (.78) | 1.54 (0.78) | 7.97 | 23.7 | 2.05 | 4.96 | 3.9 |
| Estonia | 463 (37.20%) | 53.80% | 50.54 (19.56) | 2.17 (.65) | 1.97 (0.82) | 2.16 (0.83) | 2.86 (0.27) | 1.62 (0.46) | 1.57 (0.47) | 2.26 (.93) | 2.26 (0.93) | 4.75 | 33.1 | .06 | 18.03 | 5.9 |
| Finland | 877 (46.60%) | 50.19% | 51.64 (17.97) | 2.32 (.80) | 1.92 (0.70) | 1.96 (0.79) | 2.95 (0.15) | 1.81 (0.37) | 1.92 (0.43) | 1.61 (.72) | 1.62 (0.73) | 6.19 | 25.9 | 1.36 | 2.16 | 7.7 |
| France | 711 (45.75%) | 50.69% | 47.83 (19.09) | 2.13 (.75) | 1.82 (0.67) | 2.07 (0.87) | 2.97 (0.10) | 1.68 (0.49) | 2.08 (0.57) | 1.86 (.89) | 1.87 (0.89) | 5.58 | 27.3 | .15 | 5.51 | 9.2 |
| Germany | 792 (46.80%) | 54.20% | 49.72 (18.53) | 2.03 (.68) | 1.92 (0.77) | 1.87 (0.88) | 2.95 (0.14) | 1.93 (0.45) | 2.09 (0.55) | 2.03 (.88) | 2.03 (0.88) | 4.40 | 26.8 | .75 | 8.86 | 9.8 |
| Greece | 930 (45.70%) | 59.80% | 48.23 (19.49) | 1.80 (.80) | 2.22 (0.90) | 1.87 (0.80) | 2.94 (0.17) | 1.86 (0.51) | 2.32 (0.54) | 2.33 (1.13) | 2.33 (1.13) | 4.04 | 34.3 | .26 | 7.91 | 8.9 |
| Hungary | 649 (49.70%) | 62.10% | 50.41 (18.59) | 1.75 (.66) | 1.98 (0.82) | 2.59 (0.95) | 2.95 (0.17) | 2.28 (0.53) | 2.53 (0.54) | 2.15 (.94) | 2.15 (0.94) | 5.42 | 33.3 | .63 | 1.55 | 7.5 |
| Ireland | 421 (42.50%) | 51.10% | 44.84 (17.92) | 1.98 (.65) | 2.13 (0.90) | 1.92 (0.92) | 2.83 (0.29) | 1.67 (0.46) | 1.83 (0.54) | 2.22 (.99) | 2.22 (0.99) | 4.76 | 31.9 | .27 | 10.64 | 4.5 |
| Italy | 728 (39.21%) | 42.10% | 42.55 (15.14) | 1.86 (.72) | 2.06 (0.63) | 2.76 (0.99) | 2.83 (0.29) | 1.81 (0.57) | 2.05 (0.63) | 2.29 (.92) | 2.29 (0.92) | 4.70 | 32.1 | .16 | 4.52 | 6.8 |
| Latvia | 600 (38.17%) | 47.30% | 42.12 (17.56) | 2.17 (.60) | 1.96 (0.82) | 2.50 (0.88) | 2.96 (0.15) | 1.62 (0.50) | 1.79 (0.53) | 2.30 (.97) | 2.30 (0.97) | 5.07 | 39.2 | .19 | 20.02 | 6.8 |
| Lituania | 569 (38.15%) | 52.98% | 45.54 (18.35) | 2.20 (.68) | 2.04 (0.78) | 2.66 (0.78) | 2.89 (0.25) | 1.70 (0.56) | 1.74 (0.53) | 2.70 (.98) | 2.69 (0.98) | 4.84 | 35.0 | .32 | .97 | 5.6 |
| Luxembourg | 293 (43.03%) | 60.36% | 49.96 (18.53) | 2.12 (.74) | 1.56 (0.68) | 1.57 (0.71) | 2.93 (0.18) | 1.85 (0.39) | 2.28 (0.47) | 1.94 (.97) | 1.94 (0.98) | 3.38 | 27.8 | .53 | 40.19 | 4.6 |
| Malta | 146 (39.20%) | 66.20% | 48.41 (18.33) | 1.79 (.65) | 1.75 (0.82) | 1.73 (0.66) | 2.91 (0.18) | 1.81 (0.43) | 1.96 (0.61) | 2.05 (1.07) | 2.04 (1.07) | 6.79 | 27.3 | .09 | 2.94 | 7.1 |
| Netherlands | 613 (48.43%) | 45.39% | 49.78 (17.17) | 2.32 (.69) | 1.78 (0.75) | 1.80 (0.71) | 2.97 (0.10) | 1.76 (0.43) | 1.75 (0.49) | 1.69 (.74) | 1.69 (0.74) | 5.46 | 26.4 | .85 | 4.23 | 4.4 |
| Poland | 653 (43.10%) | 60.40% | 46.76 (18.23) | 2.09 (.70) | 1.87 (0.77) | 2.31 (0.70) | 2.94 (0.17) | 1.80 (0.48) | 1.97 (0.55) | 2.24 (.89) | 2.24 (0.89) | 5.25 | 33.3 | .00 | .13 | 13.9 |
| Portugal | 662 | 54.58% | 49.29 | 1.52 (.75) | 1.81 | 2.06 (0.80) | 2.93 | 1.97 (0.53) | 2.31 (0.57) | 2.24 | 2.24 | 5.25 | 37.7 | .00 | 2.60 | 7.8 |

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|----------------|-------------------|--------|------------------|------------|----------------|-------------|----------------|-------------|-------------|---------------|----------------|-------------|-------|--------|--------|------|
| Romania | (44.12%) 353 | 50.20% | (18.43) 44.59 | 2.04 (.71) | (0.74) 1.83 | 2.48 (0.98) | (0.21) 2.86 | 1.71 (0.58) | 1.90 (0.69) | (.82) 2.18 | (0.82) 2.18 | 3.48 | 33.0 | .64 | .12 | 7.3 |
| Slovakia | (48.00%) 617 | 41.18% | (17.21) 47.31 | 2.11 (.55) | (0.80) 1.74 | 2.33 (0.79) | (0.28) 2.94 | 1.86 (0.51) | 1.98 (0.57) | (.90) 2.49 | (0.90) 2.49 | 3.80 | 28.1 | .13 | .47 | 13.4 |
| Slovenia | (38.29%) 754 | 59.47% | (17.07) 47.29 | 1.98 (.71) | (0.71) 1.76 | 1.82 (0.73) | (0.19) 2.87 | 1.90 (0.45) | 2.10 (0.55) | (.80) 1.72 | (0.80) 1.72 | 5.67 | 23.7 | .03 | 2.44 | 6.0 |
| Spain | (42.89%) 554 | 57.70% | (19.29) 49.36 | 1.69 (.75) | (0.77) 1.80 | 1.88 (0.81) | (0.25) 2.93 | 1.77 (0.46) | 1.99 (0.52) | (.70) 2.20 | (0.70) 2.20 | 4.27 | 31.2 | .47 | 9.00 | 8.5 |
| Sweden | (40.80%) 634 | 43.29% | (19.93) 52.59 | 2.35 (.75) | (0.80) 1.79 | 1.51 (0.78) | (0.20) 2.91 | 1.71 (0.42) | 1.78 (0.54) | (.91) 1.69 | (0.91) 1.69 | 6.85 | 24.0 | 1.42 | 5.27 | 7.0 |
| United Kingdom | (49.61%) 579 | 59.60% | (16.65) 50.36 | 1.85 (.71) | (0.78) 2.16 | 2.23 (0.89) | (0.18) 2.96 | 1.67 (0.47) | 2.12 (0.54) | (.85) 2.29 | (0.85) 2.29 | 5.47 | 32.5 | .36 | 5.63 | 5.4 |
| Total | (45.86%) 16306 | 52.90% | (19.79) 47.50 | 2.01 (.73) | (0.74) 1.91 | 2.12 (0.90) | (0.12) 2.91 | 1.82 (0.50) | 2.02 (0.58) | (.99) 2.12 | (0.99) 2.12 | 5.22 (1.10) | 29.85 | .42 | 7.16 | 7.26 |
| | (44.01%) | | (18.30) | | (0.79) | | (0.22) | | | (.94) | (0.94) | (4.27) | (.49) | (8.43) | (2.47) | |

Table 2.

Correlation among our level-1 and among our level-2 variables

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--|--------|--------|--------|--------|--------|-------|--------|-------|-------|
| <i>Level 1 – Individual level (N = 16,306)</i> | | | | | | | | | |
| 1 Age | - | | | | | | | | |
| 2 Gender (1 = man) | -.01* | - | | | | | | | |
| 3 Not working | .31** | -.13** | - | | | | | | |
| 4 Education (3 = high) | -.25** | .05** | -.31** | - | | | | | |
| 5 Area of residence (3 = big city) | -.08** | -.01* | -.03** | - | | | | | |
| 6 Marginality (perception) | -.02** | -.03** | -.06** | -.13** | .02* | - | | | |
| 7 Bad welfare (perception) | .01 | .01 | .01 | -.01 | .02* | .04** | - | | |
| 8 Individual bad expectations | .34** | -.02** | .11** | .11** | -.11** | .16** | -.04** | - | |
| 9 Country bad expectations | .16** | -.04** | .06** | -.18** | -.05** | .16** | -.01 | .58** | - |
| 10 Fear of Crime | .10** | -.26** | .12** | -.14** | .18** | .19** | .05** | .10** | .12** |

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Level 2 – Country level (N = 27)

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|----------------------------|-------|-------|-------|------|-------|---|
| 1 Crime rate | - | | | | | |
| 2 Expenditure on Education | .06 | - | | | | |
| 3 Gini Index | .03 | -.41* | - | | | |
| 4 Benefit family/children | -.04 | .51** | -.43* | - | | |
| 5 Immigration rate | .50** | -.17 | -.41* | -.10 | - | |
| 6 Employment rate | .60** | -.17 | .02 | -.20 | .82** | - |

Note. *** $p < .001$. ** $p < .01$. * $p < .05$.

Table 3.

Correlates of fear of crime

| Variables | Model A | | | | Model B | | | |
|--|---------|-----|---------------------|----------|---------|-----|---------------------|----------|
| | Coeff. | SE | OR (CI) | <i>p</i> | Coeff. | SE | OR (CI) | <i>p</i> |
| Intercept | -3.38 | .43 | .04 (.01-.08) | .001 | -3.54 | .42 | | .001 |
| <i>Level 1 – Individual (N = 16,306)</i> | | | | | | | | |
| Age | .01 | .01 | 1.01 (1.01-1.01) | .001 | .01 | .01 | 1.01 (1.01-1.01) | .001 |
| Gender (1 = man) | -.99 | .05 | .37 (.33-.41) | .001 | -.99 | .05 | .37 (.34-.41) | .001 |
| Not working | .12 | .05 | 1.13 (1.04-1.24) | .022 | .10 | .05 | 1.11 (1.01-1.22) | .023 |
| Education | -.18 | .04 | .83 (.77-.89) | .001 | -.18 | .04 | .83 (.77-.90) | .001 |
| Area of residence (3=big city) | .52 | .05 | 1.68 (1.53-1.84) | .001 | .52 | .05 | 1.69 (1.53-1.86) | .001 |
| Marginality (perception) | .27 | .04 | 1.31 (1.20-1.43) | .001 | .26 | .04 | 1.30 (1.19-1.41) | .001 |
| Bad welfare (perception) | .31 | .11 | 1.32 (1.14-1.50) | .003 | .30 | .10 | 1.30 (1.14-1.51) | .003 |
| Individual bad expectations | .23 | .05 | 1.26 (1.15-1.34) | .016 | .11 | .05 | 1.12 (1.02-1.23) | .018 |
| Country bad expectations | .19 | .04 | 1.21 (1.11-1.32) | .001 | .19 | .04 | 1.21 (1.11-1.31) | .001 |
| <i>Country level (N = 27)</i> | | | | | | | | |
| Expenditure on Education | | | | | -.24 | .06 | .79 (.69-.89) | .001 |
| Gini Index | | | | | .03 | .02 | 1.05 (1.01-1.07) | .050 |

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|--|------|----------------------------------|---------------|------|------|---------------------------------|---------------|------|
| Benefit family/children | | | | | -.01 | .01 | .99 | .007 |
| | | | | | | | (.99-.99) | |
| δ_2 | 1.61 | .08 | 4.99 | .001 | 1.61 | .08 | 4.99 | .001 |
| | | | (4.26-5.86) | | | | (4.26-5.86) | |
| δ_3 | 3.73 | .15 | 41.87 | .001 | 3.74 | .15 | 41.89 | .001 |
| | | | (31-24-56.14) | | | | (31.25-56.16) | |
| <i>Variance components</i> τ_{00} | .59 | $\chi^2(26) = 1426.06, p < .001$ | | | .12 | $\chi^2(23) = 464.24, p < .001$ | | |

Note. In the table we provided estimates with robust standard errors. The rough estimates, available upon request, were substantially analogous to those we presented.

For Peer Review

Figure 1.

Country specific mean scores for the fear of crime variable

