

Fear of crime, neuroticism, and perceived likelihood of crime as predictors of attitude towards expatriates

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Abstract :

Fear of crime (FoC) has been shown to be a significant predictor of a number of important societal phenomena. Expatriates are a diverse group of people residing and usually working in non-domestic countries, and it is possible that they are implicitly associated with crime by the domestic populations. This study, utilized stepwise multiple regression analysis and gathered a diverse sample with the aim to provide an initial insight into the relationship between fear of crime and attitude towards expatriates, taking into consideration potential effects of neuroticism, perceived likelihood of crime, age, and gender. While significant associations were found between fear of crime, perceived likelihood of crime, and neuroticism, these variables were not related to attitude towards expatriates in this study.

Keywords

Fear of crime; FoC; attitude towards expatriates; neuroticism; perceived likelihood of crime

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الملخص

الخوف من الجريمة، والعصابية، والاحتمال المتصور لوقوع الجريمة كمنبئات للاتجاه نحو

المغتربين

لقد ثبت أن الخوف من الجريمة هو مؤشر مهم لعدد من الظواهر المجتمعية الهامة. ومن الممكن أن يكون المغتربون وهم مجموعة متنوعة من الأشخاص الذين يقيمون ويعملون عادة في بلدان غير بلدانهم مرتبطين ضمناً بالجريمة في تصور السكان المحليين. تهدف هذه الدراسة باستخدام تحليل الانحدار المتعدد التدريجي وجمع عينة متنوعة، إلى تقديم نظرة أولية للعلاقة بين الخوف من الجريمة والاتجاه نحو المغتربين، مع الأخذ في الاعتبار الآثار المحتملة للعصابية، والاحتمال المتصور للجريمة، والعمر، والجنس. تم العثور على ارتباطات كبيرة بين الخوف من الجريمة، والاحتمال المتصور لوقوع الجريمة، والعصابية، إلا أن هذه المتغيرات لم تكن مرتبطة بالاتجاه نحو المغتربين في هذه الدراسة.

Introduction

Crime continues to plague societies worldwide. According to the United Nations Office for Drugs and Crime (2021), the global homicide rate per 100,000 citizens stands around 5.8 victims. The rates are higher in the Americas (15 per 100,000) and Africa (12.7 per 100,000), as opposed to Europe (2.2 per 100,000), Oceania (2.9 per 100,000), and Asia (2.3 per 100,000).

Robberies are more common, averaging at 1587 per 100,000 (The Global Economy, 2017). The rates of theft are fairly high in countries such as Denmark (3949 per 100,000), Sweden (3817 per 100,000), the UK (2283 per 100,000), or USA (1750 per 100,000) (The Global Economy, 2016). Moreover, it was recently stated that 27% of all women globally experienced physical or sexual intimate partner violence (Sardinha et al., 2022).

Fear of crime (FoC) has emerged as an important concept in understanding people's interpretations and reactions to crime as a direct threat and as a social issue. Moreover, fear of crime has been shown to be an important predictor of well-being and quality of life (Koskela, 2009; Stafford et al., 2007). Fear of crime can be understood not only as a factor that affects public well-being, but also as an important factor in explaining the attitudes of domestic populations towards migrants, refugees, and expatriates.

A positive association between FoC and xenophobic attitudes has been found (De Coninck, 2022; Gurinskaya et al., 2024; Vahed, 2013). It is also well-known that migrants are often stereotyped as being prone to violence (Akyuz et al., 2021; Farris & Silber Mohamed, 2018). In the US, for instance, immigrants are consistently represented in a negative light, as a threat to the whole country, with the coverage being disproportionate to the actual share of immigrants in criminal actions (Farris & Silber Mohamed, 2018). Sensitive groups such as migrant

workers, refugees, as well as asylum seekers are often represented in a negative light in mass media and as a threat to the national security of a country (O'Regan & Riordan, 2018).

Expatriates are people who spend significant amounts of time in foreign countries, usually seeking better jobs or new experiences, and as opposed to immigrants, asylum seekers, or refugees, may not intend to permanently move to a foreign country. Expatriates, or expats, can also be perceived negatively, stereotyped and discriminated against by domestic populations (Kang & Shen, 2018). The more ethnocentric groups can especially be hostile towards expats (Arman & Aycan, 2013).

Research problem

It is fairly likely that the number of expatriates will continue to increase globally. With the increasing globalization and ease of travel between countries, the potential issues in interaction between expats and domestic populations becomes more and more significant. Therefore, investigating potential predictors of the attitude towards expatriates is a research topic with significant implications for managing the relationship between domestic populations and expatriates. Doing so will potentially allow influencing the attitude towards expatriates by influencing its antecedents.

Research questions

The main research question: is fear of crime negatively related to fear of expatriates, so that increases in fear of crime are related to less positive attitudes towards expatriates? Furthermore, does fear of crime contribute to prediction of attitude towards expatriates over and above the predictive contributions of neuroticism, perceived likelihood of crime, age, and gender?

The study will additionally address the following research questions:

Are neuroticism and perceived likelihood of crime positively related to fear of crime, with increases in fear of crime and neuroticism resulting in increases in fear of crime?

The significance of the study, theoretically and practically

Considering some of the major trends of globalization, such as increased ease of travel across the world (Sofronov, 2018), rise of the IT industry and its appendices (Lasi et al, 2014), as well as the increase of prevalence of remote work and so-called “digital nomads” (Litchfield & Woldoff, 2023), it is evident that more and more citizens may decide to leave their native countries and seek better opportunities abroad. Beside the tectonic societal shifts related to migration, asylum seeking, and refugees, there is also a somewhat more implicit but still significant rise in the number of global expatriates.

Terminology of the study including theoretical and operational definitions

Fear of crime

Fear of crime can be broadly and abstractly defined as a tendency to react with a plethora of fearful emotions (e.g. fear, anxiety, worry, etc.) to the perceived likelihood of crime, usually in the context of being a victim of crime (Etopio & Berthelot, 2022; Han et al., 2018; Moore & Recker, 2016). FoC is a complex psychological phenomenon, denoting a variety of emotions such as: fear, worry, anxiety, nervousness, unpleasant affect, even paranoia (Etopio & Berthelot, 2022). Thus people with a pronounced fear of crime may be prone to estimate different criminal actions as more likely to happen in comparison to persons having less pronounced fear of crime and are generally more likely to have a range of fearful and anxious emotions relating to crime. It has to be emphasized here that the judgments relating to the likelihood of crime here are understood as separate from fear of crime itself, though closely interrelated.

Neuroticism/emotional instability

Neuroticism can be defined as a broad personality trait linked with different behaviors, emotions, and cognitions, such as anxiety, emotional instability, self-consciousness, fearfulness, and others. People who have pronounced neuroticism are more likely to appear stifled, nervous, and overly self-conscious, and are emotionally speaking more sensitive. They may also be more likely to suffer from a variety of mental health disorders such as depression and anxiety disorders. Neuroticism in this sense reflects Goldberg's (1992) operationalization of the Big-Five Factors.

Xenophobia and expatriates

Xenophobia can be defined as a general negative attitude towards foreigners (Crush & Ramachandran, 2010). Xenophobia is intrinsically related to non-native groups of people with drastically different cultures and identities in comparison to the native population; such groups can be perceived as potentially dangerous to the native population, its culture, and identity. However, xenophobia can take a more general form and encompass all non-citizen groups, regardless of their culture, tradition, and background (Crush & Ramachandran, 2010).

As with all complex attitudes, xenophobia often includes false beliefs, stereotypes, and prejudices, intense emotions of hostility, anxiety, and fear of certain groups of foreigners, potentially leading to a variety of behaviors such as avoidance of foreigners, refusal to accept certain people as parts of one's nation or other discriminatory practices (Crush & Ramachandran, 2010). Xenophobia is closely associated with racism, intolerance, and exclusionary nationalism.

It is evident that xenophobia is a complex phenomenon with many different facets. In this study, we will focus on an aspect of xenophobia, namely the attitude towards expatriates. The attitude towards expatriates (Arman & Aycan, 2013) is a general tendency that underlies positive or negative reactions towards expatriates;

persons who have a positive attitude towards expatriates have a higher likelihood of being more welcoming towards expatriates and are more likely to initiate unbiased communication with expatriates. On the other hand, a person who has a negative attitude towards expatriates will be more likely to refuse contact with expatriates, believing that expatriates are a form of threat, whether economic or cultural.

Expatriates are people not momentarily living in their country, usually working for a period of time in a foreign country (or countries), but who are not necessarily planning to actually become citizens of another country. Expats usually want to remain citizens of their native country, and are living temporarily in non-native country or countries. Digital nomads are typical examples of modern expats: they may change residences quite frequently, traveling across the globe bringing their jobs with them. There are of course many other subtypes of expats who are living temporarily in non-native countries, such as expats who work as manual labor (often referred to as migrant workers).

Literature review

FoC, as a research topic within the field of criminal psychology, came to the forefront in the 1960s, initially in the US but the interest in this concept has quickly spread throughout the world (Hale, 1996). Early on in the 21st century, fear of crime has been underlined as one of the most important topics of criminology and psychology of crime (Farrall et al., 2000). The academic focus on fear of crime has most certainly been, at least partially, a reflection of US government policies aiming to reduce crime. For instance, in 1965 American president Lyndon Johnson declared the so-called “War on Crime”, and numerous presidents followed in his footsteps.

In this context, fear of crime is understood as a consequence of widespread crime, a reaction of the population to the ubiquity of crime. It was found, for instance, that fear of crime fragments the sense of community (Wilson, 1975), leads to dangerous homogenization of neighborhoods as wealthier citizens are more likely to find a safer place to live due to fear of crime (Hartnagel, 1979), and increases the prevalence of so-called “vigilante justice” (by taking the matter into their own hands, buying more weapons, etc.) (Scheingold, 1984).

There are other important consequences of FoC that have been identified early on such as negative psychological effects, with people with a pronounced fear of crime have a higher likelihood of experiencing negative emotions such as worry and anxiety, and also more likely to change their habits (i.e. staying indoor most of the time; spending more money on safety; not using public transport); similarly, they may tend to restrict their movements only to areas perceived as safe and may only come out in certain times of day, as well as avoid public gatherings and entertainment events due to a perceived threat of crime.

Early research on fear of crime has found that women are generally more prone to experience it: Warr (1985), for instance, found that 42% of his female participants (Seattle residents) avoided going alone at night, in comparison to 8% of male participants.

It is not thus surprising that some researchers referred to fear of crime as being one of the leading social issues at the time. Box and colleagues (1988, p.40), for instance, stated that FoC is a big societal issue, due to its negative effects on the population’s well-being.

Another important finding is the effect of FoC among people of older age, causing them to restrict their movements even further in attempts to avoid crime; this is the most pronounced for elderly women who are the most likely to stay indoors not

simply due to social norms or health issues, but also due to FoC (Liska et al., 1988).

Farrall et al. (2000), approaching the fear of crime from a broad perspective of crime psychology and criminology, and conducting a large Scottish simple random sample (n=485), and utilizing multiple regression analysis, have underlined the following as the most important sociodemographic and social psychological factors of fear of crime:

1. Feeling that one is capable of effective self-defense
2. Females tend to experience more FoC in comparison to males.
3. Older people tend to feel less safe in relation to crime, in comparison to younger people.

These findings reflect the aforementioned findings of Warr (1985) and Liska et al. (1988) who also found that female gender and older age may be correlated with more pronounced fear of crime.

What characterizes the initial phases of research on FoC is the high heterogeneity of definitions of this concept. Hale (1996, p. 6) mentioned that the whole field suffered from a significant degree of theoretical and methodological confusion. For instance, Box et al. (1988, p. 343) have operationalized FoC through a single question: "How safe do you feel walking alone in this area after dark?" following a long line of researchers who did the same, such as Liska et al. (1982), largely avoiding the theoretical bases of the concept. This, however, stands in contrast to the rich theoretical background of fear of crime. Garofalo (1981, p. 840), for instance, defined fear of crime as a combination of worry and apprehension of danger in relation to crime with potential physical repercussions for the victim. Thus the fear of physical harm, in this definition at least, has been separated from the fear for one's property. In a similar way, FoC has been defined as separate from concern with crime as a social issue (Toseland, 1982), once again assessed

through a single item relating to walking alone at night. Therefore, fear of crime was often understood as a strictly individual phenomenon, relating to fear for one's personal (physical) safety in the situation of walking alone at night.

Finally, there was a lot of discussion on whether fear of crime as a concept should include estimates (judgments) relating to likelihood of crime (Etopio & Berthelot, 2022). Ferraro and LaGrange (1987) nicely summarized theories of FoC, identifying three main aspects of people's thoughts and emotions about crime:

1. Judgments about the likelihood of crime
2. Concern with crime as a social issue
3. The emotional reaction to the possibility of crime

Etopio and Berthelot (2022) mention that a lot of early discussions regarding the fear of crime have focused on drawing differences between emotions such as fear, anxiety, concern, worry, apprehension, etc. Having conducted a series of in-depth interviews focusing on the way people use words such as "fear", "anxiety", "concern", "scary", etc. in relation to crime, Etopio and Berthelot (2022) conclude that these are often used interchangeably, without an emphasis on the nuances and differences often discussed by researchers.

These authors developed an improved and most contemporary definition of fear of crime: "(...) the tendency to experience an affective or emotional response to crime (or the possibility of crime) that can include fear, concern, anxiety, worry, nervousness, paranoia, panic, vulnerability, and uneasiness." (Etopio & Barthelot, 2022, p. 60). It should be noted that the judgments relating to the actual likelihood of crime are still understood as separate from the fear of crime itself which is primarily an emotional phenomenon, and this position is taken in this article too. It has been argued that FoC decreases people's quality of life (Koskela, 2009). Fear of crime reduces mental well-being and also reduces the quality of physical functioning (Stafford et al., 2007). Stafford and colleagues (2007) have found that

people with a pronounced FoC are almost two times more likely to experience depression than people with a less pronounced FoC. In addition, people with an intense fear of crime in their study did not exercise as much as people who were not afraid of crime as much, as well as seeing their friends less often and participating in fewer social activities (Stafford et al., 2007).

It has already been mentioned in this section that early studies into fear of crime have argued that elderly females may be especially vulnerable to negative effects of FoC, being more likely to have a pronounced FoC as well as spending more time indoors due to their fears (Warr, 1985). Moreover, it was found that fear of crime can increase regardless of actual increase in victimization (Prieto Curiel & Bishop, 2018).

As we can see, fear of crime has a number of negative societal consequences. Therefore, studying fear of crime can help us build a basis for building a more harmonious and peaceful society. In this article, we will focus on the relationships between FoC, perceived likelihood of crime, and two distinct concepts: neuroticism and attitude towards expatriates.

Let us first present the data pointing to a potential link between neuroticism and FoC, then shift to the link between FoC and attitude towards expatriates.

Neuroticism and fear of crime

Personality traits may serve as a useful tool in predicting well-being outcomes as well as a wide range of behaviors (Paunonen & Ashton, 2001). Neuroticism is a broad personality trait affecting numerous aspects of people's lives. It has been one of the more researched personality traits, with numerous iterations. With research into neuroticism initially heralded by Hans Eysenck (Eysenck & Prell, 1951; Eysenck, 1991), the concept received a lot of attention from researchers in late 20th century, with neuroticism/emotional instability, being identified by

authors working within the lexical approach to personality (McCrae & Costa, 1997).

An often overlooked area of interest when it comes to fear of criminality is the domain of personality traits (Elis & Renouf, 2018). One of the most widely used models of personality, the five-factor model (Costa & McCrae, 1992) has been developed based on several sources including:

- 1) observations of enduring and lifetime behaviors
- 2) different personality models and natural language descriptions
- 3) different demographic groups based on sex, age, race and language
- 4) heritability research showcasing biological basis of traits

The exact nature of neuroticism/emotional instability varies across different models and theories of personality, but they all have a common core relating to a basic propensity to react to the world in an anxious, fearful, overly self-conscious fashion. Emotionality as defined in the HEXACO (Lee & Ashton, 2004) model highlights the emotional instability, anxiety, fearfulness, dependence, and sensitivity, while neuroticism as defined in NEO-PI-R or within Goldberg's Five Factor Markers encompasses these domains but also includes items relating to depression/hostility. Neuroticism, or emotionality, however, is fairly similar across different models.

Neuroticism is a crucial domain of personality, with numerous mental and physical health implications (Widiger & Oltmanns, 2017), contributing to the explanation of a number of negative public health outcomes, such as psychopathology (anxiety, depression), substance use, physical illnesses (e.g. eczema, irritable bowel syndrome), and a diminished life quality due to excessive worry, emotional preoccupation, exhaustion, and distraction, to mention only a few. When it comes to predicting mental health outcomes, such as anxiety and

depression, the most useful personality trait to date seems to be neuroticism (Kotov et al., 2010).

Neuroticism accounts for individual differences in emotional responses to situations of danger, frustration, or loss (Costa & McCrae, 1992). It is often defined by items describing worry, vulnerability, irritability, anxiety and sadness. Beside general anxiety, neuroticism seems to also be a reliable predictor of more specific fears such as coronaphobia prevalent during the COVID-19 pandemic (Lee & Crunk, 2020).

Thus it is not inconceivable that neuroticism acts as an important risk factor in the development of FoC. We have seen that fear of crime is somewhat independent of prevalence of actual victimization (Prieto Curiel & Bishop, 2018), more specifically, fear of crime can potentially increase without a corresponding increase in victimization. Neuroticism, which increases one's propensity towards excessive and irrational worry, is thus a very likely candidate as an antecedent of FoC.

This link has already been suggested and studied by a number of authors (Chadee et al., 2016, p. 1241; Ellis et al., 2018; Guedes et al., 2018; Klama & Egan, 2011). Guedes et al. (2018) found that neuroticism (as defined by Eysenck) indeed predicts FoC, although only the "abstract" fear of crime. These researchers utilized the somewhat atavistic method of assessing fear of this "abstract" fear of crime, assessing it with the help of the extremely popular question in this area of research: "How safe do you feel walking alone in your neighborhood area after dark?" (Box et al., 1988, p. 343)

Besides this type of FoC, Guedes et al. (2018) also inquired about participants' cognitions relating to crime (evaluation of risk of victimization, in our study referred to as perceived likelihood of crime) as well as the behavioral aspect of FoC (actions related to protection, avoidance, and defense against crime);

perceived likelihood of crime and actions of protection, avoidance, and defense, are not related to neuroticism in the study of Guedes et al. (2018). Another study to support the suggestion that FoC is associated with neuroticism is one that did not deal with fear of crime directly but looked at perceived social distance towards out-groups (Jonáš et al., 2021). The authors found that individuals with high neuroticism were more distant towards groups of people with different social, ethnic and racial backgrounds.

Ellis et al. (2018) analyzed the predictive powers of personality and prior victimization with respect to FoC. They assessed FoC using two separate methods: the first involved five questions relating to a number of crime-related situations (being attacked in one's home, being attacked with a weapon, experiencing a robbery, encountering someone loitering near one's home, and having one's property damaged); therefore the first measure of fear of crime encompassed both fear for personal safety as well as safety of one's belongings; the second method involved two items inquiring about participants' fear in situations of walking through the streets, at night or day, and it relates exclusively to personal safety. Personality-related variables were assessed via HEXACO-PI-R; the authors found a significant correlation between emotionality and FoC ($r = .37$); it was also found that emotionality (closely related to neuroticism described above), remains a significant predictor of both indicators of FoC, even after inclusion of prior victimization (Ellis et al. 2018) which suggests that personality-related variables, emotionality more specifically, may be important in understanding FoC in general. Klama and Egan (2011) also investigated the association between the Big Five and FoC; fear of crime was assessed via a questionnaire developed by LaGrange and Ferraro (1992), which consists of emotional (i.e. feeling afraid of different types of crime) and cognitive FoC (i.e. estimating different types of crime as highly likely

to happen). The authors (Klama & Egan, 2011) found a significant relationship between neuroticism and FoC, utilizing a structural equation modeling approach. Maddison (2018) also analyzed the relationship between neuroticism (as defined by Goldberg, 1992), FoC, and a number of other variables, utilizing multiple regression analysis. Maddison (2018) found a significant relationship between neuroticism and FoC ($\beta = .31$, $t(174) = 4.56$, $p < .001$); crucially, neuroticism figured as one of the most important predictors of fear of crime, with gender, and social media use also being important predictors. The author utilized The Crime Survey for England and Wales (CSEW), taking eight items from this questionnaire (e.g. "I feel safe walking alone at night.") with additional two items which assessed fear of terrorist and acid attacks.

As can be seen, there is a high variability with regards to the type of FoC measures used across studies that purported to test the connection between this variable and neuroticism/emotionality. None has tested the relationship between neuroticism and arguably the most reliable, valid, and recent measure of fear of crime developed by Etopio and Berthelot (2022), which will be utilized in this study. Another important implication for our study comes from the study of Guedes et al. (2018). While these authors purported to cover all aspects of attitude towards crime (cognitive, behavioral, and emotional), they did not find a significant relationship between neuroticism and perceived likelihood of crime. It is possible this was due to the simplistic nature of the scale used to assess the perceived likelihood of crime, as it was assessed "(...) through a set of three items concerning the likelihood of becoming a victim of crime. The participants were then asked to rate their 'likelihood of becoming a victim' of robbery, with and without violence during the next year, and the likelihood of being burgled in the next year." (Guedes et al., 2018, p. 666). Therefore, this instrument referred only to robbery and burglary, without referring to any other type of criminal activity; moreover,

the reliability of the instrument is somewhat low ($\alpha = .77$). Warr (1985) and LaGrange and Ferraro (1992), on the other hand, utilized a more comprehensive measure of perceived risk or likelihood of crime. Warr (1985) especially provides a substantial list of criminal activities that can be assessed for risk. LaGrange and Ferraro (1992) reduced Warr's (1985) initial list to 10 items, deciding to make specific indices for crimes threatening one's physical safety and one's property, without unambiguous evidence in favor of such a distinction. Our study will attempt to formulate a broad measure of perceived likelihood of crime based on Warr's (1985) items, without presuming a distinction between different types of crime, which will possibly aid in achieving a more reliable and valid measure. In turn, this will allow us to test the relative contributions of perceived likelihood of crime more comprehensively.

Fear of crime, xenophobia, and attitude towards expatriates

Xenophobia can be defined as a group of prejudices, attitudes as well as behaviors aimed at excluding and rejecting a person or a group of persons based on the perception of them not belonging to one's community, culture, or society.

Xenophobia seems to be a significant source of negative mental health consequences (Suleman et al., 2018). At the same time, in Europe it is found to be a more prominent trait than racism.

Recently, a group of authors pointed to a potential association between fear of crime and xenophobic attitudes (Gurinskaya et al., 2024). Gurinskaya and her colleagues (2024) conducted a research of xenophobic attitudes towards migrant workers in Russia, finding that fear of migrant crime was an important predictor of xenophobic attitudes among Russian millennials.

Akyuz et al. (2021) report a similar finding: they found a statistically significant relationship between FoC and xenophobic attitudes towards Syrian refugees in Turkey. Akyuz et al. (2021) used a four-item questionnaire to measure refugee-

associated fear of crime, revolving around various crimes potentially perpetrated by Syrian refugees: being robbed in the street, harassed/abused in the street, experiencing a home robbery, and having one's home broken into while away. General fear of crime was also assessed through four items, of the following content: walking alone at night, being home alone at night, walking alone during the day, and being home alone during the day. Importantly, results reported by Akyuz et al. (2021) point to a conclusion that xenophobic attitudes are related to *both* fear of general crime and fear of group-specific crime, while the study of Gurinskaya et al. (2024) focused on the specific fear of migrant crime and its association to xenophobic attitudes.

The findings reported by Jacobs et al. (2017) point to a complex interplay between the media, fear of crime, and xenophobia. Utilizing a structural equation modeling approach, Jacobs et al. (2017) show that watching TV potentially leads to an increase in FoC, and this, in turn, leads to a rise in the intensity of xenophobic attitudes (anti-immigrant sentiments). Anti-immigrant sentiments were operationalized via three items relating to a general stance towards immigrants in Belgium with respect to their influence on economy, cultural life, and general quality of life, while fear of crime was operationalized as reluctance to go to certain areas of one's town, avoidance of leaving home after dark, as well as fear of opening one's door to strangers (Jacobs et al., 2017). The authors conclude that fear of crime mediates the influence of TV-watching on anti-immigrant sentiments.

Extending these findings, we might look at another Belgian study investigating the connection between fear of crime and ethnic diversity of participants' municipalities as well as anti-immigrant sentiment (Hooghe & de Vroome, 2016). Hooghe and de Vroome (2016) showed that there was no correlation between FoC and real occurrence of crime. Their second finding was that fear of crime was

inversely connected to ethnic diversity of a municipality. This finding is interpreted in the following way: direct experience with different ethnic groups alleviates fear and builds a sense of connectedness (Hooghe and de Vroome, 2016).

Studies from the US conducted in the 90s have also connected fear of crime to an increase of prejudice towards other racial groups (Skogan, 1995; John & Heald-Moore, 1996). The first study (Skogan, 1995) reports that white Americans, who are prejudiced against black Americans, experienced greater fear of crime.

Prejudice in this study was treated as disapproval of school and neighborhood integration of different racial groups. Prejudice influenced fear of crime independently from proximity.

The second study (John & Heald-Moore, 1996) also suggests a positive relationship between racial prejudice and FoC, where white Americans who were prejudiced felt greater fear when encountering black Americans in a public setting (John & Heald-Moore, 1996). Prejudice in this study was directly measured through a five item questionnaire describing various attitudes of disapproval and exclusion of black Americans from their select communities and groups. More recent studies also suggest a positive connection between xenophobia and fear of crime, but interestingly the strength of this relationship could possibly be dependent on self-identified race (Baker et al, 2018).

These authors show that the strength of the relationship between xenophobia and punitiveness seems to be strong in self-identified whites yet is moderate and weak in the case of black and Hispanic Americans. A possible explanation could be that trust in the justice system could be higher in Americans identified as white, as they are part of the majority. As positive attitudes toward harsh criminal policies and penalties seem to be positively associated with FoC (Klama & Egan, 2011), this study offers a unique perspective on the connection between fear of crime and

xenophobia. Another study finds that in white Americans, the association between FoC and perceived changes in neighborhood racial composition risk seems to be mediated by racial prejudice towards crime behavior (Pickett et al., 2012).

A relationship between FoC and xenophobia has also been studied with the help of qualitative methodologies. Vahed (2013), for instance, conducted qualitative interviews with participants from South Africa, inquiring about their fear of crime. Foreign nationals, more specifically illegal immigrants presumed to have come to South Africa with pure criminal intentions were important determinants of crime in South Africa, according to Vahed's participants (Vahed, 2013).

It is not thus surprising that native populations may hold a variety of unconscious biases aimed against expatriates who are perceived as out-group members and therefore not deserving trust or assistance (Sharma et al., 2020). There may be a general tendency of in-group members to assess out-group members (such as expats), more negatively (Berthold et al., 2012). It is therefore possible that expatriates can be associated with a variety of negative concepts, such as crime, without there being any link between expatriate behavior and crime.

Comments on the literature review

It is evident that there is still a very high diversity of measures used to assess fear of crime. We have seen that utilization of simple measures of fear of crime including a handful of items typically relating to walking the streets alone at night, is still a fairly prevalent way of operationalizing fear of crime. Moreover, while the authors often report on the reliability of operationalizations of fear of crime, they rarely address the complex topic of validity of their fear of crime measures. Etopio and Berthelot (2022) have recently provided not only a reliable but also a valid and comprehensive way of assessing fear of crime in all its breadth and complexity. A major contribution of hereby presented study is the utilization of the state-of-the-art fear of crime questionnaire developed by Etopio and Berthelot

(2022) which will allow us to test previous findings with regards to neuroticism, FoC, and attitude towards expatriates.

On the other hand, methods for the assessment of the attitude towards expatriates are less numerous, but Arman and Aycan (2013) have tested and developed a reliable and valid instrument that can be used for this purpose.

Finally, while criminal psychology literature abounds with articles on topics of fear of crime, xenophobia, racism, and implicit bias, there is little research on whether FoC can extend to expatriates as out-group members.

Method

Pilot study

A pilot study was conducted to test the validity of the protocol that would be used in the main study. As the purpose of the pilot study was to check the effectiveness of the study procedure that would be used in the main study, the pilot study did not test any specific research questions but rather focused on the participants' views on the study protocols by asking them to describe their experience of partaking in the study procedure. Moreover, the pilot study tested the effectiveness of software used for gathering data (Google Forms), namely whether participants had any difficulties accessing the study, as well tested the data extraction procedures that would be used to form the main SPSS database.

A convenience sample of 29 participants was gathered for the pilot study, by sharing the link to study via social media. Participants reported no significant issues or difficulties accessing the study. All participants were able to comprehend the informed consent form and complete the study procedure without difficulties. Based on the results of the pilot study, it was decided that the study procedure was effective and easy to understand. Therefore the same procedure was utilized in the main study, the detailed description of which can be found below.

Sampling

Convenience sampling as well as snowball sampling was utilized in this study. Convenience sampling refers to a practice of gathering participants that are easy to recruit and that are readily available, for instance with the help of social media. Snowball sampling refers to recruiting new participants with the help of participants who already took part in the study, by asking them to share the study with their friends or anyone who may be interested in participating in the study. Competent English speakers were recruited online. The researcher shared the link to the study via different social media platforms (LinkedIn, Facebook, Instagram) and asked potential participants to take part in the study.

Procedure

The invitation to participate in the research was shared by the researcher on different social media platforms (LinkedIn, Facebook, Reddit, and Instagram), along with a short description of the study. Participation was limited to competent English speakers, with the initial invitation and all questionnaires being written in English language; all questionnaires and demographic questions were self-report measures.

After reading the invitation and accessing the Google Forms link, participants read a more elaborate description of the study along with the informed consent form; prior to filling the questionnaires, participants were requested to read the consent form and were informed about the voluntary nature of participation in the study. They were also informed that they could cease their participation at any given moment. Only participants who willingly accepted to do the study proceeded to fill demographic data and later questionnaires. Participants who were 18 years old or older were allowed to participate in the study.

After completion of the study, participants were given a debrief explaining the aims and hypotheses of the study and were given the author's email address where

they could inquire about anything that interested them regarding the study. Participants were also asked to give their own comments, suggestions, and criticism, by responding to an open-ended question after completion of all demographic questions and all questionnaires.

Instruments

Fear of crime (Etopio & Berthelot, 2022). An instrument developed by Etopio and Berthelot (2022) was chosen for this study. It was asserted that this instrument possesses satisfying psychometric characteristics, such as high reliability ($\alpha = .945$), solid convergent and divergent validity, as well as good construct validity of the one-factor solution (Etopio & Berthelot, 2022).

This instrument consists of 10 items and utilizes a six-point Likert scale; participants were asked to assess how much different statements presented in the questionnaire represent the way they feel about crime, using the following scale:

1 (very untrue for me)

2 (untrue for me)

3 (somewhat untrue for me)

4 (somewhat true for me)

5 (true for me)

6 (very true for me)

The questionnaire was designed to capture general fear of crime in all its emotional breadth, inquiring about straightforward fearful emotions (“I’m afraid of a crime happening to me.”), general vulnerability to crime (“I feel vulnerable to becoming the victim of a crime.”), stress in relation to crime (“The possibility of crime gives me emotional stress.”), worry in relation to crime (“Crime worries me in my day-to-day life.”), and other similar emotions.

A formal consent for use of the fear of crime questionnaire (Etopio & Berthelot, 2022) was obtained from authors before initialization of this study.

Because the measure developed by Etopio and Berthelot (2022) does not include the cognitive aspect of fear of crime, a short questionnaire, developed by the author of this study, was used in goal of assessing participants' thoughts about the likelihood of different types of crime, such as burglary, fraud, theft, sexual assault, stalking, or physical assault. After completing the main fear of crime questionnaire (Etopio & Berthelot, 2022), participants were presented with the following statement "Now your task is to assess the likelihood of you being a victim of the following criminal actions", after which came different types of crime the likelihood of which was assessed by participants. A linear scale with 5 points (1= not at all likely; 5= very likely) was used to assess the likelihood of different types of crime.

Neuroticism (Emotional stability) (Goldberg, 1992). Goldberg's (1992) operationalization of the Big Five Factor markers relating to neuroticism/emotional stability was utilized in this study. A short, 10-item form was utilized in this study. This version of the scale possesses satisfying internal consistency ($\alpha = .86$) as well as good convergent validity, divergent validity, and construct validity (Goldber, 1992).

The 10 items of this short neuroticism scale comprehensively cover the nature of this underlying personality trait. The scale possesses two inversely formulated items ("I seldom feel blue." and "I am relaxed most of the time."). Items revolve around:

1. Sensitivity to stress ("I get stressed out easily."),
2. Emotional stability ("I get irritated easily." or "I get upset easily")
3. Irritability ("I get irritated easily.")
4. Tendency to experience sadness ("I often feel sad.")
5. Worry/anxiety ("I worry about things.")

A five -point Likert scale (1. Very inaccurate; 2. Moderately inaccurate; 3. Neither inaccurate nor accurate; 4. Moderately accurate; 5. Very accurate) was utilized for responses.

This scale, along with many other scales, is available for free on the International Personality Item Pool (IPIP) website, and can be used without any consent by the authors. The items were downloaded from the IPIP website and directly adapted to the study questionnaire form.

Attitude towards expatriates - ATEX (Arman & Aycan, 2013). This questionnaire consists of 24 items (with 8 inverse items). There are five major aspects of this scale:

1. adaptation (“Expatriates are prejudiced about our culture and they regard their own cultures as superior”, inversely formulated),
2. transformational capacity (“They transfer the knowledge and experience they gained from different cultures to our organization”),
3. openness (“They are not in favor of traditions and they are receptive to innovation”),
4. professionalism (“They are good team players”)
5. perceived justice of expatriate privileges (“Their salaries are higher than what they deserve”, inversely formulated).

The reliability of the entire scale is on a satisfactory level ($\alpha=0.83$), while the reliability of subscales ranges from 0.66 to 0.75 (Arman and Aycan, 2013).

Construct validity as well as criterion validity of ATEX has also been shown to be satisfactory (Arman and Aycan, 2023).

A standard 5-point Likert scale was used, from 1 (strongly disagree), 2 (disagree), 3 (neither disagree nor agree), 4 (agree) and 5 (strongly agree).

Perceived like lihood of crime. This is a short assessment instrument developed by the author of the study, inquiring about the subjective probability of being victimized in relation to different crimes such as burglary, armed robbery, fraud,

or stalking (“Assess the likelihood of you being a victim of the following criminal actions (...”). The goal of this instrument was to complement the main fear of crime measure, which inquires about a person’s emotional reaction to the possibility of experiencing crime.

A 5-point Likert scale was used for this questionnaire. An initial pool of the most common types of criminal activities was formed by the author of the study consisting of 15 types of criminal activities. This list of items was reviewed by two independent reviewers with a task of narrowing down the initial list and grouping similar types of criminal activities into higher-order groups. The final questionnaire consists of nine types of criminal activities that a person could experience.

Results

128 participants initially joined the study and 125 completed the study (55% females). There were no participants with discernible response styles (e.g. giving only one answer to all items); no outliers were identified. Participants were on average 28 years old (SD= 9.9 years). Descriptive statistics for the assessments used in the study are presented in Table 1:

Table 1.

Descriptive statistics for Neuroticism, Fear of Crime, Perceived likelihood of crime, and Attitude towards Expatriates.

	Mean	SD	Skewness	Kurtosis
Neuroticism	28.9	8.174	.167	-.745
Fear of crime	25.1	9.891	.679	.536
Attitude towards expats	75.2	11.314	-.232	1.680
Perceived likelihood of crime	2.3	.778	.250	.613

Kolmogorov-Smirnov tests were performed for each questionnaire (Table 2) in order to test the significance of deviations from normal distribution:

Table 2.

Kolmogorov-Smirnov tests the normality of distribution for the main measures used in the study.

	Test statistic	Significance
Neuroticism	.089	.017*
Fear of crime	.096	.007**
Attitude towards expats	.063	.200
Perceived likelihood of crime	.107	.001***

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

Kolmogorov-Smirnov test indicated significant deviations from the normal distribution for all measures except for perceived likelihood of crime. Neuroticism, fear of crime, and attitude towards expatriate all deviate from the normal distribution.

Taking into consideration the Skewness and Kurtosis values (Table 1) as well as visual inspections of frequency distributions histograms, it is evident that most deviations from the normal distribution are slight, except for the attitude towards expatriates which is significantly leptokurtic, meaning that there are more mid-range values than would be expected in case the test distribution was equal to normal distribution. However, taking into consideration all available data, it can be concluded that deviations from the normal distribution are not substantial, allowing for use of techniques such as linear regression. Now follows the analysis of questionnaires' reliabilities:

Table 3.

Reliability estimates of questionnaires used to assess neuroticism, fear of crime, perceived likelihood of crime, and attitude towards expatriates (Cronbach's alpha)

Variable	Cronbach's alpha
Neuroticism	.873
Fear of Crime	.896
Perceived likelihood of crime	.839
Attitude towards Expatriates	.884

It is evident that all questionnaires have satisfying degrees of reliability. Apart from the perceived likelihood of crime questionnaire, which was developed for the purposes of this study, all the other instruments have undergone robust validity analyses. For this reason more detailed validity testing was performed for the perceived likelihood of crime questionnaire. Correlational analysis was performed to check the convergent validity of the new scale. Perceived likelihood of crime had a moderately strong and significant association with fear of crime (.548; $p < .001$), which is expected since the two measures generally speaking point to a person's attitude towards crime. Moreover, perceived likelihood of crime correlated significantly with neuroticism (.435, $p < .001$), which is expected since more neurotic individuals may tend to perceive dangerous events as more likely to happen.

To test the construct validity of the scale, factor analysis with maximum likelihood extraction method coupled with direct oblimin rotation of factors (with 0.5 delta coefficient) was performed. Two factors with eigenvalues higher than one were extracted, with a correlation of .707. There is a high overlap between the two factors. Inspecting pattern and structure matrices (provided in Appendix) allows us to surmise that factor one accounts more for sexual assault, physical assault, stalking, and kidnapping, while other types of crime, namely fraud, identity theft, burglary, and armed robbery, load more significantly the factor two. For all intents and purposes, however, the two factors have a very strong association (.707) which is why for further analyses only the total score of perceived likelihood of crime will be used.

To address the main research question and investigate potential predictors of attitude towards expatriates, a multiple regression analysis was performed, with attitude towards expatriates as a dependent variable, and neuroticism, fear of crime, and perceived likelihood of crime as predictors. Gender and age were entered into analysis as control variables.

Multiple regression analysis was conducted in four consecutive steps. In step one, gender and age were entered; in step two, neuroticism was added, perceived likelihood of crime was added in step three and fear of crime was added in final, fourth step. Table 4 contains multiple R, R squared, as well as R squared change significance estimates:

Table 4.

Estimates of the predictive powers of the four regression models (predicting attitude towards expatriates).

	R	R square	Adj. R square	R square change	R square change sign.
Model 1	.167	.028	.012	.028	.182
Model 2	.191	.036	.012	.009	.301
Model 3	.283	.090	.049	.044	.019*
Model 4	.285	.081	.042	.001	.728

It can be emphasized here that only the R squared change from step two to step three is significant (.019) and that the percent of explained variance is close to 5%. Table 5 showcases statistical significance of the four models:

Table 5.

ANOVA tests of individual regression models' statistical significance.

	F statistic	Significance
Model 1	1.728	.182
Model 2	1.512	.215
Model 3	2.598	.040*
Model 4	2.087	.072

It is evident that model three, which includes gender, age, neuroticism, and perceived likelihood of crime, is the only statistically significant regression model in this analysis. Table 6 showcases regression coefficients and their statistical significance, which allows us to analyze the relative contributions of each predictor.

Table 6.

Beta coefficients, standardized beta coefficients, t-statistics and their significance, in the third regression step (attitude towards expatriates as the dependent variable).

	Beta	Standardized beta	t-statistic	Significance
Age	-.091	-.080	-,893	.374
Gender	-1.977	-.090	-.979	.330
Neuroticism	-.265	-.190	-1.974	.054
Perceived likelihood of crime	3.476	.239	2.383	.019*

Perceived likelihood of crime is the only significant predictor, while neuroticism approaches statistical significance. Age and gender do not contribute to prediction of attitude towards expatriates relative to perceived likelihood of crime.

Crucially, the general fear of crime measure developed by Arman and Aycan (2013), arguably one of the most valid and reliable measures of fear of crime, did not predict the attitude towards expatriates. To further test the relationship between fear of crime and related variables, another regression analysis was conducted, this time with fear of crime as the dependent variable, and neuroticism and perceived likelihood of crime as predictors, while gender and age once again figured as control variables.

Table 7.

Estimates of the predictive powers of the four regression models (predicting FoC).

	R	R square	Adjusted R square	R square change	R square change sign.
Model 1	.349	.122	.107	.122	<.001***
Model 2	.513	.263	.244	.141	<.001***
Model 3	.623	.388	.367	.125	<.001***

All R squared changes are significant. Let us now consider the statistical significance of each model (Table 8):

	F-statistic	Significance
Model 1	8.388	<.001***
Model 2	14.267	<.001***
Model 3	18.853	<.001***

All models predict FoC, and taking into consideration data from Table 7, it is evident that the third and last model (gender, age, neuroticism, and perceived likelihood of crime), has the best predictive power, accounting for around 40% of variance of fear of crime.

The relative contributions of each predictor in the final, third model, can be found in Table 9.

Table 9.

Regression coefficients for the third model (age, gender, neuroticism, and perceived likelihood of crime), predicting the fear of crime.

	Beta	Standardized beta	Significance
Age	-.167	-.167	.024*
Gender	-2.352	-.122	.105
Neuroticism	.265	.218	.007**
Perceived likelihood of crime	5.131	.404	<.001***

Gender stops being a significant predictor in the final model, whereas in previous models it was significant; the beta coefficient for age is negative and statistically significant meaning that as age decreases the fear of crime increases. Perceived likelihood of crime and neuroticism are highly significant predictors of FoC.

Discussion

Addressing the main research question, it should be mentioned that general FoC measure, developed by Arman and Aycan (2013), or any other predictors included in this study (neuroticism, perceived likelihood of crime, gender, and age) did not figure as important predictors of the attitude towards expatriates. In other words, the attitude towards expatriates was left, for the most part, unexplained by the predictors utilized in this study.

This suggests that future studies will have to search for other potential determinants of the attitude towards expatriates, focusing more on situational factors such as social contact, exposure to different types of media content, as well as socioeconomic status and education. It is possible that the attitudes towards expatriates are more under the influence of situational or demographic factors in comparison to dispositional factors such as neuroticism and fear of crime.

Focusing on the general fear of crime measure (Arman & Aycan, 2013) used in this study, it has to be emphasized that neuroticism, as well as perceived

likelihood of crime, were significant predictors of general FoC and together they accounted for a substantial proportion of variance of general fear of crime (around 40%). More specifically, there is the expected and meaningful relationship between general fear of crime, perceived likelihood of crime, and neuroticism, which was addressed in our secondary research question. However, even though Farrall et al. (2000), Warr (1985), and Liske et al. (1988) have all found that female gender and older age predict increases in fear of crime, this study failed to find such relationships. More specifically, we found that younger age acts as a significant predictor of fear of crime (though less substantially in comparison to neuroticism and perceived likelihood of crime), while gender is not associated with fear of crime entered in the same multiple regression model along with age, neuroticism, and perceived likelihood of crime. It is not entirely clear what are the reasons for these findings. Possibly, the inclusion of neuroticism reduced the incremental contribution of gender, as female gender is known to be associated with higher neuroticism in comparison to male gender (Djudiyah et al., 2016; Fanous et al., 2002). Therefore it is possible that neuroticism is more crucial in explaining fear of crime in comparison to female gender alone. As to the negative association between age and fear of crime, it is possible that our sample failed to account for variance of the older ages, with few participants older than 40 in our sample.

While we obtained the expected associations between neuroticism, FoC, and perceived likelihood of crime, these variables do not contribute significantly to the explanation of attitude towards expatriates. Fear of crime has numerous important societal consequences, such as the fragmentation of the sense of community (Wilson, 1975), migration of peace-loving population (Hartnagel, 1979), rise of vigilante justice (Scheingold, 1984), a reduced quality of life (Koskela, 2009), while also leading to mental health issues and refraining from going out (Stafford et al., 2007). Crucially, fear of crime has a potential of fostering intra-group bonds

due to a looming threat of crime, to the point of development of xenophobia (Akyuz et al., 2021; Gurinskaya et al., 2024; Jacobs et al., 2017) or racist attitudes (John & Heald-Moore, 1996; Skogan, 1995).

Due to these encompassing consequences of FoC, and more specifically due to the relationship between fear of crime, xenophobia, and racism, the present study purported to test the relationship between fear of crime and attitude towards expatriates. As already mentioned, it seems that general FoC is unrelated to the attitude towards expatriates.

There is an important limitation to this study that may have affected the results. First of all, the study attempted to gather a large international sample, aiming to provide an initial exploration into the relationship between fear of crime and attitude towards expatriates. The advantage of the convenience sampling method used in this study is the gathering of a very diverse sample, but the disadvantage is that some of the participants, depending on their country of origin, may not have faced expatriates in their countries and may have little thoughts on this topic. In this respect it is important to consider the comments of some participants (see Procedure for details on the contents of the survey), who chose to share their opinion on the study:

1. "The last few questions were a bit confusing, since they were worded as if it was about one specific person/group that you know personally"
2. "There were a lot of questions in the second part of the questionnaire about expats. There are various people who come to our country from abroad, and none of the last few questions can be answered accurately, because that would be a generalization, and there are as many good people as there are bad people, which is why most of my answers were 'neither disagree nor agree'."
3. "You're assuming I'm in regular contact with one (1) person who fits your description of 'expatriate'. more than one person like that exists, and they're not identical."

4. "I have to admit that I don't know much about expats in the workplace, so some of the questions were difficult to answer. I hope my input still helped."

None of the other questionnaires were mentioned in the comments, which might mean that some participants tended to have certain issues with the ATEX questionnaire (Arman & Aycan, 2013), feeling that they are answering questions they have little context about. This might have reduced the validity of the ATEX questionnaire in the study.

Recommendations

Future studies on predictors of attitude towards crime should consider including predictors such as:

1. Socioeconomic status (i.e. total income of a participant)
2. Place of residence (i.e. urban, suburban, rural)
3. Exposure to media content relating to expatriates
4. Personal experience with expatriates

Another actionable recommendation refers to repeating the design of this study with a sample of people who have extensive experience with expatriates in their domestic countries. This might mean focusing on urban populations of large cities or general populations of countries that have large populations of expatriates.

Conclusion

While fear of crime has strong associations with neuroticism and perceived likelihood of crime, none of these variables is a significant predictor of attitude towards expatriates. While this might mean that expatriates are not implicitly associated with crime, it is possible that such an association would be found in a sample of participants who have more extensive experience with expatriates in their respective countries.

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Appendix

Table 1.*Pattern matrix for factor analysis of perceived likelihood of crime instrument.*

Pattern Matrix ^a		
	Factor	
	1	2
Burglary	,064	,728
Armed robbery	,199	,422
Sexual assault	,897	-,180
Theft	-,321	1,035
Physical assault	,615	,050
Stalking	,965	-,153
Kidnapping	,936	-,208
Identity theft	,007	,512
Fraud	-,150	,605

Extraction Method: Maximum Likelihood.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 4 iterations.

Table 2.*Structure matrix for factor analysis of perceived likelihood of crime instrument.*

Structure Matrix		
	Factor	
	1	2
Burglary	,579	,774
Armed robbery	,498	,563
Sexual assault	,770	,454
Theft	,410	,808
Physical assault	,651	,485
Stalking	,857	,529
Kidnapping	,789	,454
Identity theft	,369	,517
Fraud	,278	,499

Extraction Method: Maximum Likelihood.

Rotation Method: Oblimin with Kaiser Normalization.