The Big-Five, sense of control, mental health and fear of crime as contributory factors to attitudes towards punishment

Eve K. Klama, Vincent Egan *

University of Leicester, Leicester, UK

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ABSTRACT

Low sense of control (SoC), mental health problems and fear of crime (FoC) have separately and previously been linked to the Big-Five personality dimensions, but no study to date has sought to integrate these constructs simultaneously in relation to overall punitiveness. These constructs were assessed in 232 participants using an online survey to examine hypothesised relations between FoC and SoC, poorer mental health, Neuroticism (N), Extraversion (E) and Conscientiousness (C), and any resultant punitiveness. Measures were highly correlated, and an exploratory factor analysis summarised these as 'instability' and 'crime attitude' dimensions. A structural equation model found that high levels of N and poor mental health, as well as low levels of C, E and SoC were related to a latent variable of 'distress', which fed into heightened FoC. High levels of C further influenced FoC, which subsequently had an effect on individuals' greater punitiveness. The current study supports the previous literature regarding variables that influence FoC and attitudes to punishment, and establishes novel associations involving personality.

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1. Introduction

'Fear of crime' (FoC) reflects the fear of being a victim of crime, rather than the actual probability of being such a victim (Hale, 1996). The notion that a crime-filled media plays a significant role in causing an individuals' experience of FoC has often been uncritically accepted (e.g. Gerbner & Gross, 1976). Published research disputes this view (Heath & Petraitis, 1987). More important are individual characteristics such as anxiety and depressive disorders (e.g. Stafford, Chandola, & Marmot, 2007), a low sense of control (SoC; e.g. Cohn, Kidder, & Harvey, 1979) and a positive attitude to punishment (e.g. Costelloe, Chiricos, & Gertz, 2009), all of which have a greater influence on FoC than popularly acknowledged. This study explores the degree to which individual disposition, SoC, mental health and FoC shape punitiveness.

Individuals who score highly on FoC also show higher scores on both depression and anxiety scales, with those higher in FoC being 1.5 times more likely to have a common mental health disorder, and almost twice as likely to have symptoms of depression as individuals with lower FoC scores (Stafford et al., 2007). Ward, LaGory, and Sherman (1986) investigated the association between FoC and SoC using Pearlin and Schooler's (1978) mastery scale to measure the competence of individuals aged over 60 to manage FoC, finding

low scores on the mastery scale related to greater FoC experience. Victimisation and FoC are also positively associated (e.g. Bilsky & Wetzels, 1997). Finally, Keil and Vito (1991) investigated individuals' perceived neighbourhood safety, and their level of support for capital punishment. Attitudes towards capital punishment were directly influenced by an individuals' FoC regarding their neighbourhood.

High levels of anxiety, depression, pro-punishment attitudes, and low levels of SoC are correlated with high levels of Neuroticism (N) (Bienvenu et al., 2004; Kling, Ryff, Love, & Essex, 2003; Lester, Hadley, & Lucas, 1990). By contrast, Extraversion (E), Agreeableness (A) and Conscientiousness (C) have shown only small associations with depression (Bunevicius, Katkute, & Bunevicius, 2008; Finch & Graziano, 2001; Weiss et al., 2009) and anxiety (Uliaszek et al., 2010; Van Straten, Cuijpers, Van Zuuren, Smits, & Donker, 2007). Low E and C are correlated with low levels of SoC (Kling et al., 2003), whereas high levels of pro-punishment attitudes are correlated with high E, lower Openness (O), and A (Robbers, 2006). O does not differentiate depressed or anxious individuals from persons who are not depressed or anxious (e.g. Weiss et al., 2009; Carrera et al., 2006).

Given the relationships identified in the literature between FoC and mental health, SoC, and attitudes towards punishment, and the relationship these constructs have with aspects of personality such as high N, it was hypothesised that participants scoring high on depression and anxiety, low on SoC and high on punitiveness would also score high on FoC. It was also hypothesised that high N will also be associated with high scores of FoC, and that O would

* Corresponding author. Address: Forensic Section, School of Psychology, University of Leicester, 106 New Walk, Leicester LE1 7EA, UK. Tel.: +44 (0)116 252 3658; fax: +44 (0)116 252 3994.
E-mail address: ve2@leicester.ac.uk (V. Egan).

not be linked to FoC. Given the variation in findings, associated with *C*, *A* and *E* in relation to SoC, high punitiveness, depression and anxiety as well as victimisation, associations could be found in either direction. We hypothesised that high *N*, poorer mental health, low SoC, high punitiveness and high levels of FoC would intercorrelate and show causal relations in a structural equation model integrating all these associations simultaneously. We sought to replicate previous findings (linking FoC with mental health, SoC, and punitiveness) and extend them by further investigating correlations of personality dimensions in relation to these constructs, which has not been previously attempted.

2. Method

2.1. Participants

Sample size calculation suggested we needed a sample of 107 participants for a power of 0.95 (Buchner, Erdfelder, & Faul, 2010). We maximised power by initially recruiting 360 participants, of whom 128 were excluded (see below) prior to any analyses being calculated, resulting in a total cohort of 232 participants (M:F = 57:172; 3 participants (1.3 %) did not state their gender). Participants were aged between 18 and 78 (mean = 27.3 years (*SD* = 10.8), and were recruited by a hyperlink to an online survey posted on psychology research websites, email invitations, and social networking groups. The participants comprised 161 students (69.4%), and 32 professionals (13.8%), the remaining 39 participants being scattered across other occupations (16.8%). A victimhood survey found 114 (49%) participants had been victims of property crime, 41 (17.7%) violent crime, and 34 (14.7%) sexual crime. Finally, 50 participants (21.6%) had suffered from depression, and 35 (15.1%) from anxiety in the year prior to participation.

2.2. Measures

The following self-report questionnaires were used.

2.2.1. 'Fear of crime' measure (FoC) (Ferraro & LaGrange, 1992)

The 'fear of crime' measure was adapted from Ferraro and LaGrange (1992), and consists of a 'fear of crime' (FoC) and 'risk of crime' (RoC) subscale with 10 items each. This particular measure was utilised to differentiate fear from risk of crime, as failure to do so may lead to bias in the results (Ferraro & LaGrange, 1992). Participants rated how afraid they were about a given crime, and how likely the chance was for this crime to happen to them on a 10-point Likert scale (1 = low fear/low likelihood; 10 = high fear/high likelihood). Both scales have a strong alpha internal consistency, yielding 0.90 and 0.87 reliability for the FoC and RoC subscale, respectively (Ferraro & LaGrange, 1992).

2.2.2. NEO-Five-Factor Inventory-Revised (NEO-FFI-R) (McCrae & Costa, 2004)

The NEO-FFI-R (McCrae & Costa, 2004) is a revised 60-item version of the NEO-FFI (Costa & McCrae, 1992), which has been improved in regards to subscale correlation problems (Egan, Deary, & Austin, 2000) and efficiently measures *N*, *E*, *O*, *A* and *C*. Participants were asked to respond on a 5-item Likert scale ranging from 'strongly disagree' to 'strongly agree' (1–5, respectively). The internal consistency of these items in a large British sample have been established as: *N* = 0.84, *E* = 0.78, *O* = 0.78, *A* = 0.77, and *C* = 0.75 (Egan, 2011).

2.2.3. Hospital Anxiety and Depression Scale (HADS) (Zigmond & Snaith, 1983)

The HADS is a 14-item self-report scale developed by Zigmond and Snaith (1983) to measure the possible presence of anxiety and depressive states in individuals. It contains two 7-item scales, for anxiety and depression. The internal consistency of this scale for the general population is 0.84 for anxiety and 0.79 for depression subscales, respectively (Spinhoven et al., 1997). The scale is widely used in clinical settings for screening. Due to an error by the researcher, most participants responded to just 5 of the 14 HADS questions in the online survey. As previous research established that a short anxiety measure (The short-form of the Spielberger State-Trait Anxiety Inventory; Marteau & Bekker, 1992) yields similar results to a longer version (Egan, Miller, & McLellan, 1998), the existent HADS questions were analysed to determine whether they measured the construct sufficiently to be included in further analyses.

2.2.4. Sense of control (SoC) mastery scale (Pearlin & Schooler, 1978)

The SoC mastery scale, adapted from Pearlin and Schooler (1978) concerns 'the extent to which one regards one's life-chances as being under one's own control in contrast to being fatalistically ruled' (Pearlin & Schooler, 1978, p. 5). It consists of seven items, which yielded a 0.81 alpha internal consistency. Participants scored these items on a 5-item Likert Scale ranging from 'strongly disagree' to 'strongly agree'.

2.2.5. Attitudes to Punishment Scale (APS) (Furnham & Alison, 1994)

The current study employed the APS, a measure from Furnham and Alison (1994) that investigated an individual's attitude towards punishment. This measure encompasses two subscales, a pro-punishment scale of 11 items, and an anti-punishment subscale of 8 items, which yielded alpha reliabilities of 0.85 and 0.61, respectively. The APS was scored by participants on a 5-item Likert Scale ranging from 'strongly disagree' to 'strongly agree'.

2.3. Procedure and ethical issues

To complete the on-line survey, prospective participants followed a hyperlink. They were then taken to the first page of the survey, which was an information sheet. Participants were informed about the study's purpose, their anonymity and the confidentiality of their data, that the study followed ethical guidelines set by the British Psychological Society, their right to withdraw from the research by simply closing their browser window at any time, and that by completing the questionnaire they were giving their consent for the data to be used in publications. Once participants gave their consent by clicking the button they were taken to the first page of the survey. Participants completed the scales in their own time. To ensure on-line responses were made responsibly, several control questions were included that asked participants to endorse obviously true or false propositions amidst other question types, with persons who did not respond correctly to the control questions having their records excluded from the final data set.

3. Results

3.1. Data preparation

Data was cleaned by removing participants who did not answer the control questions correctly (*n* = 71), gave a respondent age under 18 (*n* = 4), or who left significant items (i.e. more than 3 questions of the NEO-FFI-R scale (5%), more than 1 question of the FOC (5%) and APS scales (5.26%), and more than 0 questions of the HADS and SoC scales) incomplete (*n* = 53). The total scores for each scale were calculated by reverse-coding appropriate variables and calculating sum totals. A few individual missed items were replaced with their pro-rated mean item score. Summary reliability