The role of trait anxiety in the association between the reporting of negative life events and interrogative suggestibility

Kim E. Drake *

Institute for Interdisciplinary Research and Enterprise, University of West London, United Kingdom

ABSTRACT

The aim of this study was to investigate the role of trait anxiety in the relationship between the reported experience of negative life events and interrogative suggestibility. 127 participants completed the Gudjonsson Suggestibility Scale (GSS), the Life Events Questionnaire and the Neuroticism domain on the NEO Personality-Inventory Revised. Multivariate regression modelling showed that: (a) the extent to which interviewees reported and rated their life events negatively exerted a direct, positive, effect on Yield 1, Yield 2 and Shift scores – especially Yield 2 and Shift scores; and (b) trait anxiety moderated the effect of this negative life events intensity rating on Yield 1 scores, such that the effect was strongest at high trait anxiety scores. Trait anxiety may therefore be a valid indicator of suggestibility in the absence of explicit pressure, whereas interpretative factors may be a critical predictor of suggestibility in the presence of or after pressure has been applied. Implications and future directions are discussed.

© 2013 Elsevier Ltd. All rights reserved.

1. Introduction

Interrogative suggestibility is an important psychological vulnerability that can have a detrimental impact upon the quality of evidence obtained from interviewees during police questioning (see Gudjonsson, 2013). Across the academic and applied forensic setting, interrogative suggestibility is measured using the Gudjonsson Suggestibility Scale (GSS; Gudjonsson, 1997) from which three scores can be derived: (i) Yield 1 scores, measuring misinformation acceptance as a result of the pressure associated with questioning (but prior to any explicit negative feedback); (ii) Yield 2 scores, measuring misinformation acceptance, during the second round of questions, in response to explicit negative feedback; and (iii) Shift scores, measuring a tendency to change [initial] answers in response to negative feedback.

Similar to developmental research findings, which have consistently implicated environmental adversity (socio-economic disadvantage and negative rearing practices, for example) in the development of psychopathology (Belsky & Pluess, 2009), cross sectional studies into psychological vulnerability within the applied forensic setting using general population samples have shown significant correlations between experience of negative life events (especially, the extent to which individuals interpret their experiences negatively; a measured subsumed within the Life

Events Questionnaire; Norbeck, 1984) and heightened sensitivity to pressure (Yield 2 and Shift scores) (Drake, 2010, 2011; Drake & Bull, 2011; Gudjonsson, Sigurdsson, Sigfusdottir, & Young, 2012). Most negative life event/susceptibility to pressure research has focused on general population subjects but, even in ADHD sufferers, negative life events were found to be a significant factor contributing to false confessions (Gudjonsson et al., 2012). For some time negative life events, and the negative perception of such events, have been linked with the development of other psychological vulnerabilities (such as depression, anxiety and sensitivity to social challenge). This research suggests that such events (and, in particular, the negative interpretation of such events) could also increase the risk of psychological vulnerability during investigative interview.

As research into the negative life events/sensitivity to pressure association has continued, however, mixed results have materialized, bringing about a need to perhaps reconsider the role of negative life events and negative perception (of events). Recently a study failed to find a significant association between the experience of negative life events (or perception of events) and sensitivity to interview pressure demonstrating that, whilst some interviewees scoring high on negative life events were more sensitive to pressure, a similar number were not (McGroarty & Thompson, 2013). Gudjonsson et al. (2012) also hypothesised that, although the experience of negative events is a significant contributing factor to false confessions in ADHD sufferers, the factor that weakens their resilience to pressure is in fact their condition [ADHD]. Furthermore, although the focus of this work was into

* Address: INSPIRE, St Mary's Road, University of West London, London W5 5RF, United Kingdom. Tel.: +44 020 8231 2083.
E-mail address: kim.drake@uwl.ac.uk

compliance and not interrogative suggestibility, what was shown by Drake, Sheffield, and Shingler (2011) was low compliance scores in a significant proportion of interviewees reporting high levels of intensely negative events – such individuals proclaimed to be better able to cope with pressure and less likely to yield to the requests of others.

These findings tally with developmental research into psychopathology and resilience in children, showing that life adversity need not lead to vulnerability; such research has consistently shown that only children harbouring phenotypic and genotypic stress-sensitivity markers (i.e. anxiety, negative emotionality, for example and, on a genotypic level: (i) the serotonergic receptor gene (HTR2A) – those carrying the T allele, especially, and (ii) the serotonin transporter gene 5-HTTLPR – homozygosity for the short allele, in particular, amongst others; see Belsky & Pluess, 2009 for a review of the literature) are at an increased risk of developing emotional and behavioural problems. In the absence of intrinsic stress-sensitivity, children seem less physiologically responsive to adversity but also less likely to interpret such events as intensely negative, and so are able to better adjust and adapt following adversity.

Child development research for a while now has therefore demonstrated an element of plasticity within individuals (an enhanced susceptibility to environmental influences in stress-sensitive individuals), with stress-sensitivity being a crucial moderator of the effect of environmental adversity. In light of developmental research, it might be more reasonable to suppose that the effect of experiencing negative life events depends upon the extent to which interviewees themselves are stress sensitive (one such phenotypic marker is trait anxiety). This might further explain why vulnerable suspects cope better under the PEACE (Planning and preparation, engage and explain, account, closure and evaluate) model of investigative interviewing, which is more facilitative and supportive (Home Office, 2008) and struggle severely under the hostile, manipulative, nature of the Reid Technique (Inbau, Reid, Buckley, & Jayne, 2001) – differential susceptibility theory would support the outcome that vulnerable suspects are more stress-sensitive and, as a result, are more open to the effects of environmental influence, both positive and negative influences (see Belsky & Pluess, 2009).

Authors of research into interrogative suggestibility recognise the role of traits such as anxiety, but they suggest that anxiety may be a mediator created through "instructional manipulation" (Gudjonsson, 2003, p. 385), even though research overall shows a weak correlation between trait anxiety and interrogative suggestibility, making the notion of trait anxiety as a mediator less plausible (Baron & Kenny, 1986). Furthermore, developmental literature supports trait anxiety as a moderator of the effect of adverse influences rather than as a mediator.

As such, the aim of this paper is to investigate the role of trait anxiety in the relationship between the extent to which interviewees interpret their experiences negatively and interrogative suggestibility. It is hypothesised that the relationship between this negative intensity rating and interrogative suggestibility will be strongest at higher scores of anxiety, because individuals scoring high on anxiety will be most susceptible to the effect of negative events they have experienced and the pressure associated with questioning (an example of a negative event). Considering research also suggests that anxiety is most strongly associated with the shift subscale (sensitivity to explicit pressure, expressed as negative feedback) on the GSS rather than with yield (the acceptance of misleading information) (Gudjonsson, 2013), as well as research showing strongest associations between the extent to which interviewees interpret experiences negatively and Shift scores, it is predicted that the interaction effect will be strongest on the shift and Yield 2 GSS subscale compared with Yield 1. Negative life

events and anxiety still are likely to exert some direct influence on GSS scores, as previous research has shown, trait anxiety may also moderate the effect of negative events on GSS scores; Shift and Yield 2 scores, especially.

2. Method

2.1. Participants

The sample consisted of 127 participants, 78 females and 49 males (mean age = 19.35 years, standard deviation = 1.41, range = 18–26). Participants are an undergraduate student sample, recruited through the experimental participation scheme within the School of Psychology.

2.2. The Gudjonsson Suggestibility Scale 1 (Gudjonsson, 1997)

2.2.1. Memory recall

The GSS memory recall task is presented in the form of a narrative, which is made up of 40 small instances, occurring in a specific order. Each instance is scored as 'successfully recalled' if the interviewee is able to freely recall that instance. The interviewee does not need to recall each instance in the order with which they are presented in the story. Furthermore, the words used (by the interviewee) to recall the instances need not be exactly as written in the narrative. Of fundamental importance is that the concept, that is what occurred within each instance, is correctly recalled. The maximum free-recall score that can be achieved is 40, which would indicate that the interviewee has correctly recounted everything that occurred in the story. In the traditional form of the GSS the "immediate" free-recall phase is followed (after filler tasks) with a delayed recall of the narrative.

2.2.2. Interrogative suggestibility

The questioning phase begins immediately after the delayed free-recall. The first round of 20 questions (15 of which are suggestive) makes up the Yield 1S score, indicating the number of misleading questions yielded prior to negative feedback. (The answers to five 'true questions' do not contribute to this score). Immediately after the first round of 20 questions, negative feedback is given by the interviewer. The interviewee is told "You have made a number of errors, and it is therefore necessary to go through all of the questions once more and this time try to be more accurate". All 20 questions are then repeated, in order to see how readily interviewees shift their initial (20) answers as a result of the critical feedback delivered by the interviewer. A Yield 2 score is also obtained, depicting the number of the 15 misleading questions yielded to post-negative feedback.

2.2.3. Life Events Questionnaire (LEQ) (Norbeck, 1984)

The LEQ contains 82 items in total and is a modification of the instrument developed by Sarason, Johnson, and Siegel (1978), in that it has nine items of particular relevance to women. These include items such as "Major difficulties with birth control pills or devices". The nine additional items in the LEQ were introduced to reduce the gender bias in the Sarason et al. (1978) version. Participants were required to go through all the events listed, and if they had experienced them at any point of their life, to circle whether it had been a "good" experience or "bad" experience. They were then instructed to rate the extent to which those events had an effect on their lives at the time. The ratings went from 0 ("no effect") to 3 ("large effect"). The LEQ has good test–retest reliability, with test–retest reliabilities of 0.78 to 0.83 and is a significant predictor of measures of (unfavourable) psychological and psychiatric symptoms.