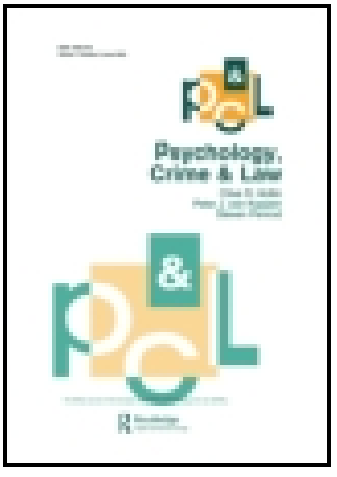

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The importance of looking credible: the impact of the behavioural sequelae of post-traumatic stress disorder on the credibility of asylum seekers

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Memory difficulties following traumatic experiences have been found to result in testimonial inconsistencies, which can affect credibility judgements in asylum decisions. No investigations have looked into how/whether the behavioural sequelae of post-traumatic stress disorder (PTSD) affect decisions. This study aimed to investigate this by looking at whether observable symptoms of PTSD can be confused with perceived cues to deception. An actor performed four versions of a fictional 'asylum interview' that contained differing levels of pre-defined 'deception' and 'trauma' behaviours. Four groups of students (total $n = 118$) each watched a different interview. They gave subjective ratings of credibility, plus quantitative and qualitative information about the factors that influenced their judgements. Despite the content of the interviews remaining the same, significant differences in credibility ratings were found between interviews; with the interview containing both 'trauma' and 'deception' behaviours being rated as significantly less credible than the interview containing only the PTSD behaviours. 'Emotional congruence' was conceptualised as an important factor in influencing credibility. Results are discussed in terms of possible heuristics involved in judgements of an asylum-seeker population, as well as implications for vulnerable asylum seekers whose symptoms do not conform to stereotypes. Limitations and avenues for future research are highlighted.

Keywords: PTSD; asylum; credibility; trauma; behaviour

The latest United Nations High Commission for Refugees [UNHCR] figures show that approximately 479,300 people sought protection as refugees in industrialised countries in 2012 (UNHCR, 2013). The 1951 Geneva Convention defines a refugee as someone with, 'a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion' (UNHCR, 1992). In most Western countries people seeking to be recognised as refugees, in order to gain state protection, apply firstly to a government body (in the UK it is the United Kingdom Borders Agency; UKBA). To substantiate their claim they must give an account, usually relating to past persecution, explaining how they fit the definition. There is normally little or no substantiating evidence such as witness statements or detention records, and the state decision-makers must judge claims against existing information available about the country of origin and their assessment of the credibility of the individual's account. Since

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many people do attempt to use the asylum system to gain access to countries they have no legal rights to enter, state decision-makers have a difficult job. They are instructed that a coherent, consistent and plausible account of past and present experiences should contribute to a judgement that an asylum-seeker's claim is credible (e.g. UKBA, 2012).

Post-traumatic stress disorder (PTSD) is classed by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV[1]; American Psychiatric Association, 2000) as an anxiety disorder triggered by a life threatening event responded to with intense fear, helplessness or horror. It is characterised by re-experiencing intrusive memories of the event that elicit intense distress, avoidance and general numbing of affect and hyper-arousal, such as increased startle response or hyper-vigilance for danger. Symptoms should last for over one month and cause significant clinical impairment of daily functioning. By definition, many refugees have experienced trauma and may have active symptoms of PTSD (Johnson & Thompson, 2008). There is also evidence to suggest that the asylum-seeking process itself has a negative impact on asylum-seekers' mental health (including PTSD) (Steel et al., 2009; Steel & Silove, 2001). Furthermore, there is evidence that mental health problems, including PTSD, could have a negative impact on asylum seekers' credibility through affecting the consistency of their verbal accounts of their experiences (Bogner, Herlihy, & Brewin, 2007; Herlihy, Gleeson, & Turner, 2010; Herlihy, Scragg, & Turner, 2002).

Memory for traumatic experiences is different from normal memories. Under conditions of extreme stress, the integration of sensory and emotional information with the semantic information that helps us place memories in time and space is disrupted. Instead of voluntary, verbal accounts of what happened memories for trauma are often images, sensations or emotional states (van der Kolk, 1996). Brewin, Dalgliesh, and Joseph (1996) proposed a dual-processing theory of why this occurs. They suggested that, whilst normal memories may be encoded at a non-conscious (rapid, detailed, parallel processing of sensory and emotional information) and conscious (slow, serial, limited-capacity verbal processing) level, during acute trauma, conscious processing may be impaired as the individual goes into survival mode. Subsequently, particular partially processed aspects of the trauma experience can be involuntarily triggered by reminders – an adaptive, although oversensitive, alarm system to protect the individual from further threat. In the absence of contextual information, these memories are re-experienced as happening in the present (Brewin, Gregory, Lipton & Burgess, 2010), sometimes with a vividness that can cause behavioural reactions. This results in a constant sense of present threat; one of the main factors maintaining untreated PTSD (Ehlers & Clarke, 2000). This has implications for the coherence of asylum-seekers' accounts if they are involuntarily re-experiencing traumatic events during interviews. Studies have shown that feelings and sensations experienced in post-trauma flash-back memories can manifest in increased limb movement, gaze aversion and fixating on a point as if 'watching' the event replay (Hellawell & Brewin, 2002).

Evidence from the deception literature shows that non-verbal behaviour can affect credibility judgements. Furthermore, there is also evidence that cultural differences in non-verbal behaviour and social stereotypes influence decision-making processes (see Vrij, 2008 for an overview). However, no studies could be found that looked at the influence of 'PTSD behaviours' on credibility judgements in an asylum-decision context. Given the high prevalence of PTSD in asylum seekers, we believe this is an important avenue for exploration.

Dual-process models have also been applied to decision-making processes. Rapid, parallel processing of non-verbal information is thought to precede slower verbal

processing and may account for the use of heuristics, or stereotypes under conditions of low motivation or low cognitive capacity. For example, the heuristic-systematic model (Chen & Chaiken, 1999) suggests that heuristics are used to conserve mental effort unless the individual is motivated to achieve a sufficient level of confidence in their judgement, in which case they apply more effortful, systematic information-processing skills that take into account the content of the information (see Gilovich, Griffin, & Kahneman, 2002 for a review of past and present theories).

Under conditions of low motivation or cognitive capacity, non-verbal behaviour has been found to influence credibility attributions. Reinhard and Sporer (2008) found that when motivation to engage with the study content was manipulated, participants attended to non-verbal over verbal information when making attributions, if the importance of their task was under-emphasised. The perspective of the observer has also been found to influence the interpretation of specific behaviours. Mulder and Winkel (1996) found that subjects with a victim focus (social workers) were more likely to interpret perceived tension as due to the difficulties of recounting the trauma than those with a truth-detection focus (police officers).

People in all cultures expect those who lie to exhibit fear, shame or cognitive difficulties (Bond & Robinson, 1988; Global Deception Research Team, 2006). Even some of the deception research has blurred the boundaries between deception and anxiety. For example, Pryor and Buchan (1984) termed the cluster of behaviours that they had identified as distinguishing between truths and lies as 'anxiety' and found that those exhibiting high levels of the 'anxiety' behaviours were judged less credible than those exhibiting low levels of 'anxiety'. Vrij (2008) reviewed *perceived* cues to deception and found that the most commonly assumed cue was gaze aversion. He also found that those who lie are expected to fidget more, move their hands, feet and bodies more often, use more illustrators, make more speech errors and hesitate more. This finding applied to both lay-people and 'professional lie-catchers' such as police, customs, immigration and prison-officers alike. The similarities between such assumptions and the behaviours identified by Hellawell and Brewin (2002) as ones associated with PTSD are marked. In lie detection, Vrij (2008) suggests that the 'representativeness heuristic' (how similar A is to one's internal prototype of B) might underlie people's search for fear when making credibility attributions, based on widely held beliefs about liars' behaviour (i.e. that liars would be fearful). Given that PTSD is a fear-based anxiety disorder, this 'search for fear' may result in an assessment of some PTSD behaviours as deception 'tells', and hence an assessment of non-credibility in asylum decisions – particularly where cognitive capacity is under pressure (Chaiken & Trope, 1999).

Time constraints (Lustig et al., 2009) and compassion fatigue (United Nations Refugee Agency [UNRA], 2005) are two documented problems within the asylum system that could interfere with information processing and increase non-conscious processing of non-verbal information. In spite of guidance that demeanour is culturally determined (Kagan, 2003; UNHCR, 2002) asylum decision-makers have been found to attend to non-verbal behaviour when judging credibility (Coffey, 2003; Jarvis, 2003). It is also suggested that bias may exist in the asylum system (Thomas, 2006; UNRA, 2009), which could influence observer perspective between lie detection and victim focus.

This study aims to look at whether PTSD behaviours do interact with commonly perceived cues to deception by investigating how credibility ratings of a traumatised behavioural presentation compare to those of a deceptive one. By varying the extent to which a mock asylum interviewee exhibited 'traumatised' or 'deceptive' clusters of

behaviours, and asking participants to comment on what influenced their credibility judgements, we hoped to shed some light on the role that these behaviours might play in decision-makers' judgements about asylum seekers.

It was hypothesised that there would be differences in credibility ratings of the asylum interview between 'normal', 'pure trauma', 'pure deception' and 'mixed trauma & deception' presentations. Specifically, it was predicted that interviews containing 'trauma' behaviours would be given worse credibility ratings compared to those not containing trauma behaviours, due to the overlap with perceived cues to deception.

Method

Design

The study used a between-subjects design with perceived credibility as the dependent variable. There were two independent variables with two levels each; 'trauma' (High/Low) and 'deception' (High/Low). Four simulated asylum interviews were developed portraying a male asylum-seeker performing different combinations of the levels of these factors; Low trauma & Low deception ('normal'); High trauma & High deception ('mixed trauma & deception'); High deception & Low trauma ('pure deception'); High trauma & Low deception ('pure trauma').

Development of testing materials

Based on the demographics of the most common asylum seekers, a trained actor of middle-eastern appearance in his mid-thirties was recruited to allow for easier manipulation of the testing variables. For external validity, clusters of behaviours were chosen to represent the constructs of 'deception' and 'trauma'. Whilst research shows there is no one constant lying-specific indicator, Vrij (2008) suggests that there are cues that are more and less likely to occur. Evidence suggests that attending to behavioural clusters provides better deception-detection rates (Davis, Markus, Walters, Vorus, & Connors, 2005), and that clusters of non-verbal behaviours are used to justify credibility decisions (Mann, Vrij, & Bull, 2004). 'Deception' was therefore operationalised using a combination of theoretical rationale and evidence from meta-analyses to construct a 'deceptive' pattern of behaviours (see Table 1). 'Trauma' was operationalised using evidence from the literature, plus survey evidence from a sample ($n = 5$) of clinicians who work with traumatised refugees, about the most commonly seen PTSD behaviours (see Table 1).

To ensure the external validity of the story content, a published asylum-seeker 'survivor's story' (Medical Foundation, 2009) was developed into four scripted interviews, which remained the same in content but differed in their behavioural directions. These were written into the scripts, and the actor was instructed on exhibiting each of the cues. For example, in the 'mixed trauma & deception' interview, he was asked to imagine that he was fleeing an actual trauma but did not qualify for asylum. Therefore, he applied the 'deception' behaviours whilst giving the 'untrue details' and applied the 'trauma' behaviours to the flash-back sections of the script. The interviews were recorded in a single take. In each shot the actor sat beside a desk with a cup on it with his head, torso and legs visible. The camera pointed face-on and the 'interviewer' was off camera.

The final four interviews were chosen from a total of 11 useable takes following a validation study to identify those containing the best representations of the constructs.

Table 1. Operational definitions of the 'deception' and 'trauma' constructs, including effect sizes (DePaulo et al., 2003; Giesbrecht, Lynn, Lilienfeld, & Merckelbach, 2008; Hellawell & Brewin, 2002; Sporer & Schwandt, 2007; Taylor, Frueh, & Asmundson, 2007).

'Deception'	'Trauma'
Higher pitch of voice (d = 0.21, p < .05; DePaulo et al., 2003)	Heightened startle response – jumps in response to a sudden loud noise (Taylor et al., 2007)
Longer pauses after direct questions (r = .187, p < .001; Sporer & Schwandt, 2007)	Increased motor behaviour – movement of the hands and legs during recounting of the trauma (Hellawell & Brewin, 2002)
Decreased illustrators – less use of hands and arms to illustrate a point. Hands and arms are more still in general (d = −0.14, p < .05; DePaulo et al., 2003)	Dissociative phenomena – increased staring into space, loss of train of thought (Giesbrecht et al., 2008)
Decreased leg and foot movements (r = −.067, p < .05; Sporer & Schwandt, 2007)	Avoidance of discussion of trauma – reluctance to answer questions – limited detail given
Increased fidget – shifts in position (d = 0.16, p < .05; DePaulo et al., 2003)	Increased agitation/emotion at descriptions of trauma
Increased overall tension – sense of rigidityand tightness of body. (d = 0.27, p < .05; DePaulo et al., 2003)	

Two independent non-expert raters were given lists of the operationalised behaviours and rated the extent to which they were observable in the interviews. This study found that the PTSD items could be reliably identified (Cronbach's α = .74). More 'deception' behaviours were identified in the interviews *designed* to contain the deception behaviours. However, the 'pure trauma' interview was also rated highly for the presence of 'deception' behaviours. This was found to be an artefact of the rating system and, although the 'trauma' interviews were rated as containing some 'deception' behaviours, these were less pronounced than in the 'pure deception' interviews. An independent expert from the field of PTSD and one from the field of deception were consulted. They correctly identified which interviews contained high and low levels of deception and trauma behaviour.

Participants

Participants were 118 consenting students from Royal Holloway University of London. The sample consisted of 22% males, 77% White (British or other) ethnic background, 73% psychology undergraduates and 27% were undergraduates from the wider student community. Ages ranged from 18 to 47 (M = 20, SD = 4.0). Seventy-four per cent said that they had some knowledge of asylum issues from the media. Incentives were either entry into a prize draw or psychology course credits. Ethical approval for the study was awarded by Royal Holloway Psychology Departmental Ethics Committee.

Measures

The main dependent measures were adapted from Kaufmann, Drevland, Wessel, Overskeid, and Magnussen (2003). An average 'credibility' score was derived from

ratings of story credibility, story plausibility and person credibility (1–10; most–least), which correlated at $r = .80$. Although these may be considered separate constructs, the decision to combine the items was taken following a personal communication from Kaufmann, suggesting the high correlation between items could justify their combination. Re-analysis of the separate items provided similar main effects to the overall credibility analyses; therefore the overall scores are reported. A qualitative item, 'what are your reasons for these judgements?' provided information regarding how credibility judgements were made. Then, how likely they were to grant the claim and how likely they thought the UKBA would be to grant the claim (1–10; extremely likely–extremely unlikely) indicated how well the asylum scenario put participants in the mind-set of a UKBA Case Owner. There were no significant differences across the groups between answers to these two questions, suggesting that they felt their views were in line with UKBA views. Next, to check whether participants could identify trauma versus deception, they rated the extent to which the asylum seeker was traumatised and lying (each rated 0–10; not at all–extremely), presented amongst eight other relevant dummy variables, such as 'hopeful', or 'like he would want to get a job in the UK', so as to avoid priming effects when rating specific behaviours. Then, participants rated the influence that the 10 behaviours manipulated in the videos had on their credibility judgements (1–5; not at all–definite influence). Answers were used to investigate the influence of specific PTSD or deception behaviours on credibility decisions.

Finally, participants answered three questionnaires about their attitudes and feelings towards asylum seekers to control for pre-existing biases. The Attitudes to Asylum-Seekers Scale and The Feelings toward Asylum-Seekers Scale (Nickerson & Louis, 2008) were developed for use in Australia. They have good internal consistency ($\alpha = .91$ and .94 respectively), and were adapted for a UK sample. They measure opinions about asylum-seeker issues on a scale of 1–7, and the extent that asylum seekers elicit positive/negative emotions for them on a scale of 1–10 (for both scales, 1 is indicative of a negative orientation towards asylum seekers). The Marlowe–Crowne Social Desirability Scale (M-C SDS; Crowne & Marlowe, 1960) assesses for socially desirable responding. It has good reliability and validity, and an internal consistency coefficient of $\alpha = .88$.

Procedure

Participants were tested in groups (max. 20 per session). They were told that they would watch an asylum interview and would be asked questions about their judgements. The information sheet described the study as follows:

> This study looks at different factors that impact on how credible an asylum-seeker seems at interview. The aim is to use the results to help those people with a genuine asylum claim, and better inform officials about the less genuine ones!

They were given an asylum 'Scenario' to put them in the mind-set of a UKBA Case Owner, asking them to imagine that the information they had about the case was ambiguous; they had therefore asked to interview him directly to hear about his experiences. The first interview was then projected onto a large screen, following which participants filled out the measures.

Results

Independent samples *t*-tests indicated no significant differences between genders, ethnicity or psychology and non-psychology undergraduates, on credibility ratings, attitudes and feelings towards asylum seekers, or socially desirable responding. They were therefore not included as co-variates in subsequent analyses. The distribution of demographic differences did not differ significantly between the groups watching the different interviews (Ethnicity: $\chi^2(3) = 1.42$, $p = .69$; Gender: $\chi^2(3) = 4.77$, $p = .17$; Age: $F(3, 114) = .34$, $p = .81$). Overall attitudes and feelings towards asylum seekers as rated on the Nickerson and Louis scales were somewhat positively valenced (Attitude $M = 4.2$, $SD = 0.96$, scale 1–7, 7 is least positive; Feelings $M = 7.14$, $SD = 1.22$, scale 1–10, 10 is most positive).

Ratings of perceived lying and traumatisation were investigated as a check of participants' ability to identify trauma and deception. 'Trauma' behaviour was easily identifiable (significant main effect of the presence of 'trauma' behaviours on ratings of 'extent of traumatisation'; $F(1, 114) = 14.19$, $p < .001$; the 'pure-trauma' interview rated significantly more traumatised than all other interviews at $p < .001$), whereas the 'pure-deception' interview was not easily distinguishable as the most deceptive. There was a significant main effect of the presence of 'deception' behaviour on 'extent of lying' ($F(1, 114) = 20.38$, $p < .001$), indicating that overall, participants deemed the man to be lying more in interviews where he exhibited more deception behaviours. However, investigation of the significant interaction effect ($F(1, 114) = 6.95$, $p = .01$) indicated that this main effect was not because of a significant difference between the 'normal' and 'pure deception' interviews ($t(56) = -1.23$, $p = .223$), but because of the large difference in perception of lying between the 'pure trauma' and 'mixed' interviews ($t(58) = -5.53$, $p = .001$). This indicates that participants had more difficulty distinguishing 'trauma' and 'deception' behaviour in the 'mixed trauma & deception' interview and, rather than rating the asylum seeker as both traumatised and deceptive, they rated him as less traumatised and more deceptive in this interview. Considering these data in an asylum context, this suggests that a more confusing presentation is likely to be considered deceptive; a potential difficulty for genuine asylum seekers with PTSD who may be embellishing their story for any number of legitimate reasons.

Group means and standard deviations for the experimental groups were calculated ('normal': $n = 30$, $M = 5.56$, $SD = 2.14$; 'pure deception': $n = 28$, $M = 5.52$, $SD = 1.61$; 'pure trauma': $n = 31$, $M = 4.51$, $SD = 1.91$; 'mixed trauma & deception': $n = 29$, $M = 6.38$, $SD = 1.60$). A 2 × 2 independent ANOVA compared the effect of high and low levels of 'trauma' and 'deception' behaviour on credibility ratings.

There was no significant main effect of 'trauma' ($F(1, 114) = .08$, $p = .77$), suggesting that the presence or absence of 'trauma' behaviour had no significant impact on credibility ratings. There was a significant main effect of 'deception' ($F(1, 114) = 7.44$, $p = .007$), with high levels of 'deception' behaviour corresponding to lower perceived credibility. This main effect could be explained by the significant interaction between 'trauma' and 'deception' ($F(1, 114) = 7.96$, $p = .006$). Post-hoc *t*-tests showed that credibility ratings differed significantly over high and low levels of deception only when levels of trauma were high, as the 'pure trauma' interview was deemed significantly more credible than the 'mixed trauma & deception' interview ($t(58) = 4.11$, $p < .001$). This was the only significant difference in perceived credibility between interviews, using a stringent Bonferoni correction to limit the possibility of a Type 1 error. However, three of

the differences may have been significant if less stringent criteria were applied (see Table 2).

Attitudes and feelings towards asylum seekers were significantly negatively correlated with credibility scores ($r(118) = -.375$ and $-.307$ respectively, $p < .001$) indicating that more positive attitudes to asylum seekers were related to better credibility scores. These variables were included as co-variates in a 2 × 2 analysis of covariance and the main effects of 'deception' ($F(1, 112) = 5.48$, $p = .02$) and the interaction ($F(1, 112) = 5.25$, $p = .02$) remained significant, indicating that prior attitudes did not have a significant impact on the credibility ratings.

Taking these results together, it would seem that someone who has been identified as traumatised is deemed more credible in an asylum context, whereas someone behaving in a confusing way is considered least credible. The qualitative data were investigated to look at what decisions were being based on. Looking at decision-makers' representations of 'traumatised' could have serious implications for those individuals who do not present in a typical way.

Qualitative results

A data-driven thematic analysis was performed on answers to the open-ended question 'what influenced these [credibility] judgements?'. Initially the data were read through and the content was broken down into individual items of meaning. These items were read through again and grouped into themes. The approach was essentialist, in that language and meaning were assumed to have a unidirectional relationship, rather than the language being influenced by socio-cultural factors. It is acknowledged that themes do not 'emerge' from the data but are formed based on the researcher's prior knowledge and assumptions (Braun & Clarke, 2006). These data were grouped based upon assumptions made from previous knowledge of the deception and PTSD literature; however, an over-broad interpretation of the themes was limited by the short extract lengths. Eleven themes were identified from the items (see Appendix).

An independent second rater applied these themes to each participant's response, blind to the experimental group they were in. Reliability of the themes was established by assessing the percentage agreement between the raters on the presence of themes in each response (see Mann et al., 2004, for a similar method). The raters were in total agreement about the themes that applied to the responses in 88% of cases. In the other 12% of

Table 2. Post-hoc *t*-tests for mean group differences on credibility ratings.

Interview type[a]	*t*	*d.f.*	Sig. (2-tailed)
'normal' vs. 'mixed trauma & deception'	−1.67	57	.10
'pure deception' vs. 'normal'	0.64	56	.95
'pure trauma' vs. 'normal'	2.03	59	.047*
'pure deception' vs. 'mixed trauma & deception'	2.01	55	.049*
'pure trauma' vs. 'mixed trauma & deception	4.11	58	.000**
'pure trauma' vs. 'pure deception'	2.20	57	.032*

Note: N.B. lower credibility ratings denote better credibility.
[a]Groups listed in the left column have the better (i.e. lower value) credibility score.
*Sig. at $p < .05$.
**Sig. at $p < .001$.

responses, agreement was reached on one but not all of the themes. This was discussed until consensus was reached. Responses were then separated by experimental group. 'hesitations', and 'body movements' were cited most frequently in mid-range (4–6) credibility ratings for all bar the trauma interview, where participants noted 'uncertainty' and used 'felt sense' to make their judgements. Emotional incongruence featured strongly in more negative mid-range ratings for the 'normal' and 'deception' interviews. In order to examine the differences between high and low credibility judgements, Table 3 illustrates the key themes relating to credibility ratings of 0–3 (high) and 7–10 (low). Items that only occurred once have been omitted for brevity.

Considering that 'trauma' was significantly more identifiable and credible than the other interviews (at $p < .05$), examination of the qualitative data suggested that 'emotional congruence' and 'emotional incongruence' (the extent to which the man's behaviour did or did not conform to expectation) may be important in considerations of credibility. Themes of emotional *congruence* (e.g. 'he seemed understandably traumatised by events') were associated only with high credibility ratings, occurred most frequently in the 'pure trauma' interview and were infrequent or absent in the others; whereas themes of emotional *incongruence* (e.g. 'not very affected by what had happened'; 'lack of emotional response') were absent in the 'pure trauma' interview and present in the mid and low-range ratings for all of the other interviews. Responses suggested that participants expected to see fear, desperation or emotional disturbance. In the 'normal' interview, which had the highest number of emotionally incongruent themes overall, many comments suggested that the asylum seeker was not distressed enough. This is

Table 3. Key qualitative themes in high and low credibility ratings by group.

	High credibility	Low credibility
'normal'	(n = 6)[a] Emotional congruence (2) Content (2)	(n = 6) Emotional incongruence (4) Body movements (3)
'deception'	(n = 2)	(n = 6) Hesitations (6) Emotional incongruence (2) Nervousness (2) Body movements (2)
'trauma'	(n = 13) Emotional congruence (6) Body movements (5) Hesitations (4) Uncertainty (3) Nervousness (2)	(n = 4) Body movements (2)
'mixed'	(n = 2) Hesitations (2)	(n = 10) Hesitations (4) Emotional incongruence (3) Body movements (3) Nervousness (2)

[a]n values indicate the number of participants whose credibility ratings fell within the high or low credibility ranges.

important when we consider that not all people who suffer with PTSD exhibit distress. Many may present as very controlled or emotionless due to the numbing effect of years of intrusive memories.

Considering that the significant credibility difference lay between the 'pure trauma' and 'mixed' interviews, a direct comparison between the high and low credibility categories indicated that themes identified in the high credibility decisions for the 'pure trauma' interview were somewhat similar to the low credibility decisions in the 'mixed' interview; for example, body movements, hesitations and nervousness were cited as deciding factors in both. The main difference, again, was the presence or absence of 'emotional congruence', highlighting that credibility was associated with how well the emotions fit expectations, rather than with whether certain behaviours were present.

Whist the reliving-style hesitations in the trauma interview were mostly cited in high credibility ratings; 'his emotional state – he was searching for the words' (cred rating = 1), 'there were delays in his responding that could be due to trauma' (cred rating = 3), the same type of hesitations in the mixed interview were mostly interpreted as indicating fabrication; 'there were long pauses. He seemed unsure of his answer at times – like he was over-thinking it' (cred rating = 5); 'the man took long to answer most of the questions, which in turn made him appear untrustworthy' (cred rating = 8). Even within-interviews, different behaviours were attended to that matched with the participant's evaluation of the credibility, for example, in the 'trauma' interview shaking was frequently cited in the reasons for high credibility decisions. However, watching the same interview, one suspicious participant cited the cessation of shaking when the man ceased talking about details of the trauma as the main indicator of lying.

Uncertainty about what the asylum-seeker's body language could be attributed to was voiced most in the mid- and high-range ratings for the 'pure trauma' interview. For example, 'he was fidgeting and nervous, showed delays when responding, but it could all be due to trauma?' (cred rating = 3); 'he was extremely jumpy – it's difficult to tell if he's lying or traumatised' (cred rating = 4). Perhaps 'emotional congruence' mediated an interpretation of specific behaviours as more or less trustworthy.

The above possibility was supported by the data collected on how influential participants felt specific behaviours had been in their decision-making. Participants' scores on the influence of the manipulated behaviours were totalled and ranked in order of influence (highest to lowest) by group. Participants did appear to pick up on some of the specific behaviours manipulated in the study; for example, they cited 'nervousness/tension' more often in the 'deception' interviews. However, the most common behaviours rated as influential on judgements were similar across groups. Comparison against the qualitative data suggested that participants attributed certain behaviours to the judgements they had made (rather than the other way around). For example, being startled or jumpy was identified as influential in more of the high credibility judgements than the low ones in the 'pure trauma' interview, whereas conversely, in the 'mixed trauma & deception' interview, jumpiness was influential in more of the low credibility judgements. These data may help to explain the significant quantitative differences in credibility ratings seen between the 'pure trauma' interview and the 'mixed trauma & deception' interview.

Discussion

The study investigated the impact of a behavioural presentation of PTSD ('trauma') and deception behaviours on the assessment of credibility of asylum seekers.

Trauma combined with deception

Whilst the most credible account was the 'pure trauma' one, the account judged least credible by this student sample of raters was the one where 'trauma' and 'deception' combined. The qualitative analysis showed that although specific behaviours related to each construct were rated as influential in credibility judgements, they were not particularly influential in determining *differences* in credibility. 'Emotional in/congruence' appeared to be the influential factor that was linked to the positive or negative interpretation of specific behaviours.

It was suggested that a possible mechanism for the potentially negative influence of the behavioural sequelae of PTSD on credibility was their similarity to cues to deception, driven by the 'representativeness heuristic', that is, 'this adheres to my representation of how a liar looks, therefore this person is lying'. However the findings of this study suggest that heuristics for 'trauma' or victim behaviour over-rode those used to detect deception when behaviours were obvious or met expectations, perhaps indicating that the behavioural intrusions typical of a fear-based PTSD meet lay-persons' expectations of torture-victim behaviour.

When 'trauma' behaviour was mixed with 'deception' behaviour, however, the asylum seeker was considered least credible. This may suggest that 'deception' heuristics came into play. Perhaps the 'deception' behaviours were not representative of raters' ideas of 'typical' trauma and therefore the anxious behaviours of PTSD were interpreted as deceptive. Although this is speculative, it corresponds to the idea of a 'Truth bias' (Vrij, 2008) –the assumption that people are truthful – which can be overridden by raising suspiciousness (DePaulo et al., 2003). In an asylum-interview context, suspiciousness could be raised by, for example, inconsistencies in testimony, often concomitant with PTSD (Herlihy et al., 2002). Observers also suggest that suspiciousness is the norm in the asylum decision-making process, where there is a perceived 'culture of disbelief' (Macklin, 2006). This is perpetuated by the fact that no decision follow-up (and possible disconfirmation of assumptions) is usually possible (Strömwall, Granhag, & Hartwig, 2004).

Whilst many deception researchers believe that the representative display of nervous behaviour induces people to judge testimonies as deceptive, Bond et al. (1992) focused on the expectation-violation effect, believing it is rather the 'oddness' of behaviour that elicits suspicion because of an 'infrequency heuristic' (Fiedler & Walka, 1993); that is, 'it doesn't normally look like this, therefore it must be deceptive'. Bond et al. found that when someone finds something odd or suspicious they focus on non-verbal behaviour. This is backed up in the current study by the frequency of 'Body movements' themes in the low-credibility ratings across interviews. It is likely that neither the representativeness heuristic, nor the infrequency heuristic were operating in isolation in the current study. For example, the interviews high in deceptive behaviours had higher levels of 'Nervous/Tense' themes than the low 'deception' interviews, suggesting attention to representations of deception. But also, 'content reasons' (judgements based on details of the story) were cited less in the 'mixed trauma & deception' interview than the other more credible ones, perhaps suggesting that non-verbal behaviour was attended to more in this more confusing interview. It is possible that the non-typical or 'odd' presentation of the 'mixed trauma & deception' interview elicited suspicion and activated representations in raters' minds of deceptive behaviour,

which combined with the presence of the PTSD behaviours to significantly influence credibility.

This is an important consideration as asylum seekers with a genuine claim who have been trafficked, and may still be beholden to their traffickers for their or their families' safety, may be under coercion to lie about aspects of their journey and their current circumstances (Herlihy, Jobson, & Turner, 2012; UKBA, 2013).

The role of '*emotional congruence*'

This study built on previous research into credibility judgements by obtaining qualitative information about the process. Rather than interacting with perceived cues to deception to reduce credibility, this study's finding that participants expected the asylum seeker to exhibit signs of emotion supports the literature on the 'emotional witness effect' (Wessel et al., 2012). In reviewing the robust evidence that rape victims expressing negative emotions are judged more credible than those expressing neutral or positive emotions, Wessel et al. tested whether this effect applies more generally to stereotypes applied to those recounting negatively emotionally laden situations. They found that, in the context of a male rape defendant, it did affect credibility, regardless of the content of the story, although did not affect judgements of guilt. A social stereotype here appears to be 'those who have experienced something emotionally negative will recount it emotionally; if they do not, they are more suspicious'.

Summerfield (2002) notes differing social discourses that may influence assumptions about asylum seekers. Whether asylum seekers are considered as bogus applicants or vulnerable sufferers may affect how deserving of refuge they are felt to be. However, attitudes and feelings towards asylum seekers did not contribute to credibility differences in this study, suggesting that factors other than attitudes were at work in this student sample.

Whilst the participants' attitudes towards asylum seekers in this study were somewhat positively valenced, it is difficult to predict which assumptions or heuristics may be applied in asylum contexts. It could be speculated, however, that a bias towards looking for deception rather than story-congruent emotion may be more prevalent, based on anecdotal and case-law evidence of a negative bias in judgements (e.g. Granhag, Strömwall, & Hartwig, 2005). Furthermore, Wessel, Drevland, Eilertsen, and Magnussen (2006) found that the 'emotional victim effect' did not apply to court judges' credibility assessments, suggesting that level of professional training and experience overrides this mental heuristic. Further research with experienced decision-makers might yield different findings with regard to their judgements of emotional congruence.

'*Real*' *trauma victims*[2]*?*

However, the findings do suggest that the identification of 'typical' PTSD and its 'emotional congruence' is important in the assessment of asylum-seekers' credibility. This has implications for training decision-makers as there appear to be no guidelines to consider personal heuristics and stereotypes about mental health. Wessel et al. (2006) report victim testimonies in courts which are characterised by little affect at all. This kind of presentation is also more frequent in victims of sexual torture where the avoidance symptoms of PTSD are more likely (Bogner et al., 2007; van Velsen, Gorst-Unsworth, & Turner, 1996). Clinicians working with refugees and asylum seekers frequently see

distress, including PTSD, expressed in terms of somatic complaints rather than exhibiting fear or distress as seen in English speaking cultures (Burnett & Peel, 2001; Marsella, Friedman, & Spain, 1996). If decision-makers' heuristic for a credible account of traumatic experiences is 'expresses fear or distress' then this may negatively bias their perceptions of asylum seekers exhibiting 'emotional numbness' or predominantly physical problems.

Limitations

This is the first known study of its kind looking at these issues with this population, and should accordingly be seen as providing preliminary piloting of the methodology, for further development with more ecological validity (real stories, actual decision-makers). In order to maximise internal validity we used a single actor and single story, so as to isolate the effects of the target behaviours. However, this does limit the external validity of the study and makes generalisability of the results difficult. Future research should consider a range of variables, for example, type of story, nationality or gender, to account more for individual differences and more robustly establish the constructs (Wells & Windschitl, 1999). It is also difficult to generalise the findings to a population of UKBA decision-makers whose expertise and experience is likely to influence the results. Whilst the study aimed to reflect the diverse backgrounds of UKBA Case Owners and found no differences between ratings by participants with different ethnicities, it is important to consider that cultural differences in non-verbal behaviour and beliefs about non-verbal behaviour can affect credibility judgements (e.g. Bond, Omar, Mahmoud, & Bonser, 1990; Vrij & Winkel, 1992, 1994).

A major problem with the data is the confounding of the 'trauma' and 'deception' variables, making it hard to tease apart what effects were due to which construct. At best only the specific combination of behaviours used can be commented upon. However, the qualitative data did go some way to improving the reliability of the construct, and provided insight into the behaviours perceived to relate to each construct. The results of the reliability analysis and the qualitative data do add to the literature on the validity of the deception construct, however, confirming that specific behaviours will not reliably be interpreted as deceptive.

Finally, this study did not take into account 'emotionally numb' or more somatic presentations of PTSD and it would be useful to investigate how credibility judgements of these types of presentation compare with the PTSD construct investigated in this study.

Conclusion

This study represents the first look at the interplay between the behavioural sequelae of trauma and credibility judgements in asylum decisions. It provides the first steps towards highlighting how PTSD *behaviour*, in addition to recall processes, can affect credibility.

The initial hypothesis that people with PTSD would be judged untruthful, due to the similarities between trauma and deception behaviours was not supported. However, qualitative findings suggested that it is when trauma behaviour adheres to a typical model (some expression of outward distress and fear), that it is more associated with credibility in an asylum seeker. It will be important to replicate this study with a sample of asylum decision-makers.

The study highlights the important role of the perceptions of others' behaviour when assessing an asylum-seeker's testimony, and provides the basis for future work investigating findings from the deception and information-processing literature concentrating specifically on the asylum system.

Most importantly, these findings suggest that it is the most vulnerable individuals, those with post-traumatic symptoms, who, if they stray from the truth during the course of their asylum claims – whether under instruction from traffickers or by their own attempts to present plausible accounts – are the most likely to be disbelieved.

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Note

1. The study was based on the DSM-IV definition of PTSD, rather than the newer DSM-V definition.
2. In criminal trials of rape there is understood to be a stereotypical version of a 'real rape', which is more likely to be reported to the police (Du Mont, Miller, & Myhr, 2003) and more likely to lead to convictions in court (Temkin & Krahé, 2008).

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Appendix. Qualitative analysis categories with examples.

	Themes	Description and examples
1	Attention to movement	Specific things about his movements and body language: 'he was constantly finger-fidgeting'; 'he was looking around as if thinking what to say'
2	Nervousness/ tension	Reference to looking nervous, scared, tense or on edge: 'he seems very tense when he speaks'; 'he seemed very uneasy'
3	Story content	Specific reference to aspects of the story told: 'his political activity has provoked the trouble he's in'; 'the detail in the answers seemed genuine'
4	Congruent emotion	Reference to normal or expected emotion response: 'had normal emotions in his speech at first but then calmed a little'; 'he seemed properly afflicted and disturbed'
5	Incongruent emotion	Reference to abnormal or unexpected emotion response: 'He wasn't very affected by what had happened'; 'the man wasn't distressed enough by the story'
6	Felt sense	Reference to a belief that he was telling the truth or lying, without reference to specific reasons: 'I didn't feel like he was speaking from his heart'; 'something wasn't quite right'
7	Hesitation	Reference to pauses: 'he took too long to answer the question – thinking too hard about the answer'; 'he took time to reply'
8	Incoherence/ inconsistency	Reference to changes, contradictions or slip-ups: 'He kept changing his story'; 'He kept forgetting his story'
9	Uncertainty	The presence of contradictory opinion 'may be-but's: 'seemed very traumatised by events but could be acting up more due to failing assessment before'; 'at times seemed like acting but at others completely genuine – like when describing the things they did'
10	Over-prepared/ rehearsed	Reference to the man/story seeming pre-prepared/learned: 'the man seemed to be acting all the time, he seemed to have prepared answers'; 'it seemed rehearsed – not enough emotion'
11	Lack of co-operation	Reference to the man being obstructive or uncooperative: 'he didn't answer some of the questions'