Interviewing suspects: examining the association between skills, questioning, evidence disclosure, and interview outcomes

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Interviewing suspects: Examining the association between skills, questioning, evidence disclosure, and interview outcomes

Abstract
The interviewing of suspects is an important element in the investigation of crime. However, studies concerning actual performance of investigators when undertaking such interviews remain sparse. Nevertheless, in England and Wales, since the introduction of a prescribed framework over twenty years ago, field studies have generally shown an improvement in interviewing performance, notwithstanding ongoing concerns largely relating to more demanding aspects (such as building/maintaining rapport, intermittent summarising, and the logical development of topics). Using a sample of 70 real-life interviews, the present study examined questioning and various evidence disclosure strategies, examining their relationships between interview skills and interview outcomes. It was found that when evidence was disclosed gradually (but revealed later) interviews were generally both more skilled and involved the gaining of comprehensive accounts, whereas when evidence was disclosed either early or very late, interviews were found to be both less skilled and less likely to involve this outcome. These findings contribute toward an increased research base for the prescribed framework.

Keywords: Investigative interviewing, evidence disclosure, questioning strategies, PEACE, GQM
Interviewing suspects: Examining the association between skills, questioning, evidence disclosure, and interview outcomes

Introduction

Social security benefit fraud investigators in England and Wales are trained in an interviewing framework called the PEACE model, being an acronym for the model’s five phases (i.e., Preparation and Planning, Engage and Explain, Account, Clarify, and Challenge, Closure of the interview, and Evaluating the interview, see Milne & Bull, 1999; Bull & Milne; 2004; Walsh & Oxburgh, 2008 for a fuller explanation of the model). Now adopted in several countries (e.g., Australia, Canada, and New Zealand), similar models to PEACE are also conducted in other parts of the world too (e.g., KREATIV in Norway; the PRICE model in Scotland). A common hallmark of the PEACE model (and those similar) is that it seeks to gather reliable information rather than confessions.

It is generally accepted that the implementation of the PEACE framework has enhanced interviewing skills, notwithstanding on-going concerns with certain aspects (see Clarke & Milne, 2001; Griffiths & Milne, 2006; Walsh & Bull, 2010a). The framework (together with legislation introduced in the 1980s and the mandatory audio-recording of interviews) appears in England and Wales to have removed unethical practices (Bull & Soukara, 2010), which were found to be evident in some interviews conducted at the turn of the 1980s (Irving, 1980). Such recordings have also enabled deeper analysis of what is effective in interviews. However, studies examining interviewing skills are still insufficient in number. As such, our knowledge of what are effective interviewing models still remains both partial and contested (see
Bull, 2014). For example, differing views exist as to how or when it is best to disclose evidence in interviews. Moreover, while there is, in contrast, greater agreement as to what question types should or should not be used in interviews, when real-life interviews are examined no particular questioning strategy emerges (Walsh & Bull, 2010a). Finally, there has been (as far as we know) no field studies have been conducted that specifically examine the association between interviewer skill levels, evidence disclosure or questioning strategies, and the gathering of a comprehensive, well-tested account (this being the recommended aim of the PEACE model).

Walsh and Bull (2010b) found that interviews that contained more skilled usage of certain tactics, strategies, and behavioural dimensions (see Appendix 1), prescribed in the PEACE framework, were associated with the gaining of a comprehensive account. This is important as this finding suggests that when the PEACE model is undertaken well it there is an association between that performance and the achieving of the model’s aim. However, Walsh and Bull did not specifically examine differing evidence disclosure (or questioning) strategies. In almost all the interviews they examined, Soukara, Bull, Vrij, Turner, and Cherryman (2009) found that evidence was being disclosed gradually throughout the duration of the interview (see also Bull & Soukara, 2010; Walsh & Bull, 2012a). However, Soukara et al. specifically focussed on interviews that involved ‘shifts’ to confessions (as opposed to the gathering of comprehensive accounts). However, none of the samples in these studies included other types of evidence disclosure (e.g. early or late release of information or evidence'). Griffiths and Milne (2006) have argued that the quality of interview outcomes should be assessed via the quality of verifiable information.

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1 Explanations of these terms are provided below
received rather than whether confessions were obtained; suggesting that certain questioning strategies (see below) would best facilitate such quality. Griffiths and Milne, however, did not discuss if or how evidence disclosure affected interview outcomes (or quality).

In these contexts, the present study set out to examine whether differing (i) questioning strategies; (ii) evidence disclosure modes; and (iii) interview skill levels had any association with interview outcomes. It is hypothesised that if investigators employ unskilled questioning strategies, when interviewing suspects, interview outcomes tend to consist of untested denials or confessions and the failure to obtain a comprehensive account, tested rigorously for its plausibility (H1). Kebbell, Allison and Hurren (2006) found that half of convicted offenders admitted ahead of their interviews that they had decided upon a pre-determined strategy (i.e., either to confess or deny), seemingly irrespective of what the interviewer would do. In that study, it was also found that the other half said that they adopted a strategy much more dependent on what the interviewer did in the interview itself (see also Holmberg & Christianson, 2002; O’Connor & Carson, 2005 for similar findings). However, these cited studies involved sex offenders (who are likely aware of the social stigma (and the punishment, if found guilty) that is associated with such serious offences, thereby making it more difficult for them to make such admissions).

As such, the percentage of benefit fraud suspects (being the offences covered in the present study), who are firmly set on denying, might well be reasonably expected to be less (and, as such, the percentage whose strategy is contingent upon investigator performance might well then be more). Further, it is known from prior research that there is an apparent association between the strategy that interviewers embark
upon, when disclosing evidence to suspects, and the quality and the outcome of those interviews (Walsh & Bull, 2010b; Walsh & Bull, 2012a). In this regard, it will be conjectured that when certain evidence disclosure modes are utilised more fully tested accounts tend to emerge (H2). In sum, the overarching aims of the study are to establish the importance of the association between (i) interviewers’ skill levels pertaining to tactics and behaviours, as prescribed by the PEACE model; (ii) questioning strategies, as prescribed by a certain questioning model (see later, for a fuller description of this model); (iii) particular modes of disclosing evidence (also discussed more fully later), and subsequent interview outcomes.

**Benefit fraud investigations**

Walsh (2011) estimates that at least 120,000 interviews with suspects of benefit fraud are conducted each year in the UK, either by central or local government investigators. When compared to the wide range of crimes that the police investigate, benefit fraud is a relatively homogeneous matter, largely concerning the incorrect disclosure of personal circumstances. An example may concern the unemployed deliberately failing to declare that they are now undertaking work (or that they had substantial savings) as they knew that such declarations would reduce or extinguish their social security benefit entitlements. Another example would be the case of a lone parent claiming social security benefits on the basis that there was no other household income, who concealed that he/she was, in fact, now living together with someone ‘as husband and wife’.

Studies examining the actual practice of benefit fraud interviewers when questioning suspects have tended to find that skilled interviewing is a rather rare
phenomenon (Shawyer & Milne, 2009; Walsh & Milne, 2008; Walsh & Bull, 2010a). However, when skilled interviewing was found to occur, the likelihood notably increased of gaining a preferred interview outcome (that is, either a comprehensive account or a reliable confession) (Walsh & Bull, 2010b; Walsh & Bull, 2012a).

**Questioning police suspects**

Concerns with the questioning techniques of interviewers had also earlier been found in studies conducted of the police in England and Wales (e.g., Baldwin, 1993; Moston, Stephenson, & Williamson, 1992), where leading and closed questions were frequently used (a more detailed explanation of these question types is provided below). These two seminal studies were conducted before the introduction of the PEACE framework, which sought to discourage employment of these two question types. On the other hand, Soukara et al. (2009) in their studies of police interviews, conducted after the model's implementation, continued to find leading and closed questions being asked, but also found that open questions were now more frequently used when questioning suspects (also see Clarke & Milne, 2001).

Griffiths and Milne (2006), when undertaking an examination of questioning strategies, created a novel paradigm known as the Griffiths Question Map (GQM). The GQM (see Figure 1 for an example) involves the plotting of eight codified question types to show which of these question types were undertaken by interviewers, being presented in a time sequence as these questions are asked during the interview. The eight question types are classified by Griffiths and Milne as belonging to either three ‘good’ ‘productive’, and five ‘poor’ ‘unproductive’, question
categories. Among those allocated the former classification were ‘open question’
types consensually defined in the extant literature as those likely to obtain more
detailed responses (Milne & Bull, 1999). The TED acronym (Tell, Explain, and
Describe) is a typical example of the manner with which these types of questions
may be prefaced (e.g. Tell me what’s been your situation since you claimed benefit
six months ago after you advised that your boyfriend had left you and the children?)
. The second ‘productive’ question type in the GQM is the ‘probing question’, usually
involving one of the precursory ‘5W’s and H’ modalities (i.e., who, what, where,
when, which, or how) and designed to tease out the micro-details of suspects’
accounts (e.g., Where did your boyfriend go to live after he had left you?, or How
often do you still see your boyfriend?, or What days of the week do you still see
him?). The final ‘productive’ question is the ‘appropriate closed’ question, which
seeks clarification and confirmation of points that have already been discussed
(Clarke & Milne, 2001).

Griffiths and Milne (2006) have thus identified as skilled practice a questioning
strategy that (in brief terms) would commence with an open question designed to
elicit an initial account, which is subsequently followed by a series of probing
questions that derive the necessary finer details, with appropriate closed questions
only used whenever the given details still require resolution, validation, and
verification. There may also be at the end of a series of open and then probing
questions a requirement to challenge the suspect about the inconsistencies that
remain. This challenge might be phrased through an appropriate closed question
(e.g., Did you commit the offence?) or even an open one (e.g., Please explain the
contradictions between your story and the evidence?). Another function of the
appropriate closed question might be asking for confirmation from an interviewee of an accurate summary of what has been said. (Interviewers trained in the PEACE approach in England and Wales typically receive training in line with this paragraph.)

Turning to those five question types that Griffiths and Milne (2006) describe as belonging to the ‘unproductive’ categories, firstly, those classified as ‘inappropriate closed’. This is where a question is asked, that more often than not demands either just a ‘yes’ or ‘no’ answer (e.g., Does your boyfriend live here with you now?). As such, only limited information is likely to be given in response. On the other hand, if a productive ‘open’ or ‘probing’ question had been asked instead of the inappropriate closed question there might well have been a fuller and more detailed
response (e.g., Can you tell me where your boyfriend now lives?). Similarly, ‘forced choice’ questions are also characterised as ‘unproductive’, as they too typically invite a limited answer (Does your boyfriend live at this address or with his parents?). ‘Poor’ questioning also includes ‘leading’ questions (e.g., Your boyfriend lives here, doesn’t he?), which have repeatedly in the literature been associated with suggestibility in prompting the interviewer’s expected answer, particularly amongst more vulnerable suspects (Oxburgh, Myklebust, & Grant, 2010).

Other ‘unproductive’ question types identified in Griffiths and Milne’s study include ‘multiple’ or ‘overlong’ questions’ (e.g., Does your boyfriend live with you, at your parents or does he lives with his friends somewhere else? Whose car is it that is parked outside your house at night, is it yours, his or someone else’s?) These question types (as in this example) make it unclear either which question needed answering as either more than one were asked together or (due to its convoluted and rambling nature) it might have been difficult to identify what the question actually was (Clarke & Milne, 2001; Griffiths & Milne, 2006). The final ‘unproductive’ classification that Griffiths and Milne categorise is ‘opinions’ or ‘statements’ (e.g., I put it to you that you have not told us that your boyfriend is back living with you as man and wife and you have not told us as you knew you would no longer receive benefit). While these are not actually questions they still may well generate a response from suspects, whilst indicating the biased opinion of the interviewer (Griffiths & Milne, 2006; Oxburgh et al., 2010).

Reviewing question types, Oxburgh et al. argue for a greater employment by interviewers of open questions, whilst discussing the dangers of obtaining insufficient information through the over employment of closed or leading questions and their
inappropriate use in the investigative interview (also Griffiths & Milne, 2006). However, Oxburgh et al. note that the currently available literature (and guidance manuals for investigating officers) is to some extent inconsistent when explaining the various question types (for example; Dickson & Hargie, 2006; Elder & Paul, 2007; Fiengo. 2007; Freed & Ehrlich. 2010; Newbury & Johnson, 2006; Oxburgh et al., 2010; Stokoe & Edwards, 2008). An ostensible opacity can thus confront both practitioners and academics when attempting to understand question classifications, emergent from differing modes of enquiry (say, linguistic, Socratic, or psychological), or context (for example, education, research or forensic).

Evidence disclosure in interviews with suspects

The disclosing of evidence to suspects during interviews has been the focus of earlier studies conducted around the world. For example, several studies have found an association between the revelation of evidence and the gaining of further information (Bull & Leahy-Harland, 2012; Nystedt, Nielsen, & Kleffner, 2011; van der Sleen, 2009), while other (experimental) studies have revealed that certain evidence disclosure strategies have contributed to the rigorous testing of given accounts by mock suspects, and, in turn, the detection of either lies or truth (Dando, Bull, Ormerod, & Sandham, in press; Granhag, Strömwall, Willén, & Hartwig 2012; Hartwig, Granhag, Strömwall, & Kronkvist 2006; Hartwig, Granhag, Strömwall, & Vrij, 2005; Sorochinski et al., 2014). Yet other studies have found that disclosing strong evidence is associated with suspects’ confessions (Bull & Soukara, 2010; Cassell & Hayman, 1996; Gudjonsson & Petursson, 1991; Kebbell, Hurren, & Roberts, 2006; Moston, Stephenson, & Williamson, 1992; Sellers & Kebbell, 2009; Soukara et al.,
These studies have provided consistency when concluding how important evidence disclosure is; however, there is much less agreement between them as to what particular strategy is more effective than another. That is to say, that there remains a contested view as to whether interviewers should disclose evidence ‘early’, ‘gradual’ or ‘late’ in interviews. Much the same position also exists in regard to whether (when several items of evidence are to hand) interviewers should reveal these items, say, either in a chronological order or whether weakest or strongest first.

In summary, ‘early’ disclosure is that revealed at the start of the interview, before questions have been put to the suspects (Moston et al., 1992; Sellers & Kebbell, 2009; Leo, 1996), whereas ‘gradual’ evidence disclosure involves an incremental approach of ‘drip-feeding’ evidence throughout the interview, while interviewers simultaneously attempt to gain an account from suspects (Granhag, Strömwall, Willén, & Hartwig, 2012). In contrast, ‘late’ disclosure involves eliciting the whole story from the suspect, dealing with all potential alibis and potential excuses, before presenting the evidence (see Hartwig et al., 2005; 2006; Sorochinski et al., 2014). (For a fuller explanation of these three different strategies, see Bull, 2014).

Sellers and Kebbell (2009) found that when evidence was perceived to be strong by ‘mock’ suspects they more often confessed when the evidence was introduced early in the interview. However, individuals’ assessments of evidence weight are neither always accurate, nor are they consistently agreed across populations (Smith, Bull, & Holliday, 2011; Smith & Bull, 2014). On the other hand, Bull & Soukara (2010) found that where interviewees first denied any wrongdoing
(but later confessed in the interview), that the disclosing of evidence was always present *shortly* before the confession occurred. They concluded that gradually disclosing evidence *may be* effective in persuading otherwise reluctant (but very likely guilty) suspects to confess. Earlier, Hartwig et al. (2005) found, in their pioneering experimental study, that late disclosure of evidence, rather than early, enabled more liars to be identified by trained ‘mock’ interviewers. More recently, Sorochinski et al. (2013) found in their study that both gradual and late disclosures of evidence were more likely to reveal truth tellers and liars. Their study also found that a gradual disclosure of evidence was associated with increased inconsistencies from the innocent, which the authors claimed could lead to interviewers mistakenly believing suspects were guilty (although the authors concede this may be somewhat speculative). The three forms of evidence disclosure were also tested in a recent laboratory study conducted by Dando et al. (in press) found that real-life police officers detected liars and truth tellers more frequently when evidence was disclosed gradually (a strategy also recommended by van der Sleen, 2009) than when evidence was disclosed in either late or early conditions. Dando et al. also found that mock terrorist suspects found it more cognitively burdensome to maintain lies when evidence was introduced gradually.

In the experimental study, conducted by Granhag et al. (2012), it was sought to determine if liars display greater inconsistency, whether within-story or compared to the evidence, when evidence disclosed in each of the three disclosure conditions. It was found that when increasingly strong evidence was disclosed in the incremental condition inconsistencies were more obvious in the accounts of those instructed to lie than in those of ‘innocent suspects’. This study may not replicate real-life
conditions since, in this study, mock suspects were only given ten minutes to prepare their deceptive accounts before being interviewed by mock (and inexperienced) interviewers. It is known that it is highly common practice for benefit fraud investigative agencies to provide real-life suspects with around a week’s notice of their intention to interview them, clearly allowing suspects considerably more time to construct a deceptive story.

**Skilled interviewing and interview outcomes**

None of the studies mentioned above measured how skilfully the interviews were undertaken. As has been revealed in other studies, skills levels do appear to affect interview outcomes (Walsh & Bull, 2010b; 2012a). That is, the mere presence of a tactic or strategy (e.g., early, gradual or late evidence disclosure) may in itself be insufficient to determine that one approach possesses more efficacy than another, but it is the richness in their skilled usage (and how frequently these skills were employed) that may be important. Walsh and Bull (2012a) found this to be the case when examining what investigators did to overcome denials, finding that the key factor associated with shifts towards confessions was the (skilful) disclosing of evidence. In their earlier study, Walsh and Bull (2010b) found that skilled interviews, following the PEACE framework, coincided with the gaining of more comprehensive accounts, regardless of whether a confession or denial was received. This point is consistent with Griffiths (2008), who argued that skilled questioning was not identified by a specific interview outcome (e.g. Did the suspect confess?) but in the sequence of questions put to the suspect. As such, skilled interviewing for the purposes of the current study is the display of techniques and behaviours as
prescribed by the PEACE framework, found in several studies to have been more evident in interviews that involve the preferred outcome of gaining a comprehensive account (Clarke & Milne, 2001; Griffiths & Milne, 2006; Walsh & Milne, 2008; Walsh & Bull, 2010b). More specifically, skilled interviewing is defined as the ethically facilitated elicitation of a fulsome and reliable account from a suspect, which has been rigorously tested for its plausibility through appropriate attitudinal displays and the use of tactics and strategies (within a logical interview structure), as prescribed in the PEACE framework, most crucially those pertaining to questioning and evidence disclosure (for a comprehensive understanding of attitudes, tactics and other strategies measured in the present study see Walsh and Bull, 2010a; 2012a).

Method

Materials

A sample of 79 audio-tapes of actual interviews with fraud suspects conducted by benefit fraud investigators during the period 2005-2007 were forwarded by 12 separate investigation teams. These investigation teams were based in five different counties in England, involving a mix of both rural and urban interview settings. Those agreeing to forward tapes were asked to ensure that they were at least twenty minutes in length. This duration criterion followed the methodology employed in Walsh and Bull (2010a) that better ensured that the interviews were more likely to contain either offence sophistication and/or resistance from suspects, being found to be precisely the circumstances in which interviewers’ skills were most demandingly required. This chosen approach, thus, avoided those shorter interviews that occurred in Walsh and Milne’s (2008) study, where it was
found much more difficult to detect the interviewers’ skill levels as often compliant suspects immediately (or almost immediately) confessed very soon after the interview started, such was their apparent eagerness to admit their offences, regardless of what the interviewers said or did prior to their confessing.

The sample was to include both cases that went forward in the criminal justice process and those investigations which were discontinued after the interview (e.g., due to a lack of evidence). Participating teams were also asked to supply interview samples that covered the breadth of their investigators and not just a narrow selection that may only cover one or two of their team. The tapes of interviews were to be randomly chosen. Instructions were given to each of the twelve teams that the persons undertaking the retrieval task were to examine the library store (where these tapes were held) and to select two or three tapes per year during the period 2005-2007, ensuring such tape selection was of interviews conducted in differing months. Most sent two for each year covered by the study, although occasionally three were sent. Once selected there would be a check that the above listed criteria had been satisfied (relating to interview duration, case outcomes, and that the sample covered several investigators from the same team). If it were then found from initially examining the sample that the requested criteria were still to be met a further tape selection would then take place. The sample of tapes from each of the teams was then forwarded to the first author. Examination of the length of the interview was a fairly crude judgment involving examining the tape spool (from the audio cassette ‘window’). If it were seen that at least 50% of the 45 minute tape had been used, this would indicate that the interview duration criterion of a minimum of twenty minutes would have been satisfied. However, on examination of the sent
samples it was found by the first author that nine of the sample of interviews lasted less than twenty minutes and these shorter interviews were discounted from analysis, leaving 70.

Procedure

A GQM was constructed for each of the interviews. However, in contrast to the original map, no count was made of the different types of questions nor was any ratio calculation performed to determine how many probing questions were undertaken in relation to open ones (as Griffiths & Milne, 2006 undertook). While such a count could be of value, other variables may confound the data. For example, more probing questions may need to be asked, less as a reflection of the interviewer’s skill in rooting out finely detailed accounts, but more attributable to the suspect being not particularly communicative (because she/he lacks appropriate communication skills, rather than, say, being reticent to give an account). In addition, case characteristics may also mean that further probing is necessary (e.g., there may be more complex matters to probe and more evidence to discuss in detail).

In order to more accurately assign question types, their categorisation was only undertaken after a second listening to the interview tape (that is, after the interview had been first listened to in its entirety to gauge the context of the questions, rather than just classifying them contemporaneously). Further, an overview of the entire questioning strategy was examined.

It was also noted where the questioning strategy replicated, exactly or very closely, the recommended GQM strategy, (that is, each sub-topic of the interview commencing with an open question to gain an initial account, followed by a series of
Running head: *The association between interview skills, questioning and evidence disclosure strategies, and interview outcomes*  Psychology, Crime and Law

probing questions to obtain the finer details of that given account, with each sub-topic ending with appropriate closed questions, asked to elect any clarification of confirmation of that which had already been said under earlier questioning. The recommended GQM model might well also include, as the interview develops, an increased amount of probing questions in the later introduced sub-topics. Very occasional usage of what Griffiths and Milne (2006) have described as 'unproductive’ questions would be tolerated in determining whether any interview had followed the recommended GQM model of questioning.

*Evidence disclosure modes (EDMs).* Also analysed in each of the interviews were three evidence disclosure modes. ‘Early’ would reflect the interviewer revealing of all the evidence held before an initial account had been requested. ‘Gradual’ disclosing of the evidence involved a ‘drip-feed’ approach during the questioning phase of the interview (as in Dando & Bull, 2011). ‘Late’ disclosure would be so classified when the questioning strategy was characterised by the asking for an account (that was subsequently probed) but the evidence held was not revealed until the interviewer appeared to consider that all potential alibis and topics had been covered.

*Interview outcomes, evidence weight, and skill levels.* The present study used the definitions that had been used in prior studies (Walsh & Bull, 2010b; 2012a; 2012b). In brief, a ‘preferred’ outcome (PO) was one where a comprehensive account had been obtained (regardless of whether the suspects confessed or otherwise), and where the given account had been robustly tested for its veracity. It is important to note that a comprehensive account does not necessarily mean an exhaustive
account (where every detail is verified in minutiae) but one where it can be reasonably be determined that the suspect has provided a fulsome story, no matter how believable, or that questions have been asked which would have enabled the suspect opportunities to justify a given account. A full and frank confession would also be defined as a PO provided if it was accompanied by strong evidence (that would reasonably supply reassurance of the suspect's guilt). An ‘undesirable’ outcome (UO) would include one where a confession or denial was accepted without sufficient scrutiny (i.e., where confidence could not be placed in its reliability).

Measurement of evidence weight followed Moston et al.’s (1992) methodology (i.e., assessed as light, medium, or strong, and rated ‘1’, ‘2’ or ‘3’ respectively). An analysis was also undertaken, using a five-point Likert scale that measured interview skills (where a score of ‘1’ reflected an unskilled rating; ‘5’, a highly skilled rating; and ‘3’ referred to a minimum standard of acceptable performance; see Clarke and Milne, 2001; Walsh and Bull, 2010a for more on this scale).

**Inter-rater reliability of assessments**

Once the first author had analysed the whole sample, an experienced serving investigation professional examined 15% of the interviews (N =11) at random concerning question types, EDMs, evidence weight, and interview outcomes. Table 1 shows that in much of the interviewer analysis high levels of Kappa co-efficiency were achieved (using recognised metrics of concordance - Landis & Koch, 1977). Occasional disagreement was found between the raters in regard to whether some closed questions were either appropriate or inappropriate resulting in more moderate Kappa observer agreement values. Strong levels of inter-rater
agreement were also found when assessing the various evidence disclosure modes, questioning strategies, interview skills, evidence weight, and interview outcomes.

Table 1: Inter-rater reliability measures

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<th>Assessed behaviour/topic</th>
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<td>Question types</td>
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<td>Open</td>
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<tr>
<td>Probing</td>
<td>0.74</td>
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<tr>
<td>Appropriate closed</td>
<td>0.57</td>
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<tr>
<td>Inappropriate closed</td>
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<tr>
<td>Forced choice</td>
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<tr>
<td>Leading</td>
<td>0.91</td>
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<tr>
<td>Multiple/overlong</td>
<td>0.97</td>
</tr>
<tr>
<td>Opinion/statement</td>
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<tr>
<td>GQM model followed?</td>
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<tr>
<td>Early EDM</td>
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<tr>
<td>Gradual EDM</td>
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<td>Late EDM</td>
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<td>Interview Outcomes</td>
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*All ratings found to be statistically significant (p = ≤0.05)

Results

Interview mean duration was 37.75 minutes (SD= 13.68; range 22-77 minutes). Twenty-four of the sample were identified as possessing an ‘early’ EDM, while thirty-six interviews involved evidence being released gradually. The remainder of the sample were ‘late’ EDM interviews (N = 10). Interestingly there were significant differences between the length of ‘early’ EDM interviews (M= 28.24 minutes, SD = 4.18) and those ‘gradual’ (M = 43.11, SD= 14.94) and ‘late’ EDM interviews (M = 41.30, SD = 12.34); F(2,67) = 11.52, p = <.01, η² = 0.26. Moreover, only 4% of interviews with an ‘early’ EDM resulted in a PO, compared to 64% of ‘gradual’ EDM interviews, and 60% of ‘late’ EDM interviews. Thus, early EDMs were significantly less likely than ‘gradual’ and ‘late’ EDM interviews to conclude with a PO; χ² (2, N = 70) = 22.37 p = <.01, Phi = 0.57, the latter two not differing.
There were no significant differences regarding evidence weight for the three EDMs in that evidence strength in ‘early’ EDMs had a mean rating of 2.00 (SD = 0.66); while the other ratings were ‘gradual’ (M = 2.33, SD= 0.68); and ‘late’ (2.10, SD = 0.74); $F(2,67) = 1.83, p = .17, \eta^2 = 0.05$. However, when examining skill levels as a function of the EDMs, while no significant difference existed between ‘gradual’ (M =3.14, SD = 0.96), and ‘late’ EDM interviews (M = 3.10, SD = 0.99), a significant difference was found when they were compared to the ‘early’ EDM interviews (M = 1.95, SD = 0.75); $F (2, 67) = 13.24, p = <.01, \eta^2 = 0.29$.

**Differing forms of ‘gradual’ EDM**

During the undertaking of the analysis, however, both raters found that two quite different forms of ‘gradual’ disclosure were being undertaken. Firstly, a form of ‘gradual’ EDM where, although information was being presented in interviews (N =19) in the drip-feed' format, it was being divulged either before an account had been fully gathered (being revealed more or less contemporaneously as an account was disclosed, where the suspect was often challenged immediately to explain any apparent inconsistencies). This approach is similar to the methodology used in in the experimental study by Sorochinski et al. (2013). As such, this EDM resembled more an incremental form of the ‘early’ EDM. These types of interviews were thus re-titled ‘early gradual’. The other form of ‘gradual’ EDM (N =17 interviews) was similar in some regards to the ‘late’ disclosure, where an account was gathered first before it was later returned to, whereupon suspects were then asked to explain any contradictions against gathered evidence, *which only then was disclosed gradually*. Thus, this EDM was re-branded ‘late gradual’.
In light of the finding that two variants of the ‘gradual’ EDM were being employed it was decided to undertake further analysis, dividing the ‘gradual’ EDM data between ‘early gradual’ and ‘late gradual’ EDMs. (Both raters achieved 100% agreement in the sample of six ‘gradual’ EDM interviews as to the distinction between ‘early gradual’ and ‘late gradual’ interviews.) Firstly, a significant difference was found between assessed skill levels in the two types of ‘gradual’ EDMs (‘early gradual’; M = 2.52, SD = 0.70; ‘late gradual’; M = 3.82, SD = 0.83), \( t(34) = 5.46, p < .01, r = 0.68 \). When comparing ‘late gradual’ EDM interviews to ‘late’ EDM interviews (M = 3.10, SD = 0.99) a significant difference in mean skill levels was also found; \( t(25) = 2.18, p < .05, r = 0.40 \). However, even though skill levels were rated more highly in ‘late’ interviews than ‘early gradual’ (M = 2.52, SD = 0.70) this difference did not achieve significance; \( t(27) = 1.82, p = 0.08, r = 0.33 \). Finally, in contrast to 33% of ‘early gradual’ EDM interviews resulting in a PO, every ‘late gradual’ EDM interview yielded this outcome (compared to 60% of ‘late’ EDM interviews, as reported earlier).

**GQM and skills analysis**

A GQM was constructed for all seventy interviews. It was found that of the thirty interviews with a PO, sixteen undertook a questioning strategy that largely resembled the recommended model, while of the forty interviews with a UO only three featured such an approach to questioning suspects. When examining the GQMs for each of the four EDM types found in the present study it was noted that no consistent pattern was found regarding ‘early gradual’, ‘late gradual’ and ‘late’ EDM interviews. However, in the ‘early’ EDMs, it was noted that question types were
predominately either of statements, leading or appropriately closed question types, with almost an absence of open questions, and very few probing questions (see Figure 2)

Only once in the twenty-four ‘early’ EDM interviews, was it found that the recommended GQM model was adhered to. However, of the ten ‘late’ EDM interviews, five were found to broadly follow the recommended GQM model. A similar finding occurred in the ‘late gradual’ EDM interviews (N =17), where nine closely followed the GQM model. However, only four of the nineteen ‘early’ EDM interviews involved the recommended GQM strategy.

Regardless of EDM type, those interviews rated as most ‘skilled’ (either with a score of ‘4’ or ‘5’) tended to follow the recommended GQM model with opening questions, followed by an increasing number of probing questions (as the interview developed), with appropriate questions invariably being asked for the purposes of
clarification or confirmation of information already provided by suspects (see Figure 3).

Even in these most skilled of interviews, however, a few inappropriate questions were found to be asked. Nevertheless, of these fifteen interviews rated as most skilful, all but one resulted in a PO, whereas those thirty interviews rated as least skilful (being assessed at either ‘1’ or ‘2’) only 23% (N= 7) involved a PO. Further, none of the least skilled interviews contained the recommended GQM strategy. In contrast, of the most skilled interviews with a PO outcome, eleven, to an extent, undertook the recommended GQM strategy. Of the interviews assessed as ‘satisfactory’ (N = 25), thirty-six percent obtained a PO (N = 9). Eight of these interviews followed the recommended GQM approach, with a PO evident in five.
Following Clarke and Milne (2001), and Walsh and Bull (2010b), all of the 70 interviews were dichotomised as either those that were beneath the threshold of acceptable performance (scoring ‘1’ or ‘2’ on the skill rating scale; N = 29) or those at or above this threshold (i.e., scores of ‘3’, ‘4’ or ‘5’; N = 41). It was found that (regardless of EDM) a significant difference in skill level existed between those interviews involving a PO (M = 3.37, SD = 1.00) and those that did not (M = 2.25, SD = 0.81); \( t (68) = 5.17, p < .01 \) \( r = 0.53 \). A similar finding occurred between those interviews with a recommended GQM strategy (M = 3.68, SD = 0.75) and those that did not (M = 2.37); \( t (68) = 5.58, p < .01 \) \( r = 0.56 \).

**Discussion**

The study set out to test two particular hypotheses. Firstly, it was found, as hypothesised, that when unskilled interviewing occurs there is an association with an account possibly being obtained but which had not been robustly tested for its plausibility (H1). This finding replicates those of other studies (such as Walsh & Bull, 2010b, who also found, as in the present study, that skilled interviewing tends to be associate with the gathering of comprehensive accounts or fully tested confessions). That is, in interviews involving a PO, over half featured the recommended GQM strategy compared to just a very small minority of those recommended GQM ‘strategy-present’ interviews that involved a UO. (Since skill ratings were significantly higher in recommended GQM ‘strategy-present’ interviews than in those recommended GQM ‘strategy-absent’ ones, it may well be that it is skill level overall rather than the focus on the employment of a recommended GQM strategy that is
more influential in obtaining either a comprehensive account or a fully supported confession.)

It was also conjectured that when certain disclosure evidence modes are utilised comprehensive accounts will tend to emerge. The present study did find that ‘gradual’ or ‘late’ EDMs were both more skilfully undertaken, and resulted more often with a comprehensive account, than was the case when evidence was disclosed ‘early’. The ‘late’ and ‘gradual’ EDM interviews also tended to be of a longer duration than ‘early EDM interviews, probably indicative of the greater efforts made by interviewers to gain a comprehensive account. Shorter interviews, which tended to occur in ‘early’ EDM interviews, were possibly a result of the interviewers bringing the interview to a premature close. This belief is reinforced by the tendency of these EDM interviews to be found both generally less skilled, and much less likely to gain a comprehensive account than interviews with other EDM types. In short, interviewers, once they had revealed all the evidence early, had no other strategy to undertake when they were met with resistance, as they had already ‘played all their cards’.

Closer, novel, examination of the ‘gradual’ EDM revealed that there were two types of ‘gradual’ and analysis found that the ‘late gradual’ was not only more skilfully undertaken and more likely to yield a comprehensive account than the ‘early gradual’ EDM, but this was also true when ‘late gradual’ was compared to ‘late’ EDMs. Why such a difference should exist between two apparently similar approaches (i.e., ‘late gradual’ and ‘late’) may be due to the matter that, while both EDMs involved attempts to gather a comprehensive account before disclosing the evidence, in the ‘late gradual’ condition evidence was disclosed incrementally (by
drip-feed’) rather than in a single phase at the end of the interview, as was the case in ‘late’ EDM interviews.

The ‘late’ disclosure mode was further typified by investigators attempting to cover all potential explanations that they might imagine suspects could conjure. In reality interviewers struggled to meet this goal. This may reflect either a lack of planning and preparation, of quick thinking, or of flair by interviewers (as has been found in other studies; see Clarke & Milne, 2001; Walsh & Bull, 2010a; Walsh & Milne, 2008). In some experimental studies that have favoured a ‘late’ EDM approach (e.g. Hartwig et al., 2005, 2006; Sorochinski et al., 2014) the methodologies involved either a somewhat simplistic mock offence or (when the task was more complex) ‘suspects’ having only a short amount of time to create their story. Neither of these two scenarios may have always particular resonance to real-life.

Sorochinski et al. (2014) have suggested that a gradual EDM, due to the incremental revelation of evidence, might lead to a false confession as the suspect gradually accepts (or is pressured) into an account prompted by a drip-fed EDM. This is a rightful concern, and, at least in the face of it, quite a reasonable assertion. However, this may be relevant to interviews where an ‘early gradual’ EDM is undertaken. ‘Late gradual’ EDM interviews were found to be characterised by investigators giving opportunity for suspects to first provide detailed accounts (on a topic by topic basis), before later asking for explanations, and, where appropriate, emphasising contradictions between the evidence to hand, and the freely given account. These two ‘gradual’ EDMs are quite different, with the latter bearing the hallmarks of the PEACE framework. Therefore, it should perhaps be not too
surprising that this particular EDM was found to more often result in a comprehensive account, and more often associated with highly skilled interviews than any of the other EDM types. Moreover, in the ‘late gradual’ EDM approach (and indeed the ‘late’ EDM approach), any confessions received, were very seldom just accepted, but tended to be rigorously tested for plausibility in line with the PEACE framework (for example, by the probing both of the motivations for committing the offence and of the given accounts for details that would make it highly probable that the suspect had actually committed the offence).

The present study has shown only a limited scope and effectiveness for ‘early’ EDMs (and, in turn, ‘early gradual’ EDMs). Indeed, the findings from the present study indicate that these two questioning strategies reflect more information giving than information gathering (the latter being the bedrock of the PEACE model). That is to say, the earlier the evidence is disclosed the more the interview is typified by investigators attempting to persuade suspects to accept a guilt narrative (as revealed in the greater frequency of leading questions and statements, after undertaking GQMs in these interview types). It should be no surprise, therefore, that these interviews were found to be the weakest in terms of skill levels and the least likely to gather a comprehensive account. On the other hand, the present study found that when interviewers attempt at first to obtain a detailed account, followed, once that account has emerged, by a phased approach to evidence disclosure (i.e., a ‘late gradual’ EDM), such interviews are not only more skilful but also result in a significant association with the gaining of comprehensive accounts. (These are the very skills that the PEACE framework has recommended for many years.)
The present study has its limitations, such as the narrow range of possible criminal offences, and the relatively small sample that may have influenced the statistical significance of some of the data (although the majority of the effect sizes were much more robust). We also did not examine to any considerable extent in the present study what behaviours suspects were presenting that may have had some influence on the tactics, strategies, and attitudes of the interviewer. This is rightfully, a common concern of such field studies (where there is much less control over the multiplicity of variables than in the laboratory). However, as advocated in Oxburgh, Walsh and Milne (2011), we would encourage further applied research endeavours to incorporate this aspect. On the other hand, various real-life studies have indicated the importance that the interviewer can have upon subsequent interviewee behaviour (Bull & Soukara, 2010; Holmberg & Christianson, 2002; Kebbell, Allison, & Hurren 2006; O’Connor & Carson, 2005; Walsh & Bull, 2012a, see also Brehm, 1966; Brehm & Brehm, 1981 who theorise how individuals, who perceive that they are being curbed in their ability to - in the context of this study - freely speak to deny or give an account, react by challenging that restriction, resisting any persuasion or coercion that an interviewer might undertake). Nevertheless, the present study does show that certain tactics and strategies, particularly when more skilfully utilised, to be more positively associated with those interview outcomes that the PEACE framework clearly prescribes.

The present study has also not found whether there is an optimal method of gradually disclosing various items of evidence (for example, evidence revealed either in a chronological order or in an ascending order of strength) since no particular pattern was found. Indeed, our recent survey of professional beliefs (Walsh, Milne, &
Bull, in submission) found a diversity of views as to the most effective method of gradually disclosing multiple items of evidence (also see Smith & Bull, 2014). In turn, Granhag et al. (2012) found inconsistencies in accounts most prominent between liars and truth tellers when evidence was disclosed incrementally in increasing strength, although in their study other patterns of gradual evidence disclosure were not examined (such as chronology or decreasing strength). As such, it remains unknown if other tactical approaches relating to ‘late gradual’ disclosure of several items of evidence may be more efficacious in either detecting deception and/or obtaining a comprehensive account. Nevertheless, twenty years on from the introduction of the PEACE framework, studies such as the present one are important in providing an increased research base for a number of its pioneering recommendations. As such, the present study has shown the benefits of first gathering accounts before gradually releasing information at later stages in interviews with suspects.

References


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Appendix 1: Tactics, strategies, and behavioural dimensions that were considered when assessing overall interview skill levels (source: Clarke & Milne, 2001; Soukara et al., 2009; Walsh & Bull, 2010b; 2012a)

<table>
<thead>
<tr>
<th>Tactic/strategy/behaviour</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disclosure of evidence</td>
<td>Revealing evidence regarding the offence</td>
</tr>
<tr>
<td>Caution regarding suspect’s rights clearly given</td>
<td>Clear and well-paced delivery</td>
</tr>
<tr>
<td>Thoroughly ensured understanding of these rights</td>
<td>Explanation sought and understanding tested</td>
</tr>
<tr>
<td>Interview purpose clearly explained</td>
<td>Clear explanations given ahead of interview itself</td>
</tr>
<tr>
<td>Explained that the interview is their opportunity to give their account</td>
<td>Clear explanations given ahead of interview itself</td>
</tr>
<tr>
<td>Allowed suspects to give uninterrupted first account</td>
<td>Suspect is accommodated opportunity to provide such an account</td>
</tr>
<tr>
<td>Encourages suspect to give an account</td>
<td>Supportive, encouraging words and behaviours evident</td>
</tr>
<tr>
<td>Develops interview topics in logical manner</td>
<td>Initial and subsequent interview topics possess such logical that the interview flows in a sensible manner</td>
</tr>
<tr>
<td>Deals with non-cooperation effectively</td>
<td>Remains calm, persists with questioning and logical interview topic development</td>
</tr>
<tr>
<td>Asks appropriate questions</td>
<td>GQM ‘productive’ questions asked</td>
</tr>
<tr>
<td>Follows a suitable questioning strategy</td>
<td>Recommended GQM strategy followed</td>
</tr>
<tr>
<td>Keeps interview to relevant topics</td>
<td>Ensures that interview remains on topic and not distracted</td>
</tr>
<tr>
<td>Uses intermittent summaries and suitable topic links</td>
<td>Recapitulates, accurately, and at appropriated points</td>
</tr>
<tr>
<td>Covers the legal points in regard to the suspected offence</td>
<td>Ensures that questions test the legal points concerning the offence</td>
</tr>
<tr>
<td>Thoroughly explores information received</td>
<td>Any information received is not taken on face value but is tested</td>
</tr>
<tr>
<td>Recognises and explores inconsistencies in account</td>
<td>Identifies gaps and contradictions in the given account</td>
</tr>
<tr>
<td>Appropriately challenges</td>
<td>Assertively asks for explanation of inconsistencies</td>
</tr>
<tr>
<td>Explores motive</td>
<td>Asks for further information as to the reasons for offence commission</td>
</tr>
<tr>
<td>Evidence of Conversation Management</td>
<td>Demonstrates ability to control the interview yet allows suspect</td>
</tr>
<tr>
<td>Evidence of Cognitive Interview</td>
<td>Use of this model to stimulate more complete account</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Gentle verbal prods</td>
<td>Trying to make the suspect reveal information by encouraging him/her to continue speaking.</td>
</tr>
<tr>
<td>Concern</td>
<td>Showing concern/empathy towards the suspect.</td>
</tr>
<tr>
<td>Use of pauses</td>
<td>Maintaining suitable silence after asking question or when the suspect has said something</td>
</tr>
<tr>
<td>Persistence</td>
<td>Does not give up easily when faced with denials, evasion or digression</td>
</tr>
<tr>
<td>Preparedness</td>
<td>Knows case, points to prove, has clearly thought ahead about structure of interview – shown in delivery of questions, evidence, and dealing with alibis/denials offered</td>
</tr>
<tr>
<td>Rapport builder/maintainer</td>
<td>Takes time to ensure working relationship established, and throughout interview keeps communicating effectively</td>
</tr>
<tr>
<td>Empathic</td>
<td>Shows understanding of and concern for suspects’ position and emotions</td>
</tr>
<tr>
<td>Respectful</td>
<td>Expresses fairness and politeness, allows suspect time to answer questions, does not hurry or show intolerance or impatience</td>
</tr>
<tr>
<td>Active Listener</td>
<td>Clearly has heard and understood what suspect has said – derived from future questioning and ‘guggles’</td>
</tr>
<tr>
<td>Calmness</td>
<td>Deals with difficulties without showing anger, impoliteness or intolerance when questioning, or responding to any (aggressive) utterances, of suspect</td>
</tr>
<tr>
<td>Non-judgmental</td>
<td>Does not show indignation to suspect or reveal their own moral standpoint</td>
</tr>
<tr>
<td>Skilled Communicator</td>
<td>Clear and well-paced succinct questioning techniques, spoken to the interviewee at the appropriate level</td>
</tr>
<tr>
<td>Self-confident</td>
<td>Shows clear signs of professional expertise and is clearly comfortable in the position of interviewing officer</td>
</tr>
<tr>
<td>Open mindedness</td>
<td>Shows no signs of guilt presumption or confirmation bias</td>
</tr>
<tr>
<td>Flexibility</td>
<td>Able to adapt comfortably to any unanticipated revelations and incidents that occur in the interview</td>
</tr>
<tr>
<td>Closes interview effectively</td>
<td>Final summary is given, asks if there is anything to add, and explains what happens next, leaving a professional image with suspect</td>
</tr>
<tr>
<td>Ethical</td>
<td>Does not lie about evidence held, does not use maximisation/minimisation / oppression/inducement or suggests scenarios or situational futility</td>
</tr>
</tbody>
</table>
Running head: The association between interview skills, questioning and evidence disclosure strategies, and interview outcomes’ Psychology, Crime and Law
Running head: The association between interview skills, questioning and evidence disclosure strategies, and interview outcomes’ Psychology, Crime and Law