

## ENSURING ACCURATE INFORMATION FROM WITNESSES: THE ROLE OF COGNITIVE INTERVIEW AND ENHANCED COGNITIVE INTERVIEW TECHNIQUES IN FINANCIAL FORENSICS

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### Article Info

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### Abstract

The cognitive interview (CI) and enhanced cognitive interview (ECI) techniques were developed in the 1980s and 1990s, respectively, with the aim of improving witness memory recall compared to the standard interview (SI) approach. However, the efficacy of these techniques remains controversial, and the complexity of human memory and psychology poses challenges in determining the most effective approach. This paper presents a literature review of previous research on CI and ECI techniques and evaluates these techniques in light of vulnerable witnesses such as children, persons with intellectual disabilities, and the elderly. The review found that the CI and ECI techniques are more effective in obtaining more accurate information from both invulnerable and vulnerable witnesses, except for interviewees with autism spectrum disorder (ASD). However, the CI and ECI techniques require proper training and the development of social skills, which can be challenging for investigators to apply. Thus, more educative efforts are in order to establish the CI/ECI approaches among investigation officers.

### Introduction:

The use of CI and ECI techniques in witness interviewing has been a topic of interest among researchers since their development in the 1980s and 1990s. The CI and ECI techniques aim to enhance witness memory recall compared to the standard interview (SI) approach. However, the effectiveness of these techniques has been subject to debate and the complexity of human memory and psychology remains a challenge in determining the most effective approach. This paper aims to evaluate and contrast the standard interview, the cognitive interview, and the enhanced cognitive interview approach to make recommendations for further psychological research and police interviewing practice. The techniques are evaluated in light of vulnerable witnesses such as children, persons with intellectual disabilities, and the elderly. Literature reviews of previous research conducted from 1984

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International Journal of Current Practice in Management and Leadership (IJCPML) Vol. 13 (1) to 2013 are discussed. The review found that the CI and ECI techniques are more effective in obtaining more accurate information from both invulnerable and vulnerable witnesses, except for interviewees with ASD. However, the CI and ECI techniques require proper training and the development of social skills, which may be challenging for investigators to apply. Thus, more educative efforts are in order to establish the CI/ECI approaches among investigation officers.

### **2.1. The Imperfect System**

Wilcock, Bull and Milne (2008) suggest that human memory performs three distinct tasks. First, incoming information is saved according to previous knowledge and personal characteristics. Because of this encoding the same piece of information may be remembered differently by two people (Smith, & Shoda, 2009). Second, information is stored, but is subject to deterioration as time goes by (Westera, & Kebbell, 2013). Third, information can be retrieved from memory. But personal experience and scientific research show that human memory is not an exact tool of reproducing past events (Newman, & Garry, 2014). To the contrary, memory can be susceptible to suggestibility, distortions and stress (Packer, & Borum, 2003). Furthermore, memory can be impaired by mental illness and biased by emotions (Harvey, Lee, Williams, Hollon, Walker, Thompson, & Smith, 2014).

In an interview setting, using flawed questioning techniques can lead to poor interview results. For example, leading questions may be perceived by a witness as suggesting answers the interviewer would like to hear, distorting the uncovering of truth (Milne, & Bull, 1999). Closed questions may prevent the witness from revealing additional information that could prove important (Wise, & Safer, 2012). As will be shown in the next section, further challenges arise with witness testimony in criminal investigations.

### **2.2. Witness Memory and Criminal Investigations**

The interviewer should be aware of further distortions of memory after crime experience. Usually, witnesses are not used to crime. Therefore, a witness can hardly retain an accurate memory if he observes the crime by accident, from remote distance or in a poor illuminated environment (Reyna, & Titcomb, 1997).

Furthermore, people may have a misconception about how crimes are conducted. Wilcock, Bull and Milne (2008) demonstrate that victims of robbery report perpetrator's behaviour which actually did not occur, because of a widespread belief about how a robbery takes place (for example, approaching the victim from behind). Unfortunately, not only laymen face such memory inconsistencies (Hollin, 1989). Studies by Vernis and Walker (1970) and Tickner and Poulton (1975) show that police witness may be biased towards incriminating details. Misinformation may result from such effects like the "weapon focus": witnesses tend to focus on weapons used during a crime and later struggle to remember the face of the perpetrator (Valentine, 2012). Hewstone, Fincham and Foster (2005) argue that increased attention may be triggered by life-threatening circumstances and criminal's action, resulting in a very detailed memory account of these central facts. Such comprehensive testimony is crucial during criminal court proceedings.

### **2.3. Witness Memory and Criminal Court Proceedings**

In criminal court, the accuracy of witness statements can make the difference between conviction and acquittal. However, until this stage of the proceedings, the witness often becomes subject of the "misinformation effect" (Loftus, 2005). The witness can become familiar with data and feedback provided by investigators or lawyers. Consequently, the witness unconsciously constructs memory which he did not acquire in the first place (Semmler, Brewer, & Wells, 2004). Even the change of wording can distort memory (Filipović, 2011).

Furthermore, as time passes, detailed memory of events tends to be replaced by gist memories, i.e. Schematic ideas of what usually takes place under circumstances (Goldsmith, Koriati, & Pansky, 2005). This further distorts accuracy (Buck, 2009).

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According to Vallano and Compo (2011), a comfortable interview environment improves the quality of witness memory. However, the delay between the first interview and the final trial can put a frustrating psychological burden on the witness through the ongoing investigation and testimony (Hanson, & Wilson, 2008). Therefore, Lacy and Stark (2014) strongly recommend that criminal convictions should not be based on eyewitness testimony alone, but rather on a set of comprehensive evidence.

### **3. Investigative Interviewing**

#### **3.1. The Way from Interrogation to Investigative Interviewing**

The original police approach to interviewing was characterised by an oppressive manner, with the goal to acquire either a confession or a testimony suitable for the investigator's needs (Irving, & Hilgendorf, 1980). Over time, poor interviewing skills and a lack of structure and planning in interviewing became public knowledge (Williamson, 1993). Also, research maintained that weak witness memory could result in miscarriages of justice (Brainerd, Reyna, Howe, & Kingma, 1990). Hence, the British prosecution has begun adopting a more scientific approach and professional training to replace instinct driven interrogations (Williamson, 2013). Accurate recording of initial witness testimony was enforced to prevent later inconsistencies (Wolchover, & Heaton-Armstrong, 1997). Based on psychological research, the police turned to help witnesses retrieve information that has been encoded and stored in their memory (Roos, 2007).

#### **3.2. The Cognitive Interview (CI)**

The CI has become the key technique for investigative interviewing among the British police (Clarke, & Milne, 2001). The CI intends to improve the witness oral recall as opposed to visual recognition (Clifford, & Gwyer, 1999; Frowd, 2011). In developing the CI and its four mnemonics, the researches mainly relied on two psychological postulations (Fisher, Geiselman, & Amador, 1989). The first postulation is based on Tulving (1974), stating that human memory can be accessed through several paths using different techniques. The second postulation states that memory can be retrieved if the technique used properly addresses the encoded memory input (Flexser, & Tulving, 1978). The next four sections will describe how this is achieved by the four CI mnemonics.

#### **3.3. The Report Everything Mnemonic**

This free narrative instruction intends to induce the witness to report everything he is aware of (Ghetti, Schaaf, Qin, & Goodman, 2003). This may be especially helpful if the witness would otherwise withhold information that he believes to be not important (Fisher, McCauley, & Geiselman, 1994). The recalling capacity of a witness is usually limited by his cognitive abilities (Navon, & Gopher, 1979). This mnemonic may help the investigator to draw conclusions from information at least partially provided by the witness (Memon, Wark, Holley, Bull, & Koehnken (1997).

#### **3.4. The Mental Reinstatement of Context Mnemonic**

Reinstating the context of a previous experience can improve recall accuracy (Estes, 1972). This can be achieved if the witness experiences the same feelings again that he did at the time he became witness (Eich, Macauley, & Ryan, 1994). From the theoretical point of view, reinstatement works via retrieval cues that match the encoded memory input (Schacter, 1996). Williams and Hollan (1981) argue that reinstating mental and environmental factors can provide cues to encoded information. The cues can be reinforced through specific questions by the interviewer or by showing the photographs of the crime scene (Esgate et al., 2005). However, Dumas and Luminet (2016) argue that the investigator should not interrupt the free narrative and hence distort the witness' attempts to mentally reinstate his previous state of mind. On a more fundamental level, Croft (1995) and Milne and Bull (1999) argue that mental reinstatement could reinforce the witness' trauma and suffering. However, Latts and Geiselman (1991) show that police do not refrain from applying this mnemonic to rape victims.

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Physical reinstatement through visiting the crime scene is regarded as problematic due to the possible contamination of the crime scene itself, as well as of the witness' original memory (La Rooy, & Dando, 2010). This view contradicts the study of Hershkowitz, Orbach, Lamb, Sternberg, Horowitz and Hovav (1998) showing that additional memory details can be provided through a physical crime scene inspection with victims.

### **3.5. The Recall Events in Different Orders Mnemonic**

A free narrative by a witness may recall the events in the approximate order of their occurrence. However, this narrative may be unintentionally misleading, as the witness may rely on his semantic memory, i.e. the memory about things that usually happen at the time or at the location under consideration (Revlin, 2013). Recalling events not in their usual order may help to retrieve omitted episodes (Lampinen, Neuschatz, & Cling, 2012). Such episodes are caught by the episodic memory, which is responsible for specific events (Greenberg, & Verfaellie, 2010). Wilcock et al. (2008) notice that recalling events in different order may prevent memory from constructing and from adding details from prior knowledge that did not occur in reality.

### **3.6. The Change Perspectives Mnemonic**

Fisher and Geiselman (1992) state that people usually report from their own perspective. However, using a perspective of another witness or a victim can reveal new insights (Memon, Cronin, Eaves, & Bull, 1996). It can free the witness from the restraints of previous knowledge and schemes (Norman, & Bobrow, 1979).

Interestingly, research shows that police officers are reluctant to use this mnemonic in order not to confuse or to mislead the witness (Memon, & Higham, 1999). Oldershaw (2012) reports that investigators are averse to hypothetical information that could not be utilized at court. These findings are consistent with Davis, McMahon and Greenwood (2005) showing that the change perspective mnemonic reveals less details as compared to the free narrative. Also, Jaśkiewicz-Obydzińska and Wach (1995) argue that the change perspective instruction could be misunderstood by children, if not properly worded.

### **3.7. The Enhances Cognitive Interview (ECI)**

The ECI was developed by Fisher and Geiselman (1992) in response to various shortcomings in the application of CI by the British police. Fisher et al. (1989) state that officers quickly switch from the report everything mnemonic to closed questions. Also, interviewers try to follow a rigid official statement form instead of considering what a particular witness could really contribute to the investigation (Clarke, & Milne, 2001). With ECI, a structured interview comprising of seven phases serves as a guideline for police interviewers (Paulo, Albuquerque, & Bull, 2013). The phased approach is advanced by Saywitz (1990) arguing that recall is facilitated when questioning is subdivided into phases. Further, Yuille (cited in Bull, 1996) demonstrates that the success rate of interviews increases from 14% to 35% when interviewers are skilled in the phased approach.

The phases consist of (1) establishing a social and personalised connection with the interviewee, (2) the report everything mnemonic, (3) the context reinstatement mnemonic supported by open questions, (4) extensive retrieval through change order and change perspective mnemonic, questioning suitable to the interviewee's cognitive abilities and acceptance of the interviewees' limited knowledge, (5) focussing on important issues, (6) closing the interview and (7) evaluating the information obtained (Milne, 2004).

ECI follows the research findings that open narratives may produce partial, but more accurate information (Koriat, & Goldsmith, 1996). It provides a path from general narratives to specific information (Pakes, & Pakes, 2012). Also, it incorporates personal interaction between the interviewee and the investigator in order to reduce the authoritarian component of a police interview. The transfer of information flow control from the investigator towards the witness is crucial, but requires understanding and willingness on part of the interviewer to lessen control (Griffiths, Milne, & Cherryman, 2011). This provides for interviewee motivation and helps increasing narrative accuracy (Paulo, Albuquerque, & Bull, 2016). However, Wright and Powell (2005) report that significant

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training would be necessary to familiarize police officers with free narrative techniques and to help develop interpersonal skills required to conduct successful ECIs. The next chapter evaluates how well CI and ECI have helped the police to improve their skills and to obtain comprehensive interview results.

### **Rerearch Findings on the Effectiveness of CI and ECI**

#### **3.8. The effectiveness of CI**

Several studies demonstrate the effectiveness of CI in witness interviewing. Geiselman et al. (1984) report for a laboratory study of a non-criminal event a higher number of correct recalls without an increase in errors, as do Geiselman et al. (1985) for a study of a crime-related event. Fisher et al. (1989) show in a field study that CI-trained detectives obtained 47% more details as compared to their non-qualified colleagues. These findings are supported by Clifford and George (1996) who observe improved questioning behaviour and information gathering of City of London Police officers after CI training.

In a meta-analysis of 55 studies with 2,447 interviewees covering both CI and ECI Köhnken et al. (1999) demonstrate that the cognitive interview style outperforms the standard interview (SI) in accuracy and number of correct details. The SI mainly consists of “who, what, when, where, why and how” questions in a rapid, strict and impersonal manner (Taylor, 2000). A significant increase in correct details using CI is reported by Memon, Meissner and Fraser (2010) for another meta-analysis covering 46 academic articles with 2,887 study participants. Although both the analysis demonstrate a slight increase in errors, Memon et al. (2010) suggest that incorrect and confabulated recalls may be reduced if interviewees are advised to use “I don’t know” answers and are instructed not to guess.

The advantages of CI are not equally perceived by the police. Dando, Wilcock and Milne (2008) report from a survey of 221 officers that time constraints often prevent the technique from being applied in real-life scenarios.

#### **3.9. The Effectiveness of ECI**

In a laboratory setting Fisher, Geiselman, Raymond, Jurkevich and Warhaftig (1987) report about 45% more accurate details from ECI as compared to CI. Shepherd, Mortimer, Turner and Watson (1999) demonstrate a successful ECI implementation in a rape victim case.

However, due to time constraints in the field police interviewers refrain from applying ECI, although Fisher, Milne and Bull (2011) claim that at least some components of the techniques could be used for the sake of more and accurate results. Arguably, additional training could resolve this problem. However, Memon, Holley, Milne, Bull and Köhnken (1994) show that ECI training of four hours does not increase policemen performance, neither does specialist CI training of three days (Griffiths, Milne, & Cherryman, 2011).

### **4. The Effectiveness of CI / ECI in Interviewing Vulnerable Witnesses**

#### **4.1. Interviewing Children**

Using the CI mnemonics in children interviews can be a fruitful approach. Sternberg, Lamb, Hershkowitz, Yudilevitch, Orbach, and Esplin (1997) demonstrate that children provide longer and more detailed answers to open questions compared to detailed questions. Steward (1992) shows that children tend to omit, rather than to give inaccurate responses. This can be addressed by the report everything mnemonic.

The accuracy of answers increases if children are asked not to guess (Dent, & Stephenson, 1979). Mulder and Vrij (1996) state that instructions are best understood by children if explicitly named. Similarly, Goodman and Reed (1986) claim that comprehensively expressed questions are well understood and accurately responded even by five-year-olds. This can be facilitated through building rapport that is required by ECI.

#### **4.2. Interviewing Persons with Intellectual Disabilities (Id)**

There are divided opinions in the academia regarding interviewing ID witnesses. Gudjonsson and Clark (1986) argue that these interviewees are more susceptible to misleading questions and struggle to cope with interview



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situations. Research conducted by Milne and Bull (1996) among children with and without learning difficulties proves high acceptance of misleading questions among handicapped interviewees. On the other hand, Perlman, Ericson, Esses and Isaacs (1994) claim that ID persons are able to provide key details if asked open questions, although the overall amount of information provided is reported to be less than for nondisabled witnesses. Whereas Kebbell, Hatton and Johnson (2000) argue that ID witnesses confabulate to close memory gaps, Milne, Clare and Bull (1999) raise doubts whether whole events can be a product of ID witness imagination. Maras and Bowler (2013) report high inaccuracy rates when autism spectrum disorder (ASD) interviewees are asked to retrieve information through narrative or to mentally reinstate context, as compared to SI techniques. However, these results contradict Gentle, Milne, Powell and Sharman (2013) who claim that child interviewees with ID benefit from these two CI mnemonics. Further research may be warranted to explain CI effectiveness among ID witnesses, paying attention to the heterogeneity of ID (Nathanson, & Crank, 2004).

#### **4.3. Interviewing the Elderly**

Brainerd and Reyna (2005) postulate “the gist-preference” hypothesis that elderly people mainly rely on gist memories when remembering. This can explain why more questions are necessary to obtain sufficient information from an elderly witness (Mueller-Johnson, & Ceci, 2004). Gist memories can account for poor accuracy of recall as well as the low amount of recalled information by elderly witnesses (Prescott, Milne, & Clarke, 2011). In the opinion of Aizpurua, Migueles and García-Bajos (2014) contextual links with temporal and spatial details may help this group of witnesses. This view is consistent with Holliday, Humphries, Milne, Memon, Houlder, Lyons and Bull (2012) whose study of 60 to 73 years old participants reveals that the report everything and the contextual reinstatement mnemonics are best suitable to enhance elderly memory performance.

#### **5. Conclusion**

Academic research shows that CI/ECI is in no way a waste of time. The CI/ECI techniques succeed in obtaining more information of higher accuracy from invulnerable and vulnerable witnesses (save for ASD patients) as compared to the SI. However, the problem with CI/ECI lies with the implementation in the field (Clarke, & Milne, 2001). More training and supervision are necessary to make the British police benefit from CI/ECI (Walsh, & Milne, 2007). This is especially true with regard to social skills necessary for building rapport (Walsh, & Milne, 2008). Indeed, officers receive training according to the Association of Chief Police Officers (ACPO) Interview Strategy (Poyser, & Milne, 2015). Training is also provided to investigators through the widely adopted PEACE framework, a mnemonic used for Planning and preparation / Engage and explain / Account / Closure / Evaluation (MacDonald, Snook, & Milne, 2016). It is to be hoped that through this advanced interview training successful police work will no longer be defined by the number of confessions or convictions achieved (Walker, 2011).

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