**ABSTRACT**

**Overview**

During the last decades, investigative interviewing of child witnesses has received a lot attention. Several studies on the topic have been conducted, while numerous interviewing protocols for best practises have been introduced to authorities. However, investigative interviewing of child witnesses remains unexplored. The main aims of this thesis were to explore police interviews with children in Greece, and to research ways of improving interviewing procedures in Greece and other countries.

The first chapter presents a review of the existing research into child testimonies. Child memory is discussed, and developmental issues are considered. Towards the end of the review, the focus shifts to current procedures for interviewing child witnesses and child victims. Both interviewing techniques and guidelines are described and assessed.

In chapter 2, the first empirical study is described. Police interview transcripts with children aged from 5 to 13 years of age in Greece were collected and analysed for interviewing techniques and their effects on children’s recall. The interview procedures in Greece are compared to those employed in other countries. Furthermore, four semi-structured interviews with police officers and a psychologist (currently employed by the police) who deal with child victims of abuse were conducted. The interviews provided more information about interviewing procedures, as well as related interviewers’ aims and concerns.

In chapter 3, the results of two experimental studies conducted on child recall are described. The studies focused on children’s recall performance relating to a short film they had watched a week before the questioning, in front of a single individual, a pair or a group of people (three individuals).

In chapter 4, the results of one experimental study which assessed the effect of the number of adults, present during an interview with the child, in cases of inappropriate questioning are presented. This experiment looked at children recall performance when interviewed in front of a single adult, a pair and a group of individuals (3 adults).

Chapter 5 considers the contribution of the present research for child questioning and practical recommendations for future police interviews.

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**CHAPTER ONE**

**Introduction**

* 1. **Child abuse**

Child abuse is defined as any form of physical, sexual, or emotional act that results in ‘actual or potential harm to the child’s health, survival, development or dignity in the context of a relationship of responsibility, trust or power’ *(*Butchart, Putney, Furniss, & Kahane, 2006, p.9). Abuse could physically involve harm such as:

‘ …hitting, shaking, throwing, poisoning, burning or scalding, drowning, suffocating, or otherwise, emotional involving acts causing severe and persistent adverse effects on the child’s emotional development, or sexual involving acts of forcing or enticing a child or young person to take part in sexual activities… the activities may involve physical contact, including assault by penetration (for example, rape or oral sex) or non-penetrative acts such as masturbation, kissing, rubbing and touching outside of clothing. They may also include non-contact activities, such as involving children in looking at, or in the production of, sexual images, watching sexual activities, encouraging children to behave in sexually inappropriate ways, or grooming a child in preparation for abuse (including via the internet)’

(Harker et al., 2013, p.8)

While child abuse is not a modern phenomenon, in the last few decades, there has been a rise in the number of incidents of child abuse reported. This could be attributed mainly to the contemporary societal attitude towards the issue, which is more supportive and less censurable than it was in the past, when child abuse was often covered up. Several support groups and helplines have been created for the support of those who have been abused , and social stigma has been reduced by these initiatives (e.g. NSPCC, Samaritans, NAPAC) (e.g. Jutte et al, 2013). In recent years, child abuse has received considerable attention worldwide and several attempts have been made either directly by the state, through legislation, national campaigns or the implementation of national plans to prevent child abuse, or indirectly by NGOs, charities and organizations dealing with child abuse and protection (e.g. NSPCC’s campaign ‘Order in Court’, 2014).

The prevalence in the UK has been estimated that child abuse is an issue affecting 1 in 20 children, while 1 in 14 children have been physically abused (Radford, Corral, Bradley, Fisher, Basset, Howat & Collishaw, 2011). In Europe, the prevalence of child sexual abuse has been estimated as 5.7% in males and 13.4% in females, while the prevalence of physical abuse has been estimated as 22.9% and emotional as 29.1% (Sethi, Bellis, Hughes, Gilbert, Mitis, Gale, 2013). However, in Greece, the focus of those issues has largely been neglected.

There are no official records on the prevalence of child sexual abuse in Greece, and there has been a limited number of studies conducted on the issue, therefore there is no clear picture on the phenomenon. According to "The smile of the child" (“To hamogelo tou paidiou”, 2014)[[1]](#footnote-1) in 2014 1,439 allegations of child abuse and neglect were made in Greece; while researchers have suggested that 4% of girls and 3.5% of boys in Greece are sexually abused by a family member (Papanikolaou, 1998). The number of incidents reported has nearly doubled since 2009 (when 583 incidents were reported). About half of the victims for whom personal data have been collected were males. More than a third of the children who reported child abuse, were under the age of 6, and 36% were between 6 and 12 years of age. Finally, more than 80% of reported incidents were conducted by a family member and only a small proportion (4%) were committed by a person unknown to the child – a statistic that is consistent with incidents reported in other countries (e.g. in the UK; Radford et al., 2011).

Between 1979 and 1985, there was a rise of 200% in reported incidents of child abuse, and between 2003 and 2013 around 7,500 allegations of child sexual abuse were made (Giotakos, Tsiliakou, & Tsitsika, 2011; Hellenic Police, 2013). This number is quite low compared to the unofficial data as reported by ‘The Smile of the Child’ (2014). Αccording to the Hellenic Police (2013), in the last decade (2003 -2013) about 800 people have been charged and arrested for child sexual abuse, but only 42 have been sentenced to imprisonment, a number which is once again low compared to both official and unofficial allegations (The Smile of the Child, 2014; Hellenic Police, 2013). This low conviction rate is something that could act as an inhibitory factor to disclosing abuse.

Thus, a great number of cases of child abuse may remain hidden from official data and it can be assumed that several cases are not reported at all. Therefore, the actual number of victims may be higher. According to research, the underreporting of child abuse is severe, because Greek society is a traditionalist society when it comes to issues affecting and involving the family (Agathonos-Georgopoulou, 1997). It has been suggested that even health practitioners dealing with cases of injuries linked to child abuse may hesitate to openly discuss child abuse. They are mainly afraid that any reference to abuse will be perceived as an accusation against the parents that might offend the children’s guardians (Trogan, Dessypris, Moustaki, & Petridou,2001). Thus, it could be assumed that many cases of abuse remain unreported, especially in rural areas, where society is more susceptible and less open to issues like child abuse. In a study conducted in the US, it has been suggested that families in rural areas face increased family stress in cases of child abuse, compared to families that live in urban areas (Mattingly & Walsh, 2010).

In Greece, mild child physical abuse has been traditionally linked with punishment, used mainly as a mean of compliance (Agathonos-Georgopoulou, 1997). While such methods of compliance have been linked with the past, in some cases mild physical abuse is still used by people and is still defined as a method of compliance rather than abuse. Therefore, in some instances there might be confusion on defining cases of child abuse, based on individuals’ perceptions; something that might also lead to reluctance in discussing child physical abuse. As mentioned before, no official data on the prevalence of abuse in Greece exist, and the study of abuse does not seem to be very welcomed by either the state or the public (Agathonos-Georgopoulou, 1997; Trogan, Dessypris, Moustaki, Petridou,2001;). As a result, the issue of child abuse in Greece remains under-investigated and there is a lack of any well-structured national plan for both dealing with and preventing child abuse.

The Greek judicial system can be complex and time-consuming. In most cases, more than five years will be needed for a case of child abuse to get a decision (Themeli & Panagiotaki, 2014). This is something that might make people more reluctant to report cases of child abuse, due to their unwillingness to be involved with the judicial system. Together with the distrust of the judicial system, there is also a traditional distrust towards police in Greece; something that could be linked with the increased levels of corruption among law enforcement agencies (Hardoon & Heinrich, 2013). All of these factors might result in the underreporting of cases of child abuse.

In cases of child abuse, children may end up involved with the judicial system for several years until their case is completed, and only limited support (e.g. aftercare) is offered to the victim (Themeli & Panagiotaki, 2014). In Greece, disclosure does not act as the endpoint of a child’s victimization, but it has been suggested that when children make a report of abuse to law enforcement agencies, it may lead to further victimization given the legal and other processes the child is then subjected to (Themeli & Panagiotaki, 2014).

**1.2 Child eyewitness testimonies**

Up until the last few decades, children’s presence in courts was quite rare in Greece other western countries; people were sceptical towards child testimonies and it was believed that child testimonies lacked accuracy because children were unable to distinguish between fantasy and reality (McGough, 1994; Collins & Bond, 1953); though this belief has no scientific basis (Yuille, 1988).

After the 1980s, there was an increase of reported incidents of child abuse (Poole & Lamb, 1998; Ceci & Bruck, 1995), something that led to the rise of public awareness on the issue, and thus to relevant research (Blandon-Gitlin & Pezdek, 2009; Ceci, Toglia & Ross, 1987). Researchers were led to the re-examination of children’s ability to provide accurate and trustful testimonies, and there have since been a large number of studies conducted in this field, with emphasis on how children can provide accurate testimonies, as well as how well they memorize and disclose personal and traumatic experiences (e.g. Bauer, 2007; Roberts & Blades, 1998; Peterson & Whalen, 2001; Waterman & Blades, 2013). Children’s presence in courts and their involvement in testimonies have become more frequent, while in several countries specific frameworks and guidelines regarding child witnesses/victims and child testimonies have been designed, such as the NICHD Protocol (Lamb et al., 2011) or ABE guideline (Ministry of Justice, 2011).

In Greece, there is a lack of interviewing protocols and/or written guides. There is little or no awareness regarding the provision of specialized training to interviewing personnel, and police interviews with children often take place in inappropriate and non-child-friendly environments (Themeli, 2011). The legal and prosecutor system in Greece does not distinguish between children and adult witnesses and does not provide structured, specialized action plans for child witnesses (Themeli & Panagiotaki, 2014). As a result, child witnesses are not effectively supported.

Children are able to accurately recall memories from a quite early age. Even from the age of two, children are able to recall memories that have been encoded a few months ago (Bauer et al., 2000; Bauer, 2004; Bauer, 2007;). With age, memory capacities develop and, as a result, there is an increase of memories that children can provide, as memories themselves become more complex, detailed and descriptive (Cedeborg et al., 2000; Hershkowitz et al., 2004; Lamb et al., 2000; Orbach & Lamb, 2007; Philips, Oxburgh, Gavin & Myklebust, 2012; Sternberg et al., 1996). Therefore, children are able to provide accurate and reliable memories as much as adults are, however children’s recalled memories are usually less detailed and extensive (Davies, Tarrant, & Flin, 1989; Flin et al., 1992; Saywitz, 1987).

Child testimonies have been investigated via research on police interview transcripts (Hershkowitz, Lanes, & Lamb, 2007; Krahenbuhl, Blades, & Westcott, 2010; Philips et al., 2012;) and experimental studies (Krahenbuhl & Blades, 2006; Kyriakidou, Blades, & Caroll, 2014O’Neill & Zajac, 2013; ). Experimental studies commonly consist of live staged events and videos; children are exposed to the event and afterwards they are interviewed about that event (Kyriakidou et al., 2014; Waterman & Blades, 2013). This kind of experimental study provides the advantage of being controlled by the researcher who can focus on specific factors of the interviewing procedure. In contrast, studies analysing police interviews with children (e.g. Hershkowitz, Lanes, & Lamb, 2007; Krahenbuhl, Blades & Westcott, 2010; Philips et al.2012;) investigating an interviewer’s skills at the time of the interview cannot be controlled by a researcher. Experimental studies are also advantageous due to the ease with which they can be conducted. However, due to ethical restrictions, such studies do not provide the ability to replicate abusive acts, and acts that impose a great amount of stress on the children; something that is important with reference to actual interviewing practise (Stenberg et al., 1996).

Over the last few decades, the issue of child testimonies has received much attention, and national plans - including well-structured interviewing guidelines and protocols - have been designed and implemented worldwide such as the NICHD (Lamb, La Rooy,Malloy,& Katz, 2011), or ABE (Ministry of Justice, 2011). However, in Greece, limited research has been conducted in this field and little is known about how children are treated during investigative interviews. There is no official guidance or interviewing protocols dictating the way child victims of abuse should be treated during an interview, or during the general process of an investigation (Themeli & Panagiotaki, 2014).

Child interviewing techniques and children’s testifying performance have been widely researched in other countries. Research, consisting of both laboratory and field studies, has considered age (Baker-Ward et al., 1993; Orbach & Lamb, 2007), interviewers’ and interviewees’ gender (Lamb & Garretson, 2003), delay (Jack, Simcock, & Hayne, 2012; Jones & Pipe, 2002; Peterson, 2011; Rooy, Pipe, & Murray, 2007; Salmon & Pipe, 2000; Waterman & Blades, 2013), repetition of questions/interviews (Brubacher & La Rooy, 2014; Connolly, Price, Lavoie, & Gordon, 2008; Krähenbühl & Blades, 2006), suggestive and inappropriate questioning (e.g. Cassel, Roebers & Bjorklund, 1996; Waterman, Blades, & Spencer, 2001; Waterman & Blades, 2013), and the type and frequency of the abuse (e.g. Connolly et al., 2008; Price & Connolly, 2008;). These aspects of interviewing practice will be discussed in more detail below.

In summary, child abuse is an issue of great concern worldwide. In the case of Greece, it has been estimated that it affects over 1,000 children annually, but no official data exist. Based on the number of unofficial allegations made by organisations, such as ‘The smile of the child’ (“To hamogelo tou paidiou”, 2014)[[2]](#footnote-2) , which is higher than the number of official cases reported to the police, it could be suggested that a number of child abuse cases go unreported. While there have been several attempts to improve the way that law enforcement agencies deal with cases of child abuse and child testimonies, it seems there is still a reluctance of victims of child abuse to disclose their abuse. Compared with other countries, little is known about current practises and procedures in Greece, where child testimonies have received little attention. The issue of child abuse and child testimonies in Greece has thus far remained unexplored and researchers have not considered practices followed by national law enforcement agencies.

**1.3 Memory**

To gain an understanding of child testimonies and testifying procedure, it is necessary to gain a deeper understanding of human memory. Human memory has been widely explored. Ebbinghaus (2013) suggested that memory is consisted of three main phases: encoding, storage, and retrieval. In the first phase of the process - encoding - information received from the environment is processed and converted into forms that can be stored in the second phase, and then retrieved, either voluntarily (trying to remember for the purpose of providing a testimony) or involuntarily (due to an environmental cue) at the third stage, when appropriate.

Long-term memory has been usually divided in terms of the content and purpose of information stored. Cohen and Squire (1980) separated long-term memory into declarative and procedural, based on the distinction between ‘knowing how’ and ‘knowing what’ (Squire, 1992). Procedural memory is the ‘knowing how’ and is concerned with acquired skills and abilities (e.g. ride a bike), while declarative memory is the ‘knowing what’ and is concerned mainly with events, places, and personal experiences. Tulving (1972) proposed that declarative memory should be distinguished in further sub-categories. Tulving divided long-term memory into two categories, episodic and semantic. Episodic memory consists of any specific events and experiences, while semantic memory is built up of our general knowledge of the world, such as facts, concepts, properties and rules. Autobiographical memory, which consists of memories of personal experiences and events that constitute individuals’ lives, includes both semantic and episodic information. The semantic information included in an autobiographical memory could be facts about oneself, such as an individual’s age and place of origin, while episodic information could be memories of an event, such as going to a party.

Episodic memory develops with age (Bauer, 2005; Nelson, 1993; Perner and Ruffman, 1995; Tulving, 1983; Wheeler et al., 1997). The hippocampus is the part of the brain that plays a crucial role in episodic memory (Schneider & Pressley, 1997); however, during the early years, the hippocampus remains underdeveloped. As an individual grows, the hippocampus develops (Johnson, 2001; Nelson, 2001) and thus, episodic memory, which relies on the hippocampus, is enhanced as a child gets older (Johnson, 2001; Nelson, 2001). As a result, older children have the ability to produce better-quality episodic memories.

Recalling an episodic memory is a complex procedure, as it requires the binding of different details of the event to be recalled (Johnson, Hashtroudi, & Lindsay, 1993; Rubin, 2006). Due to this complexity, children, especially younger children, who are still developing, tend to produce less detailed and less extensive recall, and sometimes have lower levels of recall accuracy compared to older children and adults (Melinder, Endestad, & Magnussen, 2006). Thus, several complications regarding children’s autobiographical narratives arise, due to developmental and cognitive issues (Melinder, Endestad, & Magnussen, 2006).

With regards to child autobiographical memory, several questions remain unanswered and vague, such as children’s levels of accuracy and false reports (Williams, Conway, & Cohen, 2008). This could be attributed to the complexity of child memory, but also to methodological variations across studies in this field. For instance, with regard to child testimonies of abusive events, which are the focus of this thesis, several studies have tried to simulate disclosure of traumatic/abusive events, such as medical examinations (e.g. Burgwyn-Bailes, Baker-Ward, Gordon, & Ornstein, 2001; Peterson & Rideout, 1998). However, as the intensity of these events is difficult to measure, and may vary across studies, it is difficult to gain a deeper insight into how autobiographical memory functions, especially when recalling sensitive, personal, and traumatic experiences.

*1.3.1 Autobiographical memory*

Autobiographical memory is the memory concerning the self. When children recall abusive events, this forms part of their autobiographical memory. Autobiographical memory consists of episodic (experienced events) and semantic (knowing names, recognising friends) memory (Williams, Conway & Cohen, 2008). While it has been perceived as episodic in nature (Wheeler, Struss & Tulving, 1997), it also entails semantic components, as autobiographical narratives include general knowledge and facts related to the individual’s self (Conway & Pleydell-Pearce, 2000; Wilson & Ross, 2003).

Unlike semantic memory, which is related to individuals’ acquired skills and abilities and requires no conscious awareness, episodic memory is related to information about specific events, situations, people, and objects, which are bound to a specific time and place and requires mental time travel, autonoetic consciousness, individuals’ ability to think of themselves in different time and places, such as when re-experiencing past events, and a sense of self (Tulving, 1972; Wheeler, Stuss, & Tulving, 1997). Autobiographical memories can be quite vivid and detailed and may feel like the individual is re-experiencing the recollected event (Rubin & Kozin, 1984; Wright & Gaskell, 1992; Conway, 1990; Rubin, 2005). It is mainly the different states of consciousness that differentiate semantic and episodic memory so much, combined with the sense of self required for episodic autobiographical memory.

Autobiographical memory is more than just a simple recall; it is an active reconstruction of an event that could be regarded as a constructive process rather than a reproductive one ([Schacter](https://www.ncbi.nlm.nih.gov/pubmed/?term=Schacter%20DL%5BAuthor%5D&cauthor=true&cauthor_uid=22577300), 2012). Autobiographical narratives are not necessarily an accurate representation of a lived past experience; instead, during retrieval, information from other sources (such as general knowledge and beliefs) is combined to produce an autobiographical narrative (Tulving, 1983; Michaelian, 2011; 2013). Autobiographical memories are therefore highly influenced by an individual’s knowledge, beliefs, and ideas, and, during the retrieval of autobiographical memories, recalled memories are incorporated with pre-existing information and adjusted to the current circumstances, and therefore mainly reconstructed rather than recalled exactly as they were encoded (Michaelian, 2011; 2013). Moreover, it has been suggested that encoding functions in a similar way to recalling and acts constructively; thus all the information that an individual has received prior to the encoding of an event influences the encoding of the event itself (Michaelian, 2013).

*1.3.2 Age*

Episodic memory seems to develop later in humans’ lives compared to semantic memory, which is apparent from an early age (Tulving, 1985; Billingsley, Smith, & McAndrews, 2002; Farrar & Goodman, 1992; Gardiner, 1988, 2001; Pillemer, Picariello, & Pruett, 1994; Uehara, 2000). This could be attributed to the complex nature of the episodic autobiographical memory, which entails so many different elements, as well as to the central role of self in this type of memory. Age-related differences could be attributed to developmental acquisitions in language, the sense of self (Nelson, 1996; Howe, 2000), as well as in the brain’s neuroanatomical consistency.

To produce autobiographical narratives which have the self as a central point, children need to have a developed sense of self. However, the sense of self is gradually being developed over the years, and thus the development of autobiographical memories has been linked with the development of the cognitive self, as well as the sense of self and identity in individuals, which has been estimated to occur approximately at the age of two years (Cleveland & Reese, 2008; Courage & Howe, 2002; Harter, 2006; Howe & Courage, 1997). In a study investigating early memories in children, children were able to recall autobiographical memories quite accurately; however, decreased accuracy was recorded in autobiographical memories stored before the age of two (Cleveland & Reese, 2008). It should be noted that the semantic aspects of autobiographical memories (Tulving, Schacter, McLachlan, & Moscovitch, 1988), such as acquired knowledge/facts about individual’s self, develop at an earlier stage than episodic autobiographical memory (Billingsley et al., 2002; Perner & Ruffman, 1995; Tulving, 2001; Tulving, 2002).

With increasing age, children understand more about the world and familiarise themselves with new concepts, ideas, and situations (Gelman, 2009). The understanding of social interaction, together with developed knowledge about sexual acts and human sexual behaviour, which comes with age, has a huge effect on children’s reports of abusive acts (e.g. Brubarcher et al., 2013; Krahenbuhl, Blades & Westcott, 2010; Phillips, Oxburgh & Myklebust, 2012, Teoh, Pipe, Johnson, & Lamb, 2014). As children get older and heading into puberty, they are getting better at distinguishing between sexual and non-sexual behaviour, as well as abusive and non-abusive behaviour - something that may not be easily identified at younger ages (Krahenbuhl, 2008).

Autobiographical memories involve multiple memory systems, auditory and sensory information, as well as emotions (Williams, Conway & Cohen, 2008). The hippocampus, the medial and lateral prefrontal cortex, the medial and lateral parietal cortex, the amygdala, and sensory cortices within the occipital and temporal lobes are brain regions that are involved in autobiographical memory (Svoboda, McKinnon & Levine, 2006; Wheeler, Stuss, & Tulving, 1997). The medial prefrontal lobe has been perceived as one crucial aspect of autobiographical memory (Buckner & Wheeler, 2001; Gilboa, 2004;Moscovitch et al., 2005; Tulving, 1985; Wheeler et al., 1997), while the amygdala may give emotional and social significance to autobiographical memories (Ally, Hussey & Donahue, 2013; [Markowitsch & Staniloiu, 2011](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3432421/#R27)). Therefore, autobiographical memories are activations of multiple areas of the brain (Cabeza & St Jacques, 2007; Maguire, Mummery, & Buchel, 2000). These activations are reactivated upon the retrieval of these memories (Kahn et al., 2004; Kohler et al., 1998; Slotnick & Schacter, 2004; Vaidya et al., 2002; Wheeler & Buckner, 2003, 2004; Wheeler et al., 2000; Wheeler et al., 2006). During infancy and childhood, most of these brain regions are still developing and so, with age, children become more capable of effectively retrieving episodic autobiographical memories (Buckner, 2004; Gogstay et al., 2006; Newcombe et al., 2000; Newcombe, Lloyd & Ratliff, 2007; Raj & Bell, 2010;). This means that even though children can provide accurate autobiographical memories even from the age of two, older children and adults are better, compared to younger children, at producing autobiographical narratives and perform better when testifying about abusive/traumatic events.

*1.3.3 Gender*

There has been some debate about whether gender differences in autobiographical memories exist or not. While many studies have pointed out no gender differences with regards to autobiographical memory (Bauer, McAdams, & Sakaeda, 2005; ; McLean, 2005; Schlagman, Kliegel, Schultz, & Kvavilashvili, 2009; Strongman & Kemp, 1991), others have shown that gender differences could apply (Davis, 1999; Fujita, Diener, & Sandvick, 1991; Mullens, 1993; Seidlitz & Diener, 1998;). Some researchers have suggested that women and girls tend to perform better when asked to recall experienced events. Females usually provide more detailed and coherent accounts, while their recall is commonly characterized by vividness and emotional richness (Buckner & Fivush, 1998; Ely & Ryan, 2008; Flannagan & Baker-Ward 1996; Pillemer, Wink, DiDonato, & Sanborn, 2003; Stapley & Haviland, 1989;). Women are more likely to provide more detailed and more accurate accounts of autobiographical memories, especially where emotional (Davis, 1999; Fujita et al., 1991; Seidlitz & Diener, 1998) and negative emotional experiences (Ros & Latorre, 2010) are concerned. However not all studies have included for instance emotional loaded memories (either negative or positive) and thus, it is important to keep in mind that methodologies and aims of the studies have been varied a lot and those differences, gender having or not an impact on recall, could be attributed to methodological differences.

Differences between genders could also be attributed to societal influence and gender roles (Connellan, Baron-Cohen, Wheelwright, Batki, & Ahluwalia, 2000; Hittelman & Dickes, 1979; McClure, 2000). The upbringing of males and females often follows different patterns, which could result in differences in how the two sexes perceive the world and thus how they recall past events. Parent-child interaction and communication may be a factor influencing children’s understanding and perception of the world and self. For example, mothers tend to have lengthier conversations with their daughters than with their sons (Fivush et al., 2003; Reese et al., 1993, 1996), and also tend to be more supportive in their interaction with daughters compared to sons (Leaper, Anderson, & Sanders, 1998). As a result, children develop different forms and patterns of communication, with girls probably becoming more willing to participate in lengthier conversations.

Parents tend to have lengthier and richer conversations about emotions and feelings with girls rather than boys (Adams, Kuebli, Boyle, & Fivush, 1995; Fivush, Berlin, Sales, Mennuti-Washburn, & Cassidy, 2003; Kuebli & Fivush, 1992). As a result, girls may treat emotions and feelings in a different way than boys do and develop different skills when talking and understanding emotional states, which could later be reflected in children’s encoding and recall of autobiographical memories. Supporting this suggestion, Buckner and Fivush (1998) showed that girls’ narratives involve more emotionally charged words compared to boys. For example, girls make references to emotional states and feelings more often than boys, while women are more likely to have an increased reference to emotions in their narratives compared to males (e.g. Rice & Pasupathi, 2010). Therefore, even though gender has not always been identified as a factor influencing autobiographical narratives and testifying performance, any gender differences that do arise could be interpreted in terms of gender roles within society. As studies have taken place in different countries, the gender roles within societies will have varied and it may be difficult to produce a common answer regarding whether gender differences exist or not.

*1.3.4 Culture*

Children are introduced to story-telling and autobiographical memory from an early age, usually by their parents and carers, and make their first attempts to co-tell stories by the age of two (Miller, 2009; Miller, Cho & Bracey, 2005). Parents and carers typically share stories with their children about past events, which may be personal, familial, or historical. Story-telling and the autobiographical narratives recalled by parents help introduce the family and wider society to the child (Nelson & Fivush, 2004). Through these narratives, children start to explore the world. Their attempts mainly aim firstly towards their later integration into the family and then into wider society later (Fiese, Hooker, Kotary, Schwagler, & Rimmer, 1995). These constructed narratives shape the child and help define who the child is, while they also define and shape the child’s relationship with the world (Habermas & Bluck, 2000; Fivush, Habermas, Waters, & Zaman, 2011; Fivush, 2010; Nelson & Fivush, 2004). As a result, children’s autobiographical memories are influenced by our culture and society. Moreover, children, based on their experiences, will develop specific expected scripts and events which are considered significant and these may have an effect on autobiographical memory (Berntsen & Rubin, 2004), e.g. what children regard as important, which in turn affects autobiographical narratives (Peterson, 2012).

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Cultural variations may be observed, for example. Ji, Schwarz and Nisbett (2016) noted that because Western societies are more individualistic in nature, compared to collectivist Chinese society there are differences in the way that autobiographical memories are formed, stored and retrieved.Ji et al (2016) argued that Chinese people are more likely to define their self in relationship to society more than Americans do; something that could affect their autobiographical narratives. Therefore, it could be suggested that the way that people understand the self and the world, based on societal norms and beliefs, may influence autobiographical narratives and thus, testifying performance. Moreover, upbringing - and more precisely parent-child interaction - has an effect on children’s understanding of the self and the world as well as an effect on their interaction and communication with others. As culture usually shapes or even defines our behaviours and thoughts, cultural variations may have an impact on parent-child communication and children’s upbringing. Research suggests that parents’ communication is influenced by their culture and that parents from different cultural backgrounds tend to follow different patterns in their communication with their children; for instance, Mullen & Yi (1995) found that Caucasian parent-child communication included more references to past events then Korean parent-child conversations did. As a result, Caucasian children may be better trained in recalling past events compared to Korean children of the same age.

The age of the earliest personal memories varies in different cultures (e.g. MacDonald, Uesiliana, & Hayne, 2000; Peterson, Wang & Hoo, 2009; Wang, 2001, 2006). Peterson, Wang & Hoo (2009) reported that children from European Canadian descent could remember events from an earlier age compared to Chinese children. This difference might underline a difference in autobiographical memory as a whole, and suggests that autobiographical memory does not follow a universal pattern. Therefore, culture might have a significant impact on the nature and accuracy of autobiographical narratives retrieved by children, as well as on their testifying performance.

As autobiographical memory is the outcome of construction and reconstruction of information encoded and retrieved, issues concerning accuracy and suggestibility arise. In the case of testimonies, research has indicated that inaccurate and false information can become incorporated in an individual’s narratives, both in the case of children and of adults (Hyman & Billings, 1998; Hyman, Husband & Billings, 1995; Hyman & Pentland, 1996; Loftus, 1996; Roberts & Blades, 2000).

*Figure 1.1. Recalling an abusive event*

*Delay*

*Current emotional state*

*Cognitive & Linguistic capacities*

*Age*

*Identity*

*Scripts/Schemata*

*Interviewing style*

*Pre-retrieval*

*Gender*

Culture

Encoding

*Cognitive & linguistic capacities*

*Meaningfulness*

*Age*

*Stress*

*Emotional intensity*

*Frequency of abuse*

Activation storage

*Defence mechanisms*

*Shame*

*Guilt*

*Fear*

*Gender*

*Relationship to Perpetrator*

*Family*

*Society*

Retrieval

Disclosure

*1.3.5. False memory/Forgetting*

Forgetting is another important aspect of memory. Forgetting is usually perceived as a natural process occurring over time (Ebbinghaus, 1885), and has been usually associated with suggestive and misleading interviewing (Bruck, Ceci, & Hembrooke, 2002; Roberts & Powell, 2006). Further consideration of suggestive and misleading interviewing style is included in section 1.5.

Sometimes, forgetting may be unrelated to time and may be dependent upon other factors, such as identity or sense of self (Conway, 2005; Conway & Pleydell-Pearce, 2000; Harris, Barnier, Sutton, & Keil, 2010). Research on autobiographical memory has indicated that memory is goal-directed and selective in nature. Autobiographical memories are associated with the sense of self, and it could be said that they shape the self; however, the self also shapes autobiographical memory, so information that conflicts with an individual’s self, identity or an individual’s perception of their self might be forgotten (Conway, 2005; Conway & Pleydell-Pearce, 2000; Harris, Barnier, Sutton, & Keil, 2010). Children who have a less well-established sense of self and identity, such as younger children (Ceci, Kulkofsky, Klemfuss, Sweeney, Bruck, 2007; Ceci, Papierno & Kulkojsky, 2007; Farrar & Goodman, 1990; Quas et al., 2007; Scullin & Ceci, 2001;) have more limited autobiographical memories and this may result in greater recall suggestibility.

Children’s suggestibility may increase in the face of a complex/multiple event that is similar to other experiences, as well as later conversation and rumours. Young children have been found to be vulnerable in confusing multiple, similar events compared to older children (Farrar & Goodman, 1990; Price & Goodman, 1990; Roberts & Blades, 1998). A child may also be influenced by later information, natural conversation, or rumours about an experienced event, especially if the information is deliberately suggestive; they may incorporate this suggested information in their autobiographical narratives (Ackil & Zaragoza, 1995; Poole & Lindsay, 1995; Principe, Cheuson, DiPuppo, & Schinderwolf, 2012; Principe, Tinguely, & Dobkowski, 2007; Roberts & Blades, 2000).

Among studies of children’s memory, there are several methodological differences. Some studies have used real life events, and others have used narrative stories or videos, examples, sentences, logical interference and categorical materials. The content of these studies has varied from highly emotional to neutral, and from self-involving to non-self-involving; something that could explain the differences in the findings. For instance, memories of real-life, self-involving experiences may be organised differently in memory and provide different rates of resistance to suggestibility, rather than non-lived, non-self-involving experiences (Talmi & Moscovitsch, 2004; Talmi, Luk, McGarry & Moscovitsch, 2007; Thierry & Spence, 2004). As a result, it is difficult to measure children’s suggestibility, especially with regards to recalling abusive or traumatic events, which are difficult to study due to their sensitive nature.

According to Otgaar et al. (2013), adults prone to suggestibility, as they are more prone to thematic processing, which is highly associated with increased errors and false reports; something that has been previously suggested by both Fuzzy-Trace theory (Brainerd et al., 2008) and associative-activation theory (Howe et al., 2009). Therefore, it could be suggested that children, who are less prone in suggestibility due to thematic processing, as they still have underdeveloped themes, are not less capable of becoming accurate witnesses.

Fuzzy-Trace theory suggests that during a lived experience, two kinds of traces are stored: the verbatim and gist traces. Verbatim traces include specific event information, while gist traces relate to the meaning of the event. Gist traces can be better developed by adults and older children; they are longer-lasting and thus they are more likely to be used in retrieval and are highly associated with false reports (Brainerd & Reyna, 1998). It could therefore be suggested that adults and older children are more likely to produce or incorporate false information into their autobiographical narratives, compared to younger children due to underdeveloped gist traces.

Moreover, based on associative-activation theory, false memories could be attributed to associative activation of interconnected nodes in an individual’s knowledge base (Howe, 2005, 2006, 2008b; Howe et al., 2008); something that is more apparent in adults and older children rather than younger children. Again, based on this theory, it could be suggested that younger children, who are usually perceived as the least reliable witnesses, would have an advantage with regards to false reporting, compared to older children and adults.

In general, any relevant background experience to the event could act negatively on the recall accuracy related to that even. This is consistent with studies that have stressed an association between relevant background information, prejudices, and the creation of false reports/ contaminated memories (Hyman & Pentland, 1996; Hyman & Billings, 1998; Hyman, Husband & Billings, 1995). In cases of child sexual abuse, children are less likely to have relevant background information on the issue (Brilleslijper-Kater, Friedrich & Corwin, 2004) and thus would be less likely to provide contaminated memories - if no later suggestions from adults/interviewers have been made.

Also, highly emotional experiences, either positive or negative, are considered to have a different impact on errors relating to memory (Ceci & Bruck, 1993; Ceci, Loftus, Leichtman & Bruck, 1994; Hyman, Husband & Billings, 1995; Talmi, & Moscovitsch, 2004; Talmi, Lu, McGarry & Moscovitsch, 2007). Children are less prone to produce contaminated reports of emotional memories, either positive or negative, in comparison to neutral events and therefore, children’s accounts of sexual abuse - a highly negative emotional experience - may be less suggestible than their recall of other events (Engelhard, van den Hout & McNally, 2008; Harvey & Bryant, 2002).

Research has also indicated a difference between central and peripheral information of the recalled event; a lot of distorted information may be related to the peripheral aspects of an experienced event, rather than the central information. Central aspects of autobiographical narratives tend to remain the same, especially in emotionally loaded experiences (Engelhard, van den Hout & McNally, 2008; Gerrie & Garry, 2007; Harvey & Bryant, 2002; Reisberg & Heuer, 2004; Sutherland & Hange, 2001; Talmi, & Moscovitsch, 2004; Talmi, Lu, McGarry & Moscovitsch, 2007). Therefore, even though the possibility of false reporting is always incorporated in child testimonies, it is more likely to be part of the peripheral and less crucial information about the event. This means that child testimonies can be both valid and reliable from an early age and the great difference between young and older children, as well as adults would be the mainly the descriptiveness of recalled events.

*1.3.6. Emotional memories*

Studies have shown that compared to other types of memories, autobiographical memory always contains an emotional element, which makes autobiographical memory and its narratives unique in nature (Bluck & Habermas, 2000; Conway & Rubin, 1993; Nelson & Fivush, 2004;). As researchers have found, emotional content and the intensity of an experienced event, as well as its personal significance to the individual, have an impact on autobiographical memory, with respect to both recall (of the event) and the level of accuracy of recall (Dalgleish & Cox, 2000; Serrano et al., 2007).

Emotional memories have been perceived to be superior, in comparison to neutral memories, because emotional memories tend to be lengthier, more vivid and more accurate (e.g. Chen, Zelter, Graske & Katz, 2000). From a biopsychological perspective, emotional arousal and stress can have a positive impact on memory. During emotional arousal and stress, the hormones adrenaline and cortisol, which affect synaptic consolidation and therefore memory, are released into the brain (Roozendaal, & McGaugh, 2011). As a result, memory may be more accurately retained for a longer period of time. While a distinction between emotional and neutral memories has been drawn, differences in positive and negative memories have also been investigated (Burgwyn- Bales, Baker- Ward, Gordon & Ornstein, 2001; Chen, Zelter, Graske, & Katz, 2000 Peterson et al., 2012; Peterson & Parsons, 2005).

Children’s recall can be influenced by the child’s level of involvement, both physical and psychological, in the event to be recalled. Relevant literature suggests that memories of physically self- and non-self-involving incidents is stored and treated differently by children (Baker-Ward et al., 1993; Burgwyn-Bailes et al., 2001; Peterson et al., 2005; Shrimpton, Oates & Hayes, 1998), while the level of psychological involvement in the incident has also been believed to cause differences in recall.

Personal meaningful and self-involving experiences tend to be more likely to be retained and therefore autobiographical memories (which include such information) - especially those that carry a special meaning for the individual - are often well-retained (Burgwyn-Bailes et al,2001; Lindberg, Jones, Collard & Thomas, 2001; Peterson, Pardy, Tizzard-Drover, & Warren, 2005; Thierry & Spence, 2004; Talmi, Luk, McGarry, & Moscovitsch, 2007; Shrimpton, Oates, & Hayes, 1998). Lindberg et al. (2001) compared the recall of five-year-old children who either observed or actually experienced an inoculation. Children who were actually involved in the procedure were more likely to produce more accurate narratives.

Thus far, the literature on stressful events and memory has been contradictory, and there has not yet been a clear answer whether stressful and negative emotional events are remembered better or less well. Some studies have suggested that distress and memory are negatively associated and that children do not always provide consistent and accurate memories of stressful/traumatic events (Chen, Zelter, Graske, & Katz, 2000; Engelhard, Van den Hout, & McNally, 2008; Harvey & Bryant, 2002; Merrit et al, 1994; Schwarz, Kowalski, & McNally, 1993; Southwick, Morgan, Nicolav, Charvey, 1997), while there is a rise of distortions and increased errors (Strange & Takarangi, 2012; Peterson, 2011; Peterson et al., 2005; Ornstein et al., 2006; Waterman & Blades, 2013); others suggest that stress acts supportively (Peterson & Parsons, 2005; Burgwyn- Bailes, Baker- Ward, Gordon & Ornstein, 2001; Fivush, 1993, 1998; Howe, 2000). However, what has been made clear is that memories of stressful/traumatic experiences are unique in nature.

Adults and children can be affected by later misinformation in cases of stressful, life-threatening experiences and memory can be contaminated by misinformation. False reports could be incorporated into both children’s and adults’ accounts, especially in cases where the misinformation comes from familiar, trusted persons [(III](http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S016025271200088X?np=y), [Southwick](http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S016025271200088X?np=y), [Steffian](http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S016025271200088X?np=y), [Hazlett](http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S016025271200088X?np=y), & [Loftus](http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S016025271200088X?np=y), 2013). Therefore, any later conversation of the abusive event may have an effect on testimony. However, as noted above, in most cases, any differences in recall have been identified in peripheral information of the recalled event, and thus the central information of the event usually remains constant (Chen, Zelter, Graske & Katz, 2000; Christianson & Loftus, 1991; Gerrie et al., 2006; Gerrie & Garry, 2007; Lindberg et al., 2001; Peterson, 2011; Reisberg & Heuer, 2004; Sutherland & Hayne, 2001). According to Chen et al. (2000), the more negative an event is, the better the child will focus, retain, and remember the central, emotion-eliciting information of the event. The child, therefore, will be in a position to recall a lot of central information of the event, but he or she will be less prone to recalling peripheral and emotionally neutral information of the event. To gain a more accurate picture of the impact of highly emotional memories on children’s recall, researchers have suggested giving greater focus on studies’ methodological differences, e.g. lived versus non-lived experiences, and the level of involvement of an individual in the event (Strange & Takarangi, 2012).

However, there is great difficulty related to investigating emotional memories, due to ethical restrictions. Most research in this area comes from neutral and positive emotionally arousing events, and negative emotionally arousing events are not usually studied. A few researchers have assessed children’s memory of stressful/traumatic experiences by studying children’s injuries (Peterson & Whalen, 2001), medical procedures, which could also include genital touch (Brown et al., 1999; Goodman & Quas, 1997; Merritt, Ornstein, & Spicker, 1994; Quas et al., 1999; Salmon, Price, & Pereira, 2002; Saywitz, Goodman, Nicholas, & Moan, 1991; Goodman, Hirschman, Hepps & Rudy, 1991) and natural disasters (Fivush et al. 2004); but as those events happened before the experiment, the researcher has a limited amount of control on them, compared to experimental studies with live staged events. Therefore, it is difficult to compare real-life stressful events with staged events used in experimental studies.

In summary, it seems that in many instances, autobiographical narratives play a significant part in children’s lives (e.g. shape their self/identity, and the way they disclose personal experiences to others, including giving evidence to the police). There has been some skepticism related to whether or not human memory, especially child memory, can be trusted; however, evidence from relevant studies suggests the opposite (Benton, Ross, Bradshaw & Thomas, 2006; Wells, Memon, & Pedron, 2006).

Human memory is flexible and dependent on many factors (i.e. age, gender, culture). Children’s identity and sense of self, and their previous knowledge and established schemas (i.e. for objects, actions, people) can shape and reconstruct memory, from the stage of recording and storage to later recall. Recall is a blend of all these factors rather than the exact recollection of lived experiences. The accuracy and reliability of both adult and child memories should be equally questioned, due to their common constructiveness, as well as due to distinct traits that reduce reliability in each group. The only way to maximize memory’s credibility may be to put a greater focus on retrieval techniques, to get the best potential recall, in terms of quality and quantity of information.

With regards to child testimonies of abuse, it has been shown that emotional self-involving experiences and stressful/traumatic events, such as abusive events, can be well-retained in a child’s memory (e.g. Peterson et al., 2012; Peterson & Parsons, 2005; Peterson, 2002; Burgwyn- Bailes et al., 2001). Therefore, children’s autobiographical narratives of abusive/traumatic events may be perceived as trustworthy, if other factors, and especially interviewing techniques adopted during recall are well controlled.

**1.4 Disclosing or not**

*“Disclosure is not a one-way process. Children receive, process, evaluate, and react to information based on how adults respond to them”*

*Staller & Nelson-Gardell, (2005, p. 1423)*

Disclosure of an abusive personal experience is a long process, consisting of both conscious and unconscious procedures. It is based both on memory and its capabilities, and the willingness to disclose the abusive event. Some children do not disclose their abuse until adulthood (Berliner & Conte, 1995; Lamb & Edgar- Smith, 1994; Roesler & Wind; 1994; Sauzier, 1989). According to Bussey and Grimbeek (1995), disclosure is a complex interaction model which can be divided into four different processes. First, attention: children must have paid appropriate attention to the event in order to be able to disclose it later. This is followed by retention - the process of retaining any stored memories; then production, as children has to communicate appropriately and talk about the event to other people; and finally, motivation, children have to be motivated to disclose the event.

As already mentioned children are capable of retaining and recollecting traumatic and stressful memories; however, are they always capable of revealing these experiences? Children sometimes refuse to report being sexually abused, even in cases when there is further evidence to support this, such as physical evidence or photographs (Bidrose & Goodman, 2000; Leander, Granhag, & Christianson, 2005; Orbach & Lamb, 1999; Sjberg & Lindblad, 2002). This may be due to defence mechanisms, shame, feelings of guilt (Goodman-Brown, Edelstein, Goodman, Jones, & Gordon, 2003; Leander et al., 2005; Saywitz et al., 1991; Sjorberg & Lindblad, 2002), a fear of negative consequences (Sauzier, 1989) or because of negative emotions when recalling the abuse (Leander, 2010). Sexual abuse can result in feelings of intense shame, especially in older children, who are more aware of the societal view or taboo relating to the issue (Goodman-Brown et al.,2003; Saywitz et al., 1991). Feelings of shame and generally negative feelings towards the abuse may have an impact on disclosure and on an individual’s intent to disclose abuse and might act as inhibitors to disclosure.

*1.4.1. Age*

Most studies have shown that age has an impact on an individual’s intent to disclose abuse and disclosing tendencies. According to some researchers, older children are more likely to disclose sexual abuse and disclosure rates rise with age (Bussey and Grimbeek, 1995; Hershkowitz, Horowitz, & Lamb, 2005;). Other researchers suggest that younger children are more prone in delaying the disclosure (Kogan, 2004; Smith et al., 2000); in contrast, others have suggested that older children are more prone to delay disclosure (Goodman-Brown, Edelstein, Goodman, Jones, & Gordon, 2003). This delay may be attributed to the stronger sense of responsibility that older children have (Goodman-Brown et al., 2003). However, other researchers suggest that younger children may feel more responsible than older ones due to increased egocentrism, which can be defined as the difficulty of seeing an issue from another person’s viewpoint, i.e. the viewpoint of the alleged perpetrator (Hazzard, Celano, Gould, Lawry, & Webb, 1995; Piaget, 1932).

Apart from the sense of responsibility, several studies have also focused on children’s potential self-blame. Younger children may be more prone to self-blaming (Hazzard, Celano, Could, Lawry & Webb, 1995). This may be attributed to the fact that younger children do not have the appropriate background knowledge and cognitive abilities to comprehend abusive acts and may be influenced by adults’ words (e.g. the perpetrator induces feelings of self-blame in the child victim). However, other researchers mention that older children and adolescents are more likely to self-blame than younger children (Hunter et al., 1992), as they feel that they could have prevented it (Goodman-Brown et al., 2003). This difference could be attributed to the fact that Hunter et al.’s study was conducted on a non-clinical population, while the study by Hazzard et al. (1995) used a clinical population.

Therefore, age plays a role in disclosure. Younger children are more likely to avoid or delay disclosure, as they are not able to fully interpret the abusive experience and are influenced by others (Hazzard, Celano, Could, Lawry & Webb, 1995; Kogan, 2004; Smith et al., 2000;), while older children are more likely to disclose their abuse as they are able to understand it (Bussey & Grimbeek, 1995; Hershkowitz, Horowitz, & Lamb, 2005), but more likely to delay or avoid disclosure due to increased feelings of self-blame (Goodman- Brown et al., 2003; Hunter et al., 1992).

*1.4.2. Gender*

Gender is another factor affecting children’s disclosure. Girls are more likely to disclose sexual abuse than boys are (DeVoe & Faller; 1999; Gries et al., 1996; Lamb & Edgar-Smith, 1994; Ullman & Filipas, 2005). Male victims face a lot of barriers when it comes to disclosure of sexual abuse. Firstly, compared to female victims, males often have to deal with same-sex abuse, as most forms of abuse - both physical and especially sexual - are attributed to male offenders (Smallbone, Marshall, & Wortley, 2008). Sexual abuse by a same-sex perpetrator may lead to a confusion regarding the victim’s own sexual identity (Priebe & Svedin, 2008). This confusion together with the psychological impact of the abuse may therefore further prevent a victim from disclosure.

Male victims’ reluctance can also be attributed to gender roles and stereotypes. Boys usually avoid disclosure of abuse, especially sexual abuse, due to fear of being regarded as homosexual, and feminine-like. Masculinity, as defined by our society comes in conflict with victimisation and victim status (Alaggia, 2005; Browne, 1991; Durham, 2003; Holmes, Offen & Waller, 1997). Therefore male victims tend to avoid disclosure in their attempt to safeguard their masculinity, as masculinity does not comply with feelings of weakness, fear, despair, helplessness and vulnerability. Moreover, male victims might also be afraid that they will be perceived as potential offenders rather than victims (Priebe & Svedin, 2008), due to gender stereotypes. As a result, male victims may be in an unfavourable position for both dealing with and reporting abuse.

*1.4.3. Perpetrator*

The role of the perpetrator, as well as his/her relationship to the child, is another factor. Perpetrators can have a great effect on a victim’s intent to disclose abuse. Child abuse is usually linked to male perpetrators, though cases of sexual abuse involving female perpetrators are known (Blanchard et al. 2009; Goodyear-Brown et al. 2011). The profile of the perpetrator comes in addition to the widespread belief that perpetrators of child abuse differ from ‘ordinary’ men do. In fact, they may successfully form other relationships either heterosexual or homosexual, and become partners and even parents (Chenier 2010). According to van Dam (2001), perpetrators may build a reputable profile of the successful family man, so they can better disguise their behaviour. Therefore, when it comes to disclosure, the child victim has to deal with an adult, who is likely to be in a more authoritative position and one with a good reputation in wider society. This way, the child victim’s fear that they will not be believed by society and authorities increases, and he/she becomes more reluctant to disclose the abuse.

Firstly, perpetrators do not act in a rush; instead they often carefully select their victim and plan the abuse. In fact, they tend to base their selection of victims on a child’s apparent vulnerability and the probability of whether or not they will be exposed (Beauregard et al., 2007; Conte et al., 1989; Kaufman et al., 1998). If perpetrators believe they might be exposed, they usually make use of physical and psychological threats, either directly or indirectly ([Münzer et al., 2014](http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S0145213415000940#bib0220)). Despite the background relationship between the victim and the perpetrator, the perpetrators try to form close relationships with their victims before and during the period of abuse, and may often attempt to bribe children through gifts or special attention (Christiansen & Blake, 1990).

Then, the perpetrators tend to act methodically and perform one step at a time before they reach the point of actual abuse. By moving systematically, they make children more receptive to their touch and abuse, while they also aim to provide ethical justification of their actions in the eyes of their victims (Kaufman et al., 1998). Younger victims are not always in the position to understand the wrongfulness and immorality of perpetrators’ acts towards them and may perceive their actions as ‘normal’ and justified based on current circumstances, e.g. the perpetrator being exceptionally affectionate because they have a special relationship with the child (Cederborg et al. 2007). Therefore, children will be less likely to interpret the perpetrator’s behaviour as abuse.

In cases of interfamilial sexual abuse, children are less likely to disclose their abuse (DiPietro et al., 1997; Goodman et al., 2003; Hershkowitz et al., 2005, 2007; Smith et al., 2000; Sjober & Lindblad, 2002). In these cases, the fear of breaking up the family or of causing consequences for other family members may prevent children from disclosure. Fear can be thought of as one of the main reasons why children fail to disclose their abuse, regardless of age, gender, type of abuse, or their relationship with the perpetrator. Fear of the possible consequences of talking and/or the fear that they will not be believed make children unwilling to disclose (Hershkowitz et al., 2005; Sas & Cunningham, 1995; Sauzier, 1989).

*1.4.4. Victimisation and self-defence mechanisms*

Disclosing abuse is not a straightforward process with a finite well-defined beginning and end. Being a victim of abuse is not a simple state; rather victimisation is a continuing process. It emerges at the time of the abuse, or even earlier, in cases of multiple victimisation – for example, there may be a prevalence of victimisation in poor and deprived areas ([Staub, 1996](http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S0160252701000917#BIB61)) - and develops through time. Several studies have suggested that there is a link between victimisation in early years, such as child abuse, and mental health issues ([Goodman et al., 1997](http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S0160252701000917#BIB20); [Mueser et al., 1998](http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S0160252701000917#BIB44)). Victimisation is a process that influences an individual’s state of mind, perception, and beliefs regarding both the self and the external environment ([Janoff-Bulman & Frieze, 1983](http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S0145213403001893#BIB4)).

The initial step of dealing with victimisation and the point that is crucial to disclosure is the acceptance of victimisation. Victims of abuse often fail to think of themselves as victims (Martin, Anderson, Romans, Mullen, & O’Shea, 1993), because abuse may be a part of their everyday reality and thus is not perceived as abusive behaviour. This happens with victims of emotional abuse - a type of abuse commonly hidden from society, as there may not be tangible evidence that it exists (Foynes, Freyd & De Prince, 2009) - so victims may fail to label the perpetrator’s acts as abuse and themselves as victims.

Individuals who fail to label themselves as victims are less likely to report their abuse (Bottoms, et al., 2016; Littleton, Axsom, Breitkopf, & Berenson, 2006). According to Bottoms et al. (2016), when individuals do not perceive and label themselves as victims, they do not deal with their abusive experiences and tend to leave the abuse unreported. Thus, being able to accept victimisation may be a predictor of disclosure or of the intent to disclose.

Failure to self-label as a victim, however, may also be an outcome of self-defence mechanisms. Defence mechanisms were introduced by A.Freud (1937) and S.Freud (1894/1962) . Defence mechanisms are the unconscious processes that individuals go through to deal with the anxiety and frustration caused by the external environment (A. Freud, 1937). There are several defence mechanisms but the main two that might have an impact on disclosure of abuse are repression and denial. Studies on disclosure have suggested that victims of abuse may temporarily forget the traumatic experiences, and thus fail to disclose their abuse, because of defence mechanisms (Goodman et al., 2003). Victims of abuse who show signs of defence mechanisms are less likely to disclose their abuse (Bottoms et al., 2016; Goodman et al., 2003).

*1.4.5. Family*

Young children are prone to disclose abusive experiences to a parent or an adult they feel close to, while older children are more likely to make a disclosure to one of their peers (Crisma, Bascelli, Paci, & Romito, 2004; Hershkowitz et al., 2007; Jensen et al., 2005; Kogan, 2004; London, Bruck, Ceci, & Shuman, 2005, 2007; Paine & Hansen, 2002;; ). According to Priebe and Svedin (2008), while adolescents tend to disclose their abuse at least to one individual (81% of girls, 69 % of boys), they tend to disclose only to a peer of their own age and fail to confide in adults or make an official report or allegation (42% talked only to a friend of the same age). Children may be more likely to report a case of sexual abuse when their parents or caregivers are supportive (Elliott & Briere, 1994; Lawson & Chaffin, 1992; Priebe & Svedin, 2008).

Strong feelings within the family and a sense of familial unity may act as an inhibitor to the disclosure of child abuse. Familism, which is described by strong feelings of loyalty, unity and solidarity within the familial environment, could result in avoidance of disclosing abuse when it occurs within the familial environment (Triandis, Marin, Hui, Lisansky, & Ottati, 1982). Due to increased feelings of loyalty and solidarity, it becomes quite challenging for a child to disclose abuse because disclosure could affect the family negatively as a whole, as well as the perpetrator. When it comes to Greece, as well as other Mediterranean countries, this is of great importance, since familism is a major part of the culture (Bettio et al. 2006). Therefore, strong feelings of family unity may be inhibitory to disclosure.

*1.4.6. Society*

Another factor influencing an individual’s motivation towards disclosure of abuse is society itself. Everything - from people’s awareness of the topic, to gender roles within the society (see section 1.4. above), and the state’s policies on identifying, combatting, and preventing abuse - may have an effect. Abuse-related state’s policies, such as the ‘underwear rule campaign’ run by the European Union (NSPCC, 2016) may affect disclosure, while aftercare or support for the victim(s), possibly offered by the state, may further empower victims to disclose abuse, while the absence of support can act as an inhibitor.

Studies of adult abuse disclosure have indicated that there are differences in the patterns of disclosure in different cultures. Yoshioka, Gilbert, El-Bassel and Baig-Amin (2003) found differences in the disclosure of battered women based on their ethnicity. Women differed in the range of disclosure - how much they disclose or how likely are to disclose-, as well as in the recipient of disclosure.

*1.2.7. Abuse*

The frequency, and severity of abuse (e.g. multiple-case abuse could be more severe than cases of single abuse) may have an impact on children’s disclosure, as well as their motivation and willingness to disclose (Arata, 1994, 1998; Bottoms et al., 2016; Hershkowitz et al., 2007; Quas, Goodman, & Jones, 2003; Ullman, 2007). There has been no straightforward answer to how severity and frequency of abuse affect disclosure; some studies suggest that high levels of severity and frequency make victims more willing to disclose, due to the increased effects on their mental and physical wellbeing and their need for support (Bottoms et al., 2016; Hanson et al., 1999; Ullman, 2007), while other studies suggest that more severe and frequent abuse make victims less prone to disclosing (Arata, 1994, 1998; Hershkowitz et al., 2007; Quas, Goodman, & Jones, 2003).

In summary, disclosure is a complex process that is not just about children’s ability to retain and recall information. Disclosure is also about the victim’s intent to share their experiences with others and disclose their abuse. It can be affected by age (Goodman- Brown et al., 2003; Hershkowitz, Horowitz, & Lamb, 2005; Kogan, 2004; Smith et al., 2000) and gender of the victims (DeVoe & Faller, 1999; Gries et al., 1996; Lamb & Edgar-Smith, 1994; Priebe & Sedin, 2008 Ullman & Filipas, 2005), as well as a child’s sense of their victimisation, the frequency and severity of abuse (Arata, 1994, 1998; Bottoms et al., 2016; Hershkowitz et al., 2007; Quas, Goodman, & Jones, 2003; Ullman, 2007), the family (Elliott & Briere, 1994; Lawson & Chaffin, 1992; Priebe & Svedin, 2008) and wider society and the perpetrator (DiPietro et al., 1997; Goodman et al., 2003; Hershkowitz et al., 2005, 2007; Sjober & Lindblad, 2002; Smith et al., 2000). It is not evident how all these factors interact with victims’ intent to disclose their abuse, but it is clear that each can have an impact on the intent to disclose or not.

**1.5 Retrieving information from children**

*1.5.1. The interviewer*

The interviewer plays a vital role in children’s recall (e.g Davis & Bottom, 2002; Engelberg & Christianson, 2002; Nathanson & Saywitz, 2003). Quality interviews require highly trained interviewers who can follow and apply all the appropriate procedures and guidelines (Milne & Bull, 1999), but many interviewers fail to follow these procedures, even when they are aware of the interviewing procedures and their importance (Aldridge & Cameron, 1999; Davies & Wilson, 1997; ; Westcott & Kynan, 2006; ). During their study, Westcott & Kynan (2006) found that a third of interviewers failed to meet children’s needs, such as offering a break, and half even expressed disbelief about children’s allegations.

Children interviewed by supportive interviewers are more likely to provide accurate and credible information (Almerigogna, Ost, Akehurst, & Fluck, 2008; Davis & Bottom, 2002; Schwartz-Kenney & Rudy, 1991). A supportive interviewer is usually defined as one who creates a positive and supportive environment by establishing and maintaining a good rapport and by providing verbal and non-verbal encouragement, such as smiling, leaning forward, and adopting an open body posture (Almerigogna, Ost, Akehurst & Fluck, 2008; Engelberg & Christianson, 2002; Nathanson & Saywitz, 2003; Yeschke, 1993). Also, a neutral tone tends to elicit more accurate information (Thomson, Clarke-Stewart & Lepore, 1997). It is unclear whether children always perceive non-verbal signs in the way that adults do (Boyatzis & Satyaprasad, 1994) and children may face difficulty in associating emotions with non-verbal signs (Boone & Cunningham, 1998).

Children are more likely to provide accurate responses to someone with no prior knowledge of the event (Waterman et al., 2004). When children perceive the interviewer as someone with knowledge of the event, they may see the procedure more like a test and their responses are formed accordingly. Furthermore, an interviewer’s prior knowledge of an event may be responsible for the interviewer focusing on specific – ‘desired’ - aspects of the abuse. As a result, other forensically relevant information might be ignored.

The gender of an interviewer is a factor (Davies, Westcott & Horan, 2000; Lamb & Garretson; 2003); female interviewers tend to be more successful in eliciting lengthier accounts (Lamb & Garretson, 2003; Davies, Westcott & Horan, 2000) especially from female interviewees, due to their increased supportiveness towards the interviewees (Westcott, 1995). However, female interviewers may be more suggestive towards children (McCauley & Parker, 2001).

Even though there has been a lot of research on child testimonies and guidelines have been developed, several researchers have indicated that there is a gap between the interview guidelines and interview practice. Interviewers often fail to conduct interviews consistent with relevant guidelines and recommendations, even though appropriate background knowledge and training has been provided (Walsh & Bull, 2011). As a result, the quality of interviewing techniques cannot always be ensured. This may be attributed to the fact that interviewers may be driven by their own goals, which may be different from those outlined in the protocols (such as eliciting more forensically relevant information).

*1.5.2. Structured interviews*

Structured interviews have usually been adopted by law enforcement agencies for conducting interviews with children, and are the basis of several interviewing protocols, such as ABE and the NICHD (Ministry of Justice, 2011; Lamb, La Rooy, Malloy, & Katz, 2011). Structured interviews typically consist of four interviewing stages, the introductory/rapport phase, the free-recall, the main questioning phase and the closure.

*Introductory phase: Gaining rapport*

Rapport building is an element used in child investigative interviews that is suggested in most interview recommendations, guides and protocols (Hershkowitz, Orbach & Esplin, 2008; Memon, Wark, Bull, & Koehnken, 1997; Ministry of Justice, 2011; Saywitz & Camparo, 2014; Fisher & Geiselman, 1992). A forensic interview can be a stressful experience, especially for a young child who has no previous experience of police procedures. The more calm and assertive the child feels, the more accurate and credible information could be elicited (Siegman & Reynolds, 1984).

Disclosing personal and stressful experiences, such as inter-familial abuse, may be challenging for children (DiPietro et al., 1997; Smith et al., 2000; Hershkowitz et al., 2005, 2007; Sjober & Lindblad, 2002). Even though the child seems willing to disclose an incident of abuse, this does not indicate that the child is ready to testify. Disclosing sexual abuse may lead to feelings of shame and embarrassment (Lyon, 1995, 2002; Saywitz, Goodman, Nicholas, & Moan, 1991). The victim(s) may feel that they are responsible at least in part for the acts to be disclosed, and may also feel afraid of any potential negative effects of disclosure (DeYoung, 1988; Paine & Hansen, 2002; Palmer, Brown Rae-Grant, & Loughlin, 1999). This is one reason why establishing good rapport is important.

When the interviewer manages to establish good rapport (by creating a positive and supportive environment as previously defined) with the child, more accurate information could be retrieved during the interview (Fisher & Geiselman, 1992; Robert, Lamb & Sternberg, 2004; Sternberg et al., 1997; Weinstein & Roediger, 2012). The child may benefit from feelings of relaxation and trust, while minimising any feelings of fear and/or guilt could make the child more likely to disclose more information. An effective rapport has been linked to greater recall accuracy (Fisher & Geiselman, 1992; Robert, Lamb & Sternberg, 2004; Sternberg et al., 1997), as well as the reduced likelihood of misinformation and false reports (Weinstein & Roediger, 2012). An appropriate introductory phase may therefore increase the quality of elicited information, as it can have an impact on the child’s willingness to provide more detailed and accurate information (Saywitz & Goodman, 1996; Sternberg et al., 1997).

Practice recall, taking place during the rapport phase, can also be useful; during a practice recall, children get to practise discussing neutral topics and in this way, they may perform better when discussing more ‘difficult’, more emotionally charged/arousing issues later in the interview (Lindberg et al., 2003; Stenberg et al., 1997; Warren et al., 1999). Interviewers are always advised to include an appropriate introductory phase, including well-established rapport, before they discuss any emotionally loaded events, such as sexual abuse (Poole & Lamb, 1998). Therefore, when the children are asked to discuss more emotional, personal issues, they are better prepared and give better testimonies, more coherent, accurate and reliable (Lindberg et al., 2003; Stenberg et al., 1997; Warren et al., 1999).

*Truth/lie*

A lie is commonly defined as a false statement, which is used intensively by the speaker, and aims to deceive the recipient (Coleman & Kay, 1981; Lee, 2000; Talwar & Crossman, 2012; Talwar & Lee, 2008;). The inability of children to distinguish between truth and lies was once the grounds for doubting young children’s testimonies (Klemfuss & Ceci, 2012). However, nowadays, in most countries, children are able to testify even from the age of three (Myers, 1992; Ornstein, Gordon, & Larus, 1992), which might be linked to the age that children start to lie and thus understand the concept of lies (Peskin, 1992; Hala, Chandler & Fritz, 1991; Polak & Harris, 1999; Talwar & Lee, 2002, 2008). From the age of four, children are aware that lying is morally unacceptable and they tend to associate lies with bad feelings and feelings of guilt (Bussey, 1999; Talwar, Lee, Bala, & Lindsay, 2002). Older children are more likely to lie compared to younger ones as they have the ability to possess more complex motivations. They are better at effectively supporting their lies and avoiding inconsistencies (Ahern, Lyon & Quas, 2011; Talwar & Crossman, 2012).

However, according to Talwar & Crossman (2011), children’s lying is most commonly self-protective in nature and aimed at self-protection. Children are more likely to lie about misdeeds and wrongdoings (Newton, Reddy, & Bull, 2000; Wilson, Smith, & Ross, 2003) rather than any other more complex and ‘meaningful’ purpose, such as lying to cause harm to the alleged perpetrator or to mislead an investigation.

According to [Huffman](http://www.tandfonline.com.eresources.shef.ac.uk/action/doSearch?action=runSearch&type=advanced&searchType=journal&result=true&prevSearch=%2Bauthorsfield%3A%28Huffman%2C+Mary+Lyn%29), [Warren](http://www.tandfonline.com.eresources.shef.ac.uk/action/doSearch?action=runSearch&type=advanced&searchType=journal&result=true&prevSearch=%2Bauthorsfield%3A%28Warren%2C+Amye+R.%29), and [Larson](http://www.tandfonline.com.eresources.shef.ac.uk/action/doSearch?action=runSearch&type=advanced&searchType=journal&result=true&prevSearch=%2Bauthorsfield%3A%28Larson%2C+Susan+M.%29) (1999), discussing the distinction between truth and lies can result in more accurate information retrieved. Children swearing to speak the truth are less prone to lying, regardless of their age and motives (Talwar, Lee, Bala, & Lindsay, 2002). Therefore, an assessment of children’s understanding of the distinction between truth and lies and a brief discussion around the issue could have a positive impact on the quality of the information retrieved during a child’s testimony.

*‘Don’t know’/ ’Don’t remember’*

Children, especially younger ones, may not ask for further clarification or instructions to a question and are less prone to admitting that they do not know the answer to a question, even when they have received clear instructions to do so - that is, to explicitly state ‘I don’t know’ and/or ask for further clarification ([Fritzley & Lee, 2003](http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S0273229712000263#b0165); Fritzley, Lindsay & Lee, 2013; Peterson et al., 1999). Moreover, children tend to provide an answer even when they are unaware of the answer and also tend to provide too few ‘I don’t know’ responses when they are interviewed (Fritzley, Lindsay & Lee, 2013; Hughes & Grieve, 1980; Poole & White, 1993; Pratt, 1990; Waterman, Blades & Spencer, 2000, 2001, 2004). This may be because children do not like to admit their lack of knowledge or their inability to understand a question (Goody, 1978; Siegal, 1997), and may be less likely to realise that they have not fully understood the question being asked (Saywitz, Shyder & Nathanson, 1999).

In forensic contexts, the ‘conversational rule’ for children is different from the already known ‘conversational rules’ taught in school or at home. Children are taught to think that adults have a greater knowledge of the world than themselves. Therefore, children may be suggestible to adults’ questions or assertions (Hughes & Grieve, 1980). Yet this greater knowledge that adults are believed to have does not apply in the case of a forensic interview and children need to be told that the interviewer does not know about the events that they are asked to describe. Children provide more accurate ‘don’t know’ responses, when told that the interviewer has no knowledgeable prior information of the incident (Waterman et al., 2004). Therefore, pre-interview instructions asking the interviewer to clarify that the child is the only person with full knowledge of the event should have a positive impact on the quality of the testimony (Waterman & Blades, 2011).

Interviewers should also encourage children to state that they do not know, or do not understand, or do not remember when necessary, while also disputing any false suggestions made during the interview (Lamb, Stenberg & Esplin, 1995). Children’s proneness to providing inaccurate information may be linked to metacognitive processes. To be able to avoid any false statements, children have to monitor the information they have available regarding the event, identify any possible missing information, and translate that missing information into ‘don’t know’ responses (Ghetti, 2003; Ghetti & Alexander, 2004; Roebers & Fernandez, 2002; Roebers & Schneider, 2005; Waterman & Blades, 2011, 20132013). This process, however, requires a lot of effort for a child and they may sometimes fail to provide appropriate ‘don’t know’ responses. In general, what should be kept in mind is that pre-interview instructions and the presence of a free recall phase seem to increase children’s appropriate ‘don’t know’ responses (Waterman & Blades, 2011).

*1.5.3. Interviewing style*

Children can be as accurate and reliable as adults, when interviewed appropriately (Krahenbuhl & Blades, 2006). Interviewing style and structure has an impact on children’s testimonies and could influence the amount of information elicited, as well as the accuracy of the information elicited, either negatively or positively.

*Open-ended questions*

Open-ended questions are more effective in eliciting autobiographical information (Bull, 2010; Myklebust & Bjørklund, 2009; Orbach & Lamb, 2001; Cederborg & Lamb, 2008; Brown et al, 2012). In experimental studies, open-ended questions have been found to be the most effective means of questioning. Responses to open-ended questions tend to be less prone to suggestibility and errors, and are thus more reliable (Dent, 1982; Fivush et al., 2010; Goodman & Aman, 1990; Goodman, Hirschman, Hepps, & Rudy, 1991; Shrimpton, Oates & Hayes, 1998;). Studies of police transcripts support the notion that open-ended questions is the most effective means of retrieving autobiographical memories (Hershkowitz et al., 2004; Lamb, Sternberg & Esplin, 2000; Orbach & Lamb, 2000, 2010; Sternberg et al., 1997). For instance, in Sternberg et al. (1996), open-ended questions elicited responses that were four times longer and three times more detailed compared to any other type of questions asked.

The superiority of open-ended questions has been attributed to the fact that open-ended and free-recall questions activate recall memory rather than recognition, which is activated by closed-ended questions. Questions that probe recall memory tend to be more effective in retrieving reliable information, compared to questions probing recognition memory (Dent, 1982; Hershkowitz, Lamb, Sternberg, & Esplin, 1997; Lamb et al., 1996; Leichtman & Ceci, 1995; O’Callaghan & D’Arcy, 1989; Orbach & Lamb, 1999; Peterson & Biggs, 1997; Peterson, Dowden, & Tobin, 1999; ).

Even though open-ended questions have been thought to favour children’s autobiographical narratives, some studies have indicated that the accounts provided in response to open-ended questions may sometimes be limited and incomplete, especially in younger children’s responses (Cassel & Bjorklund, 1995; Goodman & Reed, 1986; Oates & Shrimpton, 1991; Shrimpton, Oates, & Hayes, 1998). As a result, in several instances, there is a need for more specific questions, to get more detailed information about the abusive/traumatic event.

*Focused questions*

Despite the superiority of open-ended questions, actual police interviews are full of focused questions, while open-ended questions tend to be just a small part of the interview (Cederborg, Orbach, Sternberg, & Lamb, 2000; Craig, Sheibe, Kircher, Raskin, & Dodd, 1999; Davies, Westcott, & Horan, 2000; # Sternberg, Lamb, Davies, & Westcott, 2001). More specific questions have been thought to be able to increase the relevant details provided by children yet they are associated with more errors (Davies, Tarrant & Flin, 1989; Dent, 1992; Peterson & Biggs, 1997; Peterson, Dowden & Tobin, 1999; Seidler & Howie, 1999).

As mentioned above, children may fail to provide the information required as they struggle to distinguish between relevant and irrelevant information. This is where the need for more specific questions comes in. With the use of more specific questions, the interviewer has the opportunity to lead children to focus on the information required for investigation. By setting children’s focus on relevant issues, the interviewers may be able to elicit more forensically credible information such as focus on a desired topic (Orbach & Lamb, 2000), thus focused questions may be more effective in eliciting specific information (Peterson and Biggs, 1997; Saywitz et al. 1991; Steward et al. 1996). However, their early introduction in the interview may cause an increase in false and inaccurate responses (Lamb et al., 2000).

Focused questions are usually needed as aids to improve children’s recall (Fivush, Gray, & Fromhoff, 1987; Goodman & Reed, 1986; Price & Goodman, 1990. However, they may result in information of lower accuracy and reliability, with an increased number of errors and false reports (Hershkowitz, Lamb, Sternberg, & Esplin, 1997; Hutcheson et al., 1995; Lamb et al., 1996; Leichtman & Ceci, 1995; Oates & Shrimpton, 1991; Orbach & Lamb, 1999; Peterson & Biggs, 1997; Peterson, Dowden, & Tobin, 1999; Sternberg et al., 1996). Focused questions may be also perceived as questions with lower credibility by a court, (Warren & McGough, 1996).

Errors in children’s accounts rise when children respond to closed questions and especially to yes/no questions (Peterson & Biggs, 1997; Peterson et al., 1999; Waterman, Blades & Spencer, 2000), even though such questions might be the most easily comprehended, especially by younger children (Aldridge & Wood, 1998). Some researchers found that in response to yes/no questions, children tend to provide yes-biased answers (Fritzley & Lee, 2003; Fritzley, Lindsay, & Lee, 2013; Okanda & Itakura, 2008; Okanda, Somogyi & Itakura, 2012), perhaps due to underdeveloped cognitive abilities (e.g. inhibitory control abilities) and social pressure (Alexander et al., 2002; Fritzley, Okanda, Itakura & Lee, 2011; Okanda, Kanda, Ishiguro, & Itakura, 2013; Okanda & Itakura, 2010; Scullin & Bonner, 2006). Other researchers suggest that children have a nay-saying bias (Peterson & Biggs, 1997) and others have suggested that there are no clear yes or nay biases held by children (Brady et al., 1999). In studies that included younger children (2-4 years old), children were more likely to be yes biased, whereas older children (4-5 years old and older) seem to be nay-saying biased (Fritzley & Lee, 2003; Fritzley, Lindsay & Lee, 2013; Okanda & Itakura, 2008; Okanda, Somogyi & Itakura, 2012).

Children sometimes use ‘yes’ and ‘no’ differently from adults. They may provide a negative answer based on their desire rather than on the actual fact. For instance, if a child wishes that something had not actually happened, he/she may provide a no response rather than a yes when questioned (Hummer, Wimmer, & Antes, 1993; Pea, 1980); something that might affect younger and older children accordingly. Children are also prone to providing inappropriate yes/no responses when they have not fully understood the question asked, usually avoiding asking for further clarification/ explanations (Waterman & Blades, 2000, 2001). Children may be confused with the words ‘yes’ and ‘no’ as they are with several other antonymous word pairs, such as ‘tomorrow’ and ‘yesterday’ or ‘before’ and ‘after’ (Greenfield & Smith, 1976).

In summary, young children are less likely to ask for further explanations and/or clarification when asked yes/no questions, and tend to always provide an answer, even in cases when they are unaware of the answer ([Fritzley & Lee, 2003](http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S0273229712000263#b0165); Fritzley, Lindsay & Lee, 2013). In general, the younger the child the more likely they are to provide inaccurate information when responding to closed questions (Poole & White, 1993). Nonetheless, a large proportion of questions in forensic interviews are closed questions (Davies, Westcott & Horan, 2000; Stenberg et al., 1996).

*Complex questions*

Simple questions compared to complex ones have proven to be more effective, and it seems that the use of simple questions increase children’s understanding and the amount of accurate information recalled (Carter et al., 1996; Imhoff & Baker-Ward, 1999; Katz & Hershkowitz, 2012; Saywitz et al., 1999). Children are not always able to understand complex questions, due to their limited cognitive capacities and as they are less likely to ask for further clarification (Saywitz & Goodman, 1996). Thus, they may provide more inaccurate or irrelevant information (Korkman et al., 2008; Perry et al., 2001).Children tend to provide responses even though they have not fully comprehended the question being asked (Waterman, Blades, & Spencer, 2004). Therefore, when complex questions are asked, children may end up providing false information.

*Language*

Children may sometimes face difficulties in understanding adult language, especially if specialised terms are included (e.g. legal terminology) and the younger the child the more difficulty they may have in comprehending adult language. Sometimes adults may also have difficulties in understanding children’s language ([Shuy, 1996](http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S0273229712000263#b0495)) and misinterpretations of children’s words might result in inaccurate inferences, that could be later be incorporated into follow-up questions and cause the distortion of information elicited, as inappropriate questions might be asked.

Moreover, it is quite important that the interviewer uses not just age-appropriate but also individual-appropriate language, as each child may possess different linguistic capacities and their vocabulary may vary. Interviewing protocols have suggested that the interviewer should assess a child’s vocabulary and linguistic capacities at the beginning of the interview and frame their questions appropriately, as in ABE (Ministry of Justice, 2011). Krähenbühl (2008) found that having to discuss sexual abuse allegations with children was the main reason that made an interview hard to carry out, especially when there were difficulties related to young children’s limited knowledge of the subject matter.

*1.5.4. Repetition*

*Repeated/multiple sexual abuse*

It has been quite apparent that memories of multiple, especially similar, events differ from memories of single events. It seems that both the storage and recall of these events works in different ways. This difference has been usually explained in terms of script memory/knowledge, source monitoring and confusion (Ackil & Zaragoza, 1995; Lindsay, Johnson, & Kwon, 1991; Powell et al., 1999; Roberts, 2002; Roberts & Blades, 1999; Roberts & Powell, 2001) and fuzzy-trace theory (Brainerd & Reyna, 1990, 1995, 2004). Children tend to confuse incidents in their later narratives when it comes to cases of multiple cases of abuse, as they may confuse information coming from different incidents.

*Repeated questions*

Repetition of questions within an interview is common, especially during the questioning stage and some questions may be repeated over the course of an interview several times (Krahenbuhl, Blades, & Westcott, 2005, 2010). Repetition of questions within an interview has been associated with decreased accuracy (Howie, Sheehan, Mojarrad, & Mrzesinka, 2004; ; Krahenbuhl & Blades, 2006; Krahenbuhl, Blades, & Westcott, 2005, 2010; Poole & White, 1991Siegal, Waters, & Dinwiddy, 1998; ). When repeated questions are asked, children tend to change their responses. Children may perceive repetition as a signifier of a false response, and think they need to revise their responses, which seems to be the case especially for younger children (Hartwig & Wilson, 2002; Howie, Sheehan, Mojarrad, & Wrzesinska, 2004). Children may change their response and provide an answer they perceive as suggested, or one that they believe will please the interviewer (Siegal, Waters, & Dinwiddy, 1988). There has been a distinction between the impact of repetition of open-ended and closed questions on children’s narratives and it has been suggested that greater emphasis should be given to suggestive and closed questions (Poole & White, 1991). In Poole and White (1991), repetition had no effect on the accuracy of children’s responses to open/wh- questions, but it caused a noted decrease in accuracy of the responses to repeated closed questions.

Children’s inability to perform well when interview questions are repeated has been attributed to the fact that children are not able to interpret different conversational contexts, such as a conversation within the school environment, compared to an investigative interview’s context. The context of forensic interviewing is not easily interpreted by children and children may react in the same way that they would react in school, where it is appropriate for teachers (adults) to use repeated questions as a way of learning; teachers usually repeat their questions to make children re-think and change their answers when necessary, and through that process learn (Kucuktepe, 2010). As a result, children tend to perceive repetition as a sign that their previous answer is false, and so, may attempt to make their responses ‘right’ by changing them.

*Repeated interviews*

In the legal system, repeated interviews may occur. Until a case reaches court, if it finally does, the persons involved, including child witnesses or victims, may have been interviewed several times (La Rooy, Katz, Malloy, & Lamb, 2010; Leander, 2010). In the past, a single police investigation may have involved 12 interviews (Ceci & Bruck, 1995).This is consistent with research in Greece that has suggested that multiple interviews with a victim are usually conducted before the case is closed (Themeli & Panagiotaki, 2014).

While the findings from studies on repeated questions are quite consistent, those from studies on repeated interviews are mixed. Multiple interviews can increase recall, rapport, and accuracy (Brubacher & La Rooy, 2014; Gilbert & Fisher, 2006; La Rooy et al., 2010; La Rooy, Pipe, & Murray, 2005; Stolzenberg & Pezdek, 2013;), as, over repeated interviews, children have appeared to be more willing to talk, and thus provide more detailed and accurate accounts. Repeated interviews may be associated with increased recall due to reminiscence and hypermnesia. Reminiscence is the recall of new information not previously elicited, while hypermnesia is the increased recall of information during multiple interviews. Some studies have shown that more information is recalled in multiple, subsequent, interviews compared to a single interview (Fivush et al., 2004; Gilbert & Fisher, 2006; La Rooy et al., 2005; Peterson, 2011; Sales et al., 2005;).

However, other studies show that multiple interviews can result in the opposite, and that multiple interviews are detrimental to children’s recall. Multiple interviews can increase children’s suggestibility and false statements (Bruck, Ceci, & Hembrooke, 2002; Pipe & Wilson, 1994; Quas and Schaaf, 2002), while the delay between interviews could increase children’s inaccuracy due to distortion (La Rooy et al., 2007; Ornstein et al., 2006; Shrimpton et al., 1998; Waterman & Blades, 2013). Therefore, it is not clear whether repeated interviews over a period of time will impair or benefit children’s testimony.

To some extent, the effects of repetition depend on the style of questioning. When open-ended questions are used, and no misinformation or suggestion is included, repetition may increase the amount of information retrieved, but when misinformation and leading questions are included, the level of error increases (Ceci, Huffman, Smith, & Loftus, 1994; Gobbo, 2000; Leichtman & Ceci, 1995; Poole & Lindsay,1995; Principe, Ornstein, Baker-Ward, & Gordon, 2000; Quas & Schaaf, 2002; ]). Therefore, it can be concluded that the repetition on its own may not be responsible for the influence on children’s performance but rather the interview techniques adopted by the interviewers (Poole & White, 1995).

*1.5.5. Delay*

A time delay has been found to mainly impact negatively on child memory i.e. to lead to an increased number of errors (Goodman & Melinder, 2007; Goodman & Quas, 2008; Paz-Alonso & Goodman, 2008; Schacter, 2001; Gordon, Baker-Ward & Ornstein, 2001). With the passage of time, memories may be distorted or forgotten, (La Rooy et al., 2007; Ornstein et al., 2006; Shrimpton et al., 1998). While delay has been linked with distorted reports in general, young children seem to be the most affected by delay. For example, Salmon and Pipe (1997) conducted an interview with children (four to seven years old) one year after watching a staged live event and found a negative association between the delay and the amount of information retained by younger children, as well as with the accuracy of information. In similar studies, Jones and Pipe (2002) and LaRooy, Pipe, and Murray (2007) tested children’s accounts 6 months after they watched a live event and suggested a negative association between the time delay and accuracy.

In contrast, there may be occasions when delay has little or no impact on children’s recall. According to Fivush et al. (2004) children show a remarkable ability to recall stressful and self-involving events, even after a long delay. Their research revealed that young children (three to four years old at the time of the event) could provide accurate and detailed accounts of a natural disaster even 6 years after its occurrence. Similarly, research conducted on past experiences of stressful medical examinations has shown that children’s memory can be long-lasting (Baker-Ward et al., 1993; Burgwyn-Bailes et al.2001; Peterson, Pardy, Tizzard-Drover, & Warren, 2005; Shrimpton, Oates, & Hayes, 1998).

However, it should be noted that a lot of researchers have once again pointed out the importance of interviewing style and techniques adopted during the interviews. For instance, Waterman and Blades (2013) indicated that children’s recall, after a long delay, was different depending on the interviewing style. After a delay, children were more likely to give inaccurate responses to yes/no questions compared to open-ended ones. The study also stressed that unanswerable questions were more likely to be answered inaccurately after long delays and children were more likely to guess rather than say that they did not know the answer to the question being asked.

Other researchers have stressed that individual differences could also play a crucial role in the way that delay affects children’s performance. Jack, Simcock & Hyane (2012) found out that even after a six-year delay some children were in the position to provide accurate reports, while other children failed to do so. In that study, age was not associated with children’s performance, as some younger children were able to accurately recall the experimental event, while some older ones were not, therefore it seems that other factors were responsible for the differences between children’s performance. Based on other studies, which have identified other possible influential factors, it could be suggested that these differences may be attributed to individual differences, such as self-confidence (Waterman & Blades, 2013) or parenting style (Burgwyn-Bailes, Baker-Ward, Gordon, & Ornstein, 2001). However, as delay has more often been linked to distortion, delay between the abusive event and the interviewing should be minimised.

In summary, the interviewer’s skills and abilities have a major impact on children’s testimony (Davis & Bottom, 2002; Engelberg & Christianson, 2002; Goodman, Bottoms, Schwartz-Kenney, & Rudy, 1991; Nathanson & Saywitz, 2003), including the interviewer’s supportiveness (Almerigogna, Ost, Akehurst, & Fluck, 2008; Carter, Bottoms, & Levine, 1996; Davis & Bottom, 2002; ), the interviewer’s gender (Davies, Westcott, & Horan, 2000; Lamb & Garretson; 2003) and their interviewing style.

In terms of interviewing style, rapport (Fisher & Geiselman, 1992; Hershkowitz, Orbach, & Esplin, 2008; Memon, et al.,,1997; Poole & Lamb, 1998; Saywitz & Camparo, 2014; Sternberg & Esplin, 1998;) and ground rules (Ghetti, 2003; Ghetti & Alexander, 2004; Roebers & Schneider, 2005; Talwar, Lee, Bala, & Lindsay, 2002; Waterman & Blades, 2011, 2013) both have a positive impact on child testimonies, and lead to increased accuracy in children’s narratives.

The use of open-ended prompts (e.g. Brown et al, 2012; Bull, 2010; Cederborg & Lamb, 2008; Cederborg et al., 2008; Myklebust & Bjørklund, 2009), compared to more specific and complex ones (Carter et al., 1996; Imhoff & Baker-Ward, 1999; Katz & Hershkowitz, 2012; Saywitz et al., 1999), increases children’s recall accuracy. However, the use of more specific questions in a testimony is inevitable, as it is usually the only effective way of eliciting the detailed and specific information needed for an investigation (Orbach & Lamb, 2000; Peterson and Biggs, 1997; Saywitz, et al. 1991; Steward, et al. 1996); however, the time of introduction of more specific questions during an interview should be carefully considered (Lamb et al., 2000).

Delay between the interview and the alleged event has been negatively linked with accuracy in child testimonies (e.g. Goodman & Melinder, 2007; Goodman & Quas, 2008; Gordon, Baker-Ward & Ornstein, 2001; Poole & White, 1995; Quas et al., 2007), as has repetition of events (e.g. Ackil & Zaragoza, 1995; Lindsay, Johnson, & Kwon, 1991Roberts, 2002; Roberts & Blades, 1999;), of interviews (e.g. Bruck, Ceci, & Hembrooke, 2002; Pipe & Wilson, 1994; Quas and Schaaf; 2002) and of interview questions, especially repetition of specific questions (e.g. Krahenbuhl & Blades, 2006 Krahenbuhl, Blades & Westcott, 2010). However, there have been some contradictory findings about repeated interviews, as recalled information may sometimes increase between interviews (Fivush et al., 2004; Gilbert & Fisher, 2006; La Rooy et al., 2005; Peterson, 2011Sales et al., 2005), possibly due to reminiscence and hypermnesia; something that is important as child witnesses tend to be interviewed several times in some countries, including Greece (Ceci & Bruck, 1995; La Rooy, Katz, Malloy, & Lamb, 2010; Leander, 2010;Themeli & Panagiotaki, 2014).

What is important is that often interviewers fail to effectively follow interview recommendations and guidelines, even though they have been trained and should be aware of the interviewing procedures and their impact on children’s testimonies (Aldridge & Cameron, 1999; Davies & Wilson, 1997; Craig, Scheibe, Kircher, Raskin, & Dodd, 1999; Westcott & Kynan, 2006;). Therefore, it seems that ensuring the effective application of the recommended guidelines is something that should receive more attention.

**1.6 Interviewing techniques /Protocols**

*1.6.1. Verbal interviewing techniques*

One of the first written protocols/ guidelines for forensic interviews with children was the step-wise interview from Canada. The step-wise interview protocol had an impact on the development of the definition of ‘forensic interviewing’ (Yuille, 1988; Yuille, Hunter, Joffe, & Zaparniuk, 1993). Modern-day police officers in Western countries working in the area of child interviewing receive specialised training. Police departments in some countries follow specific sets of written guidelines/protocols, either on a local or a national level. In the UK, the first set of written guidelines for interviewing children, the Memorandum of Good Practice, was published in 1992. This was later - in 2001 - updated in the form of the Achieving Best Evidence guidelines, and last updated in 2011 under the same name.

While national practices vary a lot, the main structure remains quite similar in most countries that include written guidelines on their practice e.g., Bohannan et al., 2004; Scottish Executive, NICHD Protocol, MOGP, ABE). Most guidelines emphasize the use of open-ended questions and their effectiveness over other types of questions, while they suggest that focused questions - especially yes/no questions - should be avoided. It should be noted that, in some cases, focused questions are necessary for gaining specific missing details (Peterson & Biggs, 1997). Open-ended questions provide children with the opportunity to freely recall an event, without distraction. In these cases, children are more likely to provide accurate details, as well as credible testimonies (e.g. Akehurst, Milne, & Köhnken, 2003; Orbach et al., 2000; Quas & Schaaf, 2002). This has become apparent in studies of actual forensic transcripts (Korkman, Santtila, & Sandnabba, 2006; Lamb & Fauchier, 2001), as well as in experimental studies (e.g. Steward, Bussey, Goodman, & Saywitz, 1993). Furthermore, open-ended questions tend to increase children’s resistance to suggestibility and misinformation (Gee, Gregory, & Pipe, 1999; Gobbo, 2000; Holliday, 2003).

Most protocols divide the interview into phases: the introduction/rapport phase, the free-recall phase, the main interviewing phase and the closure phase. All protocols and guides provide description of each phase and often give examples of what each phase should involve. In some guidelines, there are detailed accounts relating to the interview environment, as well as the pre- and post- interview time.

Attempts to improve testifying performance led to the development of another interviewing method, the cognitive interview (CI) technique. Geiselman, Fisher, MacKinnon, & Holland (1996) introduced CI as a means of improving individuals’ recall in testimonies. CI was based on four techniques: 1. The context reinstatement of the event, in both external (external environment) and internal (psychological state) terms, 2. The ‘variety of perspective’ technique, where the individual is asked to recall event from a different perspective, e.g. through the eyes of another person, 3. The ‘changing of temporal order’ technique, where the individual is asked to recall the event in different chronological order, 4. The ‘report everything’ technique, where the individual is instructed to recall any information, even if it is non-salient, CI is an effective means of improving testimony (Memon, Meissner, & Fraser, 2010).

Fisher & Geiselman (1992) also introduced an enhanced cognitive interview (ECI). The main difference is that in the ECI the witness has a leading role in the interview procedure. Instead of following the interviewer, in the ECI the witness leads the interview. The interviewer tries to avoid any interruptions of witnesses’ recall and also focuses on the establishment of rapport.

Several modified versions of the cognitive interview have been developed through the years, aiming to gain the most from CI. Researchers have modified CI, in order to make CI more suitable for vulnerable witnesses, such as children, or to make it simpler and more applicable in practice (Davis, McMahon, & Greenwood, 2005; Dando, Wilcock, Milne, & Henry, 2009; Holliday; 2003a, 2003b). Holliday (2003a, 2003b) attempted to develop a more suitable version of CI for children, with ground rules included in the interview, following the rapport phase, while the ‘variety of perspectives’ technique was removed. Both Davis et al (2005) and Dando,

Wilcock and Milne (2009) excluded the ‘changing of temporal order’ and ‘variety of perspectives’ techniques from their modified versions and added more prompts and further recall. Dando, Wilcock, & Milne (2009) also replaced the mental reinstatement of context technique with a more simplified version. While, several versions have been developed, there has been a tendency to simplify the CI so it can be more easily applied in practice.

*1.6.2. Prop-assisted techniques*

Several interview aids have been adopted and used to assist interviewers to elicit more credible information. The literature on prop-assisted interviewing techniques is contradictory While a few studies suggest that props are effective in eliciting accurate information (Saywitz, Goodman, Nicholas, & Moan, 1991), others propose that they could have a negative effect on the child (Bruck, Ceci, Francoeur, & Renick, 1995; Bruck, Ceci, & Francoeur, 2000; Poole & Dickinson, 2011), and others have found that prop-assisted techniques have no effect on child testimonies (Salmon, Pipe, Malloy, & MacKay, 2012). Some other studies suggest that the effects of prop-assisted interviewing techniques are age-related, and thus older and younger children’s performance is affected in different ways (Lamb et al., 1996; Lindberg, Chapman, Samsock, Thomas, & Lindberg, 2003; Pipe & Salmon, 2009; Thierry, Lamb, Orbach & Pipe, 2005).

One type of aid uses anatomically detailed (AD) dolls and human figure drawings (Aldridge, 1998). AD dolls can be used to enhance child testimonies, because they help in the establishment of rapport, and can be used as a cue so that children can reconstruct abusive acts they would otherwise be unable to describe (Everson & Boat, 1996). But other researchers have found that AD dolls do not improve child testimonies, as they shift children’s attention to external objects, while increasing errors and inaccuracies (Bruck, Ceci, & Francoeur, 2000; Bruck, Ceci, Francoeur, & Renick, 1995).

Other toys have also been used as props in investigative interviews with children. Jones and Krugman (1986) indicated how toys could be used for the reconstruction of an event described by the child. In their study, toys such as a dollhouse, a car, and dolls were effectively used by the child to reconstruct her abduction. Actually, her account (while using the toys) was much more detailed. Toys may work as cues and can improve children’s recall as in the mentioned above; however, they can also have reverse effects due to, for instance, shifting children’s attention away from the event (Goodman et al., 1997; Nigro & Wolpow, 2004; Price & Goodman, 1990; Priestley & Pipe, 1997; Salmon, Bidrose & Pipe, 1995).

*1.6.3. Eye-closure technique*

Several studies have found a connection between eye movement and memory (Brunye, Mahoney, Augustyn, & Taylor, 2009; Lyle, Logan, & Roediger, 2008). Individuals tend to spontaneously avert their gaze from the person they are talking to and sometimes even close their eyes (Doherty-Sneddon, 2004; Doherty-Sneddon, & Phelps, 2005). Eye-closure has been used in investigative interviewing as it is a technique included in the cognitive interview (Fisher & Geiselman, 1992).

Eye-closure has been associated with increased accuracy during recall (Andrade & Eagan, 2011; Doherty-Snedddon, Bonner, & Bruce, 2001; Perfect et al., 2008 Wagstaff et al., 2004) for both children’s (e.g. Mastroberardino & Vredeveldt, 2014*)*and adults’ memory (e.g. Vredevelt et al., 2011). It has been associated with increased accuracy during both free and cued recall without any increase in errors (Wagstaff et al., 2004; Perfect et al., 2008) or even with a decreasing number of errors (Mastroberardino & Vredeveldt, 2014). While some studies have indicated the effect of eye-closure on visual memory (Vredeveldt et al., 2012; Vredeveldt et al., 2013), there is some evidence to support the notion that eye-closure affects both visual and auditory memory (Perfect et al., 2008; Vredeveldt & Penrod, 2013). As a result, its effect on the recall of autobiographical memories could be significant.

The effect of eye-closure on memory has been interpreted in various ways. According to the cognitive load hypothesis (Lavie, 2005; Lavie and Lin, 2009; Lavie and Tsal, 1994; Mastroberardino & Vredeveldt, 2014; Sweller et al., 2011; Vredeveldt, Hitch, & Baddeley, 2011), people’s - especially children’s - cognitive abilities are limited, as is the ability to cognitively multitask. Cognitive multitasking can result in impairment to any of our cognitive tasks. Therefore, if a witness is recollecting information about an experienced event and also receiving and assessing other environmental cues, such as a sound, at the same time, the witness’s recall could be impaired. When the individual keeps his/her eyes closed, any potential interference of environmental cues is limited and thus the witness may focus on one cognitive task, i.e. recalling past experiences (Bond & Titus, 1983).

Another possible explanation for the increased recall on eye-closure could be the increased motivation of the witness (Perfect et al., 2008). As Perfect et al. (2008) suggested, by introducing eye-closure technique to the witness and incorporating it into the interviewing procedures, witness motivation to provide effective recall may be increased.

In summary, several different interviewing techniques, aids protocols and guides have been designed and applied in order to improve children’s testifying performance and aid their recall.

**1.7 Overview of thesis**

The main aim of the present thesis was to investigate police current practices and procedures of police interviews with children in Greece. The first objective of the thesis was to explore current practices in Greece by conducting interviews with police interviewing personnel and analysing police interview transcripts (Chapter 2).

A second objective of the thesis was to investigate potential ways of improving police interviews with children in Greece and in other countries (Chapters 3 and 4). In chapters 3 and 4, the effect of the number of individuals present during interviews with children was investigated by comparing interviews with one, two, or three adults present. Chapter 5 includes a summary of the thesis’ findings, practical implications, and future research recommendations.

**CHAPTER TWO**

**Investigative interviews of alleged child abuse victims in Greece**

**2.1 Introduction**

Over the last decades, children’s autobiographical recall has received much attention. Numerous studies on the issue have been conducted, both in the laboratory and in the field. Field research on children’s autobiographical narratives consists of case studies on medical procedures and visits (e.g. Goodman et al., 1997; Howe, Courage, & Peterson, 1994; Melinder et al., 2010; Peterson & Bell, 1996; Peterson & Whalen, 2001; Quas, Bauer, & Boyce, 2004; Quas et al., 1999; Shrimpton, Oates, & Hayes, 1998), natural disasters (Bahrick et al., 1998; Fivush, McDermott Sales, Goldberg, Bahrick & Parker, 2004; Sales et al., 2005), and live staged events (Waterman, Blades, & Spencer, 2001; Waterman & Blades, 2013), as well as studies of actual police interview transcripts (e.g. Bidrose & Goodman, 2000; Goodman-Brown et al., 2003; Hershkowitz, Lanes, & Lamb, 2007; Krahenbuhl, Blades, & Westcott, 2010; Lamb et al., 1997; Leander, Granhag, & Christianson, 2005; London et al., 2007; Philips, Oxburgh, Gavin & Myklebust, 2012; Sternberg et al., 1996 ).

While researching police interview transcripts could be challenging as a procedure, due to the inaccessibility of data and the amount of time taken to gain access (e.g. Leander (2010) noted that it took more than half a year to get access to interview transcripts), the superiority of actual interview transcripts for researching children’s testifying competency is unquestionable. Usually, children’s eyewitness testimonies come in response to abuse and often sexual abuse, therefore children are forced to disclose highly personal, traumatic, and stressful information; however, this information and its effects on memory and testifying competency are incredibly difficult to replicate effectively in the lab environment and examined experimentally. Moreover, police transcripts can be a valuable means of gaining greater insight into current forensic interview practices and procedures in different countries. During the last decade, several studies have been conducted in different countries in this field, something that has provided researchers with a more global understanding of the phenomenon (e.g. Cedeborg et al., 2000; Korkman, 2008; Korkman et al., 2006; Lamb et al., 2007; Leander, 2010; Teoh & Lamb, 2013).

Studies on child eyewitness testimonies have been conducted in the UK (Brubarcher et al., 2013; Krahenbuhl, Blades, & Westcott, 2010; Phillips, Oxburgh, & Myklebust, 2012), the US (Lamb et al., 2000; Sternberg et al.,1996; Teoh, Pipe, Johnson, & Lamb, 2014), Finland (Korkman; 2008 Korkman et al. 2006), Israel (Lamb et al., 1996; Lamb et al., 2007; Katz & Barnetz, 2014), Norway (Myklebust, 2009; Myklebust & Bjørklund 2009; 2010), Sweden (Leander, 2010; Cederborg et al., 2000), Cyprus (Kyriakidou, 2012), Malaysia (Teoh & Lamb, 2011), New Zealand (Davies & Seymour, 1998) and Estonia (Kask, 2008). While the focus of each study was different, such as delay of disclosure and child’s informativeness, what is certain is that, despite national differences and practices in the field, police interviews with child victims of abuse in all countries share similarities with each other. This is an interesting point, especially if the differences in the training of interviewing staff and policies, such as the adaptation of an interview protocol, are considered.

Regardless of the country in which the interviews took place, the main connecting point is the interviewing procedure, the interviewing style and the question types applied. There is a tendency of investigative interviewers, regardless of what interviewing guides and protocols suggest, to focus more on closed questions, yes/no and forced choice questions (Korkman et al., 2006; Lamb et al., 2000; Orbach & Lamb., 2000; Sternberg et al., 1996). More specifically, in most studies, it has been shown that more than half of the questions asked by interviewers are closed questions and that open-ended questions, which are regarded to be the most effective means for retrieving rich and accurate information by children, are ignored (e.g. Goodman & Aman, 1990; Orbach & Lamb, 2001; Sternberg et al., 1996).

The age of children influences their accounted events. According to previous research, older children are more capable, due to better developed cognitive and linguistic abilities, to provide richer accounts of their abuse, regardless of question type and question content (Cedeborg et al., 2000; Hershkowitz et al., 2004; Lamb et al., 2000; Orbach & Lamb, 2007; Philips et al., 2012; Sternberg et al., 1996). Older children’s testifying performance superiority becomes more apparent in their responses especially to free-recall and open-ended questions (Sternberg et al., 1996). On the other hand, younger children tend to provide shorter and less descriptive accounts, due to limited cognitive and linguistic capacities. However, young children have been suggested to be as effective as older children, when it comes to the most salient information of past events, and thus what their accounts usually lack in details and peripheral information of the events, recalled (Brubarcher et al., 2013; Krahenbuhl, Blades & Westcott, 2010; Lamb et al., 2000).

There has been a debate on whether gender is a factor influencing children’s testifying performance. Females have thought to have autobiographical superiority and have been perceived able to produce lengthier and richer accounts compared to males (Ely & Ryan, 2008; Phillips, Oxburgh, Gavin, & Myklebust, 2012; Pillemer, Wink, DiDonato, & Sanborn, 2003; Taylor et al., 2000; Turton & Campbell, 2005). This has been attributed to gender stereotypes and to the way that males and females are raised within society (Fivush, Berlin, Sales, Mennuti-Washburn, & Cassidy, 2003; Rice & Pasupathi, 2010; Adams, Kuebli, Boyle, & Fivush, 1995). In contrast, other studies have failed to reveal any gender differences that affect children’s recall (Bauer, McAdams, & Sakaeda, 2005; Katz & Barnetz, 2014; Lamb & Garretson, 2003; Schlagman, Kliegel, Schultz, & Kvavilashvili, 2009).

Female interviewers have been perceived to be more effective than male interviewers and are more likely to be chosen for disclosure (Axinn, 1991; Westcott, 1995). Again, this has been frequently attributed to females’ more developed interpersonal skills and supportiveness (Westcott, 1995). It should be noted that supportiveness has also been suggested to be a factor influencing child testimonies. Increased supportiveness may have a positive effect on the child’s testifying performance - something that could also explain females’ superiority in interviewing (e.g. Davies, Westcott & Horan, 2000). As Lamb and Garretson (2003) revealed, the interviewer’s gender may have an effect on testifying performance on police interviews and can affect the outcome of an interview. More precisely, female interviewers can receive lengthier accounts, by both girls and boys; however, the accuracy of the increased information is questionable.

Another factor influencing disclosure of children seems to be the relationship between the victim and the alleged perpetrator. Child victims of abuse are less willing to disclose and talk about intrafamilial abuse, compared to cases when the alleged abuser comes from an extrafamilial circle (Leander, 2010; Ullman, 2007; Goodman-Brown et al., 2003; Sjöberg & Lindblad, 2002; [Hershkowitz et al., 2005](http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S014521341300224X#bib0110), [London et al., 2005](http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S014521341300224X#bib0180), [London et al., 2007](http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S014521341300224X#bib0185); [Pipe et al., 2007](http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S014521341300224X#bib0205)). This is usually attributed to increased fear of the potential negative impact of disclosure for both the victim and the rest of family as a whole, or that disclosure could have break apart the family (Goodman-Brown et al., 2003).

Although these findings have been replicated with adult survivors of abuse and with child witnesses, not all findings are in agreement with this. Some studies have revealed no association between the relationship between the alleged victim and perpetrator and disclosure (Leander, 2010; Leander et al., 2007). This difference could be attributed to methodological variations and differences. For instance, Goodman-Brown et al. (2003) focused on the intent to disclose abuse in their study, compared to the study conducted by Leander (2010), which focused on the avoidance and denial of information about abuse. Moreover, in cases of intrafamilial abuse delay of disclosure has seemed to be highly frequent. Therefore even if children manage to disclose their abuse, in cases of intrafamilial abuse they are more likely to delay it(DiPietro et al., 1997; Goodman et al., 2003; Hershkowitz et al., 2005, 2007; Sauzier, 1989; Sjober & Lindblad, 2002; Smith et al., 2000; Wyatt & Newcomb, 1990).

**Current interviewing practices and procedures in Greece**

In Greece, as it has already been previously mentioned in the general introduction, research in the field of interviewing young witnesses is limited. Current police practices and procedures on interviewing child witnesses remain unexplored. The only formal information with regards to police interviews with children in Greece comes from the relevant articles of the Greek Penal code.

**Greek Penal Code Procedure on child witnesses**

The legal procedures for cases that include child and adolescent witnesses or victims of sexual abuse, are clearly mentioned in article 226A of Greek Penal Code Procedure (Kodaxes, 1985). A brief summary is provided here:

1. A psychologist/ psychiatrist should be appointed as expert witness in cases of victims of child/ adolescent sexual abuse and maltreatment.
2. The child psychologist/psychiatrist must work closely with the police in order to prepare the child for the interview. The psychologist/psychiatrist uses proper diagnostic techniques in order to assess the child’s cognitive abilities and mental wellbeing and a written report is provided afterwards; the written report must be included in the case files.
3. Written transcripts and audiotaped recordings (when possible) of children’s testimonies should be kept. Audiotaped recordings will substitute the child’s physical presence in future procedures. (It should be noted that the second paragraph of the article 226 clearly mentions that if a witness is under the age of 18, the transcripts of the interview should be word-for-word and include both questions and answers).
4. The written transcript of the child’s testimony is read in the courtroom.

The present study focuses on police interviews with child witnesses in Greece. Police transcripts in Greece have never been studied before. Transcripts of interviews are handwritten, and therefore do not include the detail that would be expected in a video transcript; thus, research on such transcripts can only provide indications about police questioning, rather than establishing the exact nature of communication within an interview. Nonetheless, given the lack of any previous research, it was considered important to analyse whatever transcript material could be obtained.

Three interviews with police officers who interview child victims and one psychologist, currently employed by the same department in GADA (Attica General Police Headquarters), were conducted. Police interview transcripts with children, aged between 5 and 13 years of age, were analysed for questioning style (type of questions, interview phases) and for children’s responses. Information on the abusive incident and the people involved, such as the type of abusive act, the age and gender of victim and the relationship between victim and perpetrator, was also analysed.

As no previous studies in Greece were present, all aspects of current interviewing practices and procedures were explored. The study was designed to examine whether Greek police interviews with children are conducted similarly to those other countries, which have been previously studied (Cederborg et al., 2000; Kask, 2008; Korkman et al., 2006, 2008; Kyriakidou, 2012; Lamb et al., 2007; Leander, 2010; Myklebust, 2009; Myklebust and Bjørklund, 2009; 2010). In addition, some pilot interviews were conducted for providing more information on current practices and procedures (2A).

The following aspects of the interviews were considered - the categories are based on interview guides and protocols, such as ABE (Ministry of Justice, 2011), or the NICHD (Lamb et al., 2011):

1. Interviewing procedure
2. Interviewing room/environment
3. Interviewing equipment
4. Interviewer/s
5. Use of recording equipment
6. Mental health professionals’ involvement
7. Interview structure
8. Interview phases.
9. Introductory phase structure and content (length, ground rules, free-recall practice, rapport).
10. Closure phase structure and content (neutral questions, contact information)
11. Interview length.
12. Interviewers’ consideration of children’s age, cognitive functioning and abilities.

The type of abuse was also examined:

1. Type of abuse
2. Gender of the victim
3. Age of the victim
4. Gender of the perpetrator
5. Victim’s relationship with the perpetrator
6. Age of the perpetrator
7. Frequency of abuse
8. Time of disclosure

It was hypothesised that:

1. Based on previous research, there would be more yes/no and forced choice questions compared to ‘tell me’ and wh- questions (Korkman et al., 2001; Lamb et al., 2000; Orbach & Lamb., 2000; Sternberg et al., 1996).
2. Based on interview guides and interview practice worldwide, interviews would be distinguished into different phases, including: introductory, free-recall, questioning, and closure as in ABE (Ministry of Justice, 2011) or the NICHD (Lamb et al., 2011).
3. Introductory and free-recall phases would include mainly open-ended questions and a limited number of more closed questions, as interview guides - such as ABE (Ministry of Justice, 2011) or the NICHD (Lamb et al., 2011) - indicate and as previous research has shown (Cederborg, Orbach, Sternberg, & Lamb, 2000; Craig, Sheibe, Kircher, Raskin, & Dodd, 1999; Davies, Westcott, & Horan, 2000; Lamb, Hershkowitz, Sternberg, Boat, & Everson, 1996; Lamb, Hershkowitz, Sternberg, Esplin et al., 1996; Walker & Hunt,1998).

For children’s responses it was hypothesised that:

1. The amount of information elicited would be associated with the type of question being asked; and that open-ended questions will elicit more information compared to wh-, closed-ended, and yes/no questions (Korkman et al., 2001; Lamb et al., 2000; Orbach & Lamb., 2001; Phillips, Oxburgh, Gavin, & Myklebust, 2012; Sternberg et al., 1996).
2. Children would show uncertainty about spatial information, as children’s knowledge of these terms is being developed up to the age of 13 (Friedman, 1990, 2014; Lourenco & Frick, 2014)
3. Older children’s responses would be longer and more detailed (Cedeborg et al., 2000; Hershkowitz et al., 2004; Lamb et al., 2000; Orbach & Lamb, 2007; Philips et al., 2012; Sternberg et al., 1996).
4. Children’s informativeness would be associated with their relationship to the perpetrator: more specifically, the closer the relationship the perpetrator had with the child, the less informative the child would be (Goodman-Brown et al., 2003; [Hershkowitz et al., 2005](http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S014521341300224X#bib0110);Leander, 2010; [London et al., 2005](http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S014521341300224X#bib0180), 2007; [Pipe et al., 2007](http://www.sciencedirect.com.eresources.shef.ac.uk/science/article/pii/S014521341300224X#bib0205); Sjöberg & Lindblad, 2002; Ullman, 2007).
5. Female interviewers would be able to elicit more information, especially from female victims (Lamb & Garretson, 2003).

The study was divided into two parts. The first part includes interviews with police officers, who acted as interviewers in police interviews with children and a psychologist currently employed by the department, dealing with child witnesses. The role of the first part was supportive and its aim was to provide information with regards to contemporary interviewing practices and procedures in Greece, as no previous research existed on the topic. The second part involves the analysis of police interview transcripts of child witnesses in Greece.

**2.2A Methodology**

Sample

The sample included three semi-structured interviews with police officers, and one psychologist currently employed by the Department of child witnesses in the Attica General Police Headquarters (G.A.D.A.) in Greece. All participants were males, except one female, who was a police officer. The selection was random, based on their availability and consent to take part in the study. All officers and psychologists (currently two in the department) had been informed by the police about the aims of the study and were invited to participate. Participants, both before and during interviews, were told that they could withdraw from the study, at any point of the study.

Procedure

The interviews were all conducted at the Attica General Police Headquarters, at a time suitable to interviewees in an office available at the time of the interview. They were all conducted within a period of one week by the principal investigator. The interview duration ranged from 45 to 95 minutes. Prior to the start of the interview (see interview rationale) all interviewees had informed about the purpose of the study, as well as investigator’s background and had consented to their involvement on the study. As filming or audio recording was not authorised within the Attica General Police Headquarters (G.A.D.A.), note-taking was used. Aim to retain as much information as possible form the original dialogue sometimes non-verbal utterances were recorded (i.e. surprise).

Interview rationale

The interview rationale has been based on the rationale adopted by Kyriakidou (2012) and adapted accordingly. The interviews aimed to explore the significant points of an interview with a child as set by interview protocols such as ABE (Ministry of Justice, 2011), and the NICHD (Lamb et al, 2011).

1. Demographic information (age, gender, rank and training received)
2. First experience of interviewing a child
3. Interview preparation (room, staff present, exploring staff roles, etc.)
4. Description of a typical interview
5. Interview structure (interview phases, question types, language, duration etc.)
6. Follow up/Repeat interviews
7. Interview recording procedures
8. The role of the psychologist
9. Children’s ability to testify
10. Interview aids (drawings, anatomically detailed dolls, etc.)
11. Interview protocols/guides

The main aim of the interviews was to inform the researcher about the contemporary practises and procedures on interviewing child witnesses in Greece, as no research on the topic was available. Therefore, any conclusion drawn by the interviews would support and inform the study, by providing information on the field.

**2.B Methodology**

Sample

Fifty-one (n=51) police interview transcripts with children in Greece have been collected from Athens First Instance Court, Heraklion First Instance Court, Athens Appellate Court, and Athens Minors Court based on the year of the trial (2000-2012) and on criminal act (child physical or sexual abuse). Three (n=3) were excluded, as interview questions had not been included in the transcripts. The interviews were carried either in Athens (n=43) or in Crete (n=5).

Children were aged between 5 and 14 years of age (N=48, M=10.4, SD=2.5). Children were divided into three age groups: younger children aged between five and eight years (N=9, m=6.2, sd=.97), mid aged children aged between 9 and 12 years of age (n=14, m=9.7, sd= .73) and old children aged between 13 and 14 years of age (N=25, m=12.3, sd=.94). These age groups are in accordance with previous research on the field (e.g. Philips et al., 2012; Davies et al., 2000). The sample included twenty-eight males (n=28, Mean age=10.3, sdage=2.5) and twenty females (n=20, Mage=10.7, sdage=2.5).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Table 2.1 Type of sexual abuse by gender and age groups*  Children’s Ages | | | | |
|  | | **5-8 Years** | **9-12 Years** | **13-14 Years** |
| Girls | *Touching* | 3 | 7 | 4 |
| *Penetration Attempt* | 0 | 1 | 0 |
| *Penetration* | 1 | 4 | 0 |
| Boys | *Touching* | 5 | 8 | 2 |
| *Penetration Attempt* | 2 | 1 | 1 |
| *Penetration* | 0 | 4 | 2 |

Cases have been also divided by the nature of the abuse: twenty-nine cases of touching (Mage=10.1, SDage= .50), five cases of penetration attempts (Mage= 9.6, SDage= 1.1), eleven cases of penetration (Mage= 10.9, SDage= 0.6) and three cases of physical abuse (Mage=12.7, SDage= .60). Touching cases included 15 boys, 5 young, 8mid aged, 2 old, and 14 girls, 3 young, 7mid aged, 4 old girls, - while cases of penetration attempt consisted of 4 boys, 2young, 1mid aged, 1old,and 1 girl, mid aged. Cases of penetration included 6 boys 4 mid aged, 2 old, and 5girls, 1young, 4 mid aged. l All the cases of physical abuse were disclosed by boys (n=3) (table 2.1).

Most perpetrators have been reported to come from the familial or close social circle of the child. More than half of the children disclosed abuse conducted by a family member or a close friend (n=25), while there were fewer cases involving a known perpetrator (n=17) or completely unknown (n=6) person. The sample included 25 cases of interfamilial abuse, in which the alleged perpetrator was a family member; 17 cases of alleged abuse caused by a familiar person, in which the alleged perpetrator was a person previously known to the child; and 6 cases of extrafamilial abuse committed by a person previously unknown to the victim. From the alleged victims who disclosed interfamilial abuse 12 were girls and 13 were boys; while 14 girls and 3 boys disclosed abuse, committed by a familiar person; finally, 2 girls and 4 boys disclosed extrafamilial abuse. In the interfamilial abuse cases, the alleged victims consisted of 4 young, 15 mid aged, and 6 older children; in the cases of abuse committed by a familiar person, the alleged victims consisted of 4 young children, 10 mid aged and 3 older ones, while in the cases of extrafamilial abuse, disclosure was made by 3 younger children, 2 mid aged and 1 older child.

The transcripts have been coded in terms of the frequency of the disclosed event and have been divided into two different categories: single (n=21) and multiple frequency abuse (n=27). 14 boys and 7 girls disclosed single abuse, while 14 boys and 13 girls) disclosed incidents of multiple abuse. The age of victims disclosing single abuse ranged between 5 to 13 years of age (M=10, SD=.60), while the age of victims disclosing incidents of multiple abuse ranged between 5 and 14 years of age (M=10.7, SD= .45).

30 interviews were conducted by a female interviewer, while 18 by a male interviewer. Half of the interviews (n=15) conducted by female interviewers had a female interviewee, while the other half (n=15) by males. Male interviewers were more likely to interview male victims (n=13), in comparison to female interviewees (n=5). In order to examine the persistency of interviewers’ performance, five interviewers who conducted twenty-two interviews (n=22) have been identified (not all interviewers could be identified from the transcripts). Male interviewers interviewed 6 younger children, 10 mid aged children and 2 older children). Female interviewers interviewed 5 young children, 17 mid aged alleged victims and 8 older children.

The sample used for the study was unknown and only five police officers could be identified by the interview transcripts. The performance of the interviewers identified was not always persistent across interviews and therefore their interviewing skills could not predict the existence or the absence of interview phases (see table 2.2). It should be noted that police officers’ background and training may vary (e.g. police officers’ training is still being developed through the years).

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| --- | --- | --- | --- |
| *Table 2.2. Number of interviews that the interviewers who were identifiable used the specific interviewing phase (as coded by the researcher*  **Interviewing Phases Presence** | | | |
|  | **All phases** | **Some phases** | **Only**  **Phase** |
| **Officer 1** | 2 | 5 | 1 |
| **Officer 2** | 0 | 4 | 0 |
| **Officer 3** | 0 | 3 | 0 |
| **Officer 4** | 0 | 4 | 0 |
| **Officer 5** | 0 | 2 | 1 |

Three interviews with police officers, who currently work in the Department of child victims in Attica General Police Headquarters (G.A.D.A), and one interview with a psychologist currently employed by the same department were conducted. The interviews covered current practices and procedures in interviewing children in Greece, and considered staff concerns on the topic.

Procedure

In September 2012, a request was made to the Police Headquarters in Greece to collect and study police interview transcripts with children in Greece (2000-2013). As the research involved the collection of documents that included personal/sensitive information, research approval from the **Hellenic Data Protection Authority was also requested. The following courts were contacted for inclusion in the study: the Athens Court of First Instance, the Athens Appellate Court, the Athens Minors Court and the Heraklion Crete Court of First Instance. The process from application to receiving permission from the Hellenic Data Protection Authority took 4 months.**

All personal/sensitive information that could identify a victim or a perpetrator (name, address, etc.) was removed during the collection of the data to ensure anonymity and protect the identities of both victims and perpetrators, as well as any other individuals involved, in accordance with the regulations of the Hellenic Data Protection Authority. Due to the nature of the study, real names were replaced by nicknames where it necessary (e.g. to identify multiple interviews given by the same victim, interviews conducted by the same interviewer).

**The selection of the cities (Athens and Heraklion) was based partly on accessibility and partly for the following reasons. Athens courts were selected as Athens is the city with the most cases of child abuse recorded, while Heraklion is a smaller city with a lower rate of reported child abuse (Hellenic police Crime Statistics, 2011), which might provide a different viewpoint on both patterns of disclosure of child abuse and on interview techniques followed by the local police in smaller cities. After my application was reviewed by a magistrate of Athens Court, the Senior Presiding Judge of Athens Appellate Court, the Deputy Attorney of Athens Appellate Court, the Senior Presiding Judge of Athens Minors Court and the Senior Presiding Judge of Heraklion, Crete, permission to access the above files was granted separately and I proceeded with the collection of the research sample. The process from application to receiving permission for this and starting the data collection took 2 months.**

The filling system in Greek Courts was quite diverse and therefore different procedures were followed in each case. There was no electronic filing system for any of the courts that could be used to identify cases based on my search criteria, so I had to go through all cases’ archives one by one in order to identify cases of child abuse.

The focus of the search was narrowed to **cases of child abuse. The sample included cases of children testifying as victims of abuse or as witnesses to abuse. Most cases were cases of child sexual abuse (n= 48), while there were a few cases of child physical abuse (n=3). Three (n=3) were excluded from the sample due to unavailability.**

After the cases of child abuse were identified and the case files requested by either court personnel or myself, police interview transcripts had to be identified and extracted from the files to identify cases that could be analysed. After the careful selection of police transcripts, copies of the transcripts were produced and after names and all potentially identifying data had been removed, the copied transcripts were reviewed by court personnel, while the original were returned to the case files. This procedure was followed for each transcript collected for the purposes of the study. As police interviews with children in Greece are not videotaped, written summaries of interviews were the only materials available. The identification and collection of appropriate transcripts took 3 months.

**Coding**

Background information included demographic information about the victim, the perpetrator, the type of abuse and details about the interviewers. Demographic and background information included the victim’s age and gender, the alleged perpetrator’s gender, the type and frequency of abuse, the relationship between the victim and the perpetrator, and interviewers’ gender. Cases were also classified in terms of the city they were retrieved from and the interviewer who conducted the interview.

Coding was divided into two different categories: 1. transcripts were coded in terms of interviews (n=48) aiming on the exploration of the interview as a process and 2. Transcripts were coded in relation to question being asked (n=473), aiming on the exploration of question types and their effects to children answers. All interviewers’ words and prompts were coded as questions (e.g. ‘What happened there?’ or ‘And?’).

Coding and analysis of the interviews consisted of two categories: interview and response information. Interviews were coded for 1) interview phases in the interview, 2) length of the interview, 3) the type of questions asked.

The phases of the interview were coded on the basis of the ABE (Ministry of Justice, 2011) protocol:

1. The introductory/rapport phase should contain introductory and neutral information that should introduce the child to the interviewer, establish rapport, and maybe practise free recall. This phase should be in the early part of the interview (e.g. ‘Tell me what games you like to play?’).
2. The free-recall phase should contain questions and prompts for free-recall of the incident and should come before any other event-related questions (e.g. ‘tell me what happened’, ‘tell me why you are here today’).
3. The questioning phase contained the main part of the interview and any event and background information (e.g. ‘where were you at the time of the abuse?’, ‘was anyone else present during the offence?’).
4. The closure phase should be at the end of the interview and should contain questions, confirming the child had the chance to say anything, he/she could, and that the child has understand the later procedure (i.e. what happens next), which in some cases may involve further interviews with the child. Also, it could contain neutral discussions aiming to psychologically discharge the victim (e.g. ‘Is there anything you would like to add?’, ‘What is your favourite subject in school?’).

Because the interviewing phases were not really apparent in Greek interview transcripts (ABE, Ministry of Justice, 2011), when at least an element of an interviewing phase was apparent, this phase was coded accordingly, e.g. when an introductory question such as ‘Tell me about your family’ was made, the interview was coded as including an introductory phase.

Interviewers’ questions were coded in terms of:

1. The number of questions involved in each interview transcript.
2. The type of questions involved (Based on the categories developed by Lamb and colleagues, 1996; and adopted by other studies by Brubacher & La Rooy, 2014; Hershkowitz et al., 2004).
3. Open prompts (e.g. ‘tell me what happened’)
4. Wh- questions (e.g. ‘when did you meet him’, ‘where did you see him? Note that wh- questions were open-ended, and closed wh- questions were not coded as wh- questions-
5. Yes/no questions (e.g. ‘Did you see him often?’)
6. Forced-choice questions (e.g. ‘Did he put you there or did you get there by yourself?)

Content of questions

Questions were also coded in terms of their content. The categories have been based on previous studies (Kyriakidou, 2012; Leander, 2010; Oxburgh et al., 2010; Philips et al., 2012) as well as the interviewing patterns followed by police officers, as identified in the transcripts.

1. Pre-offence

Questions about incidents and actions which took place before the abusive event, e.g. ‘Where were you going?’, ‘What did you do after the incident?’.

1. Offence

Questions asking for descriptions of actions and individuals involved in the event (e.g. ‘What happened then?’, ‘What did you do then?’, ‘Who else was there?’).

1. Post-offence

Questions about incidents and actions which took place after the abusive event, e.g. ‘What did you do after the incident?’.

1. Disclosure

Questions about the victim’s prior disclosure of the abusive event, e.g. ‘Have you ever talked to anyone about the event?’.

1. Frequency

Questions about the frequency of the abusive event, e.g. ‘Has anyone else done anything like this before?’.

1. Time and place

Questions about the time and place of the abusive event, e.g. ‘Where did that happen?’, ‘What time did that happen?’.

Children’s responses

Children’s responses were coded in terms of the number of words and the quantity of information provided both in each transcript and for each question separately. Children’s responses were coded for the number of items of information provided, e.g. for ‘It was night and it was raining’ (night = 1 item of information, Raining = 1 item of information, therefore a total of 2 items of information). For ‘He was tall, he had black hair and black eyes’, there were 3 items of information. For ‘I was running, he stopped me, and he sat me down’ there were 3 items of information. Don’t know/don’t remember responses have also been noted.

Inter-rater reliability

To check inter-rating reliability of the items of information included in children’s responses, 20% of randomly selected transcripts were independently coded by a second rater. The second rater was a native Greek speaker who had received training before coding, but was blind to the research hypotheses. The inter-rater reliability for the raters was found to be Kappa = .914 (p <.001) for the items of information provided in children’s responses and Kappa= 1.0 (p< .001) for question types. Any differences are later discussed and resolved. No inter-rating reliability was conducted for the number of words included in children’s responses.

# Results

Results

When an allegation of child abuse is made to the police in Athens, the case is usually referred to the juvenile department of the Attica General Police Directorate (GADA). In other Greek cities, other than Athens and Thessaloniki, which is the second biggest city in Greece, allegations of child abuse are usually examined by the local police station where the allegation has been made.

Records of child testimonies were kept in the form of written transcripts (hand-written by the police officer during or after the end of the interview); unlike what is specified in Greek criminal law, interviews are never videotaped. Videotaping seems to be a controversial issue; one police officer that was interviewed thought that videotaping could provide a lot of information on a case (e.g. ‘body language’, ‘child’s emotions’), while others perceived videotaping to be problematic as a procedure. According to one of the participants, videotaping could cause issues in the courtroom, as any ambiguity could be misinterpreted by lawyers. According to him, lawyers could exploit a police officer’s lack of specialised training in the courtroom. Moreover, one of the participants mentioned that videotaping equipment has been used in a few cases and has been considered to act as an inhibitor on children’s performance, as it made children more nervous and decreased their willingness to talk about the abusive event.

There is a lack of specialised interview rooms therefore interviews with children are conducted in any offices that are available at the time of the interview, something that is problematic (all participants agreed). The lack of a child-friendly environment is an issue that seemed to be perceived as an issue of great importance by all participants. One participant mentioned that the rooms that interviews are conducted in are unsuitable and there are often interruptions by other staff members during the interviewing procedure, something that, according to him, could affect children’s testifying performance.

Transcripts of police interviews were hand-written and, as a result, were not word-for-word therefore their accuracy could be doubted. One participant mentioned that transcripts could be written at the end of the interviews and it is up to the police officer conducting the interview to choose when the transcript will be written. During the interview, there is always a second police officer present in the interview room who acts as a witness, usually remaining silent during the whole procedure. Police officers wear civilian clothes, instead of police uniforms. There is always a psychologist present, when possible. According to two of the participants, it is really difficult for local departments to have a psychologist present during an interview, as there isn’t a psychologist always at the station. In cases when a local station needs a psychologist, they employ one for the case from a list of mental health professionals (this list contains suitable and available mental health professionals). However, it is a time-consuming procedure, which is sometimes circumvented.

Before the beginning of the interview, police officers discuss the alleged event with the adult making the allegation (e.g. parent/ guardian/ teacher). According to one participant, this discussion provides them with useful information on the case and prepares them for the interview with the child. Based on this information, an interview plan is developed.

At the end of the interviewing procedure, the child is asked to review the transcript and agree to it, by signing it, together with the second police officer, who acts as a witness. According to participants, depending on children’s ability to read, transcripts are either read by the child, or are read out to them by the interviewer. Then if the child agrees that the content of the written testimony reflects his/her verbal testimony, he or she signs the transcript and the interview transcript becomes accepted as case evidence. Most of the participants mentioned that parents are sometimes present, while one of them mentioned that they try to avoid the presence of parents and/or guardians in the interview room, as it is easier for children to talk to them without any relatives or people they feel close to around.

According to participants, the duration of a police interview with a child victim of abuse may vary, but it usually lasts between one to three hours; the mean duration typically being around one hour. All participants mentioned that they give some time to rapport building at the beginning of an interview; however, this information does not usually become part of the interview transcript. One participant mentioned that they spend some time discussing neutral subjects and assessing the child’s cognitive and language abilities. They were all made references to a closure phase, also usually excluded from the interview transcripts, which aims towards the ‘child’s psychological recovery’ from the interviewing procedure (Participant 2).

According to Greek criminal law, a psychologist accompanies the child throughout the procedure, before and after the interview. However, in some cases, psychologists were present for only part of the entire procedure or not at all (according to Participants 1 and 4). Also, in cases when the child is believed to be unable to testify, he/she could be referred and interviewed by an experienced child psychiatrist, instead of a police officer. Interviews with parents or guardians might also be included in the procedure. It should be noted that compared to the interviews conducted by the police officers, interviews conducted by expert witnesses seem to be considerably longer.

Participants mentioned that children are usually asked about whether they wish the alleged perpetrator to be punished, even though this is not a prerequisite for the legal procedure followed. According to some participants, children feel better when discussing the potential punishment of their alleged abuser. All participants were positive towards the development of a written interviewing guide, which could act to supportive their work. One of the participants mentioned that sometimes uses the notes he has made over the years to ensure he will not forget to cover anything of great importance. Participant 1 said that as they primarily rely on practical guidelines passed from one officer to another, there is a great risk of adopting inappropriate techniques for interviewing children or to be led to false generalizations. They agreed that written guidelines would provide more specific and up to date information on the interview procedure that will be based on children’s needs, depending on their age, gender, and personal circumstances. According to one of the participants, a written interview guide could also provide them with a text to turn to for reference, in cases of uncertainty regarding the effectiveness of a method or the most effective way to deal with a complex case. Therefore, they think that a written interview protocol could improve the interviewing process and its outcomes, by having more informed personnel and give them something to refer to when needed.

None of the interviews contained all or most of the components of the interview stages as described in the ABE (Ministry of Justice, 2011). Therefore, the interview stages were coded in the presence of at least one element of an interview phase. Most interview phases in transcripts contained one or two elements that distinguished one stage from another, while none contained more than two elements of the interview phases, as described in the ABE (Ministry of Justice, 2011), e.g. the introductory phase included in most cases one to two background, rapport building questions, while it excluded ground rules, the distinction between truth and lies, and free-recall practice. However, in several cases, interviewing phases, excluding the questioning phase, were completely absent from some transcripts (n=3), while other transcripts contained only the closure and questioning phases (n=11), and only ten transcripts (n=10) included elements of all interviewing stages.

473 questions have been included in the 48 interview transcripts. Fifteen interviews (n=15) contained an introductory phase. Ten interviews contained one to two introductory questions (e.g. ‘tell me about your family’), three transcripts included three introductory questions, and two had five introductory questions. None contained other components of the introductory phase, as described in the ABE, such as ground rules, truth/lie distinction, or free-recall practice. Twenty-nine interviews (n=29) included a free-recall phase. The free-recall phase included a single question in all interviews, such as ‘Tell me what happened’, ‘Why are you here today?’, which prompted free recall. The closure phase was included in forty-one interviews (n=41) and was consisted of a single question, aiming to ensure that the respondent had no more things to say on the matter (‘Is there anything else you would like to add?’). The questioning phase formed the longest part of all the interviews. From a total of 473 questions asked in the 48 interviews, 359 were questions asked during the question phase. Thirty questions were asked during the introductory phase, 43 during free recall, and 50 during the closure phase.

A one-way ANOVA test was conducted to test the effects of the interviewing phases (introductory, free-recall, questioning, closure) on the number of words provided by children in their responses. The presence of interviewing phases had a significant effect on the number of words reported by children, as F(2,45)=3.212, p= .050. Children used more words when all interviewing phases were apparent in an interview (n=8, mean=634, sd=370), compared to when one or two interviewing stages were missing (n=35, mean=426, sd=295.5) or when only the questioning phase was included (n=5, mean=212, sd=110).

A second one-way ANOVA test was conducted to test the effect of the presence of interview phases (all present, some interviewing phases, only the questioning phase) on the amount of information provided by children. Even though, when more interviewing phases were apparent, there was a slight increase in the amount of information provided by children (n=8, mean=60.4, sd=27), compared to interviews containing fewer interviewing phases (n=35, mean=49, sd= 40) or just the questioning phase (n=5, mean=28, sd=12.5), no significant effect of interviewing phases on the amount of information children provided in their responses was revealed as F(2,45)=1.203, p= .309.

Overall, there were 190 (40%) Wh- questions. More than half the questions (252 out of 473 - that is, 53.5%) were yes/no questions. There were 14 forced choice questions (3%) and 16 ‘tell me’ questions (3.5%). A one-way ANOVA test was conducted to examine the effects of question type on the number of words provided in children’s responses. The question type had a significant effect on the number of words children said in their responses as revealed by F(3,469)= 14.349, p= .00. Children provided lengthier responses to ‘Tell me’ (n=16, mean=114, sd=144) and Wh- questions (n=191, mean=64.2, sd= 100), compared to Yes/No (n=252, mean=26.5, sd= 39.7) and forced choice questions (n=14, mean=19.8, sd=25.3).

A second one-way ANOVA test was conducted to examine the effects of question type on the amount of information children provided in their responses. In terms of information, children provided richer responses to ‘Tell me’ (n=16, mean=14, sd=15.7) and Wh- questions (n=191, mean=7.6, sd=10.8) compared to yes/no (n=252, mean=3.5, sd=4.6) and forced choice questions (n=14, mean=2.8, sd=2.6). A significant effect of the type of question on the amount of the information provided in children’s responses was revealed as F(3,469)= 15.823, p=.00 (Table 3).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Table 2.3. The number of words and the information provided by children on each type of question.* | | | | |
| Question Type | | N | Mean | SD |
|
| Response  Information | Tell me | 16 | 14 | 15.7 |
| Wh- Qs | 191 | 7.6 | 10.8 |
| Yes/no | 252 | 3.5 | 4.6 |
| Forced Choice | 14 | 2.8 | 2.6 |
| Number of words | Tell me | 16 | 114 | 144 |
| Wh- Qs | 191 | 64.2 | 100 |
| Yes/no | 252 | 26.5 | 39.7 |
| Forced Choice | 14 | 19.8 | 25.3 |

A one-way ANOVA test was conducted to examine the effects of the question content (pre-offence, offence, post-offence, disclosure, frequency, time & place) on the number of words provided in children’s responses. Children provided slightly lengthier responses to pre-offence questions (n=13, mean=69.1, sd= 130), compared to offence-related responses (n= 245, mean=37.5, sd=54), post-offence-related responses (n=19, mean=28, sd=49), responses about disclosure (n=23, mean=41, sd=26), frequency (n=24, mean=26, sd=43), and responses regarding the time and place of the offence (n=39, mean=20, sd=27). However, no significant effect was revealed since F(5,362)=1.951, p= .085. However, It should be noted that questions coded as introductory and closure were excluded from this analysis.

A second one-way ANOVA test was conducted to examine the effects of question content (pre-offence, offence, post-offence, disclosure, frequency, time & place) on the amount of information children provided in their responses. No significant effect was revealed as F(3,362)=1.329, p= .251. Children provided richer responses to pre-offence questions (n=13, mean=7.2, sd= 12.5) compared to offence-related responses (n= 245, mean=4.7, sd=6), post-offence-related responses (n=19, mean=3.2, sd=4.4), responses about disclosure (n=23, mean=5.5, sd=4.5), frequency (n=24, mean=3.7, sd=5.8) and responses regarding the time and place of the offence (n=39, mean=3.2, sd=3.6). It should be noted that questions coded as introductory and closure were excluded from the analysis.

A one-way ANOVA test was conducted to test the effects of age (young, mid, old) on the number of words included in children’s responses. According to the findings, as the age of the child increases, so do the number of words included in their testimonies. Younger children (n=11, mean=205.4, sd=135) provided fewer words in their responses compared to both mid aged (n=27, mean=506, sd=321) and older children (n=10, mean=513, sd=317). A significant effect of age on child recall was revealed as F(2,45)=4.635,p= .015.

A second one-way ANOVA test was used to examine the effect of age on the amount of information included in children’s testimonies. It should be noted that the analysis could only be carried out on the number of items of information, and it is not possible to know whether all the items of information were accurate. There was an increase in the amount of information provided by mid aged (n=27, mean=56, sd= 39.5) and older children (n=10, mean=56, sd=38.5), compared to younger ones (n=11, mean=26, sd=14). However, no significant effect of the age of children on the amount of information provided in their responses was revealed as shown by F(2,45)= 3.094, p= .055; While according to the findings, the mean number of items of information provided by mid aged and older children is considerably close, it should be noted that mid aged children’s reports showed a greater range, in comparison to older children.

An independent t-test was conducted to compare the number of words provided by boys and girls. The findings revealed a significant difference in the number of words provided by girls (n=20, mean=556.3, sd=384.2) and boys (n=28, mean=354.3, sd=216.3) ; t(46)= -2.320, p= .025. Girls provided lengthier reports, in terms of the number of words included in their responses compared to boys.

A second independent t-test was conducted to test any difference between the amount of information provided by boys and girls. A significant difference in the amount of information provided by girls and boys was revealed, as indicated by t(46)= -2.283, p= .027. According to the findings girls provided richer responses (n=20, mean=62.6, sd=45.6) compared to boys (n=28, mean=39, sd=25.6).

An independent t-test was conducted to compare the number of words provided in interviews conducted by male and female interviewers. Children provided lengthier reports when interviewed by female interviewers (n=30, mean=472, sd=353), compared to male interviewers (n= 18, mean=382, sd=222). However, no significant difference was indicated, as shown by t(46)= -.979, p= .333.

Finally, a second independent t-test was conducted to compare the amount of information children provided in their responses, when interviewed by male and female interviewers. Children seemed to provide richer reports, when interviewed by female interviewers (n=30, mean=53, sd=42) compared to male interviewers (n= 18, mean=42, sd=25.5). However, no significant difference was indicated, as shown by t(46)= .950, p= .347.

# 2.4 Discussion

Police interviews with children in Greece have remained unexplored and ignored. While the legislation sets out a framework, it is questionable whether this is being followed in current practices. According to interviews conducted with interviewing personnel and a psychologist employed in the police department dealing with cases of child victimisation, current interviewing practices deviate greatly from what law proposes.

In addition to what law suggests -Article 226A of the Greek Penal Code Procedure (Kodaxes, 1985)-, and to other countries practice e.g. (Brubarcher et al., 2013; Krahenbuhl, Blades, & Westcott, 2010; Lamb et al., 2000; Phillips, Oxburgh, Gavin & Myklebust, 2012; Teoh & Lamb, 2013), police interviews with children in Greece are not recorded by any means; instead written statements are kept throughout the interview procedure by the interviewer, while the presence of a psychologist before and during the interviewing procedure is not always ensured.

Police interviews with child victims of abuse in Greece, are being conducted in a different way than in other countries. There is structured official training plan for police officers, who act as interviewers, while no written guides/protocols are followed; and instead police officers are based on practical knowledge, acquired through interviews. Therefore, police officers are unaware for current research and may use and/or incorporate ineffective means and techniques in the interviews. For instance, interviewers frequently receive a lot of information regarding the case, before they even talk with the child, which may affect their thoughts and judgment later on during the interview; which is something that could be avoided.

There is no environment designed and used for the purposes of interviewing child witnesses, and interviews with children are being conducted in ordinary offices, while interviews are not being recorded, by any means. Police officers are keeping hand written notes of the interviews, which form the ‘interview transcript’. Therefore, it could be assumed that the interview transcripts may exclude some parts of the interview, deliberately or not, and thus lack of credulity and validity.

Another significant finding, which comes in addition to what several other countries’ practises and procedures, is the number of people inside the interviewing room. In Greece there is always two police officers present, during the interview, while a psychologist is also present is several occasions. According to the findings, parents’/guardians’ presence inside the interviewing room is sometimes being considered, in the in cases that they are not involved with the alleged case,

According to the study’s findings, and it addition to what was hypothesized, and literature, there is an absence of interviewing phases, as described by interviewing protocols and guides, such as ABE (Ministry of Justice, 2011), or the NICHD (Lamb et al., 2011). Instead, only some elements of the interview phases were used. In the transcripts used for the purposes of the study, no more than two elements of an introductory and closure phase were identified. Moreover, in several interviews, there was an absence of most interview phases, apart from the main questioning phase - something that could affect the quality of the interview and therefore children’s testifying performance. However, it should be noted that, according to police officers’ reports, some stages (especially introductory stages) are merely excluded from written transcripts. As a result, it is uncertain to what extent introductory and closure phases are used in the interviews, if at all.

However, the significance of rapport building stage to the later recall has been well established on the literature (Fisher & Geiselman, 1992; Robert, Lamb, & Sternberg, 2004; Weinstein & Roediger, 2012) and therefore. It could be assumed that by eliminating or reducing time spend on rapport, there might be an impact on the actual interviews and children’s recall. Therefore children’s testimonies could be highly affected by a rapport-building phase, which could potentially provide one explanation for the limited length of child testimonies in Greece, as described both by interviewing personnel, as well as seen by interview transcripts.

The findings revealed an association between the presence of all interviewing phases and the length and richness of children’s reports; while, in accordance with study’s hypothesis and previous research, an association between question type and the length and richness of victim’s responses was shown (Sternberg et al., 1996; Lamb et al., 2000; Korkman et al., 2006; Orbach & Lamb., 2000). More precisely, open-ended questions, such as ‘tell me’ and wh- questions, resulted in lengthier and richer responses, compared to yes/no and forced choice questions, which resulted in shorter and less opulent responses. Even though the great majority of questions asked during the interviews were yes/no questions.

While according to the findings there is no significant effect of the content of questions on children’s responses, in terms of length and richness, it seems that pre-offence questions tend to elicit lengthier and richer responses. Questions regarding time and place were those that elicited the shortest answers, with the least information included. However, those questions frequently require limited information from children in comparison to pre-offence questions and therefore this difference could be merely attributed to the differences in nature of the question and the information they ask for.

With regards to the victims age (e.g. Cedeborg et al., 2000; Hershkowitz et al., 2004; Lamb et al., 2000; Orbach & Lamb, 2007; Philips et al., 2011; Sternberg et al., 1996) and in accordance to study’s hypothesis and literature, study revealed that age had an effect on children’s reports. Age was associated with the length of children’s reports and the length of children’s responses increased with age. Even though age was not significantly associated with the richness of children’s reports, mid aged and older children were more likely to produce richer responses compared to younger children. This is attributed to cognitive and linguistic capacities, which are more developed in older children (Howe, 2000; Newcombe et al., 2000; Nelson, 1996). As children are getting older are getting more able to store and recall more detailed accounts of past events.

Furthermore, gender (e.g. Ely & Ryan, 2008; Phillips, Oxburgh, Gavin & Myklebust, 2012; Pillemer, Wink, DiDonato, & Sanborn, 2003; Turton & Campbell, 2005) had an effect on children’s recall. Girls provided richer and lengthier responses compared to boys. Gender differences might be attributed to gender roles within society, which are affected by both society and culture. Therefore, gender differences might not be visible in a different cultural context, i.e. in the U.K.

Finally, while the interviewer’s gender was indicated to not influence victims’ testifying performance, something that comes in addition to study’s hypothesis, all children performed slightly better, and provided lengthier and richer responses, in interviews conducted by a female interviewer, in comparison to those conducted by a male interviewer. This agrees with previous research; however, the accuracy of the extra information received by female interviewers, which has been previously questioned, was not tested (Axinn, 1991; Davies, Westcott, & Horan, 2000; Lamb & Garretson, 2003; Westcott, 1995;). Again, the effect of gender is highly influenced by society and culture, and gender roles vary within different societies. As no previous research on the Greek society exist, this finding could be attributed to the characteristics and gender roles, within the Greek society.

In conclusion, police interviews with children in Greece are different in several ways from current practices in other countries and from what has been suggested as effective practice in this area (ABE (Ministry of Justice, 2011), Krahenbuhl, Blades, & Westcott, 2010; Brubarcher et al., 2013; Lamb et al., 2000; NICHD (Lamb et al., 2011), Phillips, Oxburgh & Myklebust, 2012; Sternberg et al., 1996). Differences have been identified both in the interview procedure, as well as the interview structure. The study has identified numerous implications for practice in Greece.

**CHAPTER THREE**

**EXPERIMENT 1**

**The effect of the number of interviewers on children’s testimonies**

# 3.1 Introduction

As physical (e.g. DNA) or other supporting evidence of sexual abuse is not always present, children’s testimonies are often the only source of prosecuting evidence in cases of child sexual abuse; this is why child testimonies are so important. Over the last decades, children’s memory, children’s interview performance and effective interviewing techniques for child abuse victims have been issues that have attracted attention. Relevant research, consisting of both laboratory studies and research on police interview transcripts, has usually focused on children’s performance in interviews and ways that their performance is affected in relation to factors like age (Orbach & Lamb, 2007; Salmon & Pipe, 1997), gender (Lamb & Garretson, 2003), delay (e.g. Waterman & Blades, 2013), repetition of questions/interviews (e.g. Krahenbuhl & Blades, 2006), the relationship between alleged victim and perpetrator, as well as the type and frequency of the abuse (e.g. Connolly, Price, Lavoie, & Gordon, 2008).

As mentioned in chapter 1, cchildren are able to recall accurate memories from an early age. Even from the age of two, children are able to recall memories that have been stored a few months ago (Bauer, 2007). Episodic memory develops with age; however, there is no specific age of maturity, thus it is unclear at what age episodic memory is fully developed and it may vary from one person to another (Lou Smith & McAndrews, 2013; Tulving, 1983; Wheeler et al., 1997). The complexity of episodic memory, requiring the binding of different details of an event (Johnsons, Hashtroudi, & Lindsay, 1993; Rubin, 2006) makes children’s and especially younger children’s reports less detailed and less extensive, as well as less accurate sometimes (e.g. Lamb, Sternberg & Esplin, 2000; Waterman & Blades, 2013; Fivush, 1998).

Both laboratory (O’Neill & Zajac, 2013; Krahenbuhl & Blades, 2006; Waterman & Blades, 2013) and field studies (Orbach & Lamb, 2007; Lamb, Hershkowitz & Sternberg, 1996; Leander, 2010) suggest that age is a factor influencing children’s reports of past events. More precisely, younger children’s reports are often shorter in length (e.g. Lamb, Sternberg & Esplin, 2000), and they are more likely to provide more accurate or appropriate responses to questions asked by interviewers (e.g. Waterman & Blades, 2013; O’Neill & Zajac, 2013; Waterman & Blades, 2013).

Gender is another factor influencing children’s recall of past events. First, due to societal stereotypes linked to the two different genders, the way boys and girls communicate may differ, with girls sometimes being more talkative and descriptive, especially when it comes to emotions and feelings (e.g. Fivush, Berlin, Sales, Mennuti-Washburn, and Cassidy, 2003; Rice & Pasupathi, 2010; Peterson & Roberts, 2003). Studies with both adults and children have also shown that females’ autobiographical narratives may be richer and more descriptive (e.g. Ely & Ryan, 2008; Buckner & Fivush, 1998). However, other studies have found no gender differences in autobiographical narratives and that children’s recall of past events is not related to their gender (Bauer, McAdams, & Sakaeda, 2005; Schlagman, Kliegel, Schultz, & Kvavilashvili, 2009; Katz & Barnetz, 2014; Lamb & Garretson, 2003).

As noted in chapter 1, in experimental studies replicating child eyewitness interviews, there is typically one interviewer present, who is usually a female interviewer (e.g. Tustin & Hayne, 2010; Salmon & Pipe, 2000). This is in contrast to actual police interviews, where two or three adults may be present. In Greece, two police officers are always present during a child testimony, while the presence of a mental health practitioner is also expected. In some cases, parents and/or guardians of underage children may be present as well. Although there is little previous research into the effects of the number of adults present on children’s recall performance, sociological theory (Simmel, 1902), research on group size (Soborof, 2012), child disclosure (Priebe & Svedin, 2008; Solano & Dunnam, 1985), children’s courtroom testifying performance (Nathanson & Saywitz, 2003), development of feelings of trust within a group (Sobolof, 2012), on child recall with closed eyes (Kyriakidou, Blades, & Caroll, 2014) and theories on the effects of a well-established rapport (Roberts, Lamb, & Sternberg, 2004; Kieckhaefer, Vallano, & Schreiber Compo, 2013), all suggest that the presence of more than one adult in the interviewing room could have an effect on children’s disclosure.

Simmel (1902) underlined the distinct nature of dyadic communication. The size of a group can alter the dynamics of communication within the group and have an effect on intergroup interaction (Simmel, 1902). Based on the size of the group, different patterns of communication are formed. In dyadic interaction, where only two persons are involved, the active participation of both individuals is required, something that changes as the group becomes bigger. In triadic group interaction, the active participation of all individuals who form the group is not a prerequisite, and triads are less intimate than dyads.

Triadic segregation, as defined by Simmel (1902), is another issue that distinguishes dyadic and triadic communication. Triadic segregation is defined as a triad’s tendency to divide into a dyad and a single individual, instead of forming a united group. According to Simmel’s theory (1902) individuals in a triad have the tendency to separate and form a coalition of two, while leaving the third member of the group isolated. In cases of child testimonies, this is something that could end up as a coalition between the two police officers or adults present inside the interviewing room and the ‘isolated’ child.

According to Soborof (2012), who studied the effects of the group size on trust, cohesion, commitment and social awareness, there is an increased feeling of trust developed in smaller groups of individuals compared to larger groups. Trust is a key point in child testimonies, as disclosures require high levels of trust; disclosing of traumatic/ abusive events may be difficult for an individual, especially for a child.

Priebe and Svedin (2008) studied disclosure patterns in children and revealed that children are more likely to disclose their abuse to a close friend, usually of the same age. Indeed,children were more likely to disclose their abuse to friends instead of talking to parents, guardians, relatives, professionals or other adults. Thus, the nature of a relationship between individuals who are of the same age, non-adults, and close friends favours disclosure of abusive events. According to Priebe and Svedin (2008), children experience less fear, shame, and embarrassment and a decreased fear of being accused or blamed when disclosing to other children. Therefore, disclosing to an adult, especially an unknown professional, may be difficult for the child; the child may find it difficult to trust an adult compared to trusting another child, especially a friend. It could also then be assumed that child’s difficulty to disclose his/her abuse in front of an adult, would increase in front of more than one adults.

According to Nathanson & Saywitz (2003), who studied the effects of the courtroom context on children’s recall, children show an increased recall rate when they are interviewed in private rooms instead of the actual courtroom. During the study, eight to ten-year-old children were involved in a staged event, which included bodily touch, and were later questioned about the event; half of the children were questioned in a mock courtroom context with a number of people present, while the other half were questioned in a private room with just a single person present. Children who were questioned in the courtroom context provided less accurate information, especially in free recall and they showed an increased heart rate, which was associated with higher levels of stress. In addition, children, interviewed in in private rooms, were more relaxed and provided better recalls, in terms of accuracy.

Dyadic communication in adults seems to be superior with regards to the amount of information disclosed compared to group communication (Taylor, De Soto, & Lieb, 1979; Solano & Dunnam, 1985; Drag, 1968). People tend to be more talkative in dyadic contexts, compared to when in groups or even a triadic context, especially when it comes to more personal information. Taylor et al. (1979), showed in their study that individuals tend to provide not just more information in one-to-one communication rather than in triads, but they tend to disclose much more personal information in dyadic communication. Therefore, when it comes to traumatic and/or abusive events it could be assumed that adults, would be more likely to provide lengthier accounts in dyadic contexts, compared to triads and groups. One of the purposes of the present study was to find out if this effect also applies to children.

Studies on eye-closure have suggested that children perform better with their eyes closed as the dual-task situation of testifying, which consists of memory retrieval and environmental monitoring, becomes a single-task procedure - that is, just memory retrieval; something that seems to be beneficial to children’s recall (Perfect, Andrade, & Eagan, 2011). When the environmental distractions, available during an interview, are minimized, children provide better testimonies (Wais, Rubens, Boccanfuso, & Gazzaley, 2010; Kyriakidou, Blades, & Carroll, 2014). According to Kyriakidou et al. (2014), children provided better testimonies when they kept their eyes closed during the testimony procedure;this is attributed to the diminished environmental distraction during the recall. In a similar sense, it could be suggested that having fewer interviewers in the room, something that could be equated to minimized environmental cues/distraction, may have a beneficial impact on children’s performance and result in greater disclosure.

Moreover, well-established rapport may have a strong effect on children’s disclosure (e.g. Roberts, Lamb, & Sternberg, 2004; Kieckhaefer, Vallano, & Schreiber Compo, 2013). Effective rapport building, as well as appropriate use of body language, has been advocated in interviewing protocols and guidelines e.g. The National Institute of Child Health and Human Development (NICHD) Protocol (Lamb, La Rooy, Malloy, & Katz, 2011), Achieving Best Evidence Protocol (ABE) (Ministry of Justice, 2011). In interviews with children, rapport should be established, but, during police interviews, when more than one adult is present, often everyone except the actual interviewer remain silent throughout the process of the interview, and therefore rapport is only partially established (i.e. rapport is only established with only one of the adults present). If adults are being interpreted as a team in children’s minds, any rapport that the main interviewer has built may be diminished in the presence of multiple adults, when the others have no interaction with the child.

In summary, recalling a past event is not just about recalling ability, but also the intent to recall, the recall motivation (e.g. Priebe & Svedin, 2008; Solano & Dunnam, 1985). It seems that children may be both, more willing to disclose information in front of a smaller audience, because of increased feelings of safety, trust, commitment and social awareness, especially when it comes to traumatic/abusive events, and more able to recall increased information, due to decreased environmental distractions. Children may be more likely to give richer and better reports in one-to-one contexts, rather than in group and triadic contexts.

There may be a gap between what we know from experimental studies (usually only one adult present) and actual practice (often more than one adult present). No previous study has considered the effects of the number of individuals present on children’s ability to give detailed and accurate testimony, although interviewing protocols have noted that the presence of numerous adults within the interview room may prove problematic (UK Government, 2011; Scottish Government, 2011). The present study has been designed to investigate the effect of the number of adults, present during an interview on children’s recall.

**Hypotheses**

It was hypothesized that:

Children will give more complete and accurate testimony if they are questioned by one interviewer than when they are interviewed by more than one interviewer.

Older children’s accounts will be more detailed and accurate compared to younger children’s accounts and girls would be more informative and descriptive than boys.

# 3.2 Methodology

## Sample

A total of 267 children aged between 6 and 12 years of age were recruited from nine primary schools in Athens, Greece. Children who had been given parental permission were selected based on their age and willingness to participate.

The sample consisted of 121 boys and 146 girls. The sample was divided into two age groups: young children, between five and seven years of age (n=126, mean age= 6.4) and older children, between 10 and 12 years (n=141, mean age=10.4). Children were also divided into three interviewing conditions, based on the number of adults present during the interview: one interviewer (n=97), one interviewer and another adult present (n=82), and one interviewer and two other adults present (n=88).

Ethical approval was given by the Department of Psychology at the University of Sheffield, and the ministry of Culture, Education and Religious Affairs in Greece.

## Procedure

Children were asked to watch a film for seven minutes. The film was called *The Pet Shop*. The film showed a young boy’s visit to a pet shop. It focused on the problems that people with disabilities might face. Among other awards, *The Pet Shop* has received a best short film award at the *Olympia International Film Festival for Children and Young People*. The film showed a boy who suffered from a leg disability and was limping. He visited a pet shop and wanted to buy a dog which was not for sale, because the dog also had a disability. The film was shown by a female research assistant. The research assistant introduced herself to the children and explained that they would watch a film for a few minutes. The children were not told that they would be questioned about the film later.

Approximately one week (5-7 days) after seeing the film, the children were interviewed individually, either by one unfamiliar adult or by two or three unfamiliar adults in a quiet room. The structure of the interview was based on existing interviewing protocols (ABE) and included 24 questions about the film. Each interview took eight to ten minutes.

Children watched the film in groups of 15 or 30, based on their school classes. The film was shown by a research assistant accompanied by a teacher and there was no contact between the interviewer(s) and the children at this stage. One week later, the children were divided into equal groups of three interviewing conditions:

1. Interviews conducted by one female interviewer (so there was only one adult with the child in the room).

2. Interviews conducted by the same female interviewer in the presence of one other adult, a male research assistant (so there were 2 adults in the room with the child).

3. Interviews conducted by the same female interviewer in the presence of two other adults, a male and a female research assistant (so there were 3 adults in the room with the child).

All the adults were dressed in formal suits, as the interviewers in a forensic interview context might be dressed in Greece. At the start of the interview, the interviewer introduced herself, and the one or two additional adults also introduced themselves. At the end of the interview the additional adults said goodbye, but otherwise they both remained silent and avoided any non-verbal communication (e.g. gestures) with the child.

The interview reflected the Achieving Best Evidence interview protocol (UK) and included an introductory/rapport phase (including ground rules), followed by free-recall, questioning and closure phases. In all three conditions, the questions were the same. The questions were given in a different random order for each child. Each question was written on a card, and all cards were shuffled before each interview.

Children were sent to the interviewing room individually where they met the interviewer and, depending on condition, the additional individuals. After an initial greeting, including welcoming and greeting the child, the interviewer explained the purpose of this interview. Rapport-building questions followed, such as ‘Do you have any brothers or sisters’, ‘What is your favourite subject in school?’. Finally, the two ground rules of the interview were stated and explained to the children (1. ‘if there is a question you do not know the answer to or do not remember the answer, you should say so and avoid guessing’, 2. ‘if at any point you need a break, you should say so’).

The interviewer then proceeded to the free-recall stage. During this stage, the interviewer asked children to say anything that they could recall from the film they had seen. The interviewer said, ‘Can you please tell me everything you can remember about the film and not leave anything out? t’. While prompts were generally avoided, if children said little or nothing, two neutral prompts were added i.e. ‘Is there anything else you can remember?’ ‘Was there anything else?’. No more than two neutral prompts were given.

The children were then asked the following 24 specific questions. The questions had been tested in a pilot study by 25 individuals - seven children and 18 adults - to make sure they were clear and understandable. Five questions were changed following the pilot study. Five questions have been eliminated from the study due to floor/ceiling effects and five more questions have been included on the study. The questions added thought to be understandable and clear to children, based on attributed and criteria arisen by the pilot study. They also thought to be able to provide a deeper investigation to children memory on peripheral information, as they thought to concern peripheral information of the event, the research assistant presenting the video to students. Therefore, by adding those questions it could be assumed that it could provide a thorough and more complete account of children’s memory.

1. The final set of questions was: What colour was the t-shirt that the owner of the pet shop was wearing? (correct answer: black).
2. When the children were playing basketball, what name were they shouting? (answer: Orestis).
3. What was the boy who bought the dog doing in the park? (answer: counting his money).
4. What animals did you hear in the video? (answer: birds).
5. Why did the boy not play basketball with the other children? (answer: because he had problems with his leg).
6. What kind of vehicle was parked outside the pet store? (answer: a motorbike)
7. What did the boy say to the pet shop owner when he told him that the dog ‘can neither play nor run’? (answer: ‘Neither can I’).
8. What colour was the t-shirt of the boy who bought the dog? (answer: white).
9. What did the owner of the pet shop answer when the boy asked him, ‘Can I have a look?’ (answer: ‘Go for it’).
10. What colour was the dog the boy bought? (answer: white).
11. How many children were playing at the beginning of the film? (answer: five)
12. What colour was the cage that the boy found the dog in? (answer: green)
13. What were the children playing at the end of the film? (answer: football)
14. When the boy gave the pet shop owner the money, what was the money in? (answer: in a plastic bag)
15. What did the pet shop owner give to the first dog? (answer: food)
16. How many EURO notes did the boy count? (answer: three)
17. What was at the bottom of the cage? (answer: newspapers)
18. What did the boy do when the man touched his hair? (answer: He pulled his head away.)
19. How many dogs did you see in the film? (answer: three)
20. What was the name of the girl who showed you the film? (answer: Eva)
21. What colour was her blouse? (answer: black)
22. Where did the RA put her jacket when she took it off? (answer: on the desk)
23. What colour was her hair? (answer: brown/dark brown)
24. What was the girl drinking while she showed you the film? (answer: water)

At the end of the interview, children were asked if there was anything else that they would like to say and were thanked for taking part of the study. Before they left the interviewing room some neutral closing questions were asked such as ‘what is your next class?’, ‘how you are going to spend the rest of your day?’

## Coding

All interviews were audio-recorded and later transcribed. Free recall responses were coded for the number of words spoken and the number of correct or incorrect items of information and confabulations provided by the child; the coding followed Yuille and Cutshall (1986, 1989; Cutshall & Yuille, 1990). For instance, ‘It was a boy who was wearing black trousers, and who bought a dog’ would be counted as two correct items of information (the boy who bought a dog) and one incorrect one (black trousers). Repeated items of information about objects, events, and/or individuals were counted only the first time they were mentioned; i.e. subsequent references to the same details were not counted.

Responses to questions were coded as correct or incorrect. Three questions were dropped from the analysis, due to ceiling/floor effects; one of them was answered correctly by almost all children (98.5%, question 10), the second was answered incorrectly by most children (97%, question 6) and the last one was dropped because it was thought to be too easy to guess (question 24).

To assess the reliability of the coding, 40 randomly selected interviews were coded by a second rater. The second rater was a native Greek speaker and had been given the correct answers. Inter-rater agreement for the questioning phase was (k) 1.00, indicating a perfect agreement, while the inter-rater agreement for the free recall was: for the number of items of correct information (k) .973, for the number of items of incorrect information (k) .876, and for the number of confabulations (k) .821. Therefore, there was good agreement between the two raters. Any differences were discussed and resolved.

**3.3 Results**

Free recall

A 3 condition (one, two or three interviewers) x 2 age group (young, old) and 2 gender of child (boys, girls) ANOVA was conducted to investigate the effects of interviewing conditions, age, and gender on the number of words provided by children during free recall (see table 1). A medium effect of the interview conditions on words provided by children was observed, as revealed F(1, 255)= 11.612, p< .001, η2 = .083. A Tukey post-hoc test was conducted and showed a significant difference (p<.05) between the number of words provided in condition 1 (mean= 101.5, sd= 72.1) and condition 2 (mean=73.7, sd=50.7) and between condition 1 and condition 3 (mean=69.8 sd=53.3) (p< .05); there was no difference between conditions 2 and 3 (p> .05) (see table 3.1).

Age also seemed to have an effect, F(1,255)= 134.791, p< .001, η2 = .346. Older children (mean=115.0, sd=60.7) used more words than younger children (mean=46.3, sd=38.0). The gender of the children also had a small effect, as indicated by F(1,255)= 6.343, p= .012, η2 = .024. The girls (mean=88.5, sd=69.0) used more words than the boys (mean=75.4, sd=50.6) (See table 3.1). There were no interactions revealed.

*Table* *3.1 Children’s performance in free recall.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Interviewing condition | Children’s  Age | Gender | Number of words | | Number of items of correct information | |
|  |  |  | *Mean* | *SD* | *Mean* | *SD* |
| One Interviewer | *Young* | *Boys* | 50.3 | 37.1 | 7.3 | 6.0 |
| *Girls* | 70 | 41.5 | 9.1 | 5.1 |
| *Old* | *Boys* | 124.5 | 52.1 | 16.8 | 5.5 |
| *Girls* | 152.1 | 87.1 | 19.3 | 8.7 |
| Two  Interviewers | *Young* | *Boys* | 32.2 | 33.4 | 4.6 | 4.2 |
| *Girls* | 34.9 | 32.0 | 5.2 | 4.4 |
| *Old* | *Boys* | 93.2 | 43.0 | 13.3 | 5.2 |
| *Girls* | 104.7 | 45.4 | 16.1 | 7.0 |
| Three interviewers | *Young* | *Boys* | 33.3 | 28.2 | 4.9 | 3.6 |
| *Girls* | 39.9 | 35.5 | 5.9 | 4.9 |
| *Old* | *Boys* | 93.8 | 31.0 | 13.3 | 5.1 |
| *Girls* | 118.2 | 61.1 | 16.0 | 8.0 |

A 3 condition (one, two or three interviewers) x 2 age (young, old) and 2 gender (boys, girls) ANOVA test was conducted to investigate the effect of interviewing conditions, age, and gender on the number of items of correct information given during free recall. A small effect was observed for the interviewing conditions, as shown by F(2,255)= 8.487, p< .001, η2 = .62. A post-hoc Tukey test revealed a significant difference (p<.05) between condition 1 (mean=13.3, sd= 8.2) and condition 2 (mean= 10.9, sd= 7.2) and a significant difference (p < .05) between condition 1 and condition 3 mean=9.8, sd= 7.2). There was no significant difference between interview conditions 2 and 3 (p> .05).

Age also had a large effect, as proven by F(1,255)= 165.049, p< .001, η2 = .393, since older children (mean= 15.8, sd= 7) provided more correct items of information in their response during free recall than younger children (mean= 6.5, sd= 5). There was a small effect of gender as shown by F(1,255)= 6.518, p= .011, η2 = .025, since girls’ responses during free recall included more correct items of information (mean= 12.1, sd= 8.4) than did boys (mean= 10.6, sd= 6.7). There were no interactions between interviewing conditions and age and gender.

A 3 condition (one, two or three interviewers) x 2 age (young, old) and 2 gender (boys, girls) ANOVA test was conducted on the number of items of incorrect information provided during children’s free recall. There was a small effect for interviewing conditions, as indicated by F(2,255)=3.761, p= .025, η2 = .029, since there was a significant difference between the number of items of incorrect information children provided in condition 1 (mean= .97, sd= 1.1), 2 (mean= .52, sd= 1.0) and 3 (mean =.70, sd=1.1). A Tukey post-hoc test was conducted and revealed no significant difference between condition 1 and condition 2 (p >.05) and condition 3 (p> .05). Age also had a medium effect, as shown by F(1,255)= 22.060, p= .00, = .080. Younger children provides less incorrect information (mean= .43, sd= .78) than older children (mean= 1.0, sd= 1.3). Child gender did not seem to have an effect, as F(1,255)= .091, p= .76. There were no interactions between interviewing conditions and age and gender.

A 3 condition (one, two or three interviewers) x 2 age (young, old) and 2 gender (male, female) ANOVA test was conducted to examine the effects on the number of confabulations during free recall. The interview conditions had no effect, as shown by F(2,255)= 2.609, p= .076, = .020. condition 1 (mean= .43, sd=.91), 2 (mean= .30, sd=.71) and 3 (mean=.16, sd= .45) did not affect the number of confabulations. The child’s gender also had no effect as F(1,255)= .652, p= .420, with similar numbers occurring in both girls (mean= .33, sd=.76) and boys (mean=.26, sd=.69). However, age did have a small effect, as indicated by F(1,255)=6.823, p= .010, η2 = .026, since younger children (mean= .19, sd= .69) provided fewer confabulations within free recall than older children (mean= .40, sd= .75). There were no interactions.

Responses to questions

A 3 condition (one ,two or three interviewers) x 2 age (young, old) and 2 gender (male, female) ANOVA test was conducted to investigate the effect of the interviewing conditions, age, and gender on the number of correct answers the children gave to the 21 questions . A large effect of the interview conditions on this was observed, as shown by F(2,255)= 3.337, p= .037, η2 = .628. Children provided more correct answers when questioned by one individual (mean= 7.5, sd=2.6) compared to when questioned in the presence of two (mean=6.8, sd=2.8) or three individuals (mean= 6.6, sd=3.1). Post-hoc comparisons revealed no significant differences between interview conditions (p> .05). Age had also a large effect, as F(1,255)=68.604, p< .001, η2= 1.0. Younger children provided fewer correct answers compared to older children in all interview conditions; condition 1 (younger mean=6.5, sd=2.4, older mean=8.4, sd=2.5), condition 2 (younger mean=5.0, sd=2.9, older mean=7.9, sd=2.1) and condition 3 (younger mean=5.1, sd=2.9, older mean=8.3, sd=2.5). The child’s gender had no effect, as indicated by F(1,255)= .006, p= .936. There were no interactions.

*Table 3.2*, Mean scores for children’s answers to the 21 questions.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Interviewing Condition | Children’s Age | Gender | Correct Responses | | Incorrect Responses | | Don’t know/  Remember | |
|  |  |  | *Mean* | *SD* | *Mean* | *SD* | *Mean* | *SD* |
| One Interviewer | *Young* | *Male* | 6.3 | 2.6 | 7.9 | 3.9 | 6.9 | 3.9 |
| *Female* | 6.7 | 2.3 | 7.2 | 3.3 | 7.1 | 4.1 |
| *Old* | *Male* | 8.4 | 2.7 | 6.9 | 3.0 | 5.7 | 2.5 |
| *Female* | 8.5 | 2.5 | 6.9 | 2.4 | 5.6 | 2.2 |
| Two  Interviewers | *Young* | *Male* | 5.3 | 3.3 | 8.5 | 402 | 7.1 | 5.0 |
| *Female* | 4.7 | 2.6 | 9.1 | 3.7 | 7.1 | 4.0 |
| *Old* | *Male* | 7.9 | 2.3 | 8.6 | 2.9 | 4.4 | 3.5 |
| *Female* | 7.9 | 1.9 | 7.7 | 2.9 | 5.3 | 3.2 |
| Three interviewers | *Young* | *Male* | 5.3 | 3.5 | 8.1 | 4.2 | 7.6 | 4.1 |
| *Female* | 5.0 | 2.5 | 7.4 | 4.2 | 8.6 | 4.0 |
| *Old* | *Male* | 8.1 | 2.9 | 7.1 | 3.3 | 5.8 | 3.5 |
| *Female* | 8.5 | 2.0 | 5.9 | 2.3 | 6.5 | 2.6 |

A 3 condition (one, two or three interviewers) x 2 age (young, old) and 2 gender (male, female) ANOVA test was conducted to test the effect of interviewing condition, age and gender on the number of incorrect responses provided by children. The interviewing conditions had a large effect as F(2,255)= 4.063, p= .018, η2 = .719. Children provided more incorrect responses in condition 2 (mean=8.5, sd= 3.3) compared to condition 1 (mean=7.2, sd=3.1) but not compared to condition 3 (mean=7.1, sd=3.6). Post-hoc comparisons revealed a significant difference between interviewing condition 1 and 2 (p<.05) but none for condition 3 (p>.05). There was also a significant difference between condition 2 and 3 (p<.05). Age also had a large effect, as F(1,255)= 4.324, p= .039, η2 = .545. Younger children provided more incorrect answers (mean=7.9, sd=3.9) compared to older children (mean=7.2, sd=2.9). Gender had no effect with F(1,255)=1.288, p= .258. There were no interactions between interviewing conditions, age and gender (table 3.2).

A 3 condition (one, two or three interviewers) x 2 age (young, old) and 2 gender (male, female) ANOVA test was conducted to test the effect of the interviewing conditions, age, and gender on the number of ‘don’t know/don’t remember’ responses. The interview conditions had no effect as F(2,255)= 2.149, p= .119, neither did gender F(1,255)= 1.059, p= .304. However, age did have a smalleffect, as F(1,255)= 16.814, p< .001, η2 = .062, since younger children gave more ‘don’t know/remember’ responses (mean= 7.4, sd= 4.0) than older children (mean= 5.4, sd= 3.0). There were no interactions.

# 3.4 Discussion

According to the findings of the study, the number of the adults, present during an interview with a child, had an effect on the child’s disclosure. Children who were interviewed by one adult provided lengthier and more informative responses during free recall and provided more accurate responses and less inaccurate in specific questions, compared to children who were interviewed by 2 or 3 adults. These findings confirm the research hypotheses that children would give longer and more accurate testimonies when questioned by one adult rather than by two or three adults.

In line with hypothesis, older children provided lengthier accounts and included more accurate information in free recall, however they also incorporated less inaccurate information and more confabulations, in comparison to younger children. In response to 21 specific questions, younger children provided fewer correct and more incorrect responses, while they provided more ‘don’t know/remember responses’, compared to older children. Going to gender, gender effect was limited, and girls performed better, as they provided lengthier responses and more correct information during free recall, in comparison to boys, however no gender differences were revealed on specific questions.

As previously discussed, previous research had indicate that children may provide better information when questioned by one person (Nathanson, 2003; Malloy, Brubacher, & Lamb, 2013; Schaeffer, Leventhal, & Asnes, 2011; Solano & Dunnam, 1985; Tran & Blackman, 2006; Jensen, Gulbrandsen, Mossige, Reichelt, & Tjersland, 2005; Paine & Hansen, 2002). The present study showed that this effect applies to an interview, carried out in the style of a police interview, and that the effect applies in a country like Greece. There has been no previous research into such interviews in Greece, but as discussed below, the findings have particularly important implications for police interviewing practices there and maybe in other countries.

As originally hypothesised, children gave more extensive and richer testimonies when interviewed by one interviewer in comparison to when interviewed in the presence of more than one adult (Nathanson, 2003; Malloy, Brubacher & Lamb, 2013; Schaeffer, Leventhal, & Asnes, 2011; Solano & Dunnam, 1985; Tran & Blackman, 2006; Jensen, Gulbrandsen, Mossige, Reichelt, & Tjersland, 2005; Paine & Hansen, 2002). When children were interviewed in the presence of a single individual, they were more descriptive and talkative in free-recall responses, while they also provided more correct information. There was no difference in the number of incorrect items of information, as well as confabulations provided in the three interviewing conditions, in free recall. While, children provided also more correct and less incorrect responses in 21 specific questions, when interviewed in front of a single interviewer. Those differences could be attributed to numerous factors discussed below.

Unlike previous research, this study was the first to make direct comparisons between interviews when one, two or three adults were present in the room. Interestingly, children’s recall of memories can be affected by the number of people present during a forensic-like interview, however the difference was focused on whether one or more individuals were present in the room and no difference on the exact number of individuals was revealed. More precisely, here was no difference in children’s performance when they were interviewed by 2 or by 3 adults, however in both cases, interviewed in the presence of two or three adults, children performed worse, compared to children interviewed by a single adult. This was a consistent finding across all the measures examined in the current study, and would suggest the number of people present (beyond one) did not make a difference to the children’s performance.

The presence of more than one adult had a detrimental effect on children’s recall. This effect could be attributed to numerous factors. One reason for this effect may have been due to children’s reluctance to disclose information in front of a larger audience. Studies on child disclosure suggest that children tend to perform better, when disclosing in dyadic situations, and studies on disclosure of abusive or traumatic events, by children, have shown that children are more likely to disclose their abuse in one-to-one contexts (Nathanson & Saywitz, 2003; Priebe & Svedin, 2008; Simmel, 1902). One-to-one contexts have been linked with increased feelings of safety, intimacy, trust, commitment and social awareness (Sobolof, 2012) and it could be therefore assumed that children feel more comfortable and at ease in front of a single individual, and are more willing to talk, while they are less stressed and anxious and thus, more effective on their disclosure. Studies on adults have shown that individuals are more willing to disclose information in one-to-one environments, compared to groups and triads, something that according to that study seems to apply also for children.

Moreover, in a dyadic situation there is an increased establishment of rapport (Roberts, Lamb, & Sternberg, 2004; Kieckhaefer, Vallano, & Schreiber Compo, 2013), which may be the key for inetrpreting why children perform better in inetrviews, conducted by a single inetrviewer. Firstly, it could be assumed that rapport between two individuals is built easier and more effectively, in comparison to larger groups, as in larger groups different patterns of communication are formed (Simmel, 1902). Moreover, with regards to triads, according to Simmel’s theory (1902) on triadic segregation, which supported that individuals in triads have the tendency to divide in two different groups, a coalition of two, and the isolated member, it seems that there could be a difficulty in the establishment of good rapoort, between the inetrviewer(s) and the most likely isolated child, as colaition tend to be formed between members sharing most similarities (i.e. age, occupation, rol etc).

Knowing the significance of a well-established rapport and its impact on children’s recall (Fisher & Geiselman, 1992; Robert, Lamb, & Sternberg, 2012; Weinstein & Roediger, 2012). any differences on children’s recall, when one or more adults were present, could also be attributed to the limited rapport established by the rest of the adults in the interview room. Having individuals in the room, who have not builr rapport with the inetrviewee may damage the rapport the inetrviewer has built and in a way keep the overall rapport quite low. Thus, children are more stressed and less willing to recall the information has been asked to recall. This information could be highly signifant and may have several practical information.

Another factor that could be responsible for children’s better performance, when interviewed in front a single interviewer is environmental effects and environmental distraction. When fewer environmental distractions are present, children tend to perform better and are more likely to provide lengthier and more detailed reports (Wais, Rubens, Boccanfuso, & Gazzaley, 2010; Kyriakidou et al., 2014). For example, Kyriakidou et al. (2014) found that children recalled more when they had their eyes closed because the effect of eye-closure may have reduced the distractions that were present in the room. A reasonable assumption might be that the presence of more than one interviewer results in greater number of distractions and therefore less and less accurate information. This is an assumption that could be examined in future research in the eyes-open/eyes-closed example (Kyriakidou et al., 2014) because it would be expected that the presence of more adults will have a negative effect on recall (as in the present study) when children have their eyes open, but the number of adults will have no effect if children had their eyes closed.

With regards to age, and in accordance with other studies in this field (e.g. O’Neill & Zajac, 2013; Krahenbuhl & Blades, 2006; Waterman & Blades, 2013; Orbach & Lamb, 2007; Lamb, Hershkowitz, & Sternberg, 1996; Leander, 2010; Lamb, Sternberg, & Esplin, 2000) age was an influential factor. Older children were more likely to provide lengthier and more accurate information in free recall, however they also incorporated less inaccurate information and confabulations; which is though, something that could be attributed to the limited number of information provided. As older children provided far lengthier accounts they were more likely to incorporate inaccurate information on them. This come in addition to previous research (Lamb, Sternberg & Esplin, 2000; Waterman & Blades, 2013; Fivush, 1998, Leander, 2010), where younger children provided fewer incorrect items of information and confabulations, compared to older children, on their free recall responses.

Again, in line with previous research, younger children provided fewer correct and more incorrect answers in response to the 21 specific questions (O’Neill & Zajac, 2013; Krahenbuhl & Blades, 2006; Waterman & Blades, 2013; Orbach & Lamb, 2007; Lamb, Hershkowitz & Sternberg, 1996). In terms of age, the level of impact on younger and older children responses could be notable. Younger children’s responses to specific questions, seemed to have been received a greater impact by the number of adults present during the interview, in comparison to older children’s responses, who were comparatively impacted in a lesser extent. This could be attributed to increased resilience, self-efficacy and coping patterns, which are all factors have been mentioned to impact children’s interviewing performance, and which are more likely to be employed by older children (Nathanson & Saywitz, 2003). Younger children, also, provided more ‘don’t know/don’t remember’ responses, in comparison to older children. This, again, could be attributed to decreased resilience, self-efficacy and coping patterns applied during the interview, and thus expresses as a denial to make a better effort to provide responses on the questions being asked (Nathanson & Saywitz, 2003), or to younger’s children limited cognitive and linguistic abilities, and thus their true inability to provide answers on the questions being asked (Howe, 2000; Newcombe et al., 2000; Nelson, 1996)

Gender has been cited in some previous studies as an influential factor on children’s narratives (Ely & Ryan, 2008; Buckner & Fivush, 1998; Fivush, Berlin, Sales, Mennuti-Washburn, and Cassidy, 2003; Rice & Pasupathi, 2010; Peterson & Roberts, 2003), while on the other hand they have been perceived to be more likely to be affected by interviewing conditions (i.e. court conditions, Nathanson & Saywitz, 2003). Girls have been found to be more likely to provide more descriptive and accurate accounts about past events, compared to boys. In the present study, girls’ superiority in recalling events was found during the free recall-phase, as girls provided longer responses and included more correct items of information, however no gender difference was revealed in responses to specific questions. Therefore, any superiority of girls, in comparison to boys was limited.

These findings have implications for real-life practice, where children are called upon to provide evidence in front of more than one individual. Multiple adults during an interview with children may have a negative effect both on the quantity and accuracy of the information recalled. Children disclose less information in front of larger audiences. The size of the group present during the interview may have an effect on the child’s psychology and feelings, as children may feel safer and experience increased feelings of trust in a dyadic situation (Sobolof, 2012; Roberts, Lamb, & Sternberg, 2004; Kieckhaefer, Vallano, & Schreiber Compo, 2013; Nathanson & Saywitz, 2003). In Greece, current practice always involves the presence of more than one adult during an interview. There are always two police officers (usually one questioning and taking notes, while the other acts as a witness) andthere may also be a psychologist in the room.

On the basis of the present study, it can be suggested that having two police officers in the room is less effective than having just one, which has significant implications for police practice. In other countries, there may be only one officer in the room with the child - and one officer in a separate audio-visual room from which the interview can be recorded such as ABE (Ministry of Justice, 2011). From the present results, this latter arrangement would be preferable in Greece as well. However, as noted in chapter 2 (see page 67) police interviews in Greece are not recorded, but rely on handwritten inetrviewing notes.

One interesting finding that came from the present study was that there was no difference in the children’s performance when they were interviewed with two or with three adults in the room. This implies that Greek procedures that involve a psychologist (i.e. with three people in the room with the child) are unlikely to have any greater detrimental effect than when two adults are present in the room. In other words, increasing the number of people in the room (beyond one) did not result in a further decrease in content and accuracy of children’s reports. Additional research would be necessary to find out if the presence of larger numbers of adults (four or more) in the room has further negative effects on children’s testimony, while the presence of individuls with different levels of rapport and/or roles established can also be investigated. Moreover, as this study focused on the ideal interviewing, involving only the most effective techniques, research on more realistic circumstances, with regards to the interview iteself, as well as the environemt, such as empoying more types of questions, even the more perceived as negative ones,

**CHAPTER FOUR**

**EXPERIMENT 2**

**The effect of the number of interviewers on children’s responses to leading and unanswerable questions**

**4.1 Introduction**

The findings presented in chapter 3 showed that the presence of more than one adult in an interview with a child might have a negative impact on children's autobiographical narratives, both in terms of length and accuracy. As in most experimental studies investigating child autobiographical narratives, the questioning style adopted in experiment 1 was based on interview protocols, like ABE (Ministry of Justice, 2011) and research findings, which point out the superiority of open-ended questions (Bull, 2010; Myklebust & Bjørklund, 2009; Goodman & Aman, 1990, Orbach & Lamb, 2001; Oates & Shrimpton, 1991; Cederborg & Lamb, 2008; Cederborg et al., 2008; Brown et al., 2012). Yet applied interviews do not include just open-ended questions, as other types of questions sometimes are essential, while in some cases use of poor types of questions has also been noticed. A large body of published research agree that regardless of staff training or the existence of written protocols, the greater part of the interview consists of focused questions, including leading and unanswerable questions (Walker & Hunt, 1998; Cederborg, Orbach, Sternberg, & Lamb, 2000; Craig, Sheibe, Kircher, Raskin, & Dodd, 1999; Davies, Westcott, & Horan, 2000; Lamb, Hershkowitz, Sternberg, Boat, & Everson, 1996; Lamb, Hershkowitz, Sternberg, Esplin, et al., 1996; Sternberg et al., 1996). As a result, a more realistic design to investigate the effect of the number of adults present during an interview would need to include more focused questions, such as leading and unanswerable questions. In this way, the results could be perceived to be more likely to fit with current practices and procedures in interviewing child witnesses. Such as design would also examine the interviews resilience to poor interviewing techniques.

There is a fundamental difference between open-ended questions and more focused ones; open–ended questions probe recall memory, whereas more focused questions probe recognition memory. Questions that probe recall memory tend to be more effective in retrieving rich and reliable information, compared to questions probing recognition memory (Dent, 1982; Hershkowitz, Lamb, Sternberg, & Esplin, 1997; Leichtman & Ceci, 1995; Orbach & Lamb, 1999, Peterson & Biggs, 1997; Peterson, Dowden, & Tobin, 1999; ). According to Sternberg et al. (1996), recall memory and thus the superiority of open-ended questions can be attributed to the fact that they probe a more generalised recall, while, when probing recognition memory, more specific information is asked, something that can exert increased pressure on the child to respond to the question, even if he/she is unaware of the answer. Different type of questions, as a result, may act differently on children, and there may be differences on children’s recalling ability, when answering different type of questions.

More specific questions are often applied in practice (e.g. Cederborg, Orbach, Sternberg, & Lamb, 2000; Craig, Sheibe, Kircher, Raskin, & Dodd, 1999; Davies, Westcott, & Horan, 2000), as they are more effective for eliciting more relevant and specific information required for the investigation (Davies, Tarrant & Flin, 1989; Dent, 1992; Peterson & Biggs, 1997; Seidler & Howie, 1999; Peterson, Dowden, & Tobin, 1999). However, even if in some cases the use of more specific questions are inevitable, most errors in children’s accounts arise when children respond to closed questions and especially to yes/no questions (Peterson & Biggs, 1997; Peterson et al., 1999; Waterman, Blades, & Spencer, 2000), as usually children are also prone to providing inappropriate yes/no responses when they have not fully understood the question asked, usually avoiding asking for further clarification/ explanations (Waterman & Blades, 2000, 2001; Fritzley, Lindsay & Lee, 2013).

The type of question used is of high importance ([Waterman, Blades, & Spencer, 2001](http://ovidsp.tx.ovid.com.eresources.shef.ac.uk/sp-3.23.1b/ovidweb.cgi?QS2=#132), [2004](http://ovidsp.tx.ovid.com.eresources.shef.ac.uk/sp-3.23.1b/ovidweb.cgi?QS2=#133)). Children tend to provide more inaccurate responses to yes/no questions rather than to wh- questions, as they are more likely to attempt to answer the question asked, even if they are not aware of the answer (Waterman, Blades & Spencer, 2001, 2004; Patterson & Pipe, 2009). It has been suggested that yes/no questions are the most frequently used questions in interviews with children (Fritzley & Lee, 2003, Fritzley, Lindsay & Lee, 2013).

Compared to open-ended questions, leading and unanswerable questions have been thought to function differently, while various issues in terms of accuracy and reliability have arisen (Fivush et al., 2010; Dent & Stephenson, 1979; Shrimpton, Oates & Hayes, 1998; Goodman, Hirschman, Hepps, & Rudy, 1991; Lamb et al., 1995). Children find it difficult to provide accurate answers in response to unanswerable questions (Waterman, Blades, & Spencer, 2000, 2001; Krahenbuhl & Blades, 2006; Waterman & Blades, 2011; Bjorklund et al., 2000). Their tendency to fail to provide accurate answers to unanswerable questions has been attributed to children’s high effort to provide an answer, even if they are not aware of the actual questions being asked, instead of appropriately stating that they are not aware of the information asked for. This is caused by children’s increased feeling of pressure towards answering adults’ questions (Lampinen & Smith, 1995; Bjorklund et al., 2000; Newcombe & Dour, 2001; Waterman & Blades, 2011). In case of multiple adults present during an interview, it could be assumed that this pressure would be increased, based on experiment’s 1 resuls (chapter 3), and thus children may find it even harder to provide accurate answers in response to unanswerable questions, in front of larger audiences.

Leading questions have also perceived to be a less effective means of retrieving information of past events from children (Hershkowitz et al., 2006), although the use of leading questions is apparent in interviews with children (Guadagno & Powell, 2014; Hershkowitz, Lamb, Sternberg, & Esplin, 1997; Hughes-Scholes & Powell, 2008; Lamb et al., 1996). Sternberg et al (1996) studied 45 police interviews with children and revealed that more than half the questions were directive, leading, or suggestive. Even though since 1996 interviewers have been more aware ad cautious on interviewing techniques applied in practise, in including the use of leading questions, leading questions in some cases might still be used (i.e. Temporally leading questions, Guadagno & Powell, 2014), especially in untrained personnel, such as in the case of Greece. Since 1996, in the UK and other countries, policies regarding child interviewing have changed, there has been an increase of awareness on those topics, rise on the provision of training to interviewers, and interviewing guides and protocols have been involved in interviewing procedures (ABE, Ministry of Justice, 2011; NICHD, Lamb et al., 2011). Therefore, the inclusion of different types of questions, other than the most effective ones seems to be inevitable, in order to come up with findings that correspond and are applicable to actual practice.

Age has been identified as an influencing factor in both appropriate and inappropriate interviewing. Older children have been shown to provide more accurate and informative responses in open-ended, yes/no, forced choice, suggestive, and leading questions (Waterman & Blades, 2000, 2001; Krahenbuhl & Blades, 2006; Fritzley et al., 2013; Cassel, Roebers, & Bjorklund, 1996; Burck et al. 1995; Ceci & Bruck, 1995; Goodman & Aman, 1990; Poole & White, 1991, 1993). In general, older children tend to provide more accurate responses to unanswerable questions (Waterman & Blades, 2011; Beuscher & Roebers, 2005; [Roebers, Von der Linden & Howie, 2007](http://ovidsp.tx.ovid.com.eresources.shef.ac.uk/sp-3.23.1b/ovidweb.cgi?QS2=#126); [Waterman et al., 2004](http://ovidsp.tx.ovid.com.eresources.shef.ac.uk/sp-3.23.1b/ovidweb.cgi?QS2=#133)). Therefore, due to developmental factors, regardless of the level of difficulty of question asked, older children frequently have the lead in providing accurate and informative responses.

As previously mentioned, it could therefore be suggested that, while leading and unanswerable yes/no questions have been perceived to be highly challenging for children and less effective for gaining accurate and informative responses from children (e.g. Waterman & Blades, 2000, 2001, 2011; Krahenbuhl & Blades, 2006; Fritzley et al., 2013), they are still apparent in police interviews with children (e.g. Fritzley et al., 2013, Cedeborg, Orbach, Sternberg, & Lamb, 2000, Davies, Westcott, & Horan, 2000, Lamb et al., 1996; Sternberg et al., 1996). Therefore, it seems crucial for laboratory research to incorporate a sufficient number of leading, unanswerable and yes/no questions, to produce results that can be applicable in actual interviewing practice.

Hypotheses

It was hypothesised that:

1. Children’s performance in free recall will replicate the findings from experiment 1 and children will provide lengthier and most accurate recalls, when interviewed by a single adult.
2. As leading and unanswerable questions have been perceived as more challenging, in terms of effectiveness, and less reliable and accurate, as well as, based on experiment’s 1 results (chapter 3), it is assumed that children would find it more difficult to answer leading and unanswerable questions, in front of multiple adults present, compared to a single interviewer.
3. In light with experiment 1, it is likely that that children’s pressure in providing an answer in front of multiple adults would be greater compared to being interviewed in the presence of a single adult; and therefore, it may be proposed that children would it find more difficult to provide appropriate ‘don’t know’ responses to unanswerable questions.
4. appropriate (open-ended) questions will elicit more correct answers compared to inappropriate (leading and unanswerable) questions (Sternberg et al., 1996; Lamb et al., 2000; Korkman et al.2008; Orbach & Lamb., 2001; Phillips et al., 2012) and that more correct responses to both types of questions will be provided when children are interviewed in the presence of a single adult, compared to three adults (experiment 1).
5. Older children will provide more accurate responses, compared to younger children, to both appropriate and inappropriate questions (Waterman & Blades, 2000, 2001; Krahenbuhl & Blades, 2006; Fritzley et al., 2013; Cassel, Roebers & Bjorklund, 1996; Bruck et al. 1995; Ceci and Bruck, 1995; Goodman & Aman, 1990; Poole & White, 1991, 1993).

**4.2 Methodology**

## Sample

A total of 108 children aged between 6 and 12 years of age were recruited from three primary schools in Athens, Greece. Children who had been given parental permission were selected based on their age and willingness to participate. The sample consisted of 46 boys (mean age=9.0, sd=2.7) and 62 girls (mean age= 9.2, sd=2.5). The sample was divided into two age groups: young children, aged between five and seven years old (n=50, mean age= 6.4), and older children, aged between 10 and 12 years old (n=58, mean age=10.4). Children were also divided into two groups interviewed under different conditions, based on the number of adults, present during the interview. In condition 1 (n=49) there was one adult present, just the interviewer. In condition 2 (n=52) there were three adults present: the interviewer, and two other adults (research assistants), one male and one female.

Ethical approval was given by the Department of Psychology at the University of Sheffield, and the Ministry of Culture, Education and Religious Affairs in Greece.

## Procedure

The procedure was similar to Experiment 1 (see chapter 3) and the same materials were used. The children were asked to watch the film called *The Pet Shop* (see page 105) for seven minutes.

Approximately one week after seeing the film (between five and seven days after), the children were interviewed individually, either by one unfamiliar adult or by two unfamiliar adults in a quiet room. The interviews, were phased, based on existing interviewing protocols (ABE) and included 36 questions about the film (see below). 20 questions were the same as in Experiment 1, and 16 new questions were added; nine of these were leading or misleading questions and seven unanswerable. The questions were asked in different random order, similar to experiment 1. Each interview lasted between 10 and 12 minutes.

Children watched the film in groups of between 15 and 30 children, based on school’s schedule and classes. The film was shown by a research assistant accompanied by a teacher and there was no contact between the interviewer(s) and the children prior to the interview. One week after the viewing of the film, children were divided into two interviewing conditions and later were interviewed:

1. Interviews conducted by one female interviewer (so there was only one adult with the child in the room).

2. Interviews conducted by the same female interviewer in the presence of two other adults - a male and a female research assistant (so there were 3 adults in the room with the child).

The procedure followed was similar to experiment 1, at the start of each interview, the interviewer introduced herself, and the two additional adults, when present. During the interview, the additional adults, when present, remained silent and avoided any non-verbal communication (e.g. gestures) with the child.

Children were sent to the interview room individually where they met the interviewer or interviewers, depending on interviewing condition. Again, the procedure was the same as in Experiment 1 (see page 96), after an initial greeting, including welcoming and greeting the child, the interviewer explained the purpose of the interview and asked for verbal consent on the study. Children were asked general questions, non-related to the film, such as ‘Do you have any brothers or sisters?’, and ‘Do you have any pets?’ =, aiming on the establishment of rapport. As in Experiment 1, the two ground rules of the interview were explained to the children (‘if there is a question that you do not know or do not remember the answer to, you should say so and avoid guessing’, and ‘if at any point you need a break, you should say so’).

The interviewer then proceeded to the free-recall stage. The procedure for free recall was the same as in Experiment 1 (see page 96). After the free recall stage, the children were asked the following 36 specific questions. 20 questions were the same as in Experiment 1. In addition, there were nine leading questions and seven unanswerable questions:

1. What colour was the t-shirt that the owner of the pet shop was wearing? (correct answer: black).
2. When the children were playing basketball, what were they shouting? (answer: Orestis).
3. What was the boy who bought the dog doing in the park? (answer: counting his money).
4. What animals did you hear in the video? (answer: birds).
5. What did the boy answer the pet shop owner when he told him that the dog ‘can neither play nor run’? (answer: ‘Neither can I’).
6. What colour was the t-shirt of the boy who bought the dog? (answer: white).
7. What did the owner of the pet shop answer when the boy asked him, ‘Can I have a look?’ (answer: ‘Go for it’).
8. What colour was the dog the boy bought? (answer: white).
9. How many children were playing at the beginning of the film? (answer: five)
10. What colour was the cage that the boy found the dog in? (answer: green)
11. What were the children playing at the end of the film? (answer: football)
12. When the boy gave the pet shop owner the money, what was the money in? (answer: in a plastic bag)
13. What did the pet shop owner give to the first dog? (answer: food)
14. How many EURO notes did the boy count? (answer: three)
15. What was at the bottom of the cage? (answer: newspapers)
16. What did the boy do when the man touched his hair? (answer: He pulled his head away.)
17. How many dogs did you see in the film? (answer: three)
18. What was the name of the girl who showed you the film? (answer: Eva)
19. What colour was her blouse? (answer: black)
20. What colour was her hair? (answer: brown/dark brown)
21. Was the boy wearing a pair of blue-framed glasses (leading)? (answer: No, he was wearing a silver pair of glasses).
22. When the boy entered the pet shop, was the pet shop owner feeding an animal (leading)? (answer: No, he was tidying up a shelf with dog food on it).
23. At the beginning of the film, how many kinds of fish did you see (leading)? (answer: Just one - a goldfish).
24. Was the boy wearing a pair of blue pants (leading)? (answer: No, he was wearing grey pants).
25. Was the dog barking (leading)? (answer: No, he wasn’t barking at all).
26. Did the boy have a problem with his right leg (leading)? (answer: No, he had a problem with his left leg).
27. Was there a white cat in the pet shop (leading)? (answer: No, there was no cat in the shop).
28. Did the pet shop owner talk on the phone with his wife (leading)? (answer: No, he was talking with his supplier).
29. Did you see any turtles in the pet shop (leading)? (answer: No, there were no turtles in the shop).
30. Where did the boy get the money to buy the dog (unanswerable)?
31. How many animals did the pet shop owner have (unanswerable)?
32. What colour was the toy the boy bought for his dog (unanswerable)?
33. Was the boy 10 years old (unanswerable)?
34. Did the boy hurt his leg in an accident (unanswerable)?
35. Did the boy like playing tennis (unanswerable)?
36. Were children off school due to summer vacations (unanswerable)?

The questions were asked in a different random order for each participant (by using a set of shuffled cards) with certain constraints; any question that included information that could influence responses to a later question was asked after the question(s) that might be influenced. For example, the question ‘What did the pet owner give to the first dog? (answer: food) always came before the question ‘When the boy entered the pet shop, was the pet shop owner feeding an animal’?

At the end of the interview, children were asked if there was anything else that they would like to say and were thanked for taking part of the study. Before they left the interview room, some neutral closing questions were asked (see Experiment 1).

## Coding

All interviews were audio-recorded and later transcribed. Free-recall responses were coded for the number of words spoken and the number of correct or incorrect items of information and confabulations provided by the child. Coding was the same as for Experiment 1.

Questions were divided into three different categories: 1. Appropriate questions, meaning questions that could be answered using information provided in the film, 2. Unanswerable questions, meaning questions that couldn’t be answered using information provided in the film, 3. Leading questions, meaning questions that led children to a specific answer. Responses to appropriate and leading questions were coded as correct, incorrect, or ‘don’t know/don’t remember’ responses. Responses to unanswerable questions were coded as correct, incorrect and ‘don’t remember’ responses. Responses to appropriate and leading questions were coded as correct when they matched the information provided in the film, while don’t know/don’t remember responses were coded as such. All other responses were coded as incorrect. Answers to unanswerable questions were coded as correct if a child gave a ‘don’t know’ response or any other response stating that the information asked for was not in the film. Responses stating that the child did not remember the information asked were coded as ‘don’t remember’; any other response was coded as incorrect.

To assess the reliability of coding, 30 children’s responses were coded by a second rater. The second rater was a native Greek speaker and had been given the correct answers. Inter-rater agreement for the number of words in free recall was (k) 1.00, indicating perfect agreement, for the number of correct items of information was (k) .932, for the number of incorrect items was (k) .982 and confabulations (k) 1.00, indicating very good and perfect agreement. For the appropriate responses was (k) .959, indicating almost perfect agreement; for leading responses, it was (k) 1.00, indicating perfect agreement; and (k) .946 for ‘don’t know/remember’ responses. Therefore, there was almost perfect agreement between the two raters. Any differences were discussed and resolved.

**4.3 Results**

Free recall

A 2 condition (one, three interviewers) x 2 age group (young, old) and 2 gender of child (boys, girls) ANOVA test was conducted to investigate the effects of interview conditions, age and gender on the number of words provided by children during free recall. The interview conditions had a small effect, as shown by F(1,100)= 8.119, p < .005, η2= .075, on the number of words provided by the children Children interviewed by a single interviewer (n=53, mean= 105.5, sd=70.8) provided lengthier responses through free recall, compared to children interviewed in the presence of three adults (n=55, mean=72.0, sd=55.0). Age had a large effect on children’s responses as F(1,100)= 109.145, p< .001, η2= .522. Younger children provided shorter responses (n=52, mean=42.3, sd=29.6), compared to older children (n=56, mean= 128.3, sd=61.1). Gender had no effect, as shown by F(1,100)= .030, p= .863. There were no interactions.

A 2 condition (one, three interviewers) x 2 age group (young, old) and 2 gender of child (boys, girls) ANOVA was conducted to investigate the effects of interview conditions, age and gender on the number of correct items of information provided by children during free recall. The interview conditions had a small effect, as shown by F(1,100)= 5.167, p= .025, η2= .049. Children interviewed by a single interviewer (n=53, mean= 14.7, sd=9.0) provided more correct items of information in their responses through free recall, compared to children interviewed in the presence of three adults (n=55, mean=11.1, sd=7.9). Age had a large effect on children’s responses as F(1,100)= 103.105, p= .000, η2= .508. Younger children provided less correct responses (n=52, mean=6.6, sd=4.3), compared to older children (n=56, mean= 18.7, sd=7.5). Gender had no effect, as shown by F(1,100)= .710, p= .402. There were no interactions.

A 2 condition (one, three interviewers) x 2 age group (young, old) and 2 gender of child (boys, girls) ANOVA was conducted to investigate the effects of interview conditions, age and gender on the number of incorrect items of information provided by children during free recall. The interview conditions had no significant effect, as shown by F(1,100)= .052, p= .820. Age also had no effect on children’s responses as F(1,100)= .836, p= .363. Gender had a small effect, as shown by F(1,100)= 4.926, p= .029, η2= .047. Boys (n=46, mean=1.1, sd= 1.5) provided more incorrect items of information on their responses compared to girls (n=62, mean= .64, sd= .77). There were no interactions.

A 2 condition (one, three interviewers) x 2 age group (young, old) and 2 gender of child (boys, girls) ANOVA was conducted to investigate the effects of interview conditions, age and gender on the number of confabulations provided by children during free recall. The interview conditions had no significant effect, as shown by F(1,100)= .013, p= .910. Age also had a small effect on children’s responses as F(1,100)= 6.386, p= .013, η2= .060. Younger children provided less confabulations in their responses (n=52, mean=.15, sd=.50), compared to older children (n=56, mean= .43, sd=.76). Gender had no effect, as shown by F(1,100)= .191, p= .663. There were no interactions.

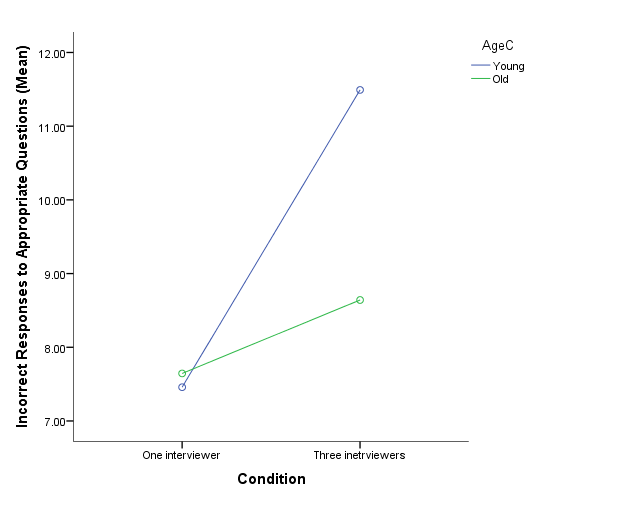
Appropriate questions

A 2 condition (one, three interviewers) x 2 age group (young, old) and 2 gender of child (boys, girls) ANOVA was conducted to investigate the effects of interviewing conditions, age and gender on the number of correct answers provided to appropriate questions. Interviewing conditions had a medium effect, as F(1,100)= 10.993, p< .001, η2= .099. Children interviewed by a single interviewer (n=53, mean= 6.9 (out of 20), sd=2.6) provided more correct responses to appropriate questions, compared to children interviewed in the presence of three adults (n=55, mean=5.0 (out of 20), sd=2.9). Age also had a large effect, as F(1,100)= 37.517, p= .000, η2= .276. Younger children provided shorter responses (n=52, mean=4.5 (out of 20), sd=2.3) compared to older children (n=56, mean= 7.2 (out of 20), sd=2.8). Gender had no effect - F(1,100)= .385, p= .536.

A 2 condition (one, three interviewers) x 2 age group (young, old) and 2 gender of child (boys, girls) ANOVA was conducted to investigate the effects of the interviewing conditions, age and gender on the number of incorrect answers provided to appropriate questions. A medium effect of interviewing conditions on children’s responses was observed, as F(1,100)= 12.006, p= .001, η2= .107. Children interviewed by a single interviewer (n=53, mean= 7.5(out of 20), sd=3.5) provided fewer incorrect responses to appropriate questions, compared to children interviewed in the presence of three adults (n=55, mean=10.0 (out of 20), sd=4.0). Age had no effect, as F(1,100)= 3.367, p= .069, and neither did gender, F(1,100)= .675, p= .413.

There was an interaction between interviewing condition and age, as F(1,100)= .902, p= .001, η2= .80. There was an increase of incorrect responses to appropriate questions given by both younger and older children when interviewed in the presence of three adults. Younger children’s responses showed a greater increase of incorrect responses when interviewed in the presence of three adults (Graph 4.1).

*Graph 4.1 Interaction between Age and Interviewing Condition on Incorrect Responses on Appropriate Questions*

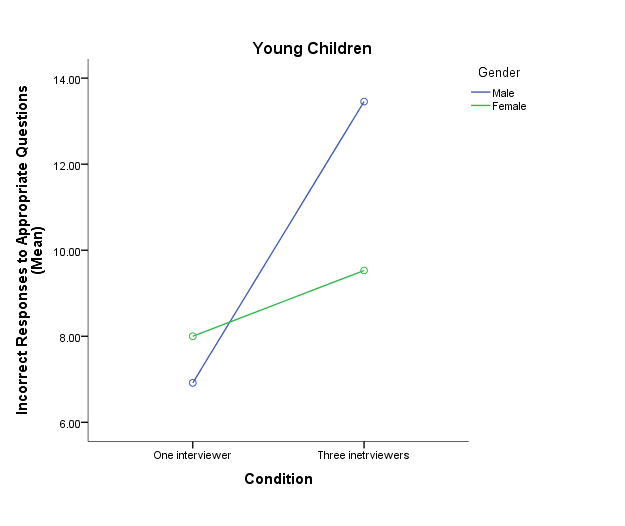


There was also a significant interaction between interviewing conditions, age, and gender F(1,100)= 5.195, p= .025, η2= .049 (table 4.1). Older boys’ and younger girls’ performance were only slightly affected by interviewing condition, and there was only a slight increase on the number of incorrect responses, provided, when children were interviewed in the presence of three adults. In interviews with one interviewer young girls were slightly worse than young boys, however in the presence of three adults, young boys were much worse. On the contrary, older boys performed worse in front of a single interviewer and old girls much worse, than older boys, when interviewed in the presence of three adults. Girls were better in front of a group at younger age (5-6 years), while boys were better at an older age (11-12 years) (Table 4.1, Graph 4.2, 4.3).

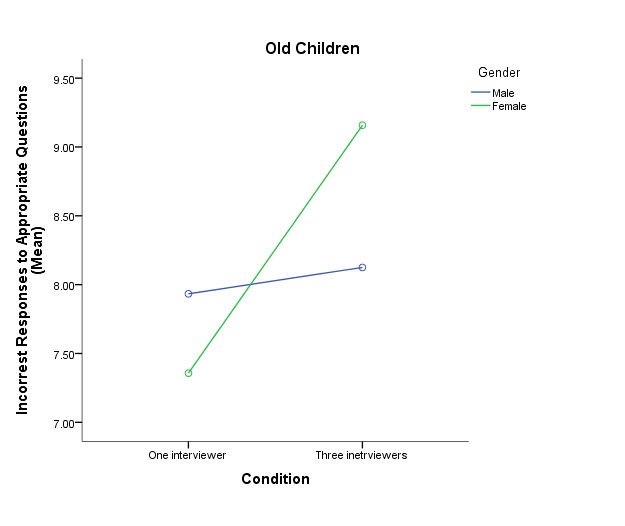
*Table 4.1 The number of incorrect answers to appropriate questions (n=20)*

|  |  |  |  |
| --- | --- | --- | --- |
| Interviewing condition | Age | Incorrect Answers  (Appropriate questions) | |
|  |  | Mean (SD) | |
|  |  | Boys | Girls |
| One Interviewer | *Young* | 6.9 (4.7) | 8.0 (3.7) |
| *Old* | 7.9 (2.1) | 7.3 (3.7) |
| Three interviewers | *Young* | 13.4 (3.2) | 9.5 (5.3) |
| *Old* | 8.1 (2.5) | 9.1 (2.4) |

*Graph 4.2 Interaction between Interviewing Condition, Age and Gender on Incorrect Responses on Appropriate Questions (Young Children)*



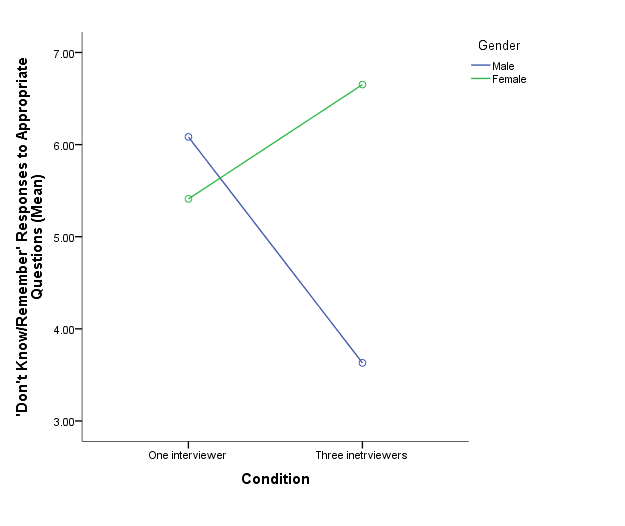
*Graph 4.3 Interaction between Interviewing Condition, Age and Gender on Incorrect Responses on Appropriate Questions (Old Children)*



A 2 condition (one, three interviewers) x 2 age group (young, old) and 2 gender of child (boys, girls) ANOVA test was conducted to investigate the effects of interviewing conditions, age and gender on the number of ‘don’t know/don’t remember’ answers provided to appropriate questions. In this case, interview conditions had no effect, as shown by F(1,100)= .850, p= .359. Age had a small effect, as F(1,100)= 7.062, p= .009, η2= .066. Younger children provided more ‘don’t know/don’t remember’ responses (n=52, mean=6.5 (out of 20), sd=4.5), compared to older children (n=56, mean= 4.7 (out of 20), sd=2.3). Gender had no effect, as indicated by F(1,100)= .3193, p= .077.

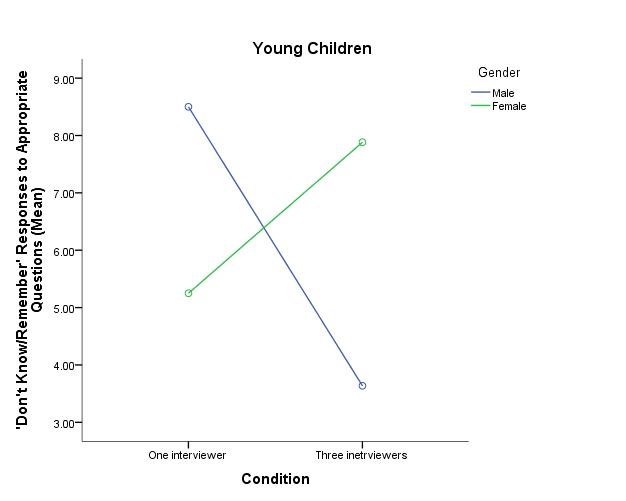
There was a significant interaction between interviewing conditions and gender F(1,100)= 7.900, p= .006, η2= .073. Girls (n=29, mean=4.9 (out of 20), sd=2.7). Girls provided more ‘don’t know/don’t remember’ responses to appropriate questions when interviewed in the presence of three adults (n=36, mean= 6.6, sd=39) compared to a single adult (n=26, mean=5.4, sd=2.7), while boys provided more ‘don’t know/don’t remember’ responses when interviewed by a single adult (n=27, mean=5.8, sd=4.2), compared to the presence of three adults (n=19, mean=3.6, sd=2.7). Boys provided more ‘don’t know/remember’ responses when interviewed in the presence of a single interviewer, in comparison to girls, who provided more ‘don’t know/remember’ responses when interviewed in the presence of three adults (Graph 4.4).

*Graph 4.4 Interaction between Interviewing Condition and Gender on ‘Don’t Know/Remember’ Responses to appropriate questions.*

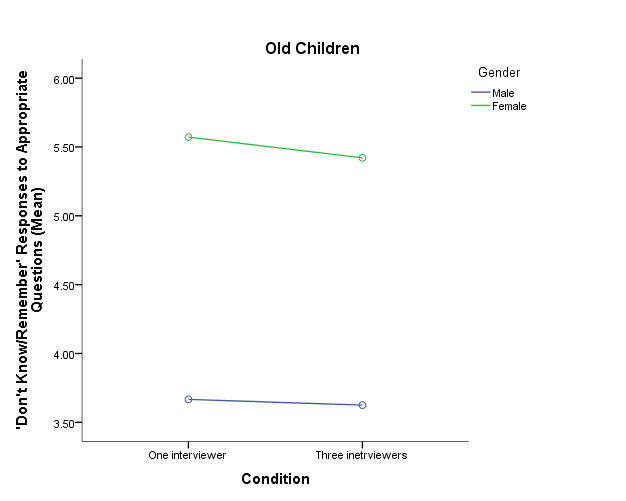


There was significant interaction between the interview conditions, age and gender, as shown by F(1,100)= 8.372, p= .005, η2= .077. Table 4.2 and Graph 4.4 illustrate the interaction between the three variables. Young boys provided more ‘don’t know/remember’ responses, compared to young girls, however, when interviewed in front of three adults, young girls provided more ‘don’t know/remember’ responses. Older children’s responses did not change a lot between interviewing conditions. There was no interaction (Table 4.2, Graph 4.5, 4.6).

*Graph 4.5 Interaction between Interviewing Condition, Age and Gender on ‘Don’t Know/Remember’ Response to appropriate questions (Young Children)*



*Graph 4.6 Interaction between Interviewing Condition, Age and Gender on ‘Don’t Know/Remember’ Response to appropriate questions (Young Children)*



*Table 4.2, The number of ‘don’t know/don’t remember’ answers to appropriate questions (n=20)*

|  |  |  |  |
| --- | --- | --- | --- |
| Interviewing condition | Age | ‘Don’t know/  don’t remember’ Answers  (Appropriate questions) | |
|  |  | *Mean (SD* | |
|  |  | *Boys* | *Girls* |
| One Interviewer | *Young* | 8.5 (4.8) | 5.2 (2.9) |
|  | *Old* | 3.7 (1.8) | 5.6 (2.7) |
| Three interviewers | *Young* | 3.6 (3.5) | 7.9 (4.8) |
|  | *Old* | 3.6 (1.6) | 5.4 (2.3) |

Leading questions

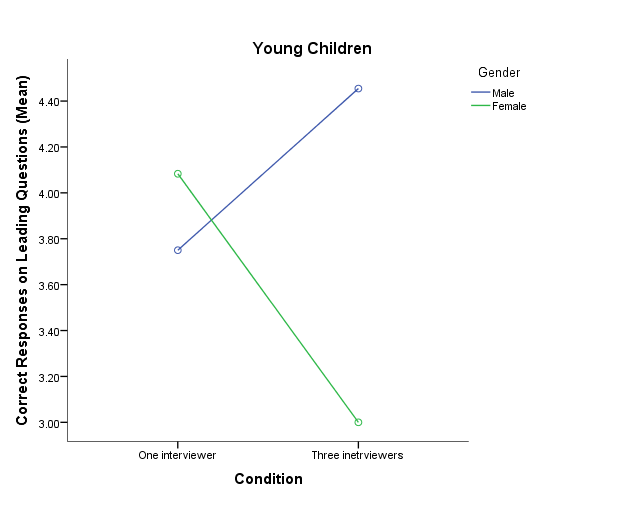
A 2 condition (one, three interviewers) x 2 age group (young, old) and 2 gender of child (boys, girls) ANOVA was conducted to investigate the effects of interviewing conditions, age and gender on the number of correct answers provided to leading questions. Interviewing conditions seemed to have no effect, as F(1,100)= .131, p= .718. This also held true for age, where F(1,100)= 2.051, p= .155. However, gender seemed to have a small effect, shown by F(1,100)= 5.998, p= .016, η2= .057, as boys provided more correct answers to leading questions (n=46, mean=4.5 (out of 9), sd=1.8), compared to girls (n=62, mean= 3.6 (out of 9), sd=1.4).

There was significant interaction between interviewing conditions, age, and gender F(1,100)= 4.758, p= .031, η2= .45 (table 4.3+ graphs). There was a rise of younger boys’ correct responses on leading questions when interviewed in the presence of three adults, while there was a decrease of correct responses on leading questions, given by younger girls, when interviewed in the presence of three adults. In addition, there was a slight decrease of the man number of correct responses given by older boys and a slight increase on older girls’ correct responses to leading questions, when interviewed in the presence of three adults. In summary, it seems that younger girls were negatively affected by the presence of more than one adult in the interviewing room, while older girls were positively affected; in addition to younger boys’ responses, which were positively affected by the presence of three adults in the room and older boys’, which were negatively affected (see Table 4.3, Graphs 4.7, 4.8).

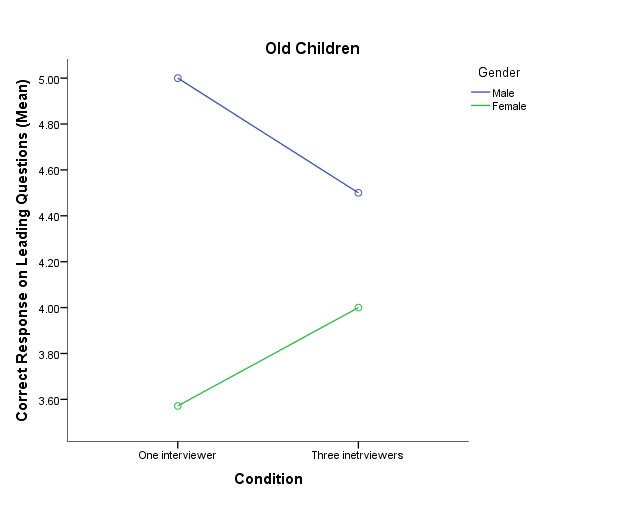
*Table 4.3. The number of correct answers to leading questions (n=9)*

|  |  |  |  |
| --- | --- | --- | --- |
| Interviewing condition | Age | Correct Answers  (Leading questions) | |
|  |  | *Mean(SD)* | |
|  |  | *Boys* | *Girls* |
| One Interviewer | *Young* | 3.7 (2.2) | 4.1 (1.6) |
|  | *Old* | 5.0 (1.4) | 3.6 (1.4) |
| Three interviewers | *Young* | 4.4 (1.8) | 3.0 (1.6) |
|  | *Old* | 4.5 (1.9) | 4.9 (.67) |

*Graph 4.7 Interaction between Interviewing Condition, Age and Gender on Correct Responses to Leading Questions (Young Children).*

**

*Graph 4.8 Interaction between Interviewing Condition, Age and Gender on Correct Responses to Leading Questions (Old Children).*

**

A 2 condition (one, three interviewers) x 2 age group (young, old) and 2 gender of child (boys, girls) ANOVA was conducted to investigate the effects of interviewing conditions, age and gender on the number of incorrect answers provided to leading questions. Interviewing conditions had no effect on responses, as F(1,100)= .755, p= .387. Neither did age (F(1,100)= 1.730, p= .191) or gender (F(1,100)= 2.729, p= .102). There were no interactions.

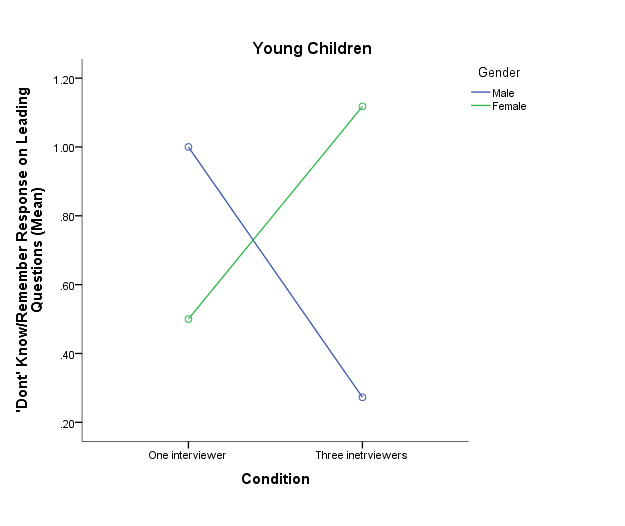
A 2 condition (one, three interviewers) x 2 age group (young, old) and 2 gender of child (boys, girls) ANOVA was conducted to investigate the effects of interviewing conditions, age and gender on the number of ‘don’t know/don’t remember’ to leading questions. No effect was observed for changing interviewing conditions, as F(1,100)= .571, p= .452. This was also the case for age, where F(1,100)= .271, p= .604, and gender, where F(1,100)= 3.684, p= .058.

There were significant interactions between interviewing conditions, age and gender, since F(1,100)= 6.110, p= .015, η2= .058. Young boys provided more ‘don’t know/remember’ responses than girls, when interviewed in the presence of one interviewer. When interviewed in front adults, children’s responses were reversed, girls provided more ‘don’t know/remember’ responses than boys. Older girls provided more ‘don’t know/remember’ responses, when interviewed by a single interviewer, compared to when interviewed in the presence of three adults. Boys provided less ‘don’t know/remember’ responses, compared to girls and there was no bog change noticed between interviewing conditions. However, it should be noted that the number of ‘don’t know/remember’ responses was limited and thus it would be difficult to come up with any definite conclusion. (see Table 4.4 and Graphs 4.9, 4.10).

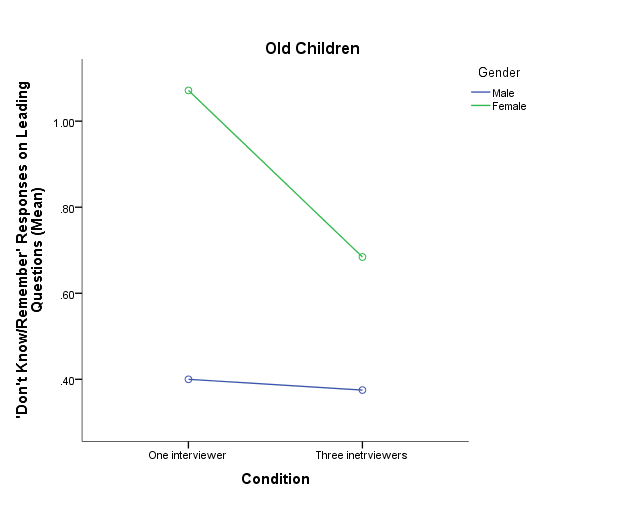
*Table 4.4. The number of ‘don’t’ know/don’t remember’ answers to leading questions (n=9)*

|  |  |  |  |
| --- | --- | --- | --- |
| Interviewing condition | Age | ‘Don’t/know/ don’t remember’ Answers  (Leading questions) | |
|  |  | *Mean(SD)* | |
|  |  | *Boys* | *Girls* |
| One Interviewer | *Young* | 1.0 (.74) | .50 (.67) |
|  | *Old* | .40 (.83) | 1.1 (1.1) |
| Three interviewers | *Young* | .27 (.65) | 1.1 (1.2) |
|  | *Old* | .37 (.52) | .68(.75) |

*Graph 4.9 Interaction between Interviewing Condition, Age and Gender on ‘Don’t Know/Remember’ Responses to Leading Questions (Young Children).*



*Graph 4.10 Interaction between Interviewing Condition, Age and Gender on ‘Don’t Know/Remember’ Responses to Leading Questions (Old Children).*



Unanswerable questions

A 2 condition (one, three interviewers) x 2 age group (young, old) and 2 gender of child (boys, girls) ANOVA test was conducted to investigate the effects of interviewing conditions, age and gender on the number of correct responses given to unanswerable questions. Interviewing conditions had a small effect, as F(1,100)= 4.316, p= .040, η2= .041. Children provided more correct responses to unanswerable questions when interviewed by a single adult (n=53, mean 2.0 (out of 7), sd= 1.7), compared to when interviewed in the presence of three adults (n=55, mean 1.3 (out of 7), sd=1.5). Age also had an effect, where F(1,100)= 27.009, p= .000, η2= .213. Older children (n=56, mean 2.4 (out of 7), sd=1.9) provided more correct answers to unanswerable questions, compared to younger children (n=52, mean= .92 (out of 7), sd= .85). Gender had no effect, as F(1,100)= .820, p= .367. There were no interactions.

A 2 condition (one, three interviewers) x 2 age group (young, old) and 2 gender of child (boys, girls) ANOVA test was conducted to investigate the effects of interviewing conditions, age and gender on the number of incorrect answers given to unanswerable questions. A small effect of interviewing conditions to the accuracy of answering unanswerable questions was observed, where F(1,100)= 8.275, p= .005, η2= .076. Children interviewed in the presence of a single adult, the interviewer, provided fewer incorrect responses to unanswerable questions (n=53, mean= 3.8 (out of 7), sd=2.0), compared to children interviewed in the presence of three adults (n=55, mean 4.9 (out of 7), sd= 1.8). Age also had a medium effect, as F(1,100)= 12.915, p= .001, η2= .114; younger children gave more incorrect responses (n=52, mean=5.0 (out of 7), sd= 1.7), in comparison with older children (n=56, mean= 3.7 (out of 7), sd= 2.1). Gender had no effect, as F(1,100)= .068, p= .795. There were no interactions.

A 2 condition (one, three interviewers) x 2 age group (young, old) and 2 gender of child (boys, girls) ANOVA test was conducted to investigate the effects of interviewing conditions, age and gender on the number of ‘don’t remember’ responses provided to unanswerable questions. Interviewing conditions had a small effect on responses, as F(1,100)= 4.950, p= .028, η2= .047. Children interviewed by a single adult gave more ‘don’t remember’ responses (n=53, mean= 1.2 (out of 7), sd=1.2), in comparison to children interviewed in the presence of three adults (n=55, mean= .72 (out of 7), sd= .99). Age, where F(1,100)= .277, p= .600, and gender, where F(1,100)= .839, p= .362, had no effect. There were no interactions.

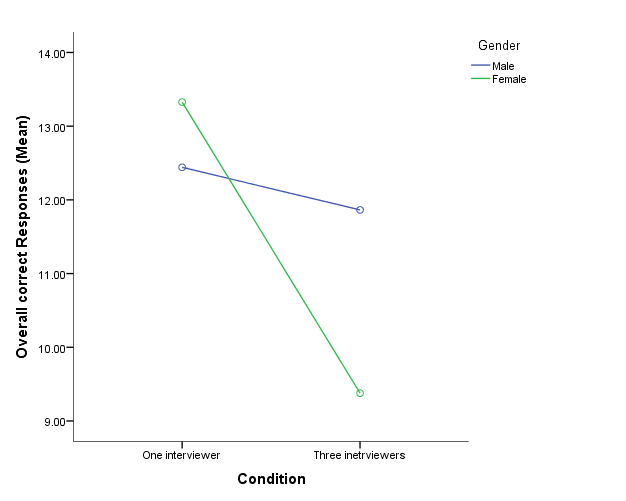
Overall performance

‘Don’t know/don’t remember’ responses were excluded from the overall performance analysis, as they were coded differently for the responses given to unanswerable questions (where the ‘don’t know’ responses were coded as correct and ‘don’t remember’ responses were coded separately).

A 2 condition (one, three interviewers) x 2 age group (young, old) and 2 gender of child (boys, girls) ANOVA test was conducted to investigate the effects of interviewing conditions, age and gender on the number of correct answers provided in children’s responses to 36 specific questions (appropriate questions n=20, leading questions n=9, unanswerable questions n=7). A medium effect was observed for interviewing conditions, as F(1,100)= 11.066, p= .001, η2= .100. Children interviewed by a single interviewer (n=53, mean= 13.1 (out of 36), sd=4.2) provided more correct responses, compared to children interviewed in the presence of three adults (n=55, mean=10.1 (out of 36), sd=4.2). Age, where F(1,100)= 1.382, p= .234, and gender, where F(1,100)= 1.382, p=.243, had no effect.

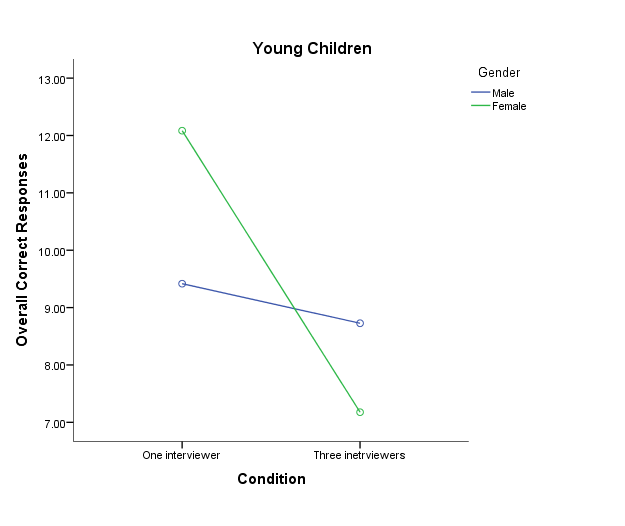
There was significant interaction between interviewing conditions and gender with regards to the number of correct responses provided overall, as F(1,100)= 6.136, p= .015, η2= .058. Both girls (n=26, mean=13.4(out of 36), sd=3.9) and boys (n=27, mean=12.8 (out of 36), sd=4.4) provided more correct responses when interviewed by a single adult, compared to when interviewed in the presence of three adults (girls: n=36, mean= 9.5 (out of 36), sd= 3.8), boys: n=19, mean= 10.4 (out of 36), sd=4.8). Boys seem to be better in front of three adults, while girls are better when interviewed by a single interviewer (Graph 4.11).

*Graph 4.11 Interaction between Interviewing Condition and Gender on correct responses to specific questions.*

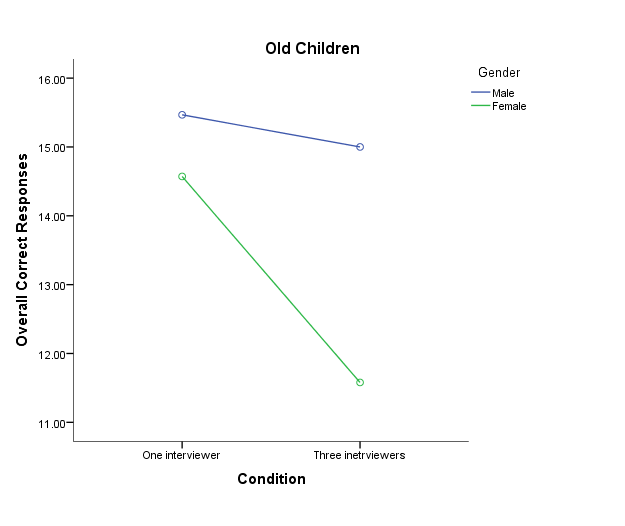


There was also significant interaction between age and gender with regards to correct responses provided on the overall interviews, as F(1,100)= 3.982, p= .049, η2= .038. There was a decrease of correct responses provided by both boys and girls, of both age groups, younger and older, when interviewed in front of three adults. Young girls performed better compared to young boys in front of a single interviewer, while they performed worse in front of three adults. Old boys performed better, in comparison to old girls, in both interviewing conditions, and their responses were decreased when interviewed in the presence of three adults, as did girls’ responses (Graphs 4.12, 4.13).

*Graph 4.12 Interaction between Interviewing Condition, Age and Gender on Correct Responses to specific Questions (Young Children).*



*Graph 4.13 Interaction between Interviewing Condition, Age and Gender on Correct Responses to specific Questions (Old Children).*



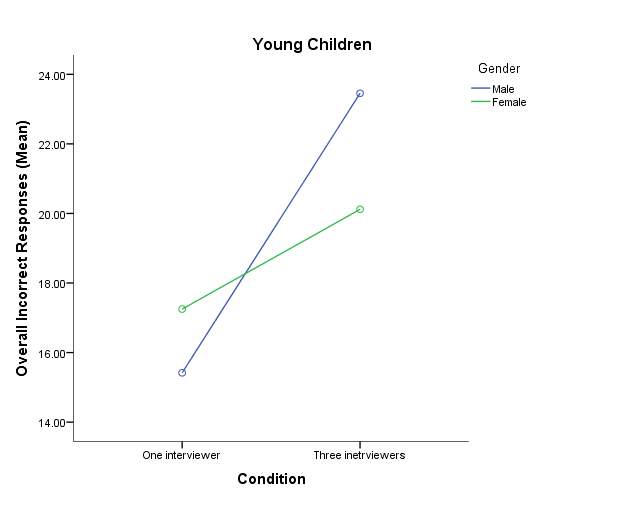
A 2 condition (one, three interviewers) x 2 age group (young, old) and 2 gender of child (boys, girls) ANOVA was conducted to investigate the effects of interviewing conditions, age and gender on the number of incorrect answers children gave to 36 specific questions (appropriate questions n=20, leading questions n=9, unanswerable questions n=7). A medium effect of interviewing condition was observed, as F(1,100)= 14.470, p= .000, η2= .126. Children interviewed by a single interviewer (n=53, mean= 15.6 (out of 36), sd=5.3) gave fewer incorrect answers, compared to children interviewed in the presence of three adults (n=55, mean=19.5 (out of 36), sd=5.2). Age also had a small effect, as F(1,100)= 9.163, p= .003, η2= .084. Younger children (n=52, mean=19.1 (out of 36), sd=5.2) gave more incorrect responses, compared to older children (n=56, mean=16.2 (out of 36), sd=4.4). Gender had no effect, as F(1,100)= .025, p= .875.

There was significant interaction between interviewing conditions, age and gender with regards to the overall incorrect responses provided by children, as shown by F(1,100)= 4.211, p= .043, η2= .040 (table 4.5). Both girls’ and boys’ incorrect responses were increased when interviewed by three adults, however the level of increase was different, for each age group. Younger boys’ and older girls’ incorrect responses were increased dramatically, when interviewed in the presence of three adults, while older boys’ and younger girls’ incorrect responses were just slightly increased, when interviewed in front of three adults. Younger children, of both genders, provided on average more incorrect responses compared to older children (see Table 4.5, Graphs 4.14, 4.15).

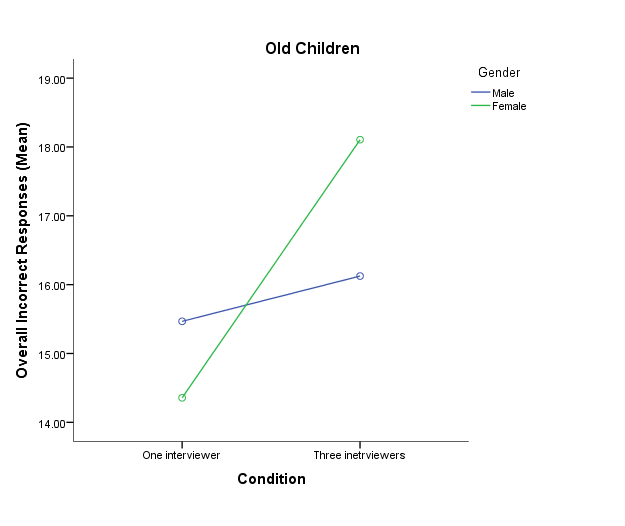
Table 4.5. The number of correct and incorrect responses to the overall specific 36 questions asked.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Interview condition | Age | Correct responses | | Incorrect responses | | |
|  |  | Mean(SD) | | | |
|  |  | *Boys* | *Girls)* | *Boys* | *Girls* |
| One Interviewer | *Young* | 9.4 (3.0) | 12.1 (3.0) | 15.4 (5.9) | 17.2 (5.6) |
|  | *Old* | 15.5 (3.5) | 14.6 (4.3) | 15.5 (4.1) | 14.3 (5.8) |
| Three interviewers | *Young* | 8.7 (3.1) | 7.2 (2.7) | 23.4 (4.6) | 20.1 (6.4) |
|  | *Old* | 15.0 (4.4) | 11.6 (3.4) | 16.1 (3.6) | 18.1 (3.4) |

*Graph 4.14 Interaction between Interviewing Condition, Age and Gender on Incorrect Responses to Specific Questions (Young Children).*



*Graph 4.15 Interaction between Interviewing Condition, Age and Gender on Incorrect Responses to Specific Questions (Old Children).*



* 1. **Discussion**

According to the findings of the study, which come in accordance with Experiment 1 children interviewed in front of a single adult, compared to when interviewed in the presence of three, provided lengthier and more accurate accounts in free recall. When interviewed in the presence of a single adult, children also provided more correct and less incorrect responses to appropriate and unanswerable specific questions, compared to being interviewed in front of three adults; this result corresponds with Experiment 1.

Moreover, in unanswerable questions, children provided more ‘don’t remember’ responses, when interviewed in front of a single adult. The study revealed no difference with regards to answers, provided on leading questions, which however could be attributed on the inappropriateness of this type of question. The children’s overall performance, supported the main hypothesis by showing that children perform better when interviewed in the presence of a single adult, in comparison to multiple adults. Based on this study’s findings, which correspond to the findings from experiment 1, it is suggested that children’s recalling performance is being influenced by the number of adults, present, and that children perform better on recalling past events when interviewed by a single adult.

With regards to age, in line with Experiment 1 and this study’s hypothesis, older children provided lengthier and more accurate accounts in free recall. However, similarly to Experiment 1, older children’s accounts included more confabulations, which seems to be attributed to their lengthier recall; so, as thy provided lengthier accounts, they also included more confabulations. Older children, again in accordance with Experiment 1, provided more correct and ‘don’t know/remember’ answers in response to appropriate questions. No differences were revealed on leading questions, while on unanswerable questions older children performed better, as they provided more correct and less incorrect answers, in comparison to younger children.

In accordance, to Experiment 1 and previous studies (Bauer, McAdams & Sakaeda, 2005; McLean, 2005; Schlagman et al., 2009), gender differences revealed in the study were limited. No difference in specific questions was revealed, and the only difference in free recall, with regards to gender, was that boys provided more incorrect information, in comparison to girls.

As discussed in chapter 3, children’s better recalling performance, when interviewed by a single interviewer, might be attributed to: 1. children’s reluctance to reveal information in front of a larger audience, as children usually choose one-to-one contexts to reveal abusive events (Simmel, 1902; Solano & Dunnam, 1985; Priebe & Svedin, 2008; Nathanson & Saywitz, 2003), 2. One-to-one contexts may provide increased feelings of safety, intimacy and trust (Sobolof, 2012; Roberts, Lamb, & Sternberg, 2004; Kieckhaefer, Vallano, & Schreiber Compo, 2013; Nathanson & Saywitz, 2003), which may have a positive impact on the effective establishment of rapport (Roberts, Lamb, & Sternberg, 2004; Kieckhaefer, Vallano, & Schreiber Compo, 2013) and thus on children’s recalls, 2. One-to–one contexs include fewer environmental distractions, which may have a positive effect on children’s recalling performance (Wais, Rubens, Boccanfuso, & Gazzaley, 2010; Kyriakidou et al., 2014).

Therefore, due to all those potential explanations, children provided lengthier and more accurate accounts in free recall and open-ended questions. It could be assumed that because of the nature of the free-recall and open-ended questions, which have been proved to be highly effective means to acquire information from children, any differences on child accounts could be easily noticeable. In other words, as children tend to provide a comparatively big amount of information and high accuracy, any decrease, caused by other influencing factors (i.e. environmental and in this case the number of adults present during the interview), would be easily noticeable; and this is why it has been used in both Experiment 1 and 2. However, free recall and open-ended questions are the most effective means for acquiring information from children, and in some cases, are not the only type of questions being involved in a real case police interview. So even though, it has been seen that the number of adults present during an interview with the child has an impact on the amount and accuracy of information recalled, other types of questions, frequently involved in police interviews with children, which we try to replicate, were explored on this study.

Unanswerable questions were one of the questions been explored. Again, in line with open-ended questions, as shown in Experiment 1 this study, children, interviewed in the presence of a single adult, showed an increased accuracy in responding to unanswerable questions, in comparison to children interviewed in front of three adults. More precisely, children, interviewed by a single adult, provided more correct and less incorrect responses, while they also provided more ‘don’t remember’ responses, compared to children interviewed in the presence of three adults. Noticeably, ‘don’t remember’ responses can be seen as a way of children indicating that they were unaware of the information asked for, and therefore, it could be thought as being an answer quite close to the correct one. Therefore, our findings suggest that children, interviewed by a single interviewer, were more likely to provide correct answers, less likely to provide incorrect answers and more likely to confirm their unawareness of the information. As a result, again study’s hypothesis has been confirmed by the findings and comes in accordance with previous results of the study, as well as Experiment 1, indicating that the number of adults present during an interview has an effect on children’s recall. As it has been previously mentioned, this can be attributed to several factors, such as feelings of safety, and ease, rapport establishment and environmental distraction.

Leading questions revealed no effect on children’s performance whether they were interviewed in the presence of a single or of multiple adults, while no age differences were revealed. This finding corresponded to previous studies (Amman, 1990; Dent, 1982; Fivush et al., 2010; Shrimpton, Oates & Hayes, 1998; Goodman & Goodman, Hirschman, Hepps, & Rudy, 1991). Leading questions is a type frequently avoided by interviewers and has been linked to inaccurateness and increased suggestibility (Fivush et al., 2010; Hershkowitz et al., 2006; Lamb et., 1996), and thus children’s performance in general is poor, when answering such questions and it is difficult to identify any improvements on children’s performance on those questions. There the no difference between interviewing conditions could be attributed to children’s general low performance on this type of questions, and probably do not indicate that the number of interviewers present during an interview has no effect on children’s recall. Moreover, it is important to mention that the numbers of leading questions in Experiment 2 was limited, and most of the leading questions were yes/no ones. As previous research has indicated, children may be nay–biased (Okanda, Kanda, Ishiguro, & Itakura, 2013; Fritzley, Lindsay, & Lee, 2013), and as most questions required no as a correct answer, this might have influenced this study’s findings.

Children’s overall performance, which could be perceived to be representative of an actual police interview in terms of the types of question included (Cederborg, Orbach, Sternberg, & Lamb, 2000; Craig, Sheibe, Kircher, Raskin, & Dodd, 1999; Davies, Westcott, & Horan, 2000) supported the main hypothesis by showing that children perform better when interviewed in the presence of a single adult, in comparison to multiple adults. Based on this study’s findings, which correspond to the findings from experiment 1, it is suggested that children’s recalling performance is being influenced by the number of adults, present, and that children perform better on recalling past events when interviewed by a single adult.

Moreover, as shown in Experiment 1 and previous research has suggested, age had an effect on children’s recalling performance, and older children performed better in recalling information from past events (e.g. Fritzley et al., 2013; Waterman & Blades, 2000, 2001; Krahenbuhl & Blades, 2006). Older children provided lengthier and more accurate accounts in free recall, compared to younger children; something also shown in Experiment 1. Older children’s superiority in recalling information is attributed to cognitive development and linguistic capacities (Howe, 2000; Newcombe et al., 2000; Nelson, 1996) Like most previous research, younger children provided more ‘don’t know/remember’ responses to appropriate questions (Waterman, Blades & Spencer, 2001; Waterman & Blades, 2011; Peterson, Dowden & Tobin, 1999), which again may be attributed to children’s more developed cognitive and linguistic abilities (Howe, 2000; Newcombe et al., 2000; Nelson, 1996).

In line with Experiment 1, younger children provided fewer confabulations to their reports, which is something that has been suggested to be linked with the length of children’s reports. It may be assumed that the lengthier the report the more likely to contain more correct, incorrect information, as well as confabulations. As it has been illustrated in experiment 1 (chapter 3), as children’s accounts length is rising, confabulations on their responses are increasing.

As in Experiment 1 and in previous research (Bauer, McAdams, & Sakaeda, 2005; Schlagman et al., 2009; Strongman & Kemp, 1991) gender had no effect on children’s recalling performance, with one little exemption where on free recall boys provided more incorrect information compared to girls; this comes in line with other studies, which suggest that gender has no effect on children’s recall. However, gender interacted with the accuracy of children’s recall in relation to their age and to the number of adults, present during the interview. While it is difficult to understand the exact nature of those interactions, it could be suggested that it could be attributed to the differences of developmental pathways followed by boys and girls.

Based on previous research that shows that boys and girls follow different development paths and show differences in their social and cognitive functioning (Connelan et al., 2000; Fivush et al., 2003; McClure, 2000), it could be suggested that boys and girls of different ages do not react in the same way, in terms of their recalling performance, as previously discussed, under different circumstances, such as, when changing the number of adults, present. The effect of gender on recalling performance can also be studied in relation to age and interviewing conditions together. It seems that boys and girls react in different ways in interviewing conditions on different ages and thus, developmental stages. Additional research is necessary for gaining a better understanding of how the number of adults, present interacts with children’s age and gender.

According to this experiment, it can be argued that having more than one individual in the room, during forensic interviews, may impair children’s performance and decrease the accuracy of their testimony. These findings raise practical implications, with regards to current practices in Greece, as well as in other countries, when more than one adult is present in the interviewing room.

**CHAPTER FIVE**

**Discussion**

**5.1 Discussion**

The present thesis investigated police interviews with children, victims of abuse, in Greece and explored potential ways that could improve interviewing procedures in Greece and in other countries, by limiting the number of interviewers in the interview room. Police interview transcripts of child witnesses of abuse have been analysed and the effects of the number of individuals, present during interviews with children, were investigated, under different conditions, in terms of the type of questions asked.

Even though several studies have investigated police interviews with children worldwide, in Greece this area of research remains under-investigated and unexplored. There is quite limited information on current practices and procedures in this field, while no previous research has made use of transcripts of police interviews with child victims of abuse; this, together with the complex judicial system in Greece, make police interviews with children in Greece an issue of great interest. According to the thesis findings, current practices and procedures used in police interviews with children in Greece differ from practices found in other countries (Brubarcher et al., 2013; Johnson, & Lamb, 2014; Katz & Barnetz, 2014; Krahenbuhl, Blades, & Westcott, 2010; Kyriakidou, 2012; Lamb et al., 2000; Leander, 2010; Phillips et al., 2012; Teoh, Pipe, Korkman et al., 2006; Teoh & Lamb, 2013).

In contrast to legal requirements (Kodaxes, 1985), interviews with children in Greece are not videotaped or audio-recorded. Instead, police officers who act as interviewing staff keep handwritten transcripts during the interview (see chapter 2). These transcripts are not word-for-word and are basically little more than notes of parts of the interview. Interviewing notes may suffer from omissions and exclusion and thus, may be unsuitable for keeping track of a procedure, that will be later become part of an investigation, and a court trial. The interview notes may lack accuracy, because several parts of the interview may be excluded. A full interview transcript provides deeper insight into an actual interview, which cannot be accomplished from just partial notes.

Greek police interviewing staff do not receive any specialised training, for conducting investigative interviews with children and there are no written guidelines for interviewing child witnesses(see chapter 2). Police officers receive only get practical training from more experienced colleagues. Officers are slowly introduced to interviews with children and when they have received adequate experience, they start to conduct interviews themselves. However, while practical training is an effective means to educate an individual on a specific area, training from other sources and/or acquired by other means could be useful as well. In several other countries, like the UK (Brubarcher et al., 2013; Krahenbuhl, Blades & Westcott, 2010; Lamb et al., 2000Phillips et al., 2012) and the US (Sternberg et al., 1996; Teoh, Pipe, Johnson, & Lamb, 2014), training and written guides are provided to support interviewing staff (see chapter 1). What was found during the interviews with the interviewing staff was that the staff believed that any support, in the form of training or of a written guide, would be valuable for their work.

In Greece, no great importance has been given to the interviewing environment (see chapter 2). There is a lack of specialised interviewing rooms, which are child-friendly and minimise environmental distractions, as suggested by interviewing guides and research as in ABE (Ministry of Justice, 2011; Bala, 1999). Interviews are instead conducted in ordinary offices - any that happen to be available at the time of the interview. In line with research in the field, police officers interviewing child witnesses do not dress in uniforms, but instead in civilian clothing to increase children’s feelings of comfort and safety (Powell, Wilson, & Croft, 2000).

Police officers in Greece commonly possess knowledge of the case prior to the interview with the child, which could affect the interviewer due to prior bias (Waterman et al., 2004). Interviewers typically receive all the available information to the case prior to interviews with the children themselves, including information from other witnesses, parents, guardians or earlier interviews.

Several differences in the structure of police interviews with children in Greece, compared to the structure commonly suggested in other countries, have been identified e.g. ABE (Ministry of Justice, 2011), the NICHD (Lamb et al., 2011). According to the analysis in chapter 2, interviews with children in Greece are not phased, as the introductory and closure phase were rarely included in the study sample. In a few instances, some elements of those phases were apparent, but there were no cases featuring numerous elements of those phases. Free recall was included in most interviews, but without any sign of free-recall practice or supportive prompts. In all interviews, the greatest part of the interview was covered by the questioning phase and yes/no questions were the most frequently question type. In line with previous research and study’s hypothesis however, yes/no questions are associated with short and less rich, in terms of bits of information included, responses.

Moreover, during a police interview with a child, more than one adult is present. The presence of two police officers during a police interview with a child is required, while sometimes a psychologist is present as well. If parents ask, they may be also present. Therefore, there is a difference in the number of the adults present during the interview, which might have an impact on the interview. This theory was investigated in two experiments, in chapters 3 and 4.

In experiment 1 (chapter 3) children’s recall of a past event in the presence of a single individual was compared to children’s recall in front of two or in front of three adults. The interview included the type of questions that have the most positive effect on eliciting information from children (e.g. Bull, 2010; Myklebust & Bjørklund, 2009; Goodman & Aman, 1990; Orbach & Lamb, 2001; Cederborg & Lamb, 2008; Cederborg et al., 2008; Brown et al, 2012).

In experiment 2 (chapter 4) the same procedure was followed but with two interview conditions (one adult and three adults present during the interview). In contrast to experiment 1, experiment 2 included some inappropriate questions - more specifically, leading and unanswerable questions. Inappropriate questions are commonly used in interviews with children (Walker & Hunt, 1998; Cederborg, Orbach, Sternberg, & Lamb, 2000; Craig, Sheibe, Kircher, Raskin, & Dodd, 1999; Davies, Westcott, & Horan, 2000; Lamb, Hershkowitz, Sternberg, Boat, & Everson, 1996; Lamb, Hershkowitz, Sternberg, Esplin, et al., 1996; Sternberg et al., 1996) and thus increase study’s reliability and applicability to practice.

The results of both experiments 1 and 2 showed that children perform better when interviewed in the presence of a single adult, compared to two or three interviewers. When children were interviewed in the presence of a single adult, they provided more accurate responses and less inaccurate, when answering open-ended and unanswerable questions in front of a single interviewer; which is in line with research hypotheses. Children gave more correct answers in open-ended questions and less incorrect, when responding in front of a single interviewer in both Experiment 1 and 2, while the provided more accurate responses, less inaccurate and more ‘don’t remember’ on unanswerable questions in Experiment 2. Even though ‘don’t remember’ are incorrect answers for the unanswerable questions, children were stating that they were unaware of the information asked; therefore, they failed to provide a correct response, but they effectively identified and disclosed their ignorance. With regards to leading questions, no differences were revealed, which is something that is probably attributed to the inappropriate nature of those questions.

An interesting point raised on the thesis, was that even though it seems that the number of adults, present during an interview with a child may have an impact on its recalling performance, the exact number of the adults seems to not have a great impact. More precisely, even though children were shown to perform better, in terms of accuracy and length of their responses, in both free recall and specific questions, when interviewed in front of a single interviewer, not many differences were revealed between cases that had either two or three adults present. It seems that it does not really matter how many adults will be present, if it will not be just one, because it seems to be the one-to-one context that provides this positive impact to interviewing performance and recall, and maybe to the wider communication between interviewer and interviewee.

Based on sociological theory (Simmel, 1902), research into group size (Soborof, 2012), on child disclosure (Priebe & Svedin, 2008; Solano & Dunnam, 1985), on children’s courtroom testifying performance (Nathanson & Saywitz, 2003), on the development of feelings of trust within a group (Sobolof, 2012), on child recall with closed eyes (Kyriakidou, Blades, & Caroll, 2014) and theories on the effects of well-established rapport (Roberts, Lamb, & Sternberg, 2004; Kieckhaefer, Vallano, & Schreiber Compo, 2013), it was argued that the presence of more than one adult in the interview room would have a negative effect on children’s disclosure; something that was

also supported by the findings.

First of all, children may be more reluctance to reveal information in front of a larger audience, as they do not feel comfortable and safe. Studies on child disclosure have suggested that children tend to perform better when disclosing in dyadic situations, while studies on disclosure of abusive or traumatic events by children have shown that children are more likely to disclose their abuse in one-to-one contexts (Simmel, 1902; Solano & Dunnam, 1985; Priebe & Svedin, 2008; Nathanson & Saywitz, 2003). One-to-one contexts provide children with increased feelings of safety, intimacy, trust, commitment and social awareness (Sobolof, 2012). As a result, children are probably able to function better in the interview; they are more likely to talk more openly, without hesitation, and the interviewer is more likely to establish a good rapport with the child, as it has been suggested by other studies (Kieckhaefer, Vallano & Scheiber, 2013; Roberts, Lamb & Stenberg, 2004).

Moreover, as it has been analysed in Chapter 3, dyadic and group communication follow different patterns. According to Simmer, dyadic communication seems to be superior, in comparison to triad and group communication and this is caused on a process called triadic segregation, where the group ends up being segregated or divided into one versus two, and the two are frequently the ones sharing most similarities one with the other; in this case the adults present during the interview. Triadic segregation however might also apply in a larger group, such as in four people (Experiment 2), where the group could be divided in one versus three, the ones with the most sharing characteristics (all adults, interviewers etc). This group segregation, however has a negative effect on communication within group and might have a negative effect on children’s recalling performance, as shown on Experiment 1 and 2.

The superiority of dyad communication in recalling past events can also be attributed to lack or minimization of environmental distraction in one-to-one contexts. Previous research has suggested that environmental distraction results in shorter and less detailed reports (Wais et al., 2010; Kyriakidou, 2014). Obviously, as the number of people in the interviewing room increasing, so does the environmental distraction, which may deteriorate children’s recalling performance. In that sense, children will be less likely to be focused and more likely to process multiple information at the time of retrieval, which will result in less elaborate responses, in terms of length and information.

With regards to age, as expected by previous studies on the field, in both experiments, younger children provided shorter responses to free recall and less informative answers, while in specific questions they provided less correct responses (Krahenbuhl & Blades, 2006; Leander, 2010O’Neil & Zajac, 2013; Waterman & Blades, 2013). This, as has previously been suggested, is probably attributed to children’s cognitive and linguistic capacities. As children are getting older they are becoming better in storing and recalling past events (Gelman, 2009; Krahenbuhl, Blades & Westcott, 2010; Newcombe et al., 2000). In addition, younger children provided less confabulations in free recall, in comparison to older children, which is however something that can be attributed to the limited length of their responses and not on their performance. In specific open-ended questions.

Younger children provided also more don’t know/remember responses. While it could be something that comes in agreement with the limited number of correct responses, in comparison to older children, and younger’s limited ability to recall much peripheral information of a past event (Howe, 2000; Krahenbuhl, Blades & Westcott, 2010; Lamb et al., 2000), it could also be attributed to children’s decreased motivation of talking. Younger children may have found more difficult to establish effective rapport with the interviewer/s and thus they have been more reluctant in providing information and making an effort to recall the event.

Older children possess also better knowledge of the outside world and knowledge around sexual acts, and body parts, which is something that has proved to be influential in children’s recall (Gelman, 2009; Howe, 2000; Nelson, 1996). In terms of the amount of information provided by children, no age difference was revealed by the study, however older children’s responses were consistent in the amount of information, while the amount of information on younger and mid aged children’s responses varied a lot and there was no consistency within those groups. This inter-group variation might have had an effect on this finding.

The effect of gender on narratives has been frequently debated and evidence has been contradictory (e.g. Bauer, McAdams, & Sakaeda, 2005; Davis, 1999; McLean, 2005). On Experiment 1 gender, as previous research has shown, had an effect on children’s responses, in terms of both length and information provided (Ely & Ryan, 2008; Philips, Oxburgh, Gavin & Myklebust, 2012). Even though no gender differences on the length of free recall was revealed by Experiment 2, girls provided more accurate information on their recalls. No gender differences were revealed by both Experiment 1 and 2 on specific questions. Therefore, gender had a little impact on children’s performance, which was limited on their free recalls.

Children’s recalling performance, seemed to not be affected by gender, as there was no difference between genders revealed, in open-ended, unanswerable and leading questions. Both girls and boys, remembered similar amount of information and probably faced the same difficulties in providing answers to unanswerable and leading questions. However, the difference that studies revealed was on free recall, their narratives, which may be attributed to gender roles within both the societal cultural context.

According to the findings, which are in line with other studies, girls provided lengthier and richer responses, in comparison to boys (Davis, 1999; Dudycha & Dudycha, 1933; Ely & Ryan, 2008; Mullens, 1993). This difference might be attributed to gender roles, as well as the societal and cultural context children have been raised in, as previously discussed in Chapter 1 (Connellan et al., 2000; McClure, 2000). Mothers tend to have lengthier conversations with daughters, in comparison to sons, which may result in girls become more talkative and descriptive (Adams et al., 1995; Fivish et al., 2003; Reese et al., 1993). Therefore, they are more likely to provide more descriptive and lengthy accounts, when talking about past events.

As it has been analysed in Chapter 1, children’s recall of autobiographical memory is influenced by their upbringing and the way and time that theay are being introduced in story-telling and constructed narratives. It could also be suggested that the effect of culture and society in narratives has also differences in genders, and this could explain all this contradictory evidence with regards to gender effect on recall of past events. More precisely, even though, as previously mentioned, gender roles may shape children’s narratives it could be suggested that those narratives are also influenced by the societal and cultural context that children live in. This means that any differences revealed on the study might not be identified on different cultures and societies. This is of course just an interpretation of the present data, and further research on the field would be required, for supporting this interpretation and gaining a better understanding on the issue.

As Staller & Nelson-Gardell (2005, p.1423) pointed out ‘disclosure is not a one-way process’; instead, it is a process influenced by several factors. As previous research and the present thesis have indicated, children’s recall can be influenced by the interviewer – that is, their interview skills and training - as well as by the number of individuals present during an interview. It is even possible that interviewers are influenced by interviewing procedures themselves. It could be possible, that the number of interviewers might have an effect also on interviewers’ performance, instead of the interviewees’, such as non-verbal communication, which was not measured on this experiment.

**5.2 Implications for practice**

In the area of police interviews with children in Greece, there is a lot of space for improvement. Police interviews with children in Greece should be conducted in a specialised, child-friendly environment that aims to minimise any external distraction(s) and promote the child’s feelings of comfort and safety, as in other countries (Ministry of Justice, 2011). In this way, children’s testifying performance may be enhanced, while their psychological well-being is better ensured.

In Greece, a psychologist is supposed to be present during an interview with a child. This means that there are then 3 adults in the room with a child. The results of experiment 2 confirm that increasing the number of adults (beyond one) did not result in an increased negative effect on children’s performance, because there was no further decline in performance with the presence of 3 adults than with 2 adults. Therefore, it seems that even having a second police officer within the interview room may be problematic and this should be considered, when it comes to practice.

It should be noted that in both experiments, all the adults present were strangers to the child. The adults and child had not met before the interview. However, in the Greek context, if there is a psychologist present, he or she may have met the child previously (see chapter 2). The presence of someone who has previously been introduced to the child and may have already spend some time with the child might not have the same effect on the child’s later recall as the presence of another, previously unknown adult does. Therefore, future studies could investigate how the familiarity of the adult interviewers affects a child’s performance. Individual differences may, also, have an effect on children’s disclosure (e.g. Waterman & Blades, 2013; Burgwyn-Bailes et al., 2001) and so it would be valuable to investigate individual differences and how these might interact with the effect of the number of adults present during an interview.

Police officers in Greece could receive specialised training that would provide them with the required knowledge for more effective interviewing. Police officers’ performance might also be improved with the use of written guidelines and a practice manual. There is a need to develop a framework for interviewing young children in Greece to ensure the effectiveness of interview procedures and avoid secondary harm to child victims (Themeli & Panagiotaki, 2014).

It should be noted here, that all the transcripts, included on the study, were hand-written (chapter 1), and there may be potential omissions from the transcripts. Moreover, it could be thought that some parts of the interview, even if they existed in the actual interview, they might be excluded from the written transcript. As a result, due to the limitations of the material itself, it is difficult to draw any definite conclusions on this topic. This is the main limitation of the present study. As the analysis is based on police notes and these notes may have been only an approximation of the number of words and information the children actually provided during the interview. However, as videotaping of child testimonies is not currently employed in Greece, there was no other way to investigate police interviews with children in that country.

Current practices in Greece, where more than one adult is always present during an interview, should be revised. The increased number of individuals present during an interview with a child may impair children’s performance, and does not support the child’s disclosure. As shown by the results of this study, interviews would be best conducted by a single individual in the room, and if there is a need of more individuals, current procedure of other countries could be followed; for example, the others could watch the interview in a separate audio-visual room connected with the interview room. In this way, the child’s testifying performance would not be influenced by the presence of other adults.

In Greece, there is a lack of research and knowledge about interviewing. As a result, police interviews with children might not be conducted based on the most effective practice. Further research on police interviews with children in Greece is required for a better and understanding of current practices and procedures; especially as police practice seems to differ greatly from the legal framework. Any potential differences in the practices adopted in different police departments, and in different geographical areas should be explored, especially in smaller rural areas, which presumably offer police staff less access to specialised training, and where there will be a limited number of police officers, compared to the cities where the present research was conducted.

Improvements in police interviews with children will improve police work and the prosecution of abuse cases, in terms of effectiveness and procedure, while they may act as a potential motive for disclosure. It is really important for children disclosing abuse to deal with a protective environment that ensures fairness and justice and aims towards the provision of adequate support. Knowing that they will not go unheard and that they will effectively supported, children might be motivated to disclose abuse and seek help from law enforcement agencies, which is the most important thing when talking about child abuse, as, in order to support abused children, we need, most of all, to offer them the courage to stand up, disclose their abuse and seek support.

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1. "The Smile of the child" (“To hamogelo tou paidiou”) is a non-profit voluntary organization in Greece. It is one of the biggest organizations fighting for children’s health (mental, physical) and rights in Greece. [↑](#footnote-ref-1)
2. "The Smile of the child" (“To hamogelo tou paidiou”) is a non-profit voluntary organization in Greece. It is one of the biggest organizations fighting for children’s health (mental, physical) and rights in Greece. [↑](#footnote-ref-2)