

THE SOCIAL ACCEPTABILITY OF CHILDREN HEARING VOICES

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Abstract

The aim of the study was to explore whether imaginary companions (ICs) in childhood might represent a social construction of childhood verbal hallucinations (VHs) which renders the experience socially acceptable.

The objectives were to investigate: whether ICs amongst children occur at comparable rates to VHs among adults; whether the phenomenology of ICs and VHs are similar; whether adult ICs are perceived as less acceptable than childhood ICs.

$N = 1795$ children aged five to twelve years, a random sample, were asked whether they had an IC and given measures of creativity. $N = 70$ randomly selected children who had ICs were given structured interviews that were based mainly on previous adult hallucination studies. Lastly, a questionnaire in two formats was administered to two groups of $N = 70$ adults. The first group was asked to rate the acceptability of an adult having a conversation with an IC; the second to do the same but for a child having a conversation with an IC.

Key results were as follows; prevalence of ICs in the study sample was approximately 50%. Younger children had more ICs than older, more girls had ICs. Children with ICs tended, unexpectedly, to be less creative. Results of the structured interview about ICs showed that the phenomenology of ICs was similar to that of adult VHs. Childhood ICs fell within the parameters of VH definitions. A statistical difference was found between the 'adult' and 'child' formats of the questionnaire about the acceptability of having a conversation with an IC. The idea of adults engaging in such behaviour was much less acceptable.

In conclusion, ICs among children are more common than previously thought. Frequency occurs at a similar high rate and is phenomenologically strikingly similar to adults' VHs. ICs may represent a social construction of VHs which becomes less acceptable as the individual gets older, resulting in adults' hallucinations being perceived as unacceptable.

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Introduction to the study

The study is designed to examine the frequency of children who experience imaginary companions and to consider whether the imaginary companions can be described as verbal hallucinations. A sample of 1795 children were selected randomly and screened along with various other measures to establish whether they have or have had imaginary companions. Most previous studies that have examined aspects of imaginary companions have used small samples of children, often yielding conflicting results. The current study population of 1795 children covered eight age years, five to twelve years inclusive. From this population, 70 children spanning the different ages that have imaginary companions were selected. These children and their families took part in a structured interview which considered whether measures of adult hallucinations could be applied to the children's imaginary companions. From this information, an argument of how society reframes children's verbal hallucinations as imaginary companions could be considered. A model could then be produced to demonstrate that all children may hallucinate as a part of normal development. These hallucinations, which are perceived by society as imaginary companions in children, may be kept into adulthood. Adults' hallucinatory experiences are most likely not to be pathological. However for a small group the hallucinations may form part of a pathological problem.

Perhaps at this point it would be useful to consider where this argument has come from, and where is it going. The argument goes like this:

1. It is probably acceptable for a seven year old child to talk to somebody who is not there, an imaginary companion. Is it acceptable for a 37 year old man to talk to somebody who is

not there? It seems acceptable for the child, but not the adult. Surely the only thing that has changed is the age of the person?

2. A significant percentage of the normal adult population report 'hearing voices'. Many of the studies that established this used first year college students as subjects. Either they started hearing voices when they entered college a few weeks previously, or more logically, they did it before they arrived i.e. when they were considered children.

Hopefully these two basic pieces of information will whet your appetite to consider the following hypotheses and read the rest of the study.

Hypothesis 1 - Imaginary companions are not just the domain of very young children

Hypothesis 2 - Childhood imaginary companions fall within the same parameters of definition as verbal hallucinations.

Hypothesis 3 - It is more acceptable for a child to have a conversation with an imaginary companion than for an adult to have a similar conversation

Section 1 - General introduction - (overview)

The boldest statement that I have seen in print concerning this whole area is from Jaynes (1979), who is no stranger to bold statements. In the 'Origin of Consciousness in the Breakdown of the Bicameral Mind', Jaynes described imaginary companions in a very short sentence; 'True hallucinations'. Jaynes rather short and precise view will now be elaborated!

Traditionally, imaginary companions have been viewed as a part of children's imagination. However it has been assumed that this is a fleeting and largely irrelevant process having little impact upon children's development. The first recorded study of childhood imaginary companions was conducted by Vostrosky in 1895 (Somers & Yawkey, 1984). The results described imaginary companions as 'make believe characters' who contributed to the emotional stability of the young child. Interestingly as long ago as the nineteenth century the notion that imaginary companions had a function was being investigated. Vostrosky probably failed to create much enthusiasm with his fellow researchers, as Hancock (1983) found only 10 systematic research studies on imaginary companions between 1895 and 1983. However, during this time imaginary companions continued to flourish in fictional literature. Manosevitz, Fling & Prentice (1977) recorded a similar disinterest, finding only six systematic studies concerning children's imaginary companions. In the 1930's child care events and books advised against children playing with imaginary play-mates. Well adjusted children did not do this sort of thing and if they did it could easily lead to schizophrenia. The pendulum had swung by the 1960's when how-to-bring-up-baby books suggested that imaginary play-

mates were positive and a sign of a good creative mental health (Cohen, 1996). It was during the 1960's when it was realised that as many as a third of all children may have had some experience of imaginary companions. There continued to be the belief that children's imaginary companions were the domain of very young children, e.g., three year olds, and merely due to a vivid imagination. This view was indicated by the vocabulary of the time e.g., Fraiberg (1959) talks about Stevie who '*dreamed up* an imaginary playmate'. Although Cohen (1996) did not set out to explore imaginary companions, he does have a small section concerning them. This section opens with the sentence 'To make up an imaginary friend or play-mate is not perhaps that complex an act of imagination'. This often current view demonstrates why the whole area of imaginary companions has not been widely explored in a systematic way.

A slight increase in interest in imaginary companions has been enjoyed with the recent upsurge of interest in dissociative identity disorder. This interest has often concentrated on single case child studies or small experimental numbers (Ross, 1996). To some extent, dissociative identity disorder may be considered to be a controversial diagnosis particularly in the U.K. The disorder is rapidly gaining interest and credibility and appears in DSM IV. The area is not clear as DSM IV excludes childhood imaginary companions from the diagnostic criteria of dissociative identity disorder. High frequencies however, of previous childhood imaginary companions have been reported by some studies using adult patients diagnosed as having dissociative identity disorder. Ross (1996) reported that 48% of patients who were diagnosed as having dissociative identity disorder, previously had an imaginary companion. In a series of papers, Putnam et al. (1991; 1993; 1996) suggest that imaginary companions could be a 'potential substrate' for the development of alternate personality states. Putnam et al. report that 85% of the adult patients studied with dissociative pathology had imaginary

companions when children. Schulzt, Braun & Kluft (1989) described childhood imaginary companions as a related characteristic of dissociative identity disorder. Again this finding has to be viewed within the context of the study being designed to examine dissociative identity disorder, not imaginary companions. Sanders (1992) found that 13 out of 22 (59%) women diagnosed as having multiple personality disorder reported having a childhood imaginary companion. This was compared with 15% of a control group, who were U.S. college students. Of the 13 women who reported imaginary companions, four of them thought that their imaginary companion may have grown into an alternate personality. Cohen (1996) argues against this position, stating that it is much more likely for healthy children rather than disturbed children to have 'imaginary play-mates'. Cohen goes on to argue that the vast bulk of healthy children with imaginary companions do not grow up to have any sort of dissociative disorder. Cohen continues to argue that there is no connection at all between childhood imaginary companions and adult dissociative disorders.

Much of the general information gathered concerning childhood imaginary companions has yielded conflicting results. These results have commonly looked at areas such as intelligence and creativity. Manosevitz et al. (1977) found no significant difference in IQ scores between children who had and did not have imaginary companions. Those children who had an imaginary companion had a mean IQ score of 110.6 and those without had a mean IQ of 114.7. This finding was supported by Bairdain (1959) who found that there was no significant difference in IQ scores for high school children who could recall an earlier imaginary companion compared with a group who could not. The classic text, Svendsen (1934) reported the finding that children with an imaginary companion had higher mean IQ scores. This position was later supported by Jersild (1968), who reported that bright children are more likely to experience an imaginary companion. Meyer & Tuber (1989) described their

study sample of children who had imaginary companions, as a 'high intelligence sample' with a mean IQ of 118. There is perhaps a feeling that children with imaginary companions tend to be creative and have high IQ scores.

Harter & Chao (1992) found that children who had an imaginary companion were generally less competent than their peers. Imaginary companions in the Harter and Chao study had a suggested function which was to help children in this area of development as their imaginary companion had a role of increasing competence. The imaginary companion was more competent than the children in 70% of boys, as opposed to 75% of girls who had imaginary companions less competent than themselves. The boys had imaginary companions who were superheroes and the girls seemed to take a caring or 'looking after' role towards theirs. Rather traditional roles were apparent, but this could be partly explained by the relatively young ages of the subjects, who were pre-schoolers. Manosevitz et al. (1973) found that an imaginary companion was used to combat loneliness, which is a theme also suggested by Nagera (1969).

Schaefer (1969) found that children with imaginary companions were more creative than children without. This view is refuted by Harter & Chao (1992) but supported by Singer (1961). Manosevitz et al. (1973) tested the interaction between imaginary companions, intelligence, creativity and writing ability. The study found no significant interactions between these variables. Although Myers (1979) has not looked at childhood imaginary companions, he did provide some evidence that those children grow up to be creative adults e.g., artists or musicians.

It has been assumed that children who have imaginary companions are relatively young and probably pre-school age. Generally writers have accepted that the age range for experiencing imaginary companions is predominantly between three and five years and is unusual outside of the this age range. Nagera (1969) suggests that the frequency of imaginary companions peak in children between 2 1/2 and 3 1/2 years of age. This view has been supported by other studies, e.g., Bass (1983); Manosevitz et al. (1973; 1977); Meyers & Tuber (1989). Meyers & Tuber used four and five year olds and Manosevitz et al. used pre-schoolers as subjects. Mauro (1991) in an unpublished doctoral thesis remarked that 'parents are not good informants concerning their children's imaginary companions'. If children as young as two and a half years are used as subjects, some sort of adult observation and interpretation would have to be used.

Piaget (1974) stated that often children cannot discriminate between dreams and reality due to their young age. Winnicott (1953), felt that an imaginary companion could temporarily take over from a transitional object, which again assumes a young age. The issue of age was considered by Slade & Bentall in numerous studies (e.g., Sensory Deception, 1988), when considering hallucinations. The theory used to explain hallucinations was a reality discrimination failure model. Individuals who classify imaginary events as real would experience an hallucination. Reality monitoring is that discriminative classification skill. Slade & Bentall went on to consider that 'if the ability to distinguish between real and the imaginary is relatively poor in young children then the concept of hallucination is only applicable to individuals above a certain age (Slade & Bentall, 1988). Imaginary companions would therefore be expected in young children due to poor reality monitoring (Bentall, personal communication, 1996). It then becomes crucial to establish an age frequency for children with imaginary companions. Slade & Bentall also report that there is little evidence

concerning the age of children who hallucinate. Garralda (1984) studied 20 children who were diagnosed as psychotic and were hallucinating. This group were considered rare as they were selected from 4% of an already specialist psychiatric population. The mean age of the group was 13.6 years and the hallucinations were generally auditory. The youngest child in the group was 10 years old. There has been a general consensus between studies, that children cannot discriminate between reality and non-reality before ages of six to seven years. Harris et al.(1991) felt that young children were unclear about fantasy and reality. Piaget (1974) considered that children can report dreams as real. Flavell (1986) suggested that children less than eight years have limited understanding between imagination and reality. Slade & Bentall (1988) felt that the skill of discriminating between real and imaginary was not available before six years. Perhaps if this line were to be followed it may be difficult to explain why imaginary companions, if they are due to poor reality discrimination, can retain individual characteristics consistently over a number of years (Taylor, Cartwright & Carlson, 1993). Taylor et al. also constructed a study to consider whether children viewed their imaginary companion as fantasy. Although this was found to be the case it should be noted that the experimental population consisted of twelve three and four year olds. The study used a subsequent interview seven months later. In this interview it was noted that the experimental group's description of their imaginary companions remained surprisingly stable. Current assumptions rely on children who have imaginary companions being young and probably pre-school age.

Imaginary companions have been reported in populations who are not young children. There are reports that imaginary companions are relatively common in elderly adults who have to be cared for (Leger, 1987). O'Mahoney, Shulman & Silver (1984) recorded that patients who had been referred for other mental health reasons had a high frequency of imaginary companions. Berrios & Brooke (1984) reported high levels of hallucinating in the

elderly. Of 150 patients referred to a psychogeriatrician, 44 were found to be hallucinating. Berrios & Brooke went on to find a new type of sensory disorder, 'the picture sign'. Elderly patients had a tendency to see a two dimensional picture e.g., on television, photograph, newspaper picture etc. and mistake it for a three dimensional object to talk to. This behaviour could easily be described by carers or family as the elderly person having an imaginary companion. Other examples of imaginary companions are available in adults for example, Bass (1983) reported a case study of an adult who had an imaginary companion. This imaginary companion was apparent at stressful times and situations. Again the notion of function seemed to be important. The adult in question, Peter, had an imaginary companion to help at stressful times. Peter's imaginary companion was reported to have appeared at a group therapy meeting that he was attending. Peter's imaginary companion was a psychiatrist and so was able to help and advise. The imaginary companion again reappeared at a later date when Peter changed jobs. In a relatively small study of school children, Frost (1996) suggested that experience of imaginary companions may reach peak frequency in children aged between eight and 10 years.

From the earliest stages of development, children demonstrate the ability to play and enter into fantasy. Play is essential for normal development (Schneider & Watkins, 1996) and allows children to construct cognitions about people, actions and objects (Bornstein & Tamislemonda, 1995). Indeed, play formed an integral part of Piaget's model of child development (Piaget, 1951; Nicolopoulou, 1993). Piaget described the delicate balance between assimilation and accommodation that allows the child to develop whilst exploring the world through play and fantasy. Children can readily create situations, characters or personas to fit their pretend play or fantasy. Children gradually move from exploring the world as individuals to interacting with others. Very quickly 'rough and tumble' play can be observed.

Rough and tumble play was first described in detail by Blurton Jones (1967). During this essential stage of development (Pellegrini & Smith, 1998) pretend personas and fantasy are seen as children chase, wrestle and shoot; commonly dying or being victorious (Smith 1974). Children happily play with toy cars or ships that have pretend drivers or captains, who may crash or navigate successfully depending on the play scenario. Society's rules can also be explored through play. Piaget (1951) described a game of marbles, showing how learning and the way in which the game's rules prepared the child for real-life rules.

The commercially driven media industry has been enormously successful at entering children's imagination at all stages of development and providing 'rules' of opinion, dress, diet and social conformation, (Kotz & Storey 1994). Television, comics and the pop music industry have become powerful influences on nearly all children and adolescents. This industry relies on using fantasy to influence children e.g. the thirteen year old who must have the same sweatshirt as a pop idol, which to facilitate such imitation has just arrived at the local super-market. But televised commercial fantasy reaches much younger children. Problems have been reported by speech therapists who hear pre-school children preferring 'tele-tubby talk' (Potter, 1997, personal communication). It was reported by Kotz & Storey (1994) that children watch more television than any other activity bar sleeping. Television with its projected fantasy clearly has an effect on children's development. Jacobson (1997) describes how in the 1920's and 1930's middle class parents and progressive reformers interpreted children's attraction to the 'movies' as a threat to family values and parental authority. Since that time television has revolutionised family life. Television viewing time has been negatively related to school readiness skills (Clarke & KurtzCostes, 1997) shortened attention span and retarded thought and language development (Anderson, 1998). Excessive television watching has been associated with increased levels of violent behaviours, depression and

anxiety (Singer et al. 1998), precocious sexual behaviour and drug and alcohol abuse (Vallerio & Zacchello, 1995). Parents have reported problems controlling their children's television viewing and indeed were assessed as not realising the potential damage to children of watching inappropriate programs (Vallerio & Zacchello, 1995). More positively the possible harnessing of fantasy by television has been recognised by educationalists who argue that the effects of television are dependent upon the quality of program content (Reynolds, 1998). In the USA the well known Headstart project described by Barrett, (1995) developed Sesame Street, where puppets were used to provide early educational intervention for disadvantaged children. The Headstart project has been thoroughly evaluated the results indicating large short term IQ gains, sizeable long-term effects on school achievement and social adjustment advantages (Barrett, 1995). Television advantages children's development only if it is curriculum based (Anderson 1998). Television also has an effect on the physical development of children. High levels of television viewing are associated with hypercholesterolemia and obesity (Vallerio & Zacchello, 1995). The implication of this finding is that the children's lifestyle and interests may be influenced by their obesity. It could be argued that their opportunities to explore the external world may be limited along with the opportunity of being accepted by peers and of joining in rule based interaction games. Another major criticism of television is that it can encourage or generate aggression fantasies and behaviour. Although all television stations are obligated to provide an 'adult watershed', Vallerio & Zacchello (1995) found that up to 57% of pre-school children had viewed violent or adult programmes. Only 49% of parents interviewed, regularly intervened to control their children's viewing. In a most celebrated experiment Bandura (1963) demonstrated that children who viewed a film showing aggressive behaviour were more likely to invent, exhibit, or imitate similar behaviours. Whether childhood aggressive behaviours are generated or encouraged by television is unclear. Children are attracted to violence on television (Cantor & Nathanson,

1997) especially violent cartoons. Recent studies have recognised that children who perceive violent cartoons as funny were assessed by their school teachers as showing more aggressive behaviours, (AlujaFabregat & TorrubiaBeltri, 1998). Singer et al. (1998) used a study population of 2245 eight to thirteen year old children and found that those who watch high levels of television also report high levels of violent behaviours and children who prefer violent programmes also report high levels of violent behaviours.

It seems that the way in which children are influenced by television depends upon the quality and content of the programme. Television has revolutionised children's fantasy and pretend play. Never before have children's fantasy, imagination and pretend play been guided by commercial media. Imaginary companions have appeared in various television programmes along with imaginary worlds. Indeed some of these imaginary worlds were designed to develop social rules in children. For example the television series based on *The Lion, the Witch and the Wardrobe* by C.S. Lewis is set in the world of Narnia and designed to demonstrate Christianity to children.

To move away from the effect of television and on to the observable effects of experiencing imaginary companions, there appears to be an interaction between experiencing an imaginary companion and children's cognitive development. As mentioned in previous sections it has been suggested that children who experience imaginary companions may have higher creative or IQ abilities. Children who report experiencing imaginary companions are said to be different from other children, having been reported as more sociable, less shy, having more real friends, engaging in more fantasy play and being more skilled at pretend play (Mauro, 1991; Taylor et al., 1993). Imaginary companion research has the potential to contribute to elucidating the role that fantasy plays in cognitive and emotional development.

There have been a number of suggestions as to the role of imaginary companions in development, but little agreement. It is generally agreed that imaginary companions provide a positive vehicle helping normal development. Jalongo (1984) described imaginary companions as 'an invaluable tool that allows children to rehearse themselves in certain roles and to prepare them for life's real problems'. Similar themes have been suggested by Harter & Chao (1992) who suggested that the role is to provide a symbolic arena to act out themes; Friedberg (1995) felt that an imaginary companion 'helps a child through rough developmental waters'. It may be that an imaginary companion can be experienced at a time in development when there is a need and then lost (Nagera, 1969). A common suggestion is that an imaginary companion combats loneliness (Friedberg, 1995; Manosevitz et al, 1977; Nagera, 1969) and may disappear when real friends are found (Manosevitz et al, 1973). Combating loneliness was rejected by Taylor et al. (1993) whose study reported that children with imaginary companions had more real friends than children without imaginary companions. Other suggestions for the developmental role of imaginary companions include compensation for undeveloped skills, compensating for difficult aspects of the child's reality (Manosevitz et al. 1997); a symptom free means of negotiating intensely felt inner struggles (Manosevitz et al, 1973); coping with anxiety, exercising autonomy, extending language, practicing social amenities and experimenting with new information - all in the presence of a non-threatening personage (Jalongo, 1984). It has reported that boys with an imaginary companion are better able to converse with adults than children without (Manosevitz et al., 1973). However in a later study Manosevitz et al. (1977) reported that the imaginary companions were not actively used in such interactions and may even have been in existence to counteract excessively frequent child-adult conversations e.g. single child families. However, Taylor et al. (1993) report that he 'characteristics of imaginary companions and the roles they play in the cognitive and emotional development of children is very limited'. This

recognition of the lack of understanding is supported by Harter & Chao (1992) and Manosevitz et al. (1977) who felt that the area had not been systematically explored; Nagera (1969) described the role of imaginary companions as 'puzzling'. Taylor et al. (1993) go on to suggest that there are three main reasons why researchers have avoided this area of investigation. Firstly, imaginary companions are rare; secondly, imaginary companions may be perceived as indicators of other problems e.g. shyness; thirdly, imaginary companion information may be private and not accessible to others. Taylor et al. provide arguments to refute these concerns. Firstly, prevalence of imaginary companions has been reported to be as high as 65% in pre-school children (Mauro, 1991; Singer & Singer, 1990). Secondly, children with imaginary companions also tend to be less shy and more sociable (Mauro, 1991; Manosevitz et al., 1977) Thirdly, Taylor et al. were surprised that all of their subjects talked about and described their imaginary companions very readily. This surprising readiness to report and describe imaginary companions was also found by Mauro (1991). It could easily be assumed that the private world of a child's imaginary companion is not available to outsiders. In Taylor et al.'s study, eleven out of twelve children (one 'false positive' child initially reported having an imaginary companion but later claimed not to have one) completed a structured interview which asked questions about their imaginary companions, including name, gender, size, colour, eye colour, clothing and how often experienced. It was reported that children 'had no difficulty' in providing answers. This is particularly surprising as 25% of the parents were previously unaware of the reported imaginary companion experiences. Presumably the single 'false positive' child who did not complete the interview may have been protecting personal privacy.

In summary it seems that the interaction between imaginary companionship and child development may be best described as a chicken and egg situation. It has been established

that children who experience imaginary companions also show higher levels of fantasy play and are more skilled at pretend play. The chicken argument would suggest that children with imaginary companions are more creative, therefore more able to access fantasy and pretend play, thus creating the imaginary companion experience. The egg argument on the other hand would suggest that children with imaginary companions are better at pretend play and imagination because they have practiced these through their imaginary companion experiences. Imagination has been seen as synonymous with creativity (McLeod, 1992). This has led investigators to use tests of creativity as a measure of underlying imaginative ability e.g. the Uses Test (Ward, 1969) where the child is asked to generate numerous uses for common objects. The issue as to whether children with imaginary companions are in fact more creative (i.e. are more imaginative) has not been fully resolved. Previous studies have produced conflicting results. This may well be due to the use of small numbers of very young children reducing confidence in and lowering of generalisability of results.

If the existence of imaginary companions is considered dependent on children not being able to discriminate between reality and non reality (or dreams) this would have to assume developmental immaturity and the children being relatively young. This is the theory relied on by theorists such as Bentall & Slade (e.g., Bentall, 1990; Slade & Bentall, 1988) who apply the reality monitoring type models. There is evidence that imaginary companions can occur throughout the life span with peak frequencies in young childhood and possibly in elderly years (Leger, 1987; Leger, Garoux, Tessier & Chevalier, 1986; Proskauer, Barsh & Johnson, 1980).

Childhood imaginary companions rarely cause concern for adults and can even be encouraged. 12 out of 18 parents who had a child with an imaginary companion were pleased or actually encouraged the perception of the imaginary companion (Meyer & Tuber, 1989).

The sample of children used were four and five year olds. The consistently high level of imaginary companions throughout children's literature (Jalongo, 1984) demonstrates that parents are willing to buy and encourage such reading (for example, Tom Sawyer and Peter Pan). There have been more contemporary versions of this theme recently produced in the film 'Drop Dead Fred', where Rik Mayall is a particularly unreliable imaginary companion. However if an adult were to have an imaginary companion to talk to, 'madness' or mental illness could quickly spring to mind. Adults who talk to themselves may be actively avoided by society.

The notion of scientific measurements being made concerning normal populations who hallucinate started in the last century. Henry Sidgewick in 1894 (Jaynes, 1979) found that 7.8% of healthy men and 12% of healthy women had experienced hallucinations. The hallucinations were most frequent between 20 and 29 years of age. There were approximately twice as many visual hallucinations as auditory. About 50 years later (West, 1948) it was also realised that there were national differences with Russians having twice as many hallucinations than average and Brazilians reporting an even higher frequency of auditory hallucinations. The problem with taking this data at face value is that these communities accepted the everyday existence of ghosts and so expected to see and hear them. West's study, quoted in Jaynes (1979) was described by him as 'an example of what not to do' when trying to make such measures! Many of the more contemporary studies which look at normal population levels of hallucinating use first year American college students as subjects. High levels of reported verbal hallucinations using this population have been recorded (e.g., Barrett & Etheridge, 1992; Posey & Losch, 1983-4). Indeed a wealth of studies have established that a significant percentage of the normal adult population experience (or enjoy) verbal hallucinations (e.g., Miller, O'Connor & Pasquale, 1993; Romme & Escher, 1989; 1995) By

no means are these people from clinical groups. Either the first year college student subjects in these studies started experiencing verbal hallucinations when they grew up and entered college, or experienced verbal hallucinations when they were children prior to entering college. If first year college students report regular verbal hallucination levels as high as 45% (Barrett & Etheridge, 1992; 1994; Posey & Losch, 1983-84), it seems logical that these experiences did not start with their entry to college. Indeed if it is accepted that normal adults hallucinate why should not children? If this is a viable proposition then the relationship between imaginary companions and hallucinations becomes a much more interesting investigation. This path could then lead to investigating whether childhood imaginary companions have links with later adult mental health problems. A study by Ross, Joshi & Currie (1990) measured variables associated with dissociation in the general population. One of the variables measured was whether adults from the general population in Winnipeg had heard voices 'inside one's head'. Of the study population ($N = 1055$), 26% reported positively and up to 7.3% may have been considered by the investigators as pathological. The criteria used are obviously very wide, and the methodology was not designed to look at hearing voices, but the study again normalises the experience of hearing voices. Further examples will be considered later which, given the correct environmental factors, will demonstrate that hearing voices or having a conversation with a person who is not apparent to other people can be acceptable.

A logical next step is to examine the definitions of imaginary companions and hallucinations. This could be problematic as the definition (or diagnosis) is dependent upon cultural norms, traditions and perceptions. A more productive path is to assume a basic definition and then follow the historical and cultural factors before embarking upon a broader consideration of definitions. A basic definition of a hallucination could be, to recognise a

perception without an apparent external stimulus. A basic definition of an imaginary companion is, to treat that imaginary companion as though it was a real person.

Section 2a - Historical factors

One of the finest pieces of literature which gives a historical perspective of mankind is the Scriptures. The Bible is an accepted history of the world and mankind for millions of people. In 1911 Julius Preuss published *Biblich-Talmudische Medizin* (Biblical and Talmudic Medicine), some parts of which concerned mental disorders. A translation by Fred Prosner demonstrated how Preuss recognised that many scriptural events could be reframed in terms of psychosis, epilepsy etc. Although a few writers published similar papers, society was not thinking broadly enough at the time to accept this as an area that should be considered seriously.

The Scriptures themselves recognised a concept of madness and described how Old and New Testament communities shamed those considered 'mad'. Madness was one of the afflictions that the Pentateuch and later the prophets threatened as a punishment for disobedience. 'The Israelites will become mad, when much disobedience befalls them, for not having obeyed the Lord'. At this point it is important to recognise the difference between a 'nabi' and a 'meshugga' (i.e. the difference between a prophet and a false prophet or madman). A nabi was a hero, a man who could listen to God and then tell the people what was said. On the other hand the meshugga, the false prophet, may have heard voices but they were not from God. The social acceptability of the content of the voices could determine acclaim as a hero or death! Within this context children did not fair well generally, if children heard voices then they were considered to be inhabited by demons. These children had a use, as it was felt that their demons could ban the demons in adults which were provoking the

adults' madness. As reflected today, children who hear voices (have imaginary companions?) are acceptable or even encouraged, but alas can only grow up at their peril.

The New Testament coined a new term for madness, that of the 'possessed'. Madness was still recognised as a concept which had to be differentiated from true religious experience. During this time, the imbecile was distinguished from the madman and had some legal status, particularly when the imbecile was a child. Special tasks were put aside for the imbecile e.g., slaughtering cattle. This more sophisticated perception recognised the difference between a madman and an imbecile. A simplistic classification could then provide three groups; the imbecile, the madman and the man who can truly hear and communicate with God. It is recorded that there were differences of opinion as to who was who. The use of 'man' is paramount throughout the scriptures and madness is only ascribed to two women.

Unfortunately a study of the scriptures is not a main part of this research. However before leaving them I will move on to look at two classic accounts of conversations with God, which are still accepted by millions of people today. These conversations are probably the most accepted accounts of talking to a being who cannot be seen. Christianity and hearing the voice of God has been accepted in western civilisation for at least two thousand years or so. The interface between Christianity and science has been tenuous to say the least. Barrett & Etheridge (1992), decided that practising Christians had to be excluded from their sample when examining the frequency of hearing voices in the normal population due to the possible confusion surrounding the hearing of the voice of God. The problem was that practising Christians had difficulty in discriminating between actually hearing a voice and knowing that God had spoken to them. Millions of people over generations have based their lives on the teachings of the Scriptures. These record numerous examples of hearing or speaking to God.

Perhaps depending on an individual's view, God could be seen as the greatest imaginary companion ever. A fine and well known example of a conversation with God (a person who could not be seen) is recorded in the Old Testament when Moses conversed with God and then led the Israelites out of Egypt. Some 1300 years later in the New Testament there are again numerous recorded examples of talking to God. This is particularly demonstrated in Acts 9.4 which describes Saul's experience on the road to Damascus. The writer of Acts recorded 'Saul fell to the ground and heard a voice say to him "Saul, Saul why do you persecute me?'. Saul replied "who are you Lord?". "I am Jesus whom you are persecuting, now get up and go into the city".'

The men that were travelling with Saul heard the voice but saw nobody. Later in Acts 9.10 Annanias also heard a voice which instructed him to go into the city to find Saul. Annanias was not happy about this as Saul was known to be aggressive. After having a two way conversation with God, Annanias did go off to find Saul. Within the correct context, millions of people have not only accepted this account but based their lives on it. Within the scriptural context, people have not questioned the acceptability of hearing voices. Furthermore within this framework a conversation with God can be conducted in individuals' own language and can reflect their cultural values. Perhaps the important point to note is that within a given framework, it is acceptable to have a conversation with somebody who cannot be seen, rather than debating whether this is in fact the voice of God. Within a given family context it is acceptable for a child to have a conversation with somebody who cannot be seen, their imaginary companion.

Prior to the scriptures there were indications from cave paintings that hearing voices has existed for as long as mankind has recorded history. Jaynes (1979) suggests that all early

human beings hallucinated, hearing voices. It was the hearing of these voices that organised and structured civilisation. As time went on the ability to hear voices diminished and became labelled as abnormal. Jaynes also suggests that the ancient Greeks had a very high incidence of hearing voices which was considered normal. Using Jaynes' theory it may help to explain why they also had such an sophisticated early society. Generally, hallucinations have been linked with 'madness' in later history.

Between the Old and New Testaments, the Greek and Roman Cultures employed some medical theories to help understand hallucinations and mental illness. Plato (429 - 347 B.C.) believed that hallucinations were generated in the liver, whereas rational thoughts and perceptions were generated in the head. Plato introduced the notion that mental illness was due to personality factors rather than demons. These progressive thoughts allowed the distinction between hallucinations and perceptions to be developed. Approximately a century later Aristotle (384 - 322 B.C.) continued the empirical viewpoint. Aristotle strengthened the understanding and acceptance of mental illness, arguing that hallucinations originated in the heart. Aristotle recognised the similarities between dreaming and hallucinating. It was suggested at the time that rituals would aid the healing of mental health problems and hallucinating.

In the middle ages the theory of the four humours provided an explanation of mental illness. It was commonly believed that supernatural forces could cause the manifestation of madness. In general superstition prevailed, although the era contained some suggestions of the involvement of the brain. This supernatural view continued, and there developed an upsurge of interest in witchcraft which peaked in the fourteenth and fifteenth centuries. A common test of proof of witchcraft was to impose extended sleep deprivation to see whether

the witch would talk to the Devil. It is now known that excessive sleep deprivation can cause hallucinating. There would have been little chance of being exonerated of witchcraft if the individual hallucinated. The Renaissance of the sixteenth century brought with it a much more humanitarian approach and a drive to understand mental illness. With the Renaissance, there was a gradual waning of church authority. At the same time arose the notion of science explaining spiritual matters. After long and bitter struggles the church relented and the medicine man (the scientist) replaced the priest as the authority figure to define valuation on reported imaginings (Sarbin & Juhasz, 1967). This more philosophical approach continued into the seventeenth and eighteenth centuries.

A change of perspective occurred in the nineteenth century with the advent of the recreational use of hallucinogenic drugs in Europe. At this time the psychiatric community in France began to scrutinize the phenomena of hallucinations with an attempt at greater understanding. Pinel (1745 - 1826) and his pupil Esquirol (1772 - 1840) were instrumental in this task. Hallucinatory phenomena were distinguished from illusions with regard to the presence or absence of an external stimulus by Esquirol in his textbook *Des Maladies Mentales*. This basic definition still holds as the basis of contemporary definitions of hallucinations.

In the following decade Moreau-de-Tours (1804 - 1884) pointed out similarities in the functions of dreams and delirium, purporting also that hashish derived hallucinations and mental illness were virtually identical states arising as a result of central excitation. At this time Pierre-de-Boismone (1798 - 1881) documented the occurrence of hallucinating symptoms in several mental disorders and in periods of musing or intense concentration.

During the nineteenth century measures of normal populations were made and the realisation accepted that normal populations hallucinated . Henry Sidgewick in 1894 conducted a study which established that healthy men and women hallucinated. At around the same time in 1895 Vostrosky published the first study concerning childhood imaginary companions. Interest in the area of hallucinations continued to grow in the later part of the nineteenth century. Unfortunately the early interest in imaginary companions did not become a mainstream research area along with hallucinations.

Pierre Janet (1859 - 1947) looked at the occurrence of hallucinations in dissociative states and interest in the phenomena soared in other European countries at this time. Hughlings Jackson (1834 -1911) combined philosophical speculation with theories of cerebral function employing physiological terms to explain the experience of hallucinations using the notions of neural intensity and excitation. Jackson formulated the theory that hallucinations occur when the usual inhibitory influence of the uppermost level of the central nervous system, i.e. the cerebral cortex, is impeded and the middle level is activated in the form of hallucinations. Jackson's model involves dissociation, disinhibition and subsequent hallucinations (Asaad, 1990).

In the first part of the twentieth century there was a decrease in the interest in hallucinations. Freud (1856 - 1939) compared hallucinations with dreams purporting that they represented a breakthrough of preconscious or unconscious material. In the second part of the twentieth century the increase in interest concerning hallucinogenic drugs, developments in psychopathology and sensory phenomena led to a renewed interest in hallucinations. This interest was closely linked to the development of models attempting to explain schizophrenia.

The first half of the twentieth century brought little interest in investigating imaginary companions. Hancock (1983) reported that only about ten systematic studies were published, until the possible link was suggested with adult dissociative states in the 1980's (e.g., Ross 1996; Sanders, 1992). Unfortunately these studies have tended to attempt to examine the existence of dissociative states, rather than look at the imaginary companion phenomena *per se*.

In summary, history has recorded the existence of hearing voices for as long as recording has existed. There has been a gradual move from the attribution being attached to demon possession, growing into more complex neurological/psychological models. Society's attitude towards hearing voices has also developed and changed. Throughout history and indeed today it may well be acceptable, or unacceptable to hear voices depending upon the context and framework of the place or time.

Section 2b - Culture and religion

Ihsan Al-Issa (1977; 1978; 1995) is well known for his contribution to thought concerning the cultural aspects of hallucinations. In certain cultural situations hallucinations are accepted or even encouraged. Whether hallucinations are experienced or not may depend to some extent upon semantics and definition. Edwards (1972) found that psychiatrists in the USA were more likely to diagnose a hallucination than UK psychiatrists. Hare (1973) found that USA text books have a much broader definition of hallucination than UK text books. This may in part explain why normal population studies show higher figures when American subjects were used. Clearly if this is the case then social beliefs will play a large part in the acceptability of hearing voices. In some non-western societies all hallucinatory type experiences are considered as products of possession. Possession is not necessarily devalued but can serve various functions. An example of such a function was reported by Bourguignon (1973) who studied the Mohave Indians. There is a taboo against the hunter eating his kill. If this happens then the hunter hallucinates game everywhere, which in turn prevents the breaking of community rules. It is interesting that the reasons for and types of hallucination differ between tribes, but are consistent within tribes. These hallucinations have functions, and are not perceived as abnormal but an expected part of everyday life. This is similar to the explanation given by Jaynes (1979) who considered that hallucinations originally had the function of societal development and control.

Modern religious groups have been recognised as treating hallucination experiences differently. Schwab (1977) found that black Baptists, black Methodists and Church of God members had the highest number of hallucinations. At the other end of the scale Lutherans,

Presbyterians, Jews and white Methodists had the lowest. These religious groups seemed to have different concepts of reality and in turn levels of acceptability of hallucinations. Schwab went on in an innovative way to suggest these numerically high hallucinatory groups could play a therapeutic role 'integrating psychotic patients and helping them adapt to their hallucinations'. If the hallucinatory experience was normalised by the environment, it would not be viewed as pathological. This idea is reminiscent of ancient scriptures when to move from nabi to meshugga was to move from condemned to death to hero. Perhaps people who are troubled by voices are simply in the wrong environment. It is reputed that R.D. Laing suggested marketing one's problems when he advised a person diagnosed as suffering from catatonic schizophrenia to become an artist's model. The inability to move was valued in the studio!

Section 2c - Definitions

There are relatively few definitions of imaginary companions. These will be looked at alongside definitions of hallucinations with a bias towards verbal hallucinations. The definition of both imaginary companions and hallucinations is dependent upon various cultural norms and beliefs. The word hallucination literally means to 'wander in mind' and to be 'distracted'. The derivation of this word is the Latin 'allucinatio'. Already the derivation is giving a feeling of abnormality and distress. The Latin was Anglicised in 1572 by Lavater, referring to the tract; 'ghostes and spirites walking by nyght and strange noises, crackes and sundry forwarnynges whiche commonly happen before the death of menre, great slaughters and alterations of Kyngdomes' (Sarbin & Juhasz, 1967). Among great leaders who hallucinated and may have been involved in slaughters or kingdom alterations include Hitler, Attila, Napoleon, Joan of Arc, Churchill and Stalin (Johnson, 1978).

Some hallucinations can occur in pre-prescribed situations e.g., following taking various drugs, certain illnesses etc. Other hallucinations are less obviously understood. It is difficult for any functional definition, rather than a descriptive definition to take account of all possible reports of hallucinations. There is also a grey area that surrounds the black and white of hallucinating and not hallucinating. An example of a grey area, is perceptions around sleeping (hypnopompic) and waking (hypnagogic). These perceptions are generally excluded from studies concerning hallucinations. It has often been argued that if an individual expresses some disbelief in the objective reality of the voices heard, they are labelled as pseudo-hallucinations (Al Issa, 1977). However DSM IV states that an individual can be *aware* that they are hallucinating. Edwards (1972) points out that psychiatrists in the USA are

less likely to diagnose pseudo-hallucinations compared with their U.K. counterparts. This effect should be minimised to some extent by the introduction and acceptance of DSM IV. It is interesting to note that the DSM IV does not include any perceptions described as pseudo-hallucinations. Hypnagogic and hypnopompic experiences provide mental imagery when falling asleep or waking up. These experiences have been reported widely (e.g., Slade & Bentall, 1988). Al Issa very helpfully distinguishes these experiences and dreams easily from true hallucinations. In 1995 Al Issa made the following statement 'whether dreams are considered as different or are confused with hallucinations depends on whether or not these visions occurred in a state of wakefulness or sleep'. It may well be that not all analysts would accept this without some argument.

A number of definitions have been presented in the literature, however the majority of these are very similar in content. Earlier definitions, e.g., Bleuler (1950) suggest that a hallucination is a perception or experience of sensations which have no external or physical cause. This basic tenet for a description of hallucinations is echoed in many recent definitions. Hallucinations were originally defined in this way by Esquiro in 1832, eight years before his death in France.

A debate has developed in defining auditory hallucinations, as to whether to include those experiences coming from inside the head or whether to limit the concept of a true auditory hallucination to those sounds whose source is perceived as being external. Both DSM III - R and the more recent version DSM IV, make no distinction as to whether the source of the voices (the most common form of auditory hallucination) is perceived as being inside or outside of the head:

'A sensory perception that has the compelling sense of reality of a true perception but that occurs without the external stimulation of the relevant sensory organ. The person may or may not have insight into the fact that he or she is having a hallucination' (DSM IV).

Slade & Bentall (1988) use a similar definition to DSM IV and also make no distinction regarding internal - external perception. However, they do make explicit that the person has no control over the hallucinatory experience:

'Any percept-like experience which (a) occurs in the absence of an appropriate stimulus, (b) has the full force or impact of the corresponding actual (real) perception, and (c) is not amenable to direct voluntary control by the experiencer'.

Others however, state in their definition that the hallucination is perceived as external to the person. For example, part of Gregory's (1989) definition (Oxford Companion to the Mind) includes:

'... they are externalised, or projected, being experienced as if they came from outside the person...'

This is supported by Romme et al. (1992):

'A disorder of perception when people describe it as being located in the external world...'

It appears that the majority of definitions do not stipulate that the perception has to be external. In general this type of definition is widely accepted and supported in DSM IV and by researchers such as Slade & Bentall.

The term 'hallucination' has been challenged by Stevenson (1983) who suggested that it should be replaced by 'idiophany' which denotes 'unshared sensory experiences'. Stevenson suggests that this change would move the concept away from its connection with mental illness. The term hallucination could then be reserved for unshared sensory experiences connected to mental health problems.

The psychodynamic school of thought tends to work to a definition of hallucination that is based upon internal conflicts. This minimises the emphasis upon the apparent lack of external stimuli. Along with this train of thought is the feeling that internal conflict is not desirable and is connected to psychological conflict. It may be difficult to use this definition of hallucinations for the vast majority of people who hallucinate and do not have any recognisable form of mental illness. Object relations theorists consider that hallucinations are due to the confusion of self and object. In this context 'self' refers to conscious and unconscious mental representations that pertain to one's own person. The term 'object' is a person or a place, thing, idea, fantasy, or memory invested with emotional energy. The object can be an internal thought or an external place, person or thing (Hamilton, 1996).

Some Definitions of Hallucinations

Slade & Bentall (1988); Bentall, Haddock & Slade (1994)

'A percept - like experience that occurs in the absence of an appropriate stimulus that has the full force and impact of a corresponding ('real') perception, and that is not amenable to direct and voluntary control by the experiencer'.

Gregory (1989)

'A sensory perception in the absence of external stimuli, a hallucination has three characteristics: thoughts or memory images, perhaps when they are as vivid and immediate as perceptions, are experienced as if they were perceptions; they are externalized, or projected, being experienced as if they come from outside the person, and the mistaking of imagery for perception is not corrected in the light of other information available'.

DSM III - R

'auditory hallucinations frequently involve many voices the person perceives as coming from outside his or her head'.

(Definition taken from the 'Schizophrenia' listing.)

DSM IV

'A sensory perception that has the compelling sense of reality of a true perception that occurs without the stimulation of the relevant sensory organ. Hallucinations should be distinguished from illusions, in which an actual external stimulus is misperceived or misinterpreted. The person may or may not have insight into the fact that he or she is having a hallucination. One person with auditory hallucinations may recognise that he or she is having a false sensory experience, whereas another may be convinced that the source of the sensory experience has an independent physical reality. The term hallucination is not ordinarily applied to the false perceptions that occur during dreaming, while falling asleep (hypnagogic), or when awakening (hypnopompic)'. (p.767).

'Auditory - A hallucination involving the perception of sound, most commonly of voices. Some clinicians and investigators would not include those experiences perceived as coming from inside the head and would instead limit the concept of true auditory hallucinations to those sounds whose source is perceived as being external. However, as used in DSM IV, no distinction is made as to whether the source of the voices is perceived as being inside or outside of the head'. (p767).

Romme, Honig, Noorthoorn & Escher (1992)

'A disorder of perception which people describe as being located in the external world (ego-dystonic) and which has the same qualities as normal perceptions, that is vivid and solid, in the absence of any actual sensory stimulus'.

Posey & Losch (1983-4)

'Hearing a voice fully aloud 'as if someone had spoken'.

Hamilton (1996)

- a) *'The internal criticiser, which many patients describe is a bad introject. Hallucinations of voices attacking the patient are a more extreme example of bad introjects. These observations of adults have parallels in early development..... Although children cannot describe their fantasies we can observe behaviours that imply an introjective process. Brazelton (1969) filmed 10 week old infants volcalising in a way similar to the cooing of an adult. They seemed to introject and then project the pattern of their external objects, creating a brief moment of dual unity'.*
- b) *'Hallucinations are perceptions of a fantasy or idea. Something that normally would be experienced as self seems to be an object'.*
- c) *'Hallucinations involve the perception of fantasies as if they derived from objects. The self-other confusion is always accompanied by fragmentation, because the hallucination which pertains to the self, is split off and experienced as non-self'.*

The working definition for the present study will be based on DSM IV and supported by a number of studies e.g., Barrett & Etheridge (1992; 1994); Bleuler (1950); Feelgood & Rantzen (1994); Posey & Losch (1983-84); Romme et al. (1989;1992); Slade & Bentall (1988).

A sensory perception that has the compelling sense of reality of a true perception but that occurs without the external stimulation of the relevant sensory organ. The person may or may not have insight into the fact that he or she is having a hallucination.

Imaginary Companion Definitions

Compared with definitions of hallucinations there are only a few concerning imaginary companions. These tend to focus on the role of fantasy, imagination and whether or not the child recognises unreality. Most definitions have been based upon Svendsen (1934) who provided the foundation of this work. The Svendsen definition has been used by most contemporary studies e.g. Somers & Yawkey (1984).

Svendsen (1934)

'An invisible character, named and referred to in conversation with other persons or played with directly for a period of time, at least several months, having an air of reality for the child but no apparent objective basis... the imaginary playmate is a visual or auditory idea that becomes as real and vivid as a visual or auditory percept, but the child nevertheless always recognises its unreality'.

Rucker (1981)

'Primarily a childhood fantasy, imaginary companions are conceived as human and occasionally animal playmates with whom the child plays and/or converses with as if the playmate were alive, but who have no apparent basis in reality'.

Nagera (1969)

Nagera provides a psychodynamic definition which has been used by more recent studies in this area (e.g., Bass, 1983; Proskauer et al. 1980).

'The imaginary companion phenomenon is a special type of fantasy (and fantasising) that has all the characteristics of daydreams. Like ordinary daydreams, the imaginary companion fantasy is an attempt at wish fulfillment of one sort or another, is ruled by the pleasure principle, and need not be reality tested, yet the fantasising person remains fully aware of the unreality of the fantasies that are being indulged in. In other words, reality testing remains unimpaired'.

Taylor, Cartwright & Carlson (1993)

Use the Svendsen type definition in their study. However Taylor et al. do point out that the assumption that children always recognise the unreality of the companion is not proven.

'We know very little about the possibility that children may think of their imaginary companions as real'.

For this reason Taylor et al. do not use the second part of Svendsen's definition.

Section 2d - Hallucinations in normal populations

It has been established over history that people in the general population hallucinate or hear voices. It has been difficult for some societies to accept this and it has often been dealt with by ascribing some sort of mental illness or madness to such experiences. There is now a body of scientific papers which have measured and considered the features of such experiences apparent in normal populations. Jaynes, in the 'Origin of Consciousness in the Breakdown of the Bicameral Mind', describes the first scientific study concerning normal populations and hearing voices which was conducted by Henry Sidgwick in 1894. Sidgwick broke new ground, which had as its backdrop the realisation that the recreational use of certain substances could cause hallucinations. The break with insanity, a much feared condition was at last being made. It was not until the 1980's that this area was more rigorously examined e.g., Posey & Losch (1983-84); Romme & Escher (1989).

There still remains a misapprehension that hearing voices is synonymous with mental health problems. This popular belief that the general population has is often supported by professionals who are unaware of the relevant literature. Miller et al. (1993) stated that patients may be reluctant to take neuroleptic medication because they may *lose* their voices; 'patients may refuse to take neuroleptics because the drugs diminish or eliminate the strength of the voice'. For many people their voices are their friends or instil special perceived powers, e.g. paranormal gifts, (Romme & Escher, 1989; Turkington & Kingdon, 1996). Sarbin & Juhasz (1967) commented on the difficulty that some psychological professionals may have in accepting that people in normal populations hallucinate. Sarbin & Juhasz were interested to read two sections of the then modern introductory text by Kimble & Garnezy

(1963) 'Principles of General Psychology'. In the first section hallucinations experienced by schizophrenics are described as false perceptions. In the second section, hallucinations experienced by normal populations are described as false sensory impressions. True hallucinations were still reserved for psychiatric problems.

Traditionally studies have demonstrated high frequencies of verbal hallucinations associated with severe mental health problems (Haddock & Slade, 1995; Romme & Escher, 1989; 1992). In a review of this area Romme & Escher (1989), reported studies suggesting the following frequencies of people who are having severe mental health problems who also reported verbal hallucinations:

- 53% Schizophrenia
- 28% Major affective disorders
- 80% Dissociative disorders
- 41% General psychotic disorders
- 13% Personality disorders
- 9% Other diagnoses

These apparently high levels of people reporting verbal hallucinations need to be considered alongside studies measuring normal population frequencies of verbal hallucinations. According to the Health of the Nation report (1992), between 1500 and 5000 people in a general population of 500,000 could have serious mental health problems. This equates to 1% or less of the general population. Barrett & Etheridge (1992) stated that up to 45% of the general population could be considered 'hallucinators'. Within this context the number of people who have severe mental health problems and who report verbal

hallucinations could be seen as a drop in the ocean compared to the number of hallucinators in the general population studies.

Studies describing hallucinations in normal populations

Posey & Losch (1983-84)

Posey & Losch used 375 college students as a study population, who had been given a two part questionnaire. The first section presented 14 different examples of auditory hallucinations and then asked each subject whether they had experienced such events. The second section considered information concerning the characteristics of any hallucinated voices. Overall a remarkable 71% of the sample reported some sort of experience with brief auditory hallucinations. It was established that these hallucinations were in wakeful situations and hypnagogic and hypnopompic hallucinations were reported separately. Of the study population, 36% reported incidents which concerned hearing a voice calling one owns name aloud when the person was alone. Hearing one's thoughts as if they were spoken aloud was reported by 39% of respondents. The population that Posey & Losch used is particularly interesting for the present study as it consisted of 375 first year psychology students in an American college. The gender split was 125 men and 249 women with one person having unknown gender. All of the subjects were volunteers and they received extra course credits for their psychology degree by way of payment for participation. The course credit was given at the point of volunteering for the study not at the point at which a response was needed from the subject. Even if the subjects did not continue to fill in the questionnaire they still gained their course credits. A selection of these subjects were also screened using the Minnesota Multiphasic Personality Inventory as a check for pathology. There was found to be no correlation between the screening assessment for pathology and the reporting of verbal

hallucinations. The results could be considered to be arguing that verbal hallucinations in the normal population is in fact normal and perhaps *not* to have some form of verbal hallucinatory experience is abnormal. Posey & Losch lend support to the present study as it seems illogical that these hallucinations started on entry to college. The logical position is that the hallucinations must have started before entry to college and therefore when the subjects were considered children.

Barrett & Etheridge (1992; 1994)

Barrett & Etheridge used a similar study to Posey & Losch (1983-84). The study population consisted of 198 male students and 387 female students. The verbal hallucination questionnaire used in the study was quite similar to the one developed by Posey & Losch. The questionnaire consisted of 13 descriptions of verbal hallucinations which were based on experiences actually reported by individuals. These experiences were presented to subjects who were asked whether they had experienced something similar to the description. The results from this study were similar to the Posey & Losch results. The overall measure of some auditory hallucinatory experience was 64% across the experimental population. Approximately 45% of the population, the investigators felt could be described as hallucinators, as they were reporting verbal hallucinations of at least once a month. Measures from this study included:

64% - own name in store

38.4% - own name from backyard

37.2% - own thoughts aloud

- 32.8% - own name in house alone
- 24.6% - own name when falling asleep
- 15% - phrase when waking up
- 26.3% - other sleep related experiences
- 14% - imaginary playmate
- 12.6% - phrase in the rear of the car
- 11.3% - hear an absent friend
- 8.7% - God's voice
- 6.3% - voice of dead relative
- 6.1% - conversation in the rear of the car
- 55% - of the experimental population reported verbal hallucinations about twice a year
- 45% - reported similar events occurring between once a day and once a month

It is unusual to have a measure of imaginary playmates, the prevalence of which was reported to be 14%, which pertained to 18 years olds or older. The experimental population were screened for pathology using the Minnesota Multiphasic Personality Inventory and the Marlow-Crowne Social Desirability Scale which indicated that the 'link with psychopathology was almost non-existent'.

Romme & Escher (1989; 1995); Romme, Honig, Noorthoorn & Escher (1992)

Romme and colleagues' unusual studies compared people who coped well with hearing voices with people who did not. Romme appeared on a television programme with one of his patients who heard voices that were personally destructive. This patient had been given neuroleptic medication for some time. The neuroleptic medication did not affect the voices

but did reduce the anxiety provoked by them. Overall the medication was felt to be counterproductive. On the television programme the patient who was diagnosed as having schizophrenia talked about her voices. A special phone-in hot line, the Correlation Foundation, was available after the programme as is normal practice following emotional television programmes in Holland. The Foundation reported that 700 people contacted them at the end of the programme, which was an exceptionally high number. Of the 700 callers 450 reported that they heard voices. The investigators sent a questionnaire with 30 open ended questions to the respondents who reported that they heard voices. Of this group 254 people replied to the questionnaire and 186 were able to be used for analysis. Although these studies did not use a representative or random sample, they did provide very valuable qualitative information. The samples were able to be divided into people who could cope with or who encouraged their voices and people who could not cope with them. The sample split into 34% who described themselves as being able to cope with their voices and 66% who said they could not. Obviously due to the nature of the sample these proportions are only valid for this study and cannot be applied to other populations. The non-copers were likely to be in contact with psychiatric services, feel negative about their hallucinations, able to exert less control over the hallucinations and use more distraction techniques in an attempt to ignore their hallucinations. Of the copers there seemed to be five main strategies that were used :

- Distraction - doing another activity.
- Ignoring - dismissing the voices and refusing to communicate with them at that time.
- Selective listening - only listening to the positive voices and ignoring the others.
- Setting limits - making a time table when the voices could be spoken to.
- Considering hearing voices as a special gift - the special gift is only available to some people who can enter into the paranormal.

The authors extended the study to a further stage which involved organising a conference for the respondents of the questionnaire. Twenty of the respondents in the coping group were invited to become speakers. The aim of this was to attempt to transfer skills that people have in the normal population who hear voices to those who need psychiatric care. It was hoped that alternatives to medication could be found. Romme and colleagues suggested that mental health professionals should move away from considering hearing voices as a pathological problem and looked more widely at how people in the normal population manage this experience. It is particularly interesting to note that from their sample, 16% started hearing voices during childhood and 6% reported an on set before the age of six. For 70% of the respondents, their voices started after a traumatic event including 12% who reported that event to be a psychotherapy session!

Tien (1991)

Tien compared two sets of data which were collected a century apart concerning hallucinations. The data from the Sidgewick study that was collected in the 1890's was compared with data collected as a part of the Epidemiological Catchment Area programme (ECA) in 1985. As mentioned earlier the Sidgewick study was the first scientific study carried out examining measures of hallucinations in the general population. Sidgewick studied 17,000 adults who were 21 years of age or older. Sidgewick's measures excluded any reports that did not fall into his strict hallucination inclusion criteria. The ECA collected data from 15,000 participants who were 18 years or older. The ECA interviewers were not clinicians but nearly all had at least some college education and some training before collecting the data. There were five levels of response coding for hallucinations in the ECA.

The first level is no reported occurrence of hallucinations at all. Level two indicated the occurrence of hallucinations but no distress or impairment of function and no reported association with alcohol or drug use and no medical or physical cause. Level three indicated that the subject thought the hallucination was due to alcohol or drug use. Level four indicated the experience was due to a medical or physical cause. Level five indicated the occurrence of a hallucination was not due to drugs or medical problems, but did result in either telling a professional about it, taking medication more than once, or interfering with life or activities substantially. Only level five data was collected in the ECA. The data collected concerned hallucinations clearly defined at level five, rather than wider hallucinatory experiences.

The ECA study recorded that at least 10 - 15 % of the population reported experiencing hallucinations. This figure is rather higher than the estimates in the Sidgewick study conducted a century ago. Sidgewick recorded levels of approximately 7 - 9 % of the general population experience hallucinations. Sidgewick set the bench mark for later methodology and data levels. However there are clear methodological problems with the Sidgewick study which is now a century old. Sidgewick had a clear definition of hallucinations which excluded many of the perceptions that would now be accepted as a hallucination experiences. It was unclear who collected the data for the Sidgewick study but it is known that experimenters were not psychologically or scientifically trained. These sorts of criticisms could also be applied to the Tien study which also used data collectors who were not scientifically trained. It was recorded in the Tien publication that the data collectors had some 'individual bias' attached to their data recording. However the overall figures show that between 10 - 15 % of the general population in the ECA study were reporting clearly defined hallucinations. Unfortunately the wider range of hallucination perceptions were not recorded. There was no significant statistical difference between the ECA results and the Sidgewick

results. The study lends support which indicates that the level of hallucination perceptions within the general population has not dramatically changed over the last century.

The differences between the reported levels of hallucinations in the general population could perhaps be accounted for by the operational definitions that were used by the two studies. Both studies clearly put the levels of reported hallucinations well beyond those that would be expected within a pathological group. Given a prevalence of schizophrenia in less than 1 % of the population these reported levels are well outside of those limits.

Feelgood & Rantzen (1994)

One-hundred and thirty-six first year university students were given the Launay Slade Hallucination Scale (LSHS), (Launay & Slade, 1981); from this group a selection of high and low scorers were selected. The high and low scores predicted a high and low probability of hallucinating. The high and low scorers then completed a visual and auditory task which exposed them to ambiguous stimuli. The high LSHS scorers reported a significantly greater number of meaningful perceptions. The authors went on to argue that these perceptions were in fact hallucinations.

Feelgood & Rantzen's paper is important as it demonstrates the ability to create a laboratory setting in which hallucinations in a non clinical population could be initiated and investigated. Feelgood & Rantzen replicated a similar study by Young, Bentall, Slade & Dewey (1987). Both studies used a similar experimental population. Young et al. employed two tasks, an auditory and a visual. In the auditory task, subjects were asked to listen to a tape recording of 'Jingle Bells'. In fact the tape was not played. High LSHS scorers were more likely to report hearing the tape than low LSHS scorers. There was a similar visual task using

ambiguous stimuli. Feelgood & Rantzen argue that although the Young et al. results were statistically significant, whether the subjects actually hallucinated was not established. It was argued that imagination could have accounted for the results in the Young et al. study.

In Feelgood & Rantzen's auditory task, subjects were presented with a tape recording to listen to. The recording consisted of a five minute recording of a male voice which was randomly spliced in one second sections and was then played backwards. The subjects were told that words and phrases would appear and that these should be written down. Data from 12 high LSHS scorers and 10 low LSHS scorers was recorded. There were significant statistical differences between the two groups with the high LSHS scorers reporting more words and phrases.

Feelgood and Rantzen argue that verbal hallucinations have never been elicited in the laboratory setting before.

'A finding without precedent is that on the auditory task. Significantly more verbal hallucinations were reported by the high LSHS group. Apart from the questionable results of Young et al. (1987) there are no reports of verbal hallucinations being elicited in laboratory situations with non-organically disordered or non-psychotic subjects.'

The possible confusion in the results between hallucinations, imagination and illusions was controlled for in the study. Imagination was controlled for by precise instructions being given concerning the task. It was argued that illusions could not be responsible for the results as the responses were individually relevant e.g., one subject heard 'I hate you'. The responses

were not relevant to the type of sound on the recording. An illusion would be expected to be repeated across subjects.

Feelgood & Rantzen present data with some confidence indicating that hallucinations can be generated in the laboratory environment. They go on to argue that their results lend weight to the model developed by Jakes & Hemesley (1986) who claim that the ambiguity of the environment is implicated in this phenomenon.

It is also interesting to note that as with similar studies first year university students were used as subjects. It would be illogical to assume that this ability started on entry to university, only a few weeks previously.

Ross, Joshi & Currie (1990)

Ross, Joshi & Currie measured levels of dissociation in the general population. A randomised sample of 1055 subjects was used, which represented a demographic sample of Winnipeg. A measure of dissociation using the Dissociative Experiences Scale (DES) was made. The results showed that most of the population had some dissociative experiences. Generally this level of experience was not considered to be pathological. The data covered 28 DES items, one of which is 'hearing voices inside one's head'. The prevalence of people giving a positive report for this item was 26% of the 1055 subjects. There were no differences reported due to demographic factors e.g., gender, income, religion, family composition or ethnic background. It should be noted that these areas were tested across the 28 items in total, not just for hearing voices. Of the 26% of subjects reporting hearing voices, 7.3% reported hearing them more than 30% of the time and were considered pathological by this study. Ross et al. did not provide a definition of 'pathological' in this study, nor was it designed to remove and examine

sub-test scores. For our purposes the spin off is to provide data which could further indicate that there are high levels of the general population who hear voices or verbally hallucinate. A possible problem area is that some American dissociation studies may have been over optimistic in their view that their results provided evidence for dissociation identity disorder. However this argument is not the purpose of this study and a conservative line of not giving an opinion will be taken!

Launay & Slade (1981)

Launay & Slade developed a 12 item questionnaire scale to measure hallucinatory pre-disposition. This scale has proved to be popular in other research due to its simplicity and accurate ability to predict, e.g., Feelgood & Rantzen (1994). The original scale used prisoners as an experimental group, with a comparison group of patients and a control group of prison psychologists. The scale has been found to be equally valid using normal populations. During the experimental stage 30 items were considered for the scale which was reduced to 12 using a Goodness of Fit to the Rasch model, which was developed during the 1960's (Rasch, 1960; 1966).

The following twelve items make up the complete scale;

1. Sometimes a passing thought will seem so real that it frightens me.
2. Sometimes my thoughts seem as real as actual events in my life.
3. No matter how much I try to concentrate on my work unrelated thoughts always creep into my mind.
4. In the past I have had the experience of hearing a person's voice and then found that there was no-one there.

5. The sounds I hear in my daydreams are generally clear and distinct.
6. The people in my daydreams seem so true to life that I sometimes think they are.
7. In my daydreams I can hear the sound of a tune almost as clearly as if I were actually listening to it.
8. I often hear a voice speaking my thoughts aloud.
9. I have never been troubled by hearing voices in my head.
10. On occasions I have seen a person in front of me when no-one was in fact there.
11. I have never heard the voice of the Devil.
12. In the past I have heard the voice of God speaking to me.

From the 12 item hallucination scale, five items are connected to auditory hallucinations;

Item 4 - In the past I have had the experience of hearing a person's voice and then found there was no one there.

Item 8 - I often hear a voice speaking my thoughts aloud.

Item 9 - I have never been troubled by hearing voices in my head.

Item 11 - I have never heard the voice of the Devil.

Item 12 - In the past I have heard the voice of God speaking to me.

During the construction of the scale 25.9 % of the control group endorsed item four (in the past I have the experience of hearing a person's voice and then found there was no-one there). Item four was also endorsed by 56.5 % of prisoner group and 85.7 % of the patient group. This study was not designed to measure the frequency of hallucinations in the normal population but it did produce interesting figures which reflect normal population study results

Launay & Slade's results suggest that approximately a quarter of the normal population have experienced some sort of auditory hallucinatory experience which is lower than some selected or clinical groups.

Section 2e - A selection of measures applied to verbal hallucinations

This section of the study is concerned with examining the types of measures that can be applied to verbal hallucinations. Seven papers were examined, all of which applied measures to hallucinations experienced by normal or clinical populations. Some of the papers have been described in section 2d (Hallucinations in normal populations). Where this is the case only a limited description of the experimental methodology will take place in this section, to reduce repetition. Following a short introduction this section of the study will look at what measures were applied, a frequency grid and finally the results that were gained from each study. The frequency grid will later form the core part of later sections which will attempt to apply hallucination measures to children's imaginary companions.

Not all the papers in this section used normal population subjects. Papers A and D, Bentall, Haddock & Slade (1994), Nayani & David (1996) used populations with a recognised diagnosis or problem that needed treatment from a mental health professional. Unfortunately for the present study, there has been more interest shown in clinical populations than in normal populations who hallucinate. Caution will have to be taken when measures from these papers are applied to children's imaginary companions. Some of the normal population measures have come about via control or comparison group measures. This means that the studies were not necessarily designed to collect and itemise such measures from these subjects. However the selection of papers will provide a width of perception.

Launay & Slade (1981) created a 12 item questionnaire to measure hallucinatory predisposition, called the Launay-Slade Hallucinations Scale (LSHS). They began with 30 items, including clinical and sub-clinical forms of hallucinations. These were reduced to 16 items which discriminated between controls and hallucinating patients, and further refined to 12 items after statistical analysis. Of these 12, two relate to vivid thoughts, one to intrusive thoughts, three to vivid daydreams, one to vivid hallucinations and five involving auditory hallucinations. One of the five auditory hallucination questions “In the past I have had the experience of hearing a person’s voice and then found that there was no-one there”, was endorsed by 25.9% of normal subjects. The normal subjects were part of the control group. Bentall & Slade (1985) went on to confirm the reliability of the Launay-Slade Hallucination Scale when applied to normal populations.

Posey & Losch (1983-4) constructed a questionnaire containing 14 items, that had reportedly occurred in normals. They include one item relating to imaginary companions. These 14 were arranged in order, believed to represent decreasing frequency of occurrence. Questions after each item asked the subject if such an event had happened to them, how often, and also asked for additional information. Posey & Losch used first year psychology students as their subjects.

Barrett & Etheridge (1992; 1994) also used descriptive statements of verbal hallucinations, actually reported by individuals. Ten of these were almost identical to the Posey & Losch questions. Subjects were asked whether they had had similar experiences to the ones described. If subjects reported positively, they were asked to write a description of that experience. A proportion of subjects were also asked to record the frequency of the experience on a seven point scale. This questionnaire involved one question pertaining to

imaginary friends. Barrett & Etheridge used first year psychology students for their population.

Romme & Escher (1989) and Romme, Honig, Noorthoon & Escher (1992) sent questionnaires to self-reported hallucinators after a television programme. These questionnaires were constructed of 30 questions based around accounts from people who contacted the study following the programme. The questions were open ended and included information such as how many voices were heard, whether they were friendly, how the subjects interpreted them, who is stronger, does the voice affect contact with others, do others know about the voice, has the person received help? Romme & colleagues did not attempt to construct a questionnaire that addressed reliability or validity. The study continued with an arranged conference where people from clinical and non clinical populations could meet and compare the effect that hallucinating had on their lives. This was a very original way of investigating the area.

Bentall, Haddock & Slade (1994) assessed the efficacy of applying cognitive-behavioural interventions to subjects who were described as 'hallucinating patients'. The aim of the therapeutic intervention was to teach patients to reattribute their voices to themselves. As a part of their study Bentall et al. considered various measures that could be applied and used to assess outcome. All subjects were administered the Present State Examination (PSE) along with a structured interview.

Nayani & David (1996) used a semi-structured interview with 40 items, including frequency of voices, duration, volume, length of utterance, intelligibility and variability, participants' age, social class and gender, sound of the voice, personification of the voice,

delusional context and perceived source. Nayani & David used 100 subjects described as 'psychotic patients', 61 having been diagnosed as schizophrenic. The interview was based upon the Schedule for Clinical Assessment in Neuropsychiatry (SCAN).

A Selection of Measurements Applied to Verbal Hallucinations

Bentall, Haddock & Slade (1994)

Experience of hallucinations:

- likely to occur during periods of stress or anxiety
- Can be influenced by environmental conditions e.g., sensory deprivation, and exposure to white noise

Used PSE and Structured interview to measure the following areas:

- gender of person
- age
- average history of hearing voices (time span)
- phenomenology of hearing voices, loudness, tone, accent, gender, location in space
- content of voices
- emotional reactions to voices
- attributions concerning voices
- coping strategies
- frequency of voices over past week
- distress caused by voices
- disruption of life caused by voices

- extent people believe voices to be own thoughts
- nine point scales used daily (in personal diary) to measure:
 - (a) duration of voice (a short time ... all day long)
 - (b) loudness (mostly very faint ... mostly very loud)
 - (c) distress (mostly very pleasant ... mostly very distressing)
 - (d) hostility (mostly friendly ... mostly hostile)

Barrett & Etheridge (1992; 1994)

Used the Verbal Hallucination Questionnaire (a modified version of the hallucination questionnaire constructed by Posey & Losch, 1983-4). It consisted of 13 descriptions of verbal hallucination experiences. Subjects were asked to indicate whether they presently or previously had an experience similar to the one described.

1. Own name in store
2. Own name in backyard
3. Own thoughts aloud
4. Own name in house alone
5. Own name when falling asleep
6. Phrase when waking
7. Other sleep related
8. Imaginary playmate
9. Phrase in rear of car
10. Absent friend

11. God's voice
12. Voice of dead relative
13. Conversation in rear of car

Launay & Slade (1981)

Constructed The Launay - Slade Hallucination Scale - a 12 item scale which includes five items measuring auditory hallucinations. (for fuller account, see section 2d, Hallucinations in normal populations). The five items which pertained to auditory hallucinations were:

(item 4) In the past I have had the experience of hearing a person's voice and than found there was no one there.

(item 8) I often hear a voice speaking my thoughts aloud

(item 9) I have never been troubled by hearing voices in my head

(item 11) I have never heard the voice of the Devil

(item 12) In the past I have heard the voice of God speaking to me

Nayani & David (1996)

Using a semi-structured interview, subjects were asked 40 open-ended questions regarding phenomenological characteristics of the auditory hallucination.

- frequency of hallucinations (once/twice daily, several times a day, most of the time, all of the time)

- duration of experience of hallucinating
- events leading up to the experience of a hallucination (distinguished between (a) psychological states, biological sensations, and cognitive events e.g., intentions; and (b) internal drives and external contexts)
- likely to hear the voices at a particular time of day (e.g., first thing in the morning, middle portion of the day, evening, when alone)
- volume (whispers, shouting, normal conversational volume)
- 'sound' of the voice (e.g., angry, third person commentary)
- length of utterance of the hallucinated voice (seconds or minutes, less than one hour, more than one hour)
- perceived source (through ears as external stimuli, in internal space, in both loci variably)
- location of voices (right, left, centre, back, unsure)
- is the voice always in the same place (yes, no, not sure)
- does it move? (yes, no, not sure)
- distance moved? (inches, room, far away, not sure)
- reality testing was explored with the question: If you were to move towards the voice, would it become louder? (yes, no, not sure)
- in patients who located the voice internally, the exact location was sought - e.g., head (most common), chest, abdomen
- number of voices - including possibility of hearing a crowd
- gender of voice (or of the three most prominent voices)
- age of voice (or of the three most prominent voices) (young, middle-age, etc.)
- regional accent (or of the three most prominent voices)

(is the accent of voice the same or different to own voice?; other accents - Chinese, cockney, etc.)

- social class of accent (or of the three most prominent voices) (e.g., upper class (BBC voice), English middle class, coarse working class)
- personification of the voice - knowing the identity of the voice or not (delusional identification, e.g., God, Devil, robots) were distinguished from real/likely identifications (e.g., a relative, neighbour, or doctor)
- patients were asked to give an account or reason for their voices (three categories emerged: forces of good or evil; conspiracy or plant (CIA bug the house); ghosts, spirits or aliens)
- verbatim content of hallucinated voices - abusive, command, questioning, critical, pleasant, sad, laughing, frightening, third person, arguing
- ability to control the hallucination - start/stop it. How do this? (e.g., by concentrating on the voice, or asking it questions)
- control over content/speed/volume/delivery of voice
- distress at voice (none, low, moderate, severe, great distress)
- coping mechanisms (e.g., shout at voices to go away)
- any activities make things worse? (e.g., watching TV, listening to the radio)
- coping and aggravating activities - do the following make the voice better or worse?
 - posture (sitting/lying on bed)
 - hobbies
 - listening to music
 - watching TV
 - listening to the radio

- relaxing
- exercise
- loud external ambient noise
- talking to somebody
- think of something else
- shouting to the voice to go
- going to sleep

Romme, Honig, Noorthoon, & Escher (1992)

30 open-ended questions given on a questionnaire.

Included:

- how many voices do you hear?
- are the voices friendly, aggressive, advising, or otherwise?
- how do you interpret the voices?
- who is stronger - the voices or yourself?
- do the voices intrude in your daily contact with others?
- do others know of your voices?
- do you receive help in coping with the voices (e.g., psychiatrist, psychologist, clairvoyant, mesmerist?)
- age
- gender
- occupation
- are you able to cope with the voices or not?

- age of onset
- duration
- coping strategies (e.g., distraction, ignoring, selective listening, setting limits)
- do you talk about your voices with others?
- what is the reaction of others when you talk about your voices with them?
- onset (when voices started)

Romme & Escher (1989)

Voices -

- friendly and helpful, or hostile
- attributed meaning of the voice
- degree of interference or rejection of the voice as internal and part of the self, or external and alien
- nature of voice as psychological, media, spiritual, or the personification of someone else

Posey & Losch (1983-4)

Constructed the Verbal Hallucination Questionnaire, with 14 items on it. Subjects were asked if they had ever had experiences similar to the one described.

1. Own name in store
2. When falling asleep, own name

3. When waking
4. When falling asleep garbled message
5. Imaginary companion
6. Own name on radio
7. In house alone, own name
8. In backyard, own name
9. Doorbell or phone ring
10. Own thoughts aloud
11. God's voice
12. Own voice when driving
13. Voices when driving
14. Dead relative

The following table summarises the measures made by the seven studies in this section. The measures cover 30 areas, many of which appear in more than one study. The results of the measures are recorded in the section following the table. The key for the studies appears just after the table and the same key is applicable for the results of the recorded measures.

Table 1. A SELECTION OF MEASURES APPLIED TO VERBAL HALLUCINATIONS (Key over page)

	A	B	C	D	E	F	G
1. Appears at stress / anxiety ?	*			*			
2. Influenced by environment ?	*						
3. Attributions about voice	*			*		*	
4. Have you told others?					*		
5. How did they react?					*		
6. Time Span	*			*	*		
7. How many voices?	*			*			
8. Loudness	*			*			
9. Tone	*						
10. Accent / Class	*			*			
11. Gender	*			*			
12. Age				*			
13. Content	*			*			
14. Frequency	*			*			
15. Duration	*			*			
16. Time of day				*			
17. Emotion of voice	*					*	
18. Identity		*	*	*		*	
19. Internal / external				*			
20. Location				*			
21. Always in same place				*			
22. Does it move?				*			
23. Louder when nearer?				*			
24. Around sleep / waking		*					*
25. My thoughts aloud		*	*	*			*
26. Emotional reaction	*		*	*			
27. Disruption to life					*	*	
28. Ability to control				*	*	*	
29. Coping strategy	*			*	*	*	
30. Hearing own name		*					*

Key to studies

- A. Bentall, Haddock & Slade (1994)
Cognitive behaviour therapy for persistent auditory hallucinations: From theory to therapy.
- B. Barrett & Etheridge (1992)
Verbal hallucinations in normals - I: People who hear voices.
Barrett and Etheridge (1994)
Verbal hallucinations in normals - III: Dysfunctional personality correlates.
- C. Launay & Slade (1981)
The Measurement of hallucinatory predisposition in male and female prisoners.
- D. Nayani & David (1996)
The auditory hallucination : A phenomenological survey.
- E. Romme, Honig, Noorthoon & Escher (1992)
Coping with hearing voices : An emancipatory approach.
- F. Romme & Escher (1989)
Hearing voices.
- G. Posey & Losch (1983-4)
Auditory hallucinations of hearing voices in 365 normal subjects.

MEASUREMENTS APPLIED TO HALLUCINATIONS - RESULTS FROM PAPERS

1. Appears at stress/anxiety

A) Found hallucinations most likely to occur during periods of stress or anxiety and cited Cooklin, Sturgeon & Leff (1983) who found the onset of hallucinations can be associated with psychophysical arousal.

D) Subjects reported hallucinations precipitated by sadness 89%, fear 16% and anger 8%.

2. Influenced by the environment

A) Indicated that hallucinations can be influenced by environmental conditions such as sensory deprivation or white noise.

3. Attributions about the voice

A) Described attributions as the belief that hallucinations were thoughts. On a scale of 0 - 14 a high score attributed voices to self. Three subjects showed willingness to attribute voices to self that increased with therapy, two showed less consistent shifts and one had a shift at the beginning of the last session, ($N=6$).

D) 72% of subjects offered an explanation - 51% thought the hallucinations were the forces of good or evil, 16% thought it was a conspiracy or plot and 5% thought the voices were ghosts, spirits or aliens.

F) 45% thought the voices were God's, 19.5% a good guide, 34% described them as a special gift.

4. Have you told others?

E) 92% of subjects said they had.

5. How did they react?

E) Subjects report that 24% of those told showed a positive interest, 37.5% were negative, 2.5% showed no interest, 36% other.

6. Time span

A) Average history of hearing voices 14 years, range 3 - 22 years ($N = 6$).

D) 13% of those that hear voices had heard them for one year or less, 87% them for over one year.

E) 6% had hallucinations for less than a year, 23% between one and five years, 65% for more than five years, for 6% of the subjects the data was not available.

7. How many voices?

A) Asked subjects but did not report results.

D) Mean number of voices 3.2, range 1-14. 57% also heard crowds mumbling.

8. Loudness

A) One of six subjects heard low volume voices, the others had loudness scores correlating with level of distress and duration.

D) 14% heard whispers, 13% shouting, 73% normal volume.

9. Tone

A) Asked subjects but did not report results.

10. Accent and class

A). Asked subjects but did not report results.

D). 71% described hearing voices with an accent different to their own. 59% described this difference as class based - 30% heard an upper class voice, 17% working class and 11% middle class. Others described the difference as a regional accent, most often Afro-Caribbean.

11. Gender

A) Asked subjects but did not report results.

D) Of the most commonly heard three voices - Voice one was 71% male, 22.5% female; voice two was 55% male, 34% female and voice three was 44.5% male, 38% female.

12. Age

D) From all subjects >75% heard middle aged voices but young subjects were more likely to hear young voices.

13. Content

A) Gained information by asking subjects to shadow voices. Did not report results.

D) In 60% of subjects content was simple terms of abuse.

14. Frequency

A) All six subjects heard voices at least three times a week.

D) 12% heard voices once a day, 36% heard them several times a day, 37% heard them most of the time and 15% heard them all the time.

15. Duration

A) Reported in the form of daily diary ratings - three subjects were in the midrange, with relatively constant scores, one subject had erratic scores covering the whole range, one at level eight consistently (out of a possible nine) and one showed low levels of duration, ($N = 6$).

D) 33% heard them for seconds or minutes, 25% for less than an hour and 42% for more than an hour.

16. Time of day

D) 38% of subjects said they did not hear voices at any particular time of day. 21% hear more in the morning, 35% in the afternoon and 5% in the middle of the day.

17. Emotion of voices

A) Hostility measures were taken but the results were not reported.

F) 21% were friendly, 27% negative.

18. Identity

B) 11.3% of subjects heard a voice as an absent friend, 8.7% as God and 6.3% heard the voice of a dead relative.

C) In normal subjects 0% heard the Devil, 1.8% heard the voice of God. In hallucinating patients 40.5% heard the devil, 45.2% heard God. In a prison sample 18% heard the Devil and 12.5% heard God.

D) 61% of subjects knew the identity of the voices, 15% were described as unreal e.g., God, robots and 46% heard identifiable voices such as a relative or friend. 15% described the voices as familiar but unknown.

F) 25% of subjects described the voices as people known.

19. Internal/External

D) 49% heard voices externally, 38% internally and 12% both. The 49% who heard voices externally, heard them through their ears.

20. Location

D) Of those who perceive voices as external 44.9% heard the voice to the right, 18.4% to the left, 34.7% heard them centrally and 2% to the back. Internally perceived voices were heard by 89.5% in the head, 5.3% chest and 2.6% abdomen.

21. Always in the same place

D) 65.3% yes, 4.1% no and 30.6% were not sure.

22. Does it move?

D) 20.4%yes, 79.6% no.

23. Louder when nearer?

D) 6.1% yes, 85.7% no and 8.2% not sure.

24. Around sleep/waking

B) 24.6% heard their own name when falling asleep, 15% heard a phrase when waking and 26.3% had other sleep related experiences.

G) 41% of subjects heard voices around sleep.

25. My thoughts aloud

B) 37.2% reported hearing own thoughts aloud.

C) 1.8% of normal subjects heard thoughts aloud, 61.9% of hallucinating patients heard thoughts aloud and 33.5% of prisoners.

D) 23.7% voices were the same as thoughts, 73.7% were different and 2.6% were not sure.

G) 39% heard thoughts aloud.

26. Emotional reaction

A) three subjects were in the midrange with relatively constant scores, one subject had erratic scores covering the whole range and one consistently scored a level eight (out of a possible nine) and one subject had low scores, ($N = 6$).

C) 5.6% of normal subjects reported never having been troubled by hearing voices, as did 68% of hallucinating patients and 29% of prisoners.

D) 53% reported moderate or no distress, 47% severe or greater distress.

27. Disruption to life

E) 7% reported no disruption of social contacts.

F) 53.5% suffered disruption to life.

28. Ability to control

D) 51% had some control, 38% could start at least some of their voices, 21% could sometimes stop them. 5% could exert control over content, 2% speed, and 2% volume

E) 46% were stronger than the voices, 28% voices were stronger.

F) 67.5% were stronger than the voices. (Some subjects selected because they could control their voices).

29. Coping strategy

A) Described a number of techniques including thought stopping, distraction, aversion and using earplugs.

D) 76% could name at least one activity which helped them deal with hallucinations, 28% could eliminate voices by shouting at them to go away.

E) 24% used distraction, 31% ignored, 17% used selective listening and 26% set limits.

F) 32.5% used selecting, 41.5% drew limits and 32.5% used distraction.

30. Hearing own name

B) 64% reported hearing own name in store or similar experience, 38.4% heard name called when in backyard or similar experience and 32.8% heard name while in the house or similar experience.

G) 36% heard name spoken in house or similar, 6% on radio or similar and 57% in store or similar.

Study I - Imaginary companions

Introduction

Much of the work that has been involved in taking measures concerning childhood imaginary companions has resulted in conflicting data. This may be due to the relatively small numbers of study children who were used. The aim of the present study is to scan a large number of children across eight age years to gain basic data. Firstly an age distribution of children with imaginary companions will be established from ages five to twelve years inclusive. Further measures will be made of creativity, managing within the classroom environment and gender. The children who have imaginary companions will then form a population for further stages of the study. The ages of the children were selected to conform to the education system which encompasses primary and middle schools. The hypothesis tested in this section is, 'Imaginary companions are not just the domain of young children'

Method

Six primary schools and three middle schools were selected which provided approximately 1800 children as subjects. Schools were selected by working through an Education Authority information list that was produced for parents, which listed all Isle of Wight schools. The selection of school depended initially upon the head teacher being willing to be included in the study. Two head teachers declined to join in, but generally head teachers were very enthusiastic to participate. The second stage was to visit the school staff group to check that class teachers were also willing to participate. No class teachers refused to participate and seemed genuinely interested. The final stage of selection came about by matching school,

class and interviewer availability. Schools were excluded at the final stage generally due to school trips or plays, and by far the biggest problem, Ofstead inspections. Schools felt that they could not engage in anything considered non essential for about two months either side of an inspection. It was impossible therefore to make a truly random selection of schools for practical reasons. The children fell into eight age years, giving approximately 200 children in each age year. Following Regional Health Authority Ethical Committee and Educational Directorate support, consent letters were sent to parents via the schools. The consent letter (Appendix i) described the study as looking at children's imagination and creativity. The term 'imaginary companion' was not included in the letter to prevent the priming of answers. The measurement of imaginary companions was embedded within a measurement of creativity. This allowed a priming free context and also a measure of creativity.

A form was given to each child which had four columns with a picture of a table knife, a newspaper, a coat-hanger and a cup (Appendix iii). The children were initially asked to write their name, class and age on the forms. The next task was to write in the columns as many things as they could think of to do with the articles featured. A time limit of ten minutes was used, which was both negotiated with the schools and piloted on a class, to establish that it was long enough to adequately complete the task.

As the forms were given out to the children, the class teacher marked on the form whether they considered that the child had problems in coping within the classroom setting. This included a wide inclusion criteria, e.g. children with Statements, special physical needs, behaviour problems. The measure was not designed to consider whether the child had Special Educational Needs in the formal sense, but rather whether the child may have had to compensate due to difficulties in managing school life. The children were not aware of this

classification and were encouraged in the normal way to find as many uses as possible for the four everyday objects. When completed the children kept the form with their school things and so could be identified by an interviewing psychologist. This took place on the same day as the forms were filled in. The psychologist approached children in a prearranged system for each class so that every child would be briefly interviewed during the day. At the start of the brief interview the gender of the child was noted. This was to prevent confusions over certain names e.g., 'Sam'. After the gender was noted each child was given a standard question 'some children talk to a friend that nobody else can see, this person is often known as an imaginary friend, have you got an imaginary friend?'. If the answer was 'yes' that was recorded. If the answer was 'no' a secondary question was asked which was 'have you had one in the past?'. The response to the second question was also noted.

The data collectors consisted of the author and up to five psychology assistants. All the data collectors possessed a minimum of a psychology degree by way of qualifications.

As mentioned in the introduction, attempts to tease out the relationship between children's imaginary companions and their imagination skills have employed the use of creativity measures. Imagination has been seen as synonymous with creativity (McLeod, 1992). Unfortunately these measures have previously yielded contradictory results, probably due to small numbers of young children being used as subjects. For this reason, a creativity test was given to the current experimental group of 1800 children. The Uses Test was applied as a validated measure of creativity. The Uses Test was applied and validated by Ward (1968). It had long been recognised that to validate measures of creativity was problematic, by definition, as creativity could be considered impossible to limit to a rule system needed by an assessment process. Ward wrote that 'investigators have generally met this difficulty by

ignoring it'. Creativity had previously been assumed to be a measure of ability, contributing to IQ scores. Ward devised a series of studies (Ward, 1968; Ward, 1969; Ward, Kogan & Pancove 1972) which separated the concepts of IQ and creativity. A new method of measuring creativity was devised, which involved naming possible uses for a common object. This was the type of methodology employed by the Uses Test. The Uses Test was correlated against two other creativity measures; the Patterns Meaning Test and the Instances Test (Ward, 1968). All three measures can be scored for both 'uniqueness' (the degree to which the respondent produces unique responses) and 'fluency' (the productivity of responses). All correlations among the creativity measures were significant. For fluency scores the average inter-correlation of the three procedures was .58; for uniqueness scores it was .55 ($p < 0.001$ in both cases). Fluency and uniqueness were considered to be interchangeable measures of creativity. Neither uniqueness or fluency scores significantly correlated with the Peabody Picture Vocabulary Test or the Weschler Intelligence Scale for Children.

Following Ward's methodology, the four everyday objects of the Uses Test were replicated i.e., a newspaper, a table knife, a cup and a coat hanger. The responses were marked by a panel of five psychologists. An agreement was negotiated as to which responses were acceptable and which were to be rejected. Simple rules of marking were instituted to take account of problems such as multiple responses. A multiple response for a cup for example, might be: drink coffee, drink tea, drink water, drink milk - this would have been marked as one response. Responses that did not imply a function were also rejected e.g., break it, bend it. However a response such as break it and make a mosaic would be marked as a response. Responses that could be considered as bizarre were presented to the panel of psychologists for a joint decision as to whether the response could be accepted. Examples of rejected responses were: use a coat hanger as/for chewing gum, use a cup as/for a bicycle.

The inter-rater reliability was tested, again using the five psychologists on the panel. The inter-rater correlation was 0.98, using 50 forms (approximately 750 responses). The correlation was quite high, but this was not surprising as the panel had previously produced agreed simple scoring rules and acted as an arbitration committee for bizarre or rejected responses.

The class teacher arranged for the children to fill in their name, age and class on the form. At this point the psychologist took over and explained the Uses Test. The children were then given ten minutes to complete the task. If a child had a special needs helper, then responses could be transcribed to prevent the creativity measure being unduly influenced by special needs. Children had special needs helpers due to a range of problems e.g. physical disabilities, dyslexia, behavioural problems.

After the ten minute time limit, the class continued with their work. During this time the psychologist approached each child to ask whether they currently had an imaginary friend or had one previously. As much privacy as possible was provided. If there were separate desks children were asked at their desks. For some classes children were taken to another place in the classroom for the screening question.

The creativity assessment (the Uses Test) was administered to children aged seven to twelve years. It was considered that the majority of children in the first two school years could not write down their answers. To maintain standardisation, these five and six year olds were asked to call out responses for the four everyday objects. The responses that were called out were not recorded. This gave as near as possible a standardised framework to ask about

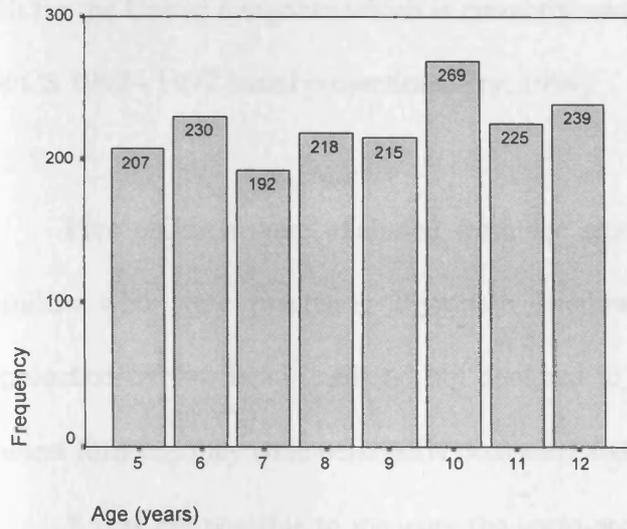
imaginary companions. A measure of special needs within the classroom setting was still made for this group by the class teacher. Responses were recorded on a separate form, (see Appendix iv).

Data was gathered from whole classes or sections of schools. Due to this methodology, some data was collected from subjects who did not fall into the inclusion criteria (five to twelve years) These subjects' data were excluded before the raw data was processed. A target of 200 subjects in each age group was aimed for. It was not possible to know exactly when the target of 200 was reached, some age groups overshóted the target and one slightly undershot it by eight subjects. The actual number of subjects interviewed in each age group were processed. Each age group could have been randomly reduced to 200, but there seemed little advantage in doing this.

Results

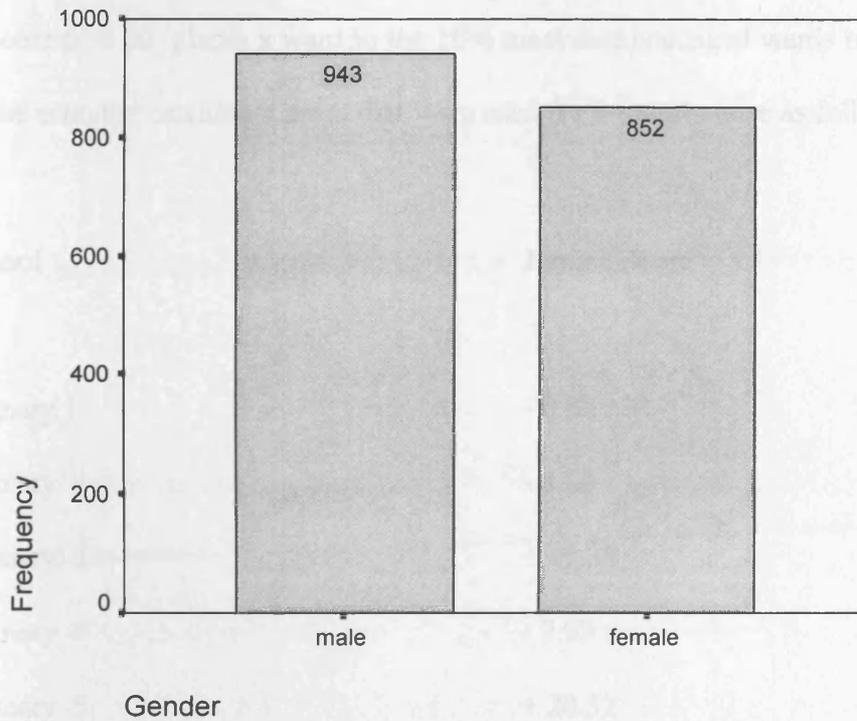
A total of 1907 children were assessed with 1795 falling into the inclusion criteria of eight age groups. Of the 112 subjects excluded, 25 were too young and 87 were too old. The age distribution for the eight age groups of participants was as follows:

Figure 1. Number of participants in each age group



All of the age groups had approximately 200 subjects, with a range from 192 to 269. The gender split was approximately equal with 852 girls and 943 boys.

Figure 2. Gender of participants.



These figures equate to 47.4% girls and 52.5% boys. These proportions reflect the gender split for the United Kingdom which is currently established to be 48.7% girls and 51.3% boys (OPCS 1992 - 1997 based projections, Fry, 1994).

Five children were excluded from the study at the consent stage by their parents. Families who were practising Plymouth Brethren or Kingdom of God members were approached by two head teachers, but declined to take part. These families were not sent consent forms as they were personally contacted and involved approximately ten children.

It was not possible to measure the socio-economic classes of the children or families who took part. It was however possible to record the estimated socio-economic status of the electoral ward in which the school was situated using the Jarman Index. The Jarman Index is a tool to help establish the relative disadvantage of a district compared to national and other local rates. The higher the score, the higher the comparative deprivation of an electoral ward. A score of + 20 places a ward in the 10% most disadvantaged wards in England. The scores of the schools' catchment areas that were used for the study were as follows;

School	Jarman Score
Primary 1	- 0.82
Primary 2	- 0.82
Primary 3	+ 29.38
Primary 4	- 7.99
Primary 5	+ 20.52

Primary 6	+ 8.37
Middle 1	+ 15.86
Middle 2	+ 8.97
Middle 3	+ 5.53

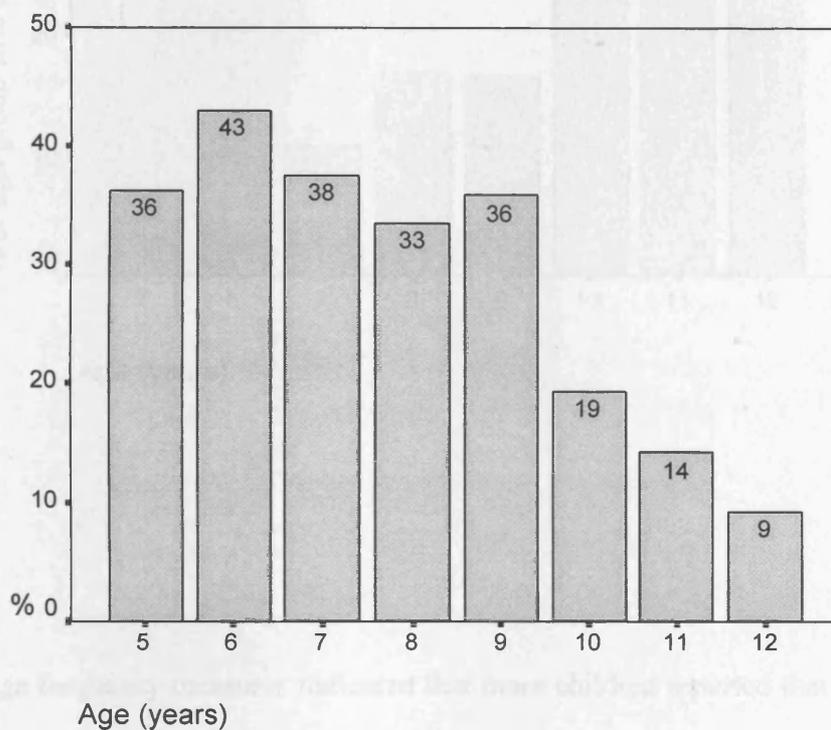
The Jarman scores indicated that the schools in the study were situated in a range of socio-economic areas (Isle of Wight Children's Services Plan, 1996) This indication cannot provide individual information about families, as the catchment areas are not discrete and in any one area there will be a range of families. The head teacher of primary school six felt that the Jarman Index was inaccurate for his school's catchment area. When a class cohort was followed through their time at the school, 20 of the original 31 children stayed with their class group. Fifty-four children were in transit by joining and then leaving the class group. Because the area was a seaside town containing large houses, these were often used as holiday lets, and transit populations used those houses temporarily. This gave rise to the argument that the estimated Jarman Index score could have been too low for that particular school.

A total of 462 children reported that they currently had an imaginary companion. This was 25.7% of the whole group of 1795 subjects.

The age frequency measures of children with a current imaginary companion indicated that between 36% and 43% of children aged between five and nine years reported positively. This frequency dropped at 10 years of age to 19% and continued to drop to 9% at 12 years of age. It was apparent that from 10 years upwards, some children were reluctant to respond to the questions. This corresponds to the move to middle school. Some older children

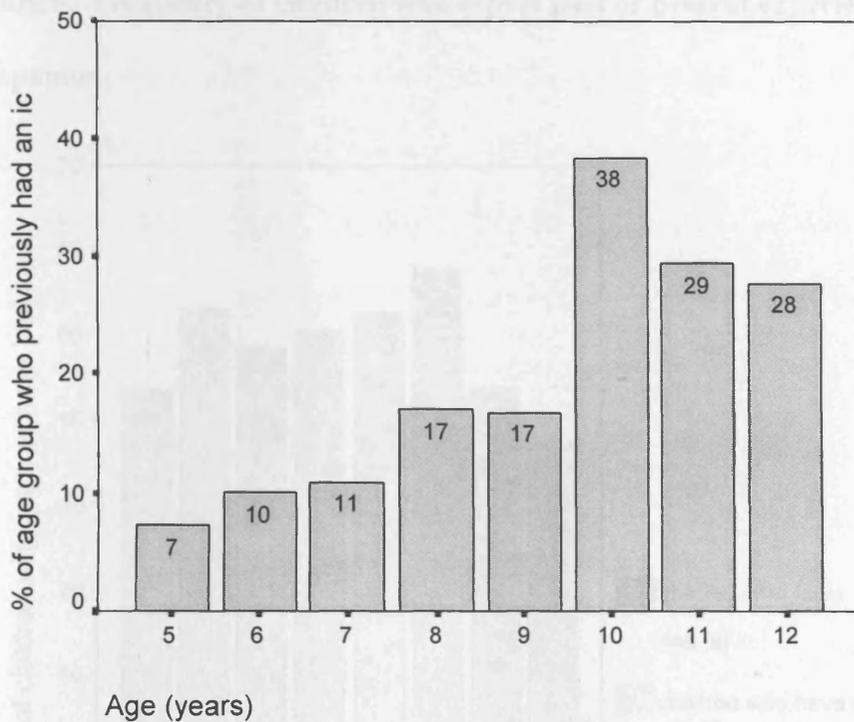
approached the interviewers after the interviews to inform them that they did have an imaginary companion, although they reported that they did not.

Figure 3. Frequency of children who reported an imaginary companion.



If children reported that they did not have a current imaginary companion, they were asked if they had had one in the past. 367 children reported that they did not have a current imaginary companion but had one previously. This figure was 20.4% of the whole group. The age distribution was as follows;

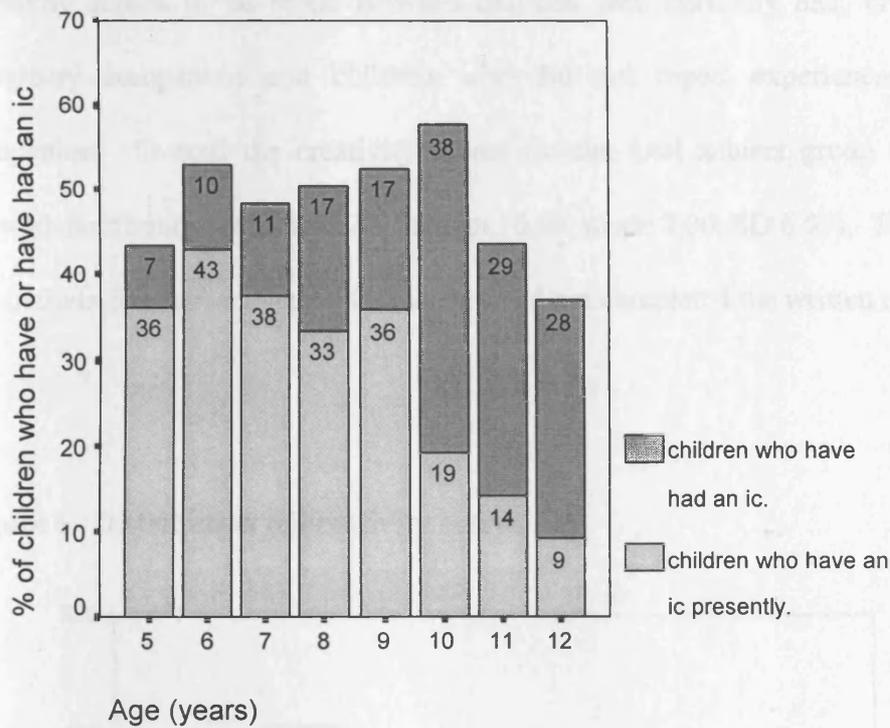
Figure 4. Frequency of children that previously had an imaginary companion



The age frequency measures indicated that more children reported that they had an imaginary companion previously as their age increased.

If the two age frequency measures added together (those who reported a current plus those who reported a past imaginary companion), a total of 829 children reported that they have or have had an imaginary companion. This equates to 46.2% of the population of 1795.

Figure 5. Frequency of children who report past or present experiences of an imaginary companion.



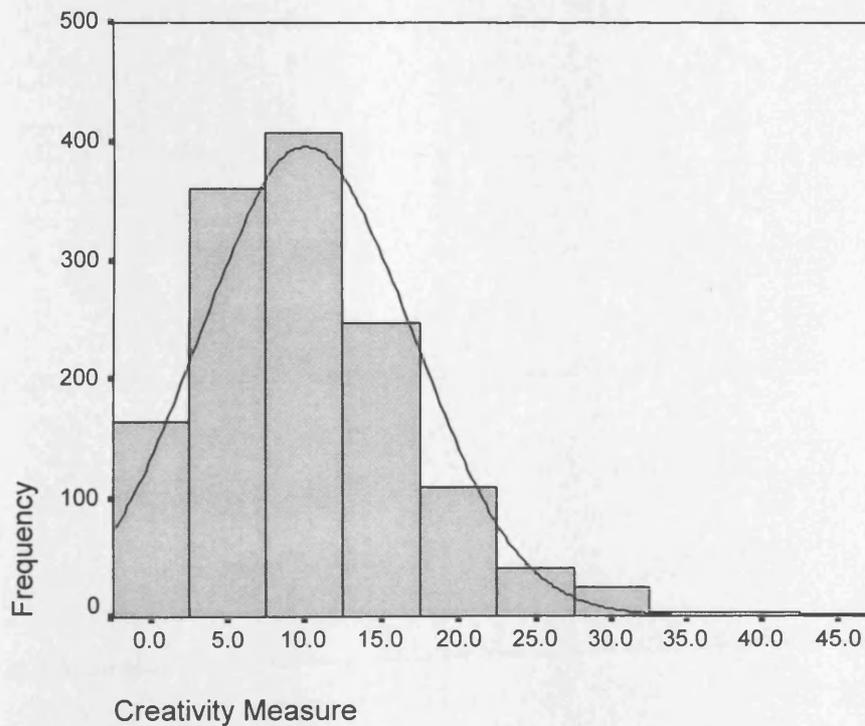
The general indication is that the frequency of reported imaginary companions across age groups remains approximately static when both groups are added together. This suggests that the overall reported responses are likely to be accurate.

The gender split recorded that 253 girls and 209 boys had a current imaginary companion. This equates to 19.9% of boys and 29.7% of girls. When the present imaginary companions are added to the previous imaginary companion groups, the gender split is 396

boys and 433 girls. This equates to 50.8% of girls and 42% of boys reporting some experience of an imaginary companion.

A measure of creativity was obtained for each subject. This allowed a comparison of creativity scores to be made between children who currently had, or previously had an imaginary companion and children who did not report experiences of an imaginary companion. Overall the creativity scores for the total subject group formed a positively skewed distribution, (mean 10.77, median 10.00, mode 7.00, SD 6.55). The subject group did not include five and six years olds, as they had not completed the written creativity assessment

Figure 6. Distribution of creativity scores.



A number of interactions between experiencing imaginary companions and creativity measures were considered. A Levenes test showed that homogeneity of variance could be assumed for each group. The Levenes test is able to measure whether there is a significant difference between variances of scores. The test employs a one-way analysis of variance which indicates whether separate or pooled variance estimates should be used for the *t*-test (Bryman & Cramer, 1997, p144) The Levenes test is now generally built into computerised statistical packages, e.g. Statistical Packages for Social Sciences (SPSS). To explore the interaction between creativity and imaginary companions a series of *t* tests (unrelated), were used. The following matrix illustrates the interactions that were tested.

Table 2. IMAGINARY COMPANIONS / CREATIVITY SCORES

1	Imaginary companion now	No imaginary companion now	<i>N</i> = 1356	<i>t</i> test, non related sig < 0.001	Imaginary companion now group less creative
2	Imaginary companion now	No involvement with imaginary companions ever	<i>N</i> = 1035	<i>t</i> test, non related sig < 0.001	Imaginary companion now group less creative
3	Imaginary companion past	No imaginary companion past	<i>N</i> = 1356	<i>t</i> test, non related sig < 0.001	Imaginary companion past group more creative
4	Imaginary companion Past	No involvement with imaginary companions ever	<i>N</i> = 1062	<i>t</i> test, non related sig < 0.05	Imaginary companion past group more creative
5	Imaginary companion past/now	No involvement with imaginary companions ever	<i>N</i> = 1356	<i>t</i> test, non related not sig	Whole imaginary companion group not more or less creative

The *t*-tests indicated that children who reported a current imaginary companion had significantly *lower* creativity scores than subjects without a current imaginary companion ($p < 0.001$). A similar analysis was applied to creativity scores for subjects who previously had an imaginary companion but currently do not have one. This group had significantly *higher* creativity scores, ($p < 0.001$).

A *t* test was applied to the creativity scores from each individual age group, from seven to twelve years. No significant difference was found for subjects who had a current imaginary companion, against the rest of the group within each age year.

Children with special needs within the classroom setting

Class teachers indicated whether a child had special needs within the classroom setting. There was no significant link between such needs and the reporting of an imaginary companion. A Chi-Square test was found to be not significant when matching special needs and the presence of imaginary companions. The indication was that imaginary companions were not being used for compensatory reasons due to difficulties in the school setting.

Gender

The study population of 1795 consisted of 852 females and 943 males.

The frequencies of subjects by gender who reported involvement with imaginary companions are shown on the following matrix. Using SPSS crosstabulation, the *expected counts* are also shown in italics. Frequencies are included for imaginary companions reported past, presently, and no involvement.

Table 3. GENDER FREQUENCIES

		Never	Past	Now	Total
Male	Actual count	546	187	209	942
	<i>Expected count</i>	<i>506.7</i>	<i>192.7</i>	<i>242.9</i>	<i>942</i>
Female	Actual count	419	180	253	852
	<i>Expected count</i>	<i>458.3</i>	<i>174.3</i>	<i>219.4</i>	<i>852</i>
Total	Actual count	965	367	462	1794
	<i>Expected count</i>	<i>965</i>	<i>367</i>	<i>462</i>	<i>1794</i>

Using Chi-Square tests on the frequency matrix a significant difference was found between the expected and actual counts ($p = < 0.001$). Generally female subjects were reporting more involvement with imaginary companions than male subjects. Girls are more likely to have an imaginary companion than boys.

Discussion

The results of the initial screen suggested that approximately half of all the children reported some involvement with an imaginary companion. This figure was gained by adding all children who currently had an imaginary companion with those who reported previously having one. Up until the age of 10 years approximately 40% of children reported an imaginary companion at the time of interviews. It was clear that from 10 years upwards children became increasingly reluctant to discuss or report having a current imaginary companion. All of the interviewers reported this perception. From 10 years of age to 12 years, the percentage of children reporting positively moved from 20% to 10%. Some credibility was attached to the recorded frequency levels as the figures were relatively stable when the past and present frequencies were added across the age ranges. The range of frequencies for the added scores was between 37% and 53%. Approximately half of all children reported an involvement with an imaginary companion.

Most studies that have examined imaginary companions have assumed that it is a phenomenon attached to pre-school aged children. Bass (1983) suggested that most imaginary companions appear between the ages of three and six years. Bass does not give details of how this assumption was made. Presumably if such young children are used as

subjects, adult observations must be used due to the young age of the children. It would be very difficult for a three year old to understand the concepts of the question. Nagera (1969) reported that an imaginary companion bridges a 'distinct gap in emotional development' and may occasionally appear as late as 10 years. Mauro (1991) had reported that 'parents are not good informants' concerning their children's imaginary companions.

Peaks of imaginary companions in very young children are also supported by other authors e.g., Somers & Yawkey (1984) who suggested a peak at 2½ to 3½ years, but with a possible range of 2½ - 9 years. The author's present study did not look at children less than five years old and thus did not have to consider the problems of relying upon carers' or observers' interpretations of behaviours or actions.

The notion that imaginary companions may be a normal phenomenon in older children seems to be possibly more acceptable outside of the UK and USA. Prinsen & Hellendoorn (1989) recognised that 11 - 13 year olds may have imaginary companions for compensatory purposes during development. Seiffge-Krenke (1987) reported that adolescents can use imaginary companions to reflect upon themselves. Other studies that recognise imaginary companions in adolescence include Inuzuka, Satoh & Wada (1991), from Japan and Proskauer, Barsh & Johnson (1980) who published a study concerning imaginary companions experienced by three adolescents. Generally these studies have been single case or small study numbers.

Most studies assume that high levels of imaginary companions are only reported by children less than six years old. The present study has indicated that imaginary companions

are reported by high frequencies of children up to the age of 10 years. From 10 years upwards imaginary companions are by no means rare and continue to be a part of mainstream childhood.

As mentioned previously there have been conflicting results regarding the role of creativity and imaginary companions. It has often been assumed that imaginary companions are an extension of imagination available to creative children. This thought does lend weight to the notion that imaginary companions are indeed no more than creative imagination. The results of the Uses Test (which measured creativity) when compared with the reporting of present or past experience of an imaginary companion were a little complex. What was clear, was that children who currently had an imaginary companion scored lower on the Uses Test, indicating that they were less creative than children who did not have an imaginary companion. The existence of an imaginary companion could not be ascribed to the children being highly creative.

Children who reported having an imaginary companion in the past, but not currently, scored higher on the Uses Test. This indicated that they were more creative than both children who currently had an imaginary companion or who reported never having contact with one.

These results go some way towards explaining why previous studies may have yielded conflicting results. The results of this part of the study indicated that a high creativity ability does not contribute towards experiencing an imaginary companion. High creativity may work towards losing an imaginary companion. The results also indicate that the

development of an imaginary companion is not connected to level of creativity. If smaller numbers of subjects were used which did not span age ranges, conflicting results could be produced. When each individual age range was tested for a connection between creativity and imaginary companions there were no significant differences for each age year.

Class teachers were asked to record on each child's creativity form whether they considered that children had special needs in the classroom setting (see Appendix iii). This measure indicated whether the children had special needs which needed recognition or special assistance by the educational system. Because the measure was made in mainstream schools it could be assumed that on the whole it excluded relatively severe learning disability. Two-hundred and seven children were recognised as having special needs of some sort. No significant link was found between the presence of these special needs and the experiencing of imaginary companions. It would therefore be untenable to suggest that imaginary companions are linked to compensation problems in school or daily living problems. It is interesting to note that almost 12% of children were reported to have been considered to have special needs. These children were generally not statemented, and teachers reported this situation difficult to deal with in mainstream classes.

A popular model of explaining the imaginary companion phenomenon is reality discrimination failure, which relies on the child not being able to discriminate between reality and non reality. This is a model that has been 'borrowed' from recent hallucination research e.g., Bentall & Slade teams, 1976; 1985; 1988; 1990; 1994. Piaget (1974) suggested that young children cannot discriminate between reality and non reality. Non reality may be manifested as dreams in this context. In a personal communication with Bentall (1996), he

suggested that reality discrimination fails in young children due to developmental immaturity. It may be that imaginary companions can be explained in terms of a reality discrimination failure (as hallucinations may be), but the results of this current study do not allow the notion to be so easily ascribed to developmental immaturity. The blending of these two notions depends upon the experience of imaginary companions stopping before the child is seven years old. This clearly was not happening. Children well beyond the six to seven year age groups continued to have imaginary companions. An adult reality discrimination type model may not be acceptable to be used to explain child experiences due to social acceptability problems. Issues surrounding social acceptability will be explored later in this study.

Hypothesis 1, 'Imaginary companions are not just the domain of very young children' can now be accepted.

Summary

In summary, approximately 50% of children had some involvement with an imaginary companion. The experience of imaginary companions was not restricted only to very young children. Children who reported a current imaginary companion scored lower on a creativity assessment. Girls are more likely to have an imaginary companion than boys. There was no correlation between experiencing an imaginary companion and perceived as having special needs in the classroom setting. Hypothesis 1 was tested and accepted, 'Imaginary companions are not just the domain of very young children'.

Study II - Comparison with verbal hallucinations

Introduction

There were three main aims to this part of the study. The first aim was to find out personal and family information about children who had reported experiencing imaginary companions. The second aim was to test out whether it is possible to apply established measures used for verbal hallucinations to imaginary companions. The third aim is to consider the results and test the argument that children's imaginary companions are the same phenomenon as verbal hallucinations. Not all measures established in section 2e (Measures applied to verbal hallucinations), could be used for children due to practical or ethical reasons.

The initial hypothesis for this section is, 'Childhood imaginary companions fall within the same parameters of definition as verbal hallucinations'

Method

Following a second application to the Regional Health Authority Ethical Committee, support was gained for this part of the study.

The experimental population was selected from children who reported positively to having an imaginary companion in Study I. The selection process used a random number generation process, by picking numbers 'out of a hat' to a quota. The numbers generated could then be cross referenced with creativity forms from Study I to provide names of children. In all 160 names were generated (twenty from each age group) and consent /

invitation letters were sent to these families (see appendix v). Seventy families sent back completed consent forms which made up the experimental population. For ethical reasons no information was gathered concerning non-participants. It was fortuitous that equal numbers of boy's and girl's families replied. All the interviews took place in the family homes.

The selected children and families took part in a structured interview. The whole interview format appears on page 103. The interview consisted of five sections. The first section was primarily designed to gain information about the child and family, but also to engage the participants. The second section was to gain information about the imaginary companion and to establish an easy communication style with the child. This section covered areas such as whether the imaginary companion has a name etc. The third section was the application of measures that have been previously applied to adult population subjects who have hallucinated. These measures were based upon the measures used in the seven studies previously reported in section 2e, (A selection of measures applied to verbal hallucinations). Not all the measures were applicable for children for practical or ethical reasons. Areas concerning coping mechanisms or personal distress were left out. This was so as not to introduce the notion of distress or abnormality to the child or family. An emphasis was put upon normalising the experience of having an imaginary companion. Some of the measures were impractical to apply to children e.g., 'when I am driving my car.....' The fourth section concerned the child's relationship with and perception of their imaginary companions. This section also includes a measure of the child's perceived reality. The fifth section is wider than the previous four, looking at the possible function that the imaginary companion has within the family.

It was recognised that the structured interview was complex and potentially difficult to administer. In total there were four interviewers. All of the interviewers were full time child therapists employed by the Island Clinical Psychology Service (IoW NHS Trust). The interview was designed to be embedded within a conversation that took place between the parent, child and interviewer. The exact wording of the questions appears in section three, p.103. The questions are listed in the order in which they were delivered during the conversation. The asking of exactly worded questions within the context of a conversation in this way made demands upon the skill of the interviewer. All of the interviewers were specifically trained to carry out the structured interview as described below. The interviews took place at the child's home, outside of school time. The interview was designed to have two phases of engagement and an 'escape route' should the child's response from Study 1 be a 'false positive' (i.e. in Study 1 the child reported having an imaginary companion but in this study reported not having an imaginary companion). The escape route was designed to allow children to maintain privacy concerning their imaginary companions if they chose to. The first level of engagement was contained in Section One, General Information (from parent), (page 103). Section One consisted of a conversation about the family and child. As a part of this section, the parent was asked what the child was good at (an engagement technique which provided a positive framework relaxing both parent and child). The child was encouraged to join in at this point. The second level of engagement in section Two General Information (from child), (page 104) was targeted at the child if it was established that the child had imaginary companion, question three asked what the companion's name was. From that point onwards the imaginary companion's name was used to personalise the conversation. If the child reported that they did not have an imaginary companion the interview was terminated at the beginning of Section Two. If this happened the interviewer

thanked the parent and child in a way that informed them that the information gained was sufficient and useful. This style was in keeping with the invitation letter which emphasised the overall usefulness of interviewing the child. In the consent and invitation letter, it was suggested that the child *may* have an imaginary companion and that the overall aims of the study were to examine creativity and child development.

The training phase for interviewers was in two parts. Initially, the interviewers watched a video of the author administering the structured interview to an eight year old child. This video was used as a practice so that interviewers could practice scoring and discuss issues. The interviewers then role-played the interview with each other. The second training phase included a pilot study using four children aged six, eight, nine and ten years. The results of these pilot interviews were discussed by the interviewers but not included in the final data. No changes were found to be necessary as a result of the pilot interviews. All four of the pilot interviews were completed by mother and child pairs. Reliability was tested by re-interviewing the four children and mothers again after a three week gap. Due to the nature of the nature of the interview (i.e. many questions open ended), formal statistical analysis was difficult. The answers given on the second interview were compared with the answers given on the first interview. Those responses which could be categorised showed an 86 per cent agreement. Support for this observation was provided by previous studies which had recognised that descriptions of imaginary companions on the whole remain constant e.g. Taylor et al., 1993; Mauro, 1991. Validity posed more of a challenge as the interview covered previously untested ground. In the formal sense concurrent validity could not be measured e.g. by correlations with other measures. However the interview appeared to have considerable face validity. Face validity has been defined as whether the measure apparently

reflects the content of the concept (Bryman & Cramer, 1997) and whether measures appear to reflect the same underlying position (Ajzen, 1996). At this stage the measures taken were relatively basic in terms of information gathering and similar measures had been gathered from children and adults in other studies such as those by Bentall et al. (1994), Mauro (1991), Nayani & David (1996), Romme & Escher (1989), Taylor et al. (1993). Attempts at matching children's imaginary companions experiences and adult verbal hallucinations took place after the information was gathered and not as a part of the interview. Issues concerning validity and reliability will be further visited in the critique.

There now follows the complete interview format. The complete format is provided in this section to increase clarity and provide a structure for the results rather than appearing in the appendices section.

Imaginary Companions - Interview Schedule

Section 1 - General Information (from parent)

1a) Who lives in the house?

1b) What is the position of the child in the household?

2a) Who does the child's family consist of?

2b) What is the position of the child in the family?

3) What is the child good at?

4) How would you describe the child's personality?

5a) Does the child have any unusual educational or medical needs? YES / NO

5b) If yes - What are they?

Section 2 - General Information (from child)

1) Have you got an imaginary friend? YES / NO

(Definition - Some children have a friend that they can talk to, but no-one else can see)

2a) Have you got more than one? YES / NO

2b) If yes, how many?

2c) Is there a main one? YES/NO

3) What is its name? (if more than one main one, ask child to choose one)

4a) How do you tell (name of imaginary friend) things?

4b) Do you speak to them? YES / NO

4c) How does tell you things?

Section 3 - Measures Concerning the Imaginary Friend (from parent and/or child)

- 1) Is more likely to be around at a particular place?

- 2) Have you told other people about ?

- 3) What did they think?

- 4) Is loud or quiet?

- 5) Does speak in a particular way? (e.g., posh, like Eastenders, like Neighbours)

- 6) Is a boy or a girl? MALE / FEMALE / DON'T KNOW

- 7a) Do you know how old is? YES / NO
- 7b) If yes - How old are they?
- 7c) If No - Are they older or younger than you?

- 8) What do you talk about with ?

- 9) How often is around?

- 10) How long do you spend with ?
- 11) Is there a special time of day when you spend time with ?
- 12) How does normally feel? (happy, sad, angry, annoying etc.)
- 13a) Do you hear inside your head or outside your head? OUTSIDE /
INSIDE
- 13b) Do you hear through your ears?
- 14) Pretend is here now. Where are they?
(e.g., to the right, to the left, in the corner of the room)
- 15) Is that where they always are? YES / NO
- 16a) Does move about? YES / NO
- 16b) Is louder when they get close? YES / NO
- 17) How often is about when you are waking up?
NEVER / SOMETIMES / MOST OF THE TIME / ALWAYS
- 18) How often is about when you going to sleep?
NEVER / SOMETIMES / MOST OF THE TIME / ALWAYS

19) Does ever say what you are thinking?

NEVER / SOMETIMES / MOST OF THE TIME / ALWAYS

20) How do you feel when is with you? (e.g., happy, cross, sad etc.)

21) Who decides when is about?

22) Do you often hear your own name from? YES / NO

Section 4 - Other information - (from child)

1) What do you usually feel like just before is with you?

(e.g. lonely, angry, happy)

2) How clever is ?

MORE CLEVER THAN YOU / AS CLEVER AS YOU / LESS CLEVER THAN YOU

3) Can you make do what they are supposed to do all the time?

(i.e. who is in charge and does that change?)

1	2	3	4	5
child always in charge	child mostly in charge	take it in turns	IC mostly in charge	IC in charge

4) Is naughty?

1	2	3	4	5
---	---	---	---	---

never naughty sometimes naughty often naughty mostly naughty always naughty

5) Does remind you of somebody? (e.g., family member or friend)

6) How long have you had around?

FOR 9 YEAR OLDS UPWARDS

7) Which is most like ?

1

2

3

4

completely pretend

a bit pretend

a bit real

completely real

Section 5 - Wider information (from parent)

1) Does the imaginary friend influence or disrupt family life?

2) What is the function of the imaginary friend?

(e.g. helps the child to eat meals, go to bed etc.)

3) Any other information that the parent wants to give

Results

The results section consists of five main parts, which mirror the structured interview.

- i. Demographic data concerning the subjects and their families.
- ii. General information from the child concerning his or her imaginary companion.
- iii. Measures derived from 2e (A selection of measures applied to verbal hallucinations), which was titled 'Section 3 - Measures concerning the Imaginary Friends (from parent and/or child)' in the interview.
- iv. Additional information from child.
- v. Wider information from parent.

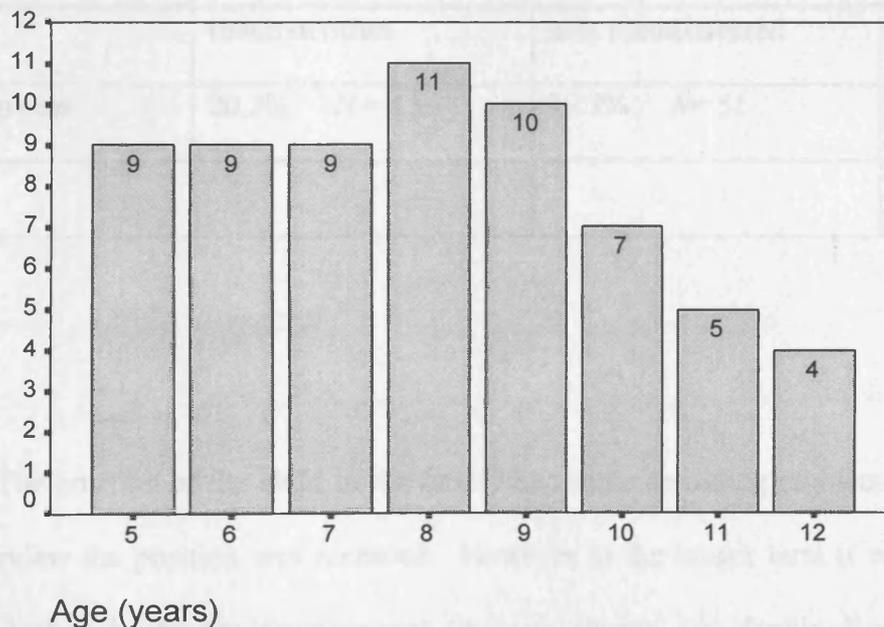
Following a demographic description of the study population, the results for each question are recorded separately. Where appropriate, each question will also include a statistical comparison of genders, older and younger groups, and the results of the adult studies. The letter at the end of each adult result denotes the study used, (key on page 68). Unless otherwise stated, appropriate comparisons were made using a Chi-Square analysis. Due to the open ended nature of some of the questions, some expected cell counts were less than five. In these cases there were no statistical analyses of age groups or genders.

The younger group consisted of five to eight years inclusive and the older group consisted of nine to twelve years inclusive.

Demographic Data

One-hundred and sixty invitation letters were sent out to randomly selected children who previously reported having a current imaginary companion. These children were selected from children who took part in the first part of the study. Seventy families replied and from those, 64 completed the structured interview. This group consisted of 32 boys and 32 girls.

Figure 7. Number of participants in each age group



The structure of the families was found to be unremarkable. The mirroring of some of the data was coincidental and not planned.

Table 4. Participants' family structures

	one parent household	two parent household	Total
whole group	28.1% <i>N</i> = 18	71.9% <i>N</i> = 46	64
younger group	28.9% <i>N</i> = 11	71.1% <i>N</i> = 27	38
older group	26.9% <i>N</i> = 7	73.1% <i>N</i> = 19	26
girls	28.1% <i>N</i> = 9	71.9% <i>N</i> = 23	32
boys	28.1% <i>N</i> = 9	71.9% <i>N</i> = 23	32
	reconstituted	non reconstituted	
whole group	20.3% <i>N</i> = 13	79.7% <i>N</i> = 51	64

The position of the child in the family had some recording problems. On the day of the interview the position was recorded. However in the longer term it was impossible to know whether the family structure was likely to change e.g., family disruption or babies arriving. For this reason the figures must be considered with caution.

Footnote: the actual questions asked are in the previous section.

Table 5. Position of child in family

		Position of Child					Total
		1	2	3	4	5	
size of family (children)	1	8					8
	2	20	14				34
	3	4	6	5			15
	4			3	2		5
	5	1				1	2
		33	20	8	2	1	64

Children from this group were more likely to be first born ($N=33$). This figure should also be treated with caution due to the obvious distribution that happens in families.

When parents were asked how they would describe their child's personality, 30 different responses were generated. As this was an open ended question The total responses were more than 100% as some parents gave more than one reply. The 30 responses could be grouped into four main groups and seven smaller ones.

1. Active, noisy, energetic, bubbly 23.4% ($N = 15$)
2. Outgoing 25% ($N = 16$)

Footnote: the actual questions asked are in the previous section.

3.	Shy	18.8% ($N = 12$)
4.	Warm, loving, caring, considerate	18.8% ($N = 12$)
1.	Cheeky, sense of humour, funny	12.5% ($N = 8$).
2.	Friendly	12.5% ($N = 8$).
3.	Sensitive	12.5% ($N = 8$).
4.	Helpful	7.8% ($N = 5$).
5.	Polite, nice, loving	7.8% ($N = 5$).
6.	Stubborn	9.4% ($N = 6$).
7.	Happy, sunny	7.8% ($N = 5$).

Parents reported that 73.4% ($N = 47$) did not have any special educational or medical needs compared with 26.6% ($N = 17$) who reported positively.

11 boys, 6 girls, not significant ($p = 0.157$).

younger, older, not significant ($p = 0.228$).

The needs were classified as follows;

- i. Medical/psychological $N = 8$ (5 girls, 3 boys).
- ii. Educational $N = 7$ (1 girl, 6 boys).
- iii. Mixture $N = 2$ (2 boys).

Footnote: the actual questions asked are in the previous section.

Section 2 General Information (from child)

1. Whether imaginary companion was experienced

70 interviews were started, at this point, six children reported that they did not have an imaginary companion (8.6%). 64 children remained in the study reporting that they did have an imaginary companion.

The ages and gender of the outliers were:

three five year olds, F.M.M.

one six year old, F.

one eight year old, M.

one nine year old, M.

2. How many imaginary companions were experienced

62.5% ($N = 40$) had one imaginary companion.

37.5% ($N = 24$) had more than one.

The make up of the 'more than one' group were:

10.9% ($N = 7$) had two imaginary companions.

1.6% ($N = 1$) had three imaginary companions.

4.7% ($N = 3$) had four imaginary companions.

Footnote: the actual questions asked are in the previous section.

1.6% ($N = 1$) had five imaginary companions.

18.8% ($N = 12$) had more than five imaginary companions.

There was no significant statistical difference between girls and boys or younger and older children ($p = 0.302$ and $p = 0.358$) as to whether they had one or more imaginary companion.

Adults - mean number of voices 3.2, range 1 - 4 (D).

3. Whether imaginary companion had a name

Recording the imaginary companion's name was used to personalise the interview and ease communication. 54 children reported a name (84.4%). The names were generally everyday names e.g. Tom, Sandra, Michael etc.

4a. How the imaginary companion was told things

59.3% ($N = 38$) reported talking to imaginary companion.

14.1% ($N = 9$) communicated through thought.

9.4% ($N = 6$) used a mixture of methods including talking.

1.6% ($N=1$) used play.

1.6% ($N = 1$) used squeaking.

7.8% ($N = 5$) reported that they did not tell their imaginary companion things.

Footnote: the actual questions asked are in the previous section.

4b. Whether child spoke to imaginary companion

81.3% ($N = 52$) reported that they did speak to their imaginary companion.

17.2% ($N = 11$) children reported that they did not speak to their imaginary companion.

No significant difference found between gender groups.

4c. Whether imaginary companion told child things

56.3% ($N = 36$) imaginary companion talked to them.

12.5% ($N = 8$) imaginary companion communicated with them through thought.

4.7% ($N = 3$) a mixture of methods including talking.

1.6% ($N = 1$) communicated through pictures and signs.

1.6% ($N = 1$) communicated to them by squeaking.

3.1% ($N = 2$) children did not know how their imaginary companions communicated with them.

15.6% ($N = 10$) imaginary companions did not tell them anything.

4.7% ($N = 3$) responses unclassified.

Section 3 **Measures Concerning the Imaginary Friend (from parent and/or child)**

1. Whether the imaginary companion was around at a particular place

48.4% ($N = 31$) around at home.

74.2% ($N = 23$) of these specified the bedroom.

Footnote: the actual questions asked are in the previous section.

31.3% ($N = 20$) imaginary companion was around anywhere.

6.3% ($N = 4$) around at school.

4.7% ($N = 3$) around in the garden.

4.7% ($N = 3$) one of the following responses; when dancing, school, beach.

1.6% ($N = 1$) do not know.

3.1% ($N = 2$) unclassified.

2. Who had been told

28.1% ($N = 18$) had not told anyone.

35.9% ($N = 23$) told only their family.

3.1% ($N = 2$) told only their friends.

32.8% ($N = 21$) told both family and friends.

Adults - 92% had told others (E).

3. Other people's reactions

Of the 46 children who had told somebody;

15.2% ($N = 7$) received a negative response.

58.7% ($N = 27$) received a positive response.

Footnote: The actual questions asked are in the previous section.

6.5% ($N = 3$) reported a mixed response.

19.6% ($N = 9$) do not know.

Adults - 24% positive 37.5% negative (E).

4. Reported volume of imaginary companion

65.6% ($N = 42$) quiet.

14.1% ($N = 9$) loud.

17.2% ($N = 11$) both loud and quiet.

1.6% ($N = 1$) normal volume.

1.6% ($N = 1$) did not know.

Adults - loudness changed with distress (A).

73% normal volume, 14% quiet, 13% shouting (D).

5. Descriptions of imaginary companion's voice

37.5% ($N = 24$) no particular way.

18.8% ($N = 12$) spoke like the child.

9.4% ($N = 6$) spoke as somebody identified from television.

Footnote: the actual questions asked are in the previous section.

18.8% ($N = 12$) spoke with a national or regional accent.

3.1% ($N = 2$) imaginary companion squeaked.

9.4% ($N = 6$) one of the following responses; posh, baby talk, like family member, smooth/calm, shouts and as a horse.

1.6% ($N = 1$) did not know.

1.6% ($N = 1$) unclassified.

Adults - 71% different accent to own, 59% of these were class based, 30% upper class, 17% working class, 11% middle class. Regional accents most often Afro-Caribbean (D).

6. Gender of imaginary companion

60.9% ($N = 39$) male.

34.4% ($N = 22$) female.

4.7% ($N = 3$) did not know the gender.

Significant difference found ($p < 0.001$) between gender groups.

No significant difference found between age groups.

Adults - Voice 1 - 71% male, 22.5% female.

Voice 2 - 55%, male, 34% female.

Voice 3 - 44.5% male, 38% female (D).

Footnote: the actual questions asked are in the previous section.

7. Age of imaginary companions

35.9% ($N = 23$) was older than child.

31.3% ($N = 20$) was younger than child.

28.1% ($N = 18$) same age as the child.

4.7% ($N = 3$) did not know.

Significant differences found ($p < 0.05$) between gender groups.

No significant differences found between age groups.

Adults - 75% middle aged, but young subjects more likely to hear young voices (D).

8. Details of conversation with imaginary companions

28.1% ($N = 18$) everyday events.

26.5% ($N = 17$) various things.

23.4% ($N = 15$) Specific interests and play.

7.8% ($N = 5$) friends or family.

6.2% ($N = 4$) problem solving.

3.1% ($N = 2$) other.

3.1% ($N = 2$) nothing.

Adults - 60% abusive (D).

Footnote: the actual questions asked are in the previous section.

9. Frequency of experience

9.4% ($N = 6$) all the time.

64.1% ($N = 41$) at least once a day.

12.5% ($N = 8$) around at least once a week but less than daily.

6.3% ($N = 4$) around less than weekly.

7.8% ($N = 5$) not classified.

Adults - at least three times/week (A).

- 12% once/day, 36% several times/day, 37% most of the time, 15% all of the time (D).

10. Duration of experience

7.8% ($N = 5$) all day with their imaginary companion.

7.8% ($N = 5$) varied amount of time spent with imaginary companion.

39.1% ($N = 25$) a number of hours with imaginary companion each day.

37.5% ($N = 24$) less than an hour a day.

7.8% ($N = 5$) did not know how long.

Adults - 3 mid range, 1 consistent, 1 low level, 1 erratic ($N = 6$) (A).

- 33% seconds/minutes, 25% less than 1 hour, 42% more than one hour (D).

Footnote: the actual questions asked are in the previous section.

11. Special time of day linked with imaginary companion experiences

34.4% ($N = 22$) no special time of day.

32.8% ($N = 21$) specified times.

28.1% ($N = 18$) combined day time and night time.

4.7% ($N = 3$) did not know.

Adults - 38% random, 21% morning, 35% afternoon, 5% midday (D).

12. Emotion of imaginary companion

76.6% ($N = 49$) happy.

1.6% ($N = 1$) silly.

1.6% ($N = 1$) lonely.

1.6% ($N = 1$) needed.

1.6% ($N = 1$) confident.

1.6% ($N = 1$) understanding.

15.6% ($N = 10$) mixture of feelings.

Adults - 21% friendly, 27% negative (F).

13a. Experience perceived Inside or outside of head

48.4% ($N = 31$) children heard their imaginary companion *inside* their head.

Footnote: the actual questions asked are in the previous section.

39.1% ($N = 25$) children heard their imaginary companion *outside* their head.

9.4% ($N = 6$) children heard *inside* and *outside* their head.

3.1% ($N = 2$) children did *not* hear their imaginary companions inside or outside head.

No significant differences found between either gender or age groups.

Adults - 49% heard externally, 38% internally, 12% both, external group heard through their ears (D).

13b. Whether imaginary companion was heard through your ears

68.8% ($N = 44$) children heard their imaginary companion through their ears.

31.1% ($N = 20$) children did not hear their imaginary companion through their ears.

No significant differences were found between either gender or age groups.

Adults - 49% - 61% heard through ears (D).

14. Reported Position of imaginary companion

22.0% ($N = 14$) outside the room.

Footnote: the actual questions asked are in the previous section.

42.3% ($N = 27$) near them.

21.9% ($N = 14$) in the bedroom.

9.4% ($N = 6$) in the corner of the room.

1.6% ($N = 1$) in the television.

3.1% ($N = 2$) did not know.

Adults - 44.9% right, 18.4% left, 34.7% centrally, 2% at back (D).

15. Location of imaginary companion

60.9% ($N = 39$) not always in that location.

37.5% ($N = 24$) was always in that location.

1.6% ($N = 1$) response unclassifiable.

No significant differences found between either gender or age groups.

Adults - 65.3% same place, 41% not same place, 30.6% not sure (D).

16a Imaginary companion movements

84.4% ($N = 54$) moved about.

15.6% ($N = 10$) did not move about.

Footnote: the actual questions asked are in the previous section.

No significant differences found between either gender or age groups.

Adults - 20.4% yes, 79.6% no (D).

16b. Relationship between volume and proximity

35.9% ($N = 23$) did not get louder when they got closer.

59.4% ($N = 38$) did get louder when they got closer.

3.1% ($N = 2$) did not know.

No significant differences were found between either gender or age groups.

Adults - 6.1% yes, 85.7% no, 8.2% not sure (D).

17. Relationship with waking

29.7% ($N = 19$) never around when waking up.

37.5% ($N = 24$) around sometimes when waking up.

14.1% ($N = 9$) around most of the time when waking up.

18.8% ($N = 12$) always around when waking up.

Adults - 15% when waking (B).

- 41% around sleep (G).

Footnote: the actual questions asked are in the previous section.

18. Relationship with sleeping

29.7% ($N = 19$) never around when going to sleep.

10.9% ($N = 7$) sometimes around when going to sleep.

26.6% ($N = 17$) about most of the time when going to sleep.

32.8% ($N = 21$) always about when going to sleep.

Adults - 24.6% when falling asleep (B).

- 41% around sleep (G).

19. Whether personal thoughts included in the experience

62.5% ($N = 40$) had never said what the child was thinking.

25% ($N = 16$) happened sometimes.

9.4% ($N = 6$) happened most of the time.

3.1% ($N = 2$) always saying what they were thinking.

Adults - 37.2% own thoughts aloud (B).

- 1.8% controls, 62.9% hallucinating patients, 33.5% prisoners (C).

- 23.7% voices same as thought (D).

- 39% own thoughts aloud (G).

Footnote: the actual questions asked are in the previous section.

20. Reported emotions during experience

84.4% ($N = 54$) positive feelings.

9.4% ($N = 6$) negative feelings (cross, annoyed, unhappy and bored).

3.1% ($N = 2$) felt normal.

4.7% ($N = 3$) felt differently at different times.

Adults - Mixture (A).

- 5.6% controls, 6.8% hallucinating patients, 29% prisoners *not* troubled (C).

- 53% little distress, 47% greater distress (D).

21. Reported control over the experience

40.6% ($N = 26$) child decided when their imaginary companion was about.

37.5% ($N = 24$) imaginary companion decided.

12.5% ($N = 8$) they both decided.

6.3% ($N = 4$) did not know.

1.6% ($N = 1$) nobody.

1.6% ($N = 1$) somebody else.

Footnote: the actual questions asked are in the previous section.

53.1% ($N = 34$) of participants gave a response that indicated that the child perceived themselves as having control over when the imaginary companion was around at least some of the time.

Adults - 51% had some control, 38% could start voice, 21% could sometimes stop voice (D).
- 46% stronger than voice, 28% voice stronger (E).
- 67.5% stronger than voice (F).

22. Frequency of own name heard

62.5% ($N = 40$) reported often hearing their name.

35.9% ($N = 23$) did not often hear their name.

1.6% ($N = 1$) did not know.

No significant differences found between either gender or age groups.

Adults - 64% in store, 38.4% backyard, 32.8% in house (B).
- 57% in store, 36% in house, 6% on radio (G).

Footnote: the actual questions asked are in the previous section.

Section 4 Other Information (from child)

1. **Emotion just before imaginary companion experienced.**

46.9% ($N = 30$) positive feelings (namely happy).

26.6% ($N = 17$) negative feelings (namely scared, worried, sad, bored, lonely, tense).

18.8% ($N = 12$) felt normal.

4.7% ($N = 3$) felt differently at different times.

3.1% ($N = 2$) responses unclassifiable.

No significant differences were found between either gender or age groups.

Adults - more likely at times of stress or anxiety (A).

- precipitated by sadness 89%, fear 16%, anger 8% (D).

2. **Intelligence of imaginary companion**

35.9% ($N = 23$) more clever than child.

31.3% ($N = 20$) as clever as child.

32.8% ($N = 21$) less clever than child.

Significant difference ($p < 0.05$) found between gender groups.

No significant difference found between age groups.

Footnote: the actual questions asked are in the previous section.

3. Issues concerning control

56.3% ($N = 36$) child mostly in charge.

18.8% ($N = 12$) took turns.

25% ($N = 16$) imaginary companion was mostly/always in charge.

Adults - 51% some control, 38% could start voices, 21% sometimes stop voices (D).

- 46% stronger than voices, 28% voices stronger (E).

- 67.5% stronger than voices (F).

4. Whether the imaginary companion was perceived as naughty

43.8% ($N = 28$) never naughty.

42.2% ($N = 27$) sometimes naughty.

6.3% ($N = 4$) often naughty.

4.7% ($N = 3$) mostly naughty.

3.1% ($N = 2$) always naughty.

5. Whether imaginary companion reminded child of anybody

54.7% ($N = 35$) did not remind child of anyone.

21.9% ($N = 14$) a friend.

12.6% ($N = 8$) a family member.

Footnote: the actual questions asked are in the previous section.

4.7% ($N = 3$) an animal.

1.6% ($N = 1$) self.

1.6% ($N = 1$) television character.

1.6% ($N = 1$) professional worker.

Adults - 11.3% absent friend, 8.7% God, 6.3% dead relative (B).

- God or Devil? Controls 1.8% God, hallucinating patients 45.2% God and 40.5% the Devil, prisoners 12.5% God and 18% Devil (C).

- 61% know identity, 46% relative or friend, 15% familiar (D).

- 25% people known (F).

6. Duration of experience

51.6% ($N = 33$) more than a year.

15.6% ($N = 10$) between 6 months and a year.

7.8% ($N = 5$) between 3 and 6 months.

10.9% ($N = 7$) between 1 month and 3 months.

7.8% ($N = 5$) for up to 1 month.

6.3% ($N = 4$) did not know.

Adults - average 14 years, range 3 - 22 years (A).

- 87% more than 1 years, 13% less (D).

- 65% more than 5 years, 23% 1 - 5 years, 6% less than 1 year (E).

Footnote: the actual questions asked are in the previous section.

7. Level of reality attached to imaginary companion

N.B. This question asked only to 9 year olds and over ($N = 26$).

7.7% ($N = 2$) pretend.

30.8% ($N = 8$) bit pretend.

38.5% ($N = 10$) bit real.

23.1% ($N = 6$) real.

92% ($N = 24$) overall believed there was some element of reality attached to their
imaginary companion.

Section 5 **Wider Information (from parent)**

1. Reported disruption on family life?

93.8% ($N = 60$) did not influence or disrupt family life.

6.3% ($N = 4$) did influence or disrupt family life.

Adults - 93% some disruption of social contact (E).

- 53.5% suffered disruption to life (F).

Footnote: the actual questions asked are in the previous section.

2. What is the function of the imaginary companion? (from parents)

17.2% ($N = 11$) do not know / no function.

14.1% ($N = 9$) substitute friend.

10.9% ($N = 7$) security or comfort.

6.3% ($N = 4$) occupies child when bored.

4.7% ($N = 3$) provides company, play companion.

4.7% ($N = 3$) makes child less shy.

4.7% ($N = 3$) allows child to express or communicate.

3.1% ($N = 2$) cope with loneliness.

3.1% ($N = 2$) provides an ideal self.

3.1% ($N = 2$) substitute for time wanted with parent.

1.6% ($N = 1$) - 18 separate responses: helps go to bed, an exclusive friend, coping with asthma, coping with death, not bullied by, problem solving, too shy to talk to parents, keep secrets, imaginary play/confidence, relax alone, release from blame, company instead of family, child shy, child not believed, insecure due to marriage break-up, regressive play, reviews learning, blamed when child naughty.

3. Other information provided by parents

Twenty-five parents responded to this section, the frequencies of responses relate to the whole group;

3.1% ($N = 2$) there is or has been another in the family.

3.1% ($N = 2$) child desired another sibling.

Footnote: the actual questions asked are in the previous section.

- 3.1% ($N = 2$) mother is a spiritualist.
- 3.1% ($N = 2$) recent death of grandfather or pet.
- 3.1% ($N = 2$) happens after a film or video.
- 31% ($N = 2$) child prefers adults.
- 3.1% ($N = 2$) large gap between siblings.
- 1.6% ($N = 1$) an only child.
- 1.6% ($N = 1$) deaf until 5 years old, lonely child.
- 1.6% ($N = 1$) wanted a dog.
- 1.6% ($N = 1$) dominated by sibling.
- 1.6% ($N = 1$) happened after parents split up.
- 1.6% ($N = 1$) child has a good imagination.
- 1.6% ($N = 1$) child at a funny age.
- 1.6% ($N = 1$) lives in country, little social contact.
- 1.6% ($N = 1$) upsetting life events.
- 1.6% ($N = 1$) departure of a friend.
- 1.6% ($N = 1$) child superstitious, secretive and worries.

Discussion

The structured interview was quite complex and it was surprising that none of the sixty-four children who participated had any problems responding. It was impossible, due to ethical and consent reasons, to select a truly random group of participants. One-hundred and

sixty invitations were sent out and seventy families responded. If a family or child did not want to talk about their imaginary companion one would assume that they would fall into the non-respondent group, so that the participating group is obviously biased in containing a disproportionate number of families who wished to discuss the companions. It was impossible to gather information about non-respondents apart from the children's ages. It is also of note that six out of seventy children did not complete the interview as they reported not having an imaginary companion. An 'escape route' was built into the interview to preserve privacy if the child should want it. Within the context of self selection bias and the escape route the enthusiastic participation is not surprising. The development and structure of the interview was described in the method section. The interview was carefully designed to both engage and be a positive experience. Questions were designed to be non-threatening and personalised to the child. None of the children withdrew from the interview once they reported that they had an imaginary companion. These findings are similar to those reported by Taylor (1993) and Mauro (1991) who were also surprised how keen and able children can be to talk about their imaginary companions. Even more surprisingly, twenty of the parents were unaware that their children experienced an imaginary companions. None of these parents were upset, but were interested and supportive. This finding supports Meyer & Tuber (1989) who reported that the majority of parents not only accept imaginary companions but actively encourage them.

It is problematic that the term hallucination is commonly linked to pathology. At no point was it suggested to the families that their imaginary companions could be viewed in combination with or as hallucinations. This problem has been realised previously in research (Sarbin & Juhasz, 1967; Stevenson, 1983). Stevenson (1983) suggested that the term for

normal population hallucination experiences should be 'idiophany' which demotes 'unshared sensory experiences'. In this way the term 'hallucination' can be reserved for pathology. If the association with mental illness could be removed. The area could be accepted and explored more easily. One can only wonder if families would have joined in so readily if the study letter was re-written as 'we were interested to see that John may hallucinate'. The notion of imaginary companions within the family, felt safe and comfortable to the interviewers.

The family structures of the children were generally unremarkable. Experiencing an imaginary companion did not appear to be connected to unusual family structures or reconstituted families. There appeared to be more first born children, but this needs to be treated with some caution. The distribution of children in families would allow a higher frequency of first born children as some families only have one child etc. Another problem to consider is that the frequency of children in a group of families can be constantly changing e.g., if babies are born or families re-constituting etc.

On the whole the experience of having an imaginary companion was reported as being a happy one. Generally there were few reports of dysfunction connected with the children or their families. The reports of dysfunction did not appear to be generated by the imaginary companion experience. Of the children who told somebody about their imaginary companion, 60% ($N = 27$) received a positive response and only 15% a negative one. This supports Meyer & Tuber (1989) who reported that the majority of families whose child had an imaginary companion encouraged it. The descriptions of the children by their parents were also positive with terms such as *warm, loving, caring etc.*

Questions 3.12, 3.20 and 4.1 considered the emotion of the imaginary companion and the child both just before and when with the companion. 76.6% ($N = 49$) children described their imaginary companion as happy. None of the children described their imaginary companion as feeling negative in any way. 26.6% ($N = 17$) described negative feelings just prior to communicating with their imaginary companion. These descriptions included scared, worried and sad. However, 84.4% ($N = 54$) of children felt happy when with their imaginary companions with only 9.4% ($N = 6$) feeling negative. If children were not happy just before communicating with their imaginary companions, they generally became so.

Between 9 - 14% ($N = 7-10$) of the children were reported to have special needs in classroom setting. In the first part of the study when 1800 children were interviewed approximately 12% ($N = 216$) were considered by their teachers to have special needs in the classroom setting. A comparison of these two figures indicates that having an imaginary companion is not connected to having special educational needs or struggling in the school setting. A similar situation was found when medical or psychological needs were looked at. Parents reported that between 12 - 15% of children had special medical or psychological needs. Many of the needs reported were everyday and would be expected in a random population e.g., asthma or family bereavement. Only 6% ($N = 4$) of children reported that they talked to their imaginary companion about problems or problem solving. Parents tended to endorse the more traditional view that imaginary companions may provide a problem solving function. The problems that parents suggested were not serious, but everyday problems e.g., child wanted a dog, the support of the imaginary companion makes the child less shy. Previous studies suggested that an imaginary companion has the function of

combating loneliness e.g., Manosevitz et al. (1973); Nagera (1969). The studies that suggested this used relatively small study groups and used very young children. The current study would not support a problem solving function being connected to experiencing an imaginary companion.

Of interest within this group are those children who reported experiencing their companions most of the time and those whose companions were said to be 'disruptive' of family life.

Six of the children reported that they experienced their imaginary companion constantly (subjects 1, 8, 17, 23, 30, 57). When the raw data was examined, it was found that none of this group had reported disruptive effects on family life. The personality descriptions of four the children were very positive e.g. happy, affectionate, sensitive, loving and caring. Subjects 8 and 23 were described as 'nice and nasty' (8); 'up and down, has a temper' (23). Apart from these two descriptions there were no other reported problems. The parents of children 8 and 23 were not aware of their children's imaginary companion experiences. The parents of the other four children (1, 17, 30, 57) were aware of their imaginary companion experiences. It could be postulated that the relationship that children 8 and 23 had with their parents was slightly difficult, but this was not reported in the interview. Generally the children who reported constant imaginary companion experiences did not appear to differ from the rest of the group.

Four families reported that imaginary companion experiences disrupted family life. The disruptions were reported as follows; 'we are spiritualists, Stephanie (child not IC) is getting

more confident and less obedient, she doesn't like getting told off, since her imaginary friend, she gets less upset and stands up for herself' (48). Parent of 49 reported that when she put the imaginary companion on the bed, the child complained that the parent hurt him. The parent of child 61 complained that the imaginary companion was a bad influence. Child 61 was adopted and diagnosed as having Attention Deficit and Hyperactivity Disorder (ADHD) for which he was prescribed Ritalin. Clearly child 61 fell into a clinical group. Child 62's mother reported that she sometimes has to wait for the imaginary companion to be ready, but also reported that it was 'annoying but not too bad'. Of the four reports of disruption to the family, two were very minimal and of no concern to parents (49, 62) of the other two, it could be argued that the imaginary companion experience of child 48 was of benefit to the child as she works out her identity in a rather structured environment. This leaves child 61, who clearly fell into a clinical group following his adoption and diagnosis of ADHD. It is interesting to note that the imaginary companion became a part of the clinical problem. It was only child 61 who had reports of severe problems connected to his imaginary companion experiences. Child 61's clinical history indicates that the type of problems were likely to be present with or without the imaginary companion experiences. The relationship between child 61's imaginary companion experiences and his clinical problems are unclear and a future research area may be indicated.

The ease with which children could answer detailed questions about their imaginary companion indicated that they had intimate relationships with them. Section 4.6. indicated that over half of the children had their imaginary companions for more than one year. This finding supports Somers & Yawkey (1984) who reported that children's descriptions of their imaginary companions remained consistent for up to three years. About 85% ($N = 54$) of

imaginary companions had names, and these were generally everyday names (question 2.3). This close relationship did not always extend to being able to control imaginary companions (question 4.3). A little over half the children were mostly able to control when their imaginary companions were present. Unfortunately 42.2% ($N = 27$) of the imaginary companions were sometimes naughty and 12.6% ($N = 8$) were often naughty. Although children were happy with their imaginary companions, they could not necessarily control their presence or actions. Some definitions of hallucinations stipulate that the perception is beyond the individuals control e.g., Bentall, Haddock & Slade (1994). Approximately half the children interviewed could not completely control their imaginary companions.

Children did not use their imaginary companions as a coping mechanism to blame when in trouble, with only two responses suggesting this.

There were few differences found between gender or age groups. Some of these differences could not be measured as the expected cell count was less than five. There were no significant differences found between age group comparisons. Three significant differences were found between gender groups.

- i. is your imaginary companion a boy a girl? (3.6) - gender split, $p = <0.001$.
- ii. how old is your imaginary companion? (3.7) - gender split, $p = <0.05$.
- iii. How clever is your imaginary companion? (4.2) - gender split, $p = <0.05$.

Most children were able to detect the gender of their imaginary companion and they tended to be the same gender as the child. Boys' imaginary companions' ages were

younger. The third significant difference was between genders in their perception of how clever imaginary companions were. Boys reported that their imaginary companions were more clever than themselves whereas girls reported that they were of equal intelligence. These last two findings could be supported by Harter & Chao (1992). Harter & Chao found that boys perceived their imaginary companions as more competent than themselves and girls perceived theirs as less. It could be argued that 'age' and 'clever' are synonymous with competence for children

In the introduction to this study, hypothesis 2 stated 'childhood imaginary companions fall within the same parameters of definition as verbal hallucinations'. The working definition of a verbal hallucination for this study was established in the section 2c (Definitions) in the General Introduction. The working definition was from DSM IV, 'A sensory perception that has the compelling sense of reality of a true perception but that occurs without the external stimulation of the relevant sensory organ. The person may or may not have insight into the fact that he or she is having a hallucination'. This type of definition has been supported by various authors who have used an identical or very similar definition e.g., Barrett & Etheridge (1992, 1994); Bleuler (1950); Feelgood & Rantzen (1994); Posey & Losch (1983-4); Romme et al. (1989, 1992); Slade & Bentall (1988). The question now arises as to whether the data collected from children with imaginary companions falls into this definition. A summary of the relevant data is in the following table:

Table 6. Information for comparison of imaginary companions with verbal hallucination definitions

Interview section	Question	Response
2.4c	How does IC tell you things?	56.3% (<i>N</i> = 36) IC talked to them 12.5% (<i>N</i> = 8) used thought 4.7% (<i>N</i> = 3) mixture including talking 1.6% (<i>n</i> = 1) used pictures, signs 1.6% (<i>N</i> = 1) squeaking 3.1% (<i>N</i> = 2) did not know 15.6% (<i>N</i> = 10) did not tell 4.7% (<i>N</i> = 3) unclassified
3.4	IC loud or quiet?	65.6% (<i>N</i> = 42) quiet 14.1% (<i>N</i> = 9) loud 17.2% (<i>N</i> = 11) both loud and quiet 1.6% (<i>N</i> = 1) normal volume 1.6% (<i>N</i> = 1) did not know
3.5	IC speak in a particular way?	37.5% (<i>N</i> = 24) no particular way 18.8% (<i>N</i> = 12) like the child 9.4% (<i>N</i> = 6) television character 18.8% (<i>N</i> = 12) with accent 3.1% (<i>N</i> = 2) squeaked 9.4% (<i>N</i> = 6) various descriptions 1.6% (<i>N</i> = 1) do not know 1.6% (<i>N</i> = 1) unclassified
3.13a	Hear inside / outside head?	48.4% (<i>N</i> = 31) inside 39.1% (<i>N</i> = 25) outside 9.4% (<i>N</i> = 6) both 3.1% (<i>N</i> = 2) not hear
3.13b	Hear through ears?	68.8% (<i>N</i> = 44) yes 31.1% (<i>N</i> = 20) no
3.22	Hear own name?	62.5% (<i>N</i> = 40) often 35.9% (<i>N</i> = 23) not often 1.6% (<i>N</i> = 1) did not know
4.7	Extent of reality (9 years upwards, <i>N</i> = 26)	7.7% (<i>N</i> = 2) pretend 30.8% (<i>N</i> = 8) a bit pretend 38.5% (<i>N</i> = 10) a bit real 23.1% (<i>N</i> = 6) real overall 92% (<i>N</i> = 24) ascribed reality

The children who were interviewed were able to describe the verbal properties of their imaginary companions in some detail. 62.6% ($N = 40$) reported that their imaginary companion spoke to them. 98.4% ($N = 63$) were able to ascribe volume to their communications. Presumably the children who used thought as a way of communicating would have given the response as 'quiet'. Similarly the children were able to describe the type of voice in terms of accent, similar to television characters etc. It seemed to be clear as to whether children heard inside (48.4%, $N = 31$) or outside (39.1%, $N = 25$) their heads and either through their ears (68.8%, $N = 44$) or not (31.1%, $N = 20$). A measure of reality was given to children who were nine years or more. This group was the older age group used in the age group comparisons. The age of nine years was chosen as it was felt that these children should be developmentally mature enough to make a realistic discrimination between reality and non-reality. This age is above the cut off point for reality perception immaturity suggested by other authors e.g., Flavell (1986); Harris et al. (1991); Slade & Bentall (1988).

In the interview, a four point scale was used which avoided a 'don't know' response;

1	2	3	4
pretend	a bit pretend	a bit real	real

Possibly surprisingly, only two children selected the completely pretend choice. This means that 92% ($N = 24$) ascribed some level of reality to their perceptions.

The responses that were made described perceptions that were verbal or auditory, had the compelling sense of reality of a true perception, but occurred without the external

stimulation of the relevant sensory organ. This means that the hypothesis concerning imaginary companions as verbal hallucinations can be accepted.

Hypothesis 2, Childhood imaginary companions fall within the same parameters of definition as verbal hallucinations can be accepted.

If the hypothesis that imaginary companions fall within the same parameters of definition as verbal hallucinations is accepted, then a comparison with adult hallucinations becomes realistic. This area has to be considered with some caution as most adult hallucination research has used clinical groups as subjects. It has been established that many, if not the majority of normal population adults experience some hallucinatory perceptions, Barrett & Etheridge (1992; 1994); Feelgood & Rantzen (1994); Posey & Losch (1983-84).

Obviously this experience has to start at some point in the life span. The majority of subjects used for normal population adult studies have been first year degree students. It would be logical to suggest that there could be a child end of a continuum that has been observed in 18 year olds.

There are some striking similarities between the two sets of measures (adult hallucinations and children's imaginary companions), despite some of the adult measures deriving from clinical groups. Table 7 (overleaf) summarises both sets of measures. Studies B & G used normal populations, A, C & D predominantly clinical and B, E & F a mixture. Face validity defined by Ajzen (1996) as whether measures 'appear to reflect the same underlying disposition' (p 59) is the only appropriate form of validity here because of the nature of the measures.

Interview Section	Question	Child Response	Equivalent Adult Response
2.2	Got more than one IC	62.5% (n = 40) no 37.5% (n = 24) yes	Mean 3.2, range 1 - 14 (D)
3.2	Told others	71.9% (n = 46) yes 28.1% (n = 18) no	92% Yes 8% No (E)
3.3	Others response	58.7% (n = 27) positive 15.2% (n = 7) negative	24% Positive 37.5% Negative (E)
3.4	IC loud or quiet	65% (n = 42) quiet 14.1% (n = 9) loud 17.2% (n = 11) both	Changed with distress (A) 73% normal, 14% quiet, 13% shouting (D)
3.5	IC speak in particular way	37.5% (n = 24) no 18.8% (n = 12) like child 18.8% (n = 12) accent 9.4% (n = 6) from T.V.	71% different accent to own 59% class based accent and regional accents (D)
3.6	Boy or girl	60.9% (n = 39) male 34.4% (n = 22) female 4.7% (n = 3) do not know	Voice 1 - 71% male 22.5% female Voice 2 - 55% male 34% female Voice 3 - 44.5% male 38% female (D)
3.7	Age of IC	35.9% (n = 23) older than child 31.3% (n = 20) younger 28.1% (n = 18) same age	75% middle aged (D)
3.8	What IC talks about	28.1% (n = 18) everyday things 26.5% (n = 17) various 23.4% (n = 15) interests and play	60% Abusive (D)
3.9	How often IC around	9.4% (n = 6) all the time 64.1% (n = 41) at least 1/day 12.5% (n = 8) at least 1/week	at least 3/week (A) 12% 1/day, 36% many/day, 37% most of time, 15% all time (D)
3.10	How long with IC	7.8% (n = 5) all day 39.1% (n = 25) hours each day 37.5% (n = 24) < 1 hour/day	3 midrange, 1 consistent, 1 low, 1 erratic (A) 33% minutes, 24% < 1 hour, 42% < 1 hour (D)
3.11	Time of day with IC	34.4% (n = 22) no special 32.8% (n = 21) specified times 28.1% (n = 18) night and day	38% random, 21% morning, 35% afternoon, 5% midday (D)
3.12	How IC feels	76.6% (n = 49) happy 15.6% (n = 10) mixture	21% friendly, 27% negative (F)
3.13 a	Inside / outside head	48.4% (n = 31) inside 39.1% (n = 25) outside 9.4% (n = 6) both	49% externally, 38% internally, 12% both (D)
3.13 b	Hear through ears	68.8% (n = 44) yes 31.1% (n = 20) no	49 - 61% yes (D)
3.14	Where is IC	42.3% (n = 27) near 22.0% (n = 14) outside room 21.9% (n = 14) bedroom	44.9% right, 18.4% left, 34.7% central (D)
3.15	IC always there	60.9% (n = 39) no 37.5% (n = 24) yes	65.3% yes, 4.1% no, 30.6% d/k (D)
3.16 a	IC move about	84.4% (n = 54) yes 15.6% (n = 10) no	20.4% yes, 79.6% no (D)
3.16 b	Louder when closer	35.9% (n = 23) no 59.4% (n = 38) yes	6.1% yes, 85.4% no (D)
3.17	IC when waking	29.7% (n = 19) never 37.5% (n = 24) sometimes 14.1% (n = 9) mostly 18.8% (n = 12) always	15% when waking (B) 41% around sleep (G)
3.18	IC when going to sleep	29.7% (n = 19) never 10.9% (n = 7) sometimes 26.6% (n = 17) mostly 32.8% (n = 21) always	24.6% when going to sleep (B) 41% around sleep
3.19	IC say thoughts	62.5% (n = 40) no 25% (n = 16) sometimes 9.4% (n = 6) mostly 3.1 (n = 2) always	37.2% yes (B) 1.8% controls, 61.9% pts, 33.5% prisoners (C) 23.7% yes (D) 39% yes (G)
3.20	How feel when IC with you	84.4% (n = 54) positive 9.4% (n = 6) negative	mixture (A) 53% little distress, 47% greater distress (D) 5.6% controls, 68% pts, 29% prisoners not troubled (C)
3.21	Who decides when IC about	40.6% (n = 26) child 37.5% (n = 24) IC 12.5% (n = 8) both	51% some control, 38% start voice, 21% stop (D) 46% stronger than voice, 28% not (E) 67.5% stronger than voice (F)
3.22	Hear own name	62.5% (n = 40) often 35.9% (n = 23) not often	64% in store, 38.4% backyard, 32.8% house (B) 57% in store, 36% house, 6% radio (G)
4.1	How feel just before IC	46.9% (n = 30) positive 26.6% (n = 17) negative 18.8% (n = 12) normal	more likely at stress (A) 89% sad, 16% fear, 8% angry (D)
4.3	Who is in charge	56.3% (n = 36) child 25% (n = 16) IC 18.8% (n = 12) turns	51% some control, 38% start voices, 21% stop voices (D) 46% stronger than voices, 28% voices stronger than voices (E) 67.5% stronger than voices (F)
4.5	Remind of anyone	54.7% (n = 35) no 21.9% (n = 14) friend 12.6% (n = 8) family	11.5% absent friend, 8.7% God, 6.3% dead relative (B) 61% knew identity, 46% relative or friend (D) 25% people known (F) God or devil? controls 1.8%, pts 45.2% 40.5% prisoners 12.5%, 18% (C)
4.6	How long around	51.6% (n = 33) < 1 year 15.6% (n = 10) 6 months - 1 years 7.8% (n = 5) 3 - 6 month	average 14 years, range 3 - 22 years (A) 87% > 1 year, 13% < 1 year (D) 65% > 5 years, 23% 1 - 5 years, 6% < 1 year (E)
5.1	Disrupt life	93.8% (n = 60) no 6.3% (n = 4) yes	93% some disruption (E) 53.5% suffered disruption (F)

The major difference between the child and adult measures was the positive descriptions given by the children, matched against the often negative adult reports. This area needs to be examined with some sensitivity. Children reported that being with their imaginary companion was a happy, positive experience. Adults reported that they heard voices more as anxiety and panic escalated. Adults also reported that 60% of their voices were upsetting or abusive. The adult measures from normal populations need to be emphasized for this comparison.

Romme et al. (1989; 1992) and Miller et al. (1993) found that control or normal population subjects may be happy with, or even protect their voices. Hearing voices can provide levels of status within some social situations e.g. spiritualism.

Miller et al. (1993) realised that a major reason for patients not taking neuroleptic medication was because they could *lose* their voices. It should be noted that the reliance on clinical groups for the adult measures would have increased the associated negative measures.

A comparison of the child and adult measures can be made by using the table on the previous page. It would be inappropriate to attempt to make a statistical comparison between these groups due to the variety of aims, measures and methodology. However, as mentioned before, face validity observations demonstrate that there are some strong similarities between many of the measures. These similarities were particularly apparent when the normal population adult studies were considered. Some of the similarities that were found are highlighted as follows:

- 3.6 Gender - children reported 60.9% ($N = 39$) male and 34.4% ($N = 22$) female imaginary companions, adults reported a mean of 57% with a range of 44 - 71% of voices being male and a mean of 31% with a range of 22 - 38% being female. The more prominent the voice the more likely it is to be male in adult subjects.
- 3.13a Heard inside or outside head - a maximum of 57.8% ($N = 37$) of children heard their imaginary companions inside their heads. A maximum of 50% of adults heard their voices inside their heads (D).
- 3.13b Heard through ears - 68.8% of children heard their imaginary companions through their ears, compared with 49 - 61% of adults (D).
- 3.19 Own thoughts aloud - 37.5% ($N = 24$) of children reported hearing their thoughts aloud. A rather more complex picture was evident from the adult studies. 37.2% of adults reported positively (B), 39% (G), 23.7% (D). In Launay & Slade (1981) three scores were recorded 1.8% controls, 61.9% patients, 33.5% prisoners (C).
- 3.21 Who decides when imaginary companion is about - 53.1% ($N = 34$) of children reported at least some control. Adult scores were 51% some control (D), 46% stronger than voice (E), 67.5% stronger than voice (F). An allied question was 4.3.
- 4.3 Who is in charge - 56.3% ($N = 36$) of children reported always being in charge with 18.8% ($N = 12$) taking it in turns. In total 75.1% ($N = 48$) of children had at least some control. Adult figures were the same as in 3.21, 51% (D), 46% (E), 67.5% (F).

3.22 Hearing own name - 62.5% ($N = 40$) of children reported often hearing their own name. Approximately 64% (B) and 57% (G) reported similarly from adults studies.

4.6 How long has imaginary companion been around - both the child and adult groups reported that their experiences were long term. 51.6% ($N = 33$) of the children reported having their imaginary companion for more than one year, with a further 15.6% ($N = 10$) reporting a duration of more than six months. Adults reported much longer periods of time for hearing voices; mean of 14 years, ranging from 3 - 22 years (A); 87% . > 1 year (D); 23% 1 - 5 years, 65% > 5 years (E).

Although comparisons between child and adult experiences were difficult, and face validity only could be considered many similarities were seen. The difficulties in making statistical comparisons were due to the differing methodologies, aims and measures between studies. One explanation could therefore be that children's imaginary companions represent the child end of the continuum observed by normal population adult hallucination studies.

Summary

The descriptions of children's imaginary companions fell within the parameters of the definition of verbal hallucinations. Hypothesis 2, 'Childhood imaginary companions fall within the same parameters of definition as verbal hallucinations' can be accepted. This acceptance does not provide empirical evidence that imaginary companions are actually verbal hallucinations. However, there are many similarities between childrens' imaginary companions and adult verbal hallucinations. This was particularly so when compared with normal population adult studies. One apparent difference in the measures examined, indicated

that children generally reported interaction with an imaginary companion a positive experience, whereas adults' voices tended to increase when linked to negative events, thoughts or anxiety. This was probably due to many of the adult measures deriving from clinical groups.

Hypothesis 2 was accepted, 'Childhood imaginary companions fall within the same parameters of definition as verbal hallucinations'.

Study III - The social acceptability of behaviours

Introduction

In the introduction to the present study it was postulated that it is perceived by society to be unacceptable for an adult to talk to somebody who is not actually there. However it may well be acceptable for a child to have such a unilateral conversation. The concept of imaginary companions being verbal hallucinations was tested and accepted in the previous section, Study II. The object of this part of the study is to test out the acceptability assumption. Very simply, adults were asked whether the behaviour of having a conversation with somebody who is not there is acceptable. This will test out hypothesis 3, 'It is generally acceptable for a child to have a conversation with an imaginary companion. It is generally unacceptable for an adult to have a similar conversation'.

Method

A small questionnaire was given to a randomly selected sample of adults. The questionnaire consisted of 10 questions concerning acceptable behaviour (see Appendices vi & vii, for complete list). There were two types of questionnaire which were identical except that the questions pertained to either a seven year old child or a 37 year old man. Only one question was scored and recorded: 'is it acceptable to have a conversation with an imaginary friend?' The responses were scored using a five choice option.

1	2	3	4	5
Never	Rarely	Unsure	Sometimes	Always

The participants were randomly selected, mainly from their work places e.g. tyre fitting unit, manufacturing opticians, high street bank. Generally the participants did not have a background in the Health Service. Only one type of questionnaire was used at each work place, i.e. for a seven or 37 year old.

The participants were not made aware that there were two types of questionnaire. This prevented insight into the study by participants, which could have influenced their responses.

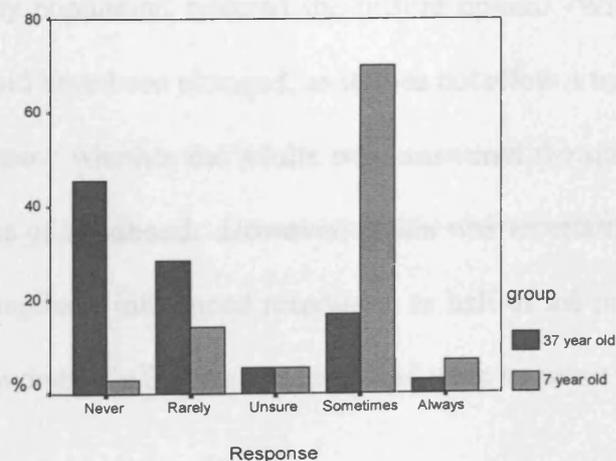
The questionnaire was piloted on 10 people who were employed by the Health Service. The pilot responses were disregarded for the main study.

Results

One-hundred and forty adults filled in the questionnaire at their workplaces. The study group consisted of 70 males and 70 females with an age range from 16 to 74, years, (mean 36.1; SD 6.5; median 34; modes 23 & 33 years).

The frequencies of responses regarding the acceptability of a conversation with an imaginary friend were as follows:

Figure 8. Responses to acceptability questionnaire



The five choice option design did not produce a forced positive/negative choice. 10% ($N = 14$) of the respondents answered that they were unsure. 90% ($N = 126$) of the group made an active positive / negative choice.

A Chi-Square analysis indicated that there was a significant difference ($p < 0.001$, 1df.), between the two groups located either side of the 'unsure' choice.

The results indicated that it is generally perceived as being more acceptable for a child to have a conversation with an imaginary friend. It is generally perceived to be less acceptable for an adult to have a similar conversation.

Discussion

There is a logical assumption that it is generally perceived to be unacceptable for an adult to talk to an imaginary friend but is acceptable for a child. The results of the questionnaire confirmed this position. The only difference between the two questionnaires was the applied age. The behaviours described and questions asked were otherwise identical. The results indicated that the respondents had clear views about social acceptability. Only 10% of the study population selected the unsure option. With hindsight, the use of the unsure option would have been changed, as it does not allow a true five point scale. It may have been useful to know whether the adults who answered the questionnaires had any knowledge about the ways of childhood. However, if this was ascertained at the time of questionnaire completion it may have influenced responses, as half of the participants were asked about the acceptable behaviour of a 37 year old man, and were unaware of the child part of the study.

It is difficult to know at what age the perception of acceptability changes during development. This may be partly due to the grey area between childhood, adolescence and adulthood. At some point, probably around mid adolescence, some childhood behaviours become socially unacceptable e.g., eating or dressing etiquette. If an adult has a conversation with an imaginary companion, that behaviour may be associated with mental illness. History has indicated that madness, insanity or more recently mental health problems carry a considerable negative value. On the whole children do not threaten adults in this way and are generally perceived as safe. This safety allows children to exhibit identical behaviours as adults who may be considered to have mental health problems. Conducting a conversation with an imaginary companion is synonymous with the hallucinatory process of 'hearing voices'. This behaviour is generally perceived as acceptable for children.

Hypothesis 3 can now be accepted, 'It is more acceptable for a child to have a conversation with an imaginary companion than for an adult to have a similar conversation'.

Summary

The results of the questionnaire established that the assumption that it is acceptable for a child to have a conversation with an imaginary friend, is not so for an adult. This was established by giving two questionnaires to a total of 140 adults. The only difference between the two questionnaires was the applied age; one applied to a seven year old child and one applied to a 37 year old adult.

Hypothesis 3 was accepted, 'it is more acceptable for a child to have a conversation with an imaginary companion, than an adult to have a similar conversation'.

Concluding discussion and proposed model

From ancient times the notion of hearing voices has been recorded, (Al-Issa, 1977; 1978; Jaynes, 1979; Sarbin & Juhasz, 1967). The voices may have been ascribed to the supernatural, to madness, or to God. It has been established that adults from both normal or clinical populations can hear voices that fall within a hallucination definition. Society has rarely felt comfortable with the idea that this may be a normal process and that perhaps 50% of the population may report hallucination experiences, (Barrett & Etheridge, 1992; 1994; Posey & Losch, 1983-4). It has been perceived as even less acceptable that children could experience similar hallucinatory experiences.

For more than a century, exploring children's imaginary companions has failed to fire researchers' enthusiasm, (Hancock, 1983). Consequently very little is known about the processes or meaning of imaginary companions. The assumption has been that imaginary companions are merely fleeting parts of young children's imagination and largely irrelevant. The only times of increased interest in imaginary companions has been when there have been suggested links with adult psychological dysfunction. In the 1960's it was suggested that imaginary companions could be linked to later adult schizophrenia, (Cohen, 1996). More recently in the 1990's it has been suggested that there may be a link with adult dissociation problems, (Putnam, 1991; 1993; Ross, 1996). These adult links can be explored further with a proposed theoretical model later in this discussion. However, there is no empirical evidence that suggests imaginary companions are precursors of adult pathology, in fact the reverse is suggested.

Clinical experience suggested that imaginary companions were not just the domain of young children. This was also supported by recent unpublished research by Frost (1996). The assumption had been that only young children, perhaps pre-schoolers, experienced imaginary companions, e.g., Manosevitz et al. (1973; 1977); Nagera (1969). This was a comfortable assumption as the reasoning could be linked to children's inability to distinguish between reality and non reality due to immature development. If older children also experienced imaginary companions then a more complex process may be involved.

It has been recognised that play is both essential to normal child development and innate (Schneider & Watkins, 1996). The finding that approximately half of all children report experiences of an imaginary companion, suggests that these experiences may be a part of normal development but not essential to it. Pretend play may produce imaginary characters but not necessarily imaginary companions. It is noted that the role of imaginary companions in child development has not been established (Taylor et al., 1993). In this section, a model of how hallucinations could develop through childhood and adolescence to adulthood will be elaborated. This will allow exploration of the development and interaction of both hallucinations and imaginary companions. Imagination is part of normal development in children, this includes creating imaginary scenarios and characters. If children's imaginary companions are conceptualised as the type of non pathological hallucinatory experiences described by Stevenson (1983) (and named as 'idiophany' by him) imagination and hallucination could be seen as enjoying a type of symbiotic relationship and developing together. These concepts will be revisited in the proposed model and later in the critique.

When approximately 1800 children within the inclusive age group five to 12 years were interviewed, 46.4% reported either having, or having had an imaginary companion. The

frequencies of imaginary companions dropped off with age but up to and including 12 year olds, they remained a mainstream part of child development. The frequencies indicated that in older children imaginary companions are by no means rare. Due to the upper study age being 12, frequencies of imaginary companions in adolescence were not measured. Although previous studies have recognised the possibility of the existence of imaginary companions in adolescence, again frequencies have not been measured e.g., Inuzuka et al. (1991); Prinsen & Hellendoorn (1989); Proskauer et al. (1980); Seiffge-Krenke (1987). It is interesting to note that these studies tend not to be by UK or USA based workers. The assumption that imaginary companions are rare for all older children would of course include adolescents. Adolescent studies have tended to use single case or small populations for the studies, reinforcing the assumption of their rarity.

The further assumption that children with imaginary companions are young, bright and creative e.g., Bass (1983); Somers & Yawkey (1984), was challenged. When creativity was measured it was found that children with a current imaginary companion scored lower on creativity measures than children without. In fact it could be argued that creative children may lose their imaginary companions. About half of all children reported that they had experience of an imaginary companion. The present study's recorded frequencies did not indicate that imaginary companions would peak before school years. There are reliability problems in establishing with young children what they experience and there is therefore a reliance on adult interpretations. Mauro (1991) reported in an unpublished doctoral thesis that parents reporting on such interpretations were often inaccurate.

It has now been established by this present study that approximately half of all children experience an imaginary companion. These children do not display higher than average abnormal or dysfunctional indicators. The results of normal population hallucination studies

can be difficult for the lay (perhaps professional?) person to accept. However it has been established for over a century that there are high levels of reported hallucinating in all populations. Julian Jaynes (1979) in his classic work 'The Origin of Consciousness in the Breakdown of the Bicameral Mind' suggests that at one time the whole of mankind hallucinated. Jaynes influenced many authors to see hallucinating as a normal process. e.g., Romme et al. (1989; 1992). Indeed Jaynes' influence forms the foundation of this current study.

If approximately half of the adult population reports hallucination experiences and half the child population reports imaginary companion experiences, these two could be linked. Earlier in the study it was noted that the subjects mainly used for normal population adult hallucination studies were first year degree students. To assume that all these hallucination experiences started in half the experimental population a few weeks before the studies is illogical. The comparison between children's imaginary companions and adults' hallucinations becomes a logical extension of a process from childhood to adulthood. In this study only verbal hallucinations were examined to limit the comparison into workable parameters, this is not to deny other types of hallucination. The reported experiences of imaginary companions clearly fell into the definition of verbal hallucinations. Within the context of normal adult hallucination studies, a child sequelae is not surprising.

When compared with adult verbal hallucinations, children's imaginary companions differed as they were generally a positive and enjoyable experience. This was often not so for adults' hallucination experiences. The adults often heard voices as a response to fear, distress or anxiety. This observation may have come about because of prevalence of clinical populations used to gather in the adult measures. Studies that predominantly used normal

populations did not record high levels of distress from people who heard voices. Romme et al. in their creative studies often reported the advantages of hearing voices e.g., they were used as an indication of special powers. A common special power that Romme et al. reported was that hearing voices allowed a person to be a spiritualist. Two of the mothers in the current interviews also spontaneously reported that they were spiritualists, in the 'any other information' section. Some of the results of the hallucination and imaginary companion comparison measures showed remarkable similarities. Caution has to be recommended at this stage as the methodologies, aims and measures of the studies compared were not matched. However it would be difficult to deny the apparent similarities.

At the beginning of this study, it felt as though it was more acceptable for a seven year old child to have a conversation with somebody who is not there (an imaginary companion) than a 37 year old man (a hallucination). It is interesting to see how the description of the same event moves from 'imaginary companion' to 'hallucination'. Not many families would lay a place at a meal for a 37 year old's imaginary companion! In a very simple experiment, Study III looked at this area and confirmed the social acceptability problems of hallucinations. It is not acceptable by society for an adult to have a conversation with a person who is not there. Sarbin & Juhasz (1967) recognised a similar problem, with a change of semantics when false sensory perceptions moved to hallucinations when the owners of these experiences moved from 'normal people' to 'schizophrenics'.

If the three hypotheses proposed, in the initial part of the study are accepted, they could lead on to form a theoretical model.

1. Imaginary companions are not just the domain of very young children.
2. Childhood imaginary companions fall within the same parameters of definition as verbal hallucinations.
3. It is more acceptable for a child to have a conversation with an imaginary companion, than for an adult to have a similar conversation.

The three hypotheses have been accepted in the previous text. The acceptance of these three hypotheses lends weight to the argument that society may reframe possible childhood verbal hallucinations as imaginary companions allowing the concept to be more acceptable. This argument is connected to the negative perceptions attached to hallucinating. It has been generally perceived over history that hallucinating has a close relationship with 'madness'. Hallucinations are an adult concept. Industrialised society, particularly the western world, has little room for the hallucinatory experience, which can still be observed as a social controller in some non western communities. A link with 'madness' is a link with being devalued (Stevenson, 1983), unless there is a reframe e.g., as a prophet, as a religious experience or indeed as an imaginary companion. Adults do not want to devalue their children by attaching such negative labels. The notion that society may reframe possible childhood hallucinations as imaginary companions will be revisited when the proposed developmental model of hallucinations is demonstrated.

The opportunity now arises to leave the main part of the study and consider the possible phenomenology of the imaginary companion and its origins. The present study has demonstrated that there is little remarkable about the children who experience imaginary companions. The experience was reported by approximately half of the 1800 children interviewed. This group included boys, girls and a range of ages. The children did not show

exceptional frequencies of abnormality or dysfunction. They were not particularly bright or creative, in fact they tended to be less creative. This information suggested that imaginary companions are a part of normal development. If imaginary companions are verbal hallucinations then they too are a part of normal development. The ability to hallucinate is available to all human beings and which can be demonstrated in the correct circumstances. Hallucinations can be generated by a wide range of stimuli, e.g., chemicals, anxiety, disease, sleep deprivation etc. A common side effect of many hypnotics is hallucinating e.g., Zopiclone, which is a cyclopyrrolone. The cyclopyrrolones are very similar to benzodiazepines, acting on the same receptors, (BNF, 1996). Similarly non prescribed drugs such as the hallucinogen, lysergic acid diethylamide (LSD) will generate hallucinations, (BNF, 1996). Neurological degenerative diseases, such as Batters Disease, commonly have symptoms involving hallucinating which can be cognitively manipulated. Changes in the environment e.g., exposure to excessive prolonged white noise or sleep deprivation can cause hallucinations to be experienced. The issue is that there are numerous circumstances in which a human being can experience hallucinations. Indeed in experiments approximately half the population have reported having done so without any manipulation. Following this line of argument, perhaps a model needs to be constructed that demonstrates how people *stop* the natural process of hallucinating.

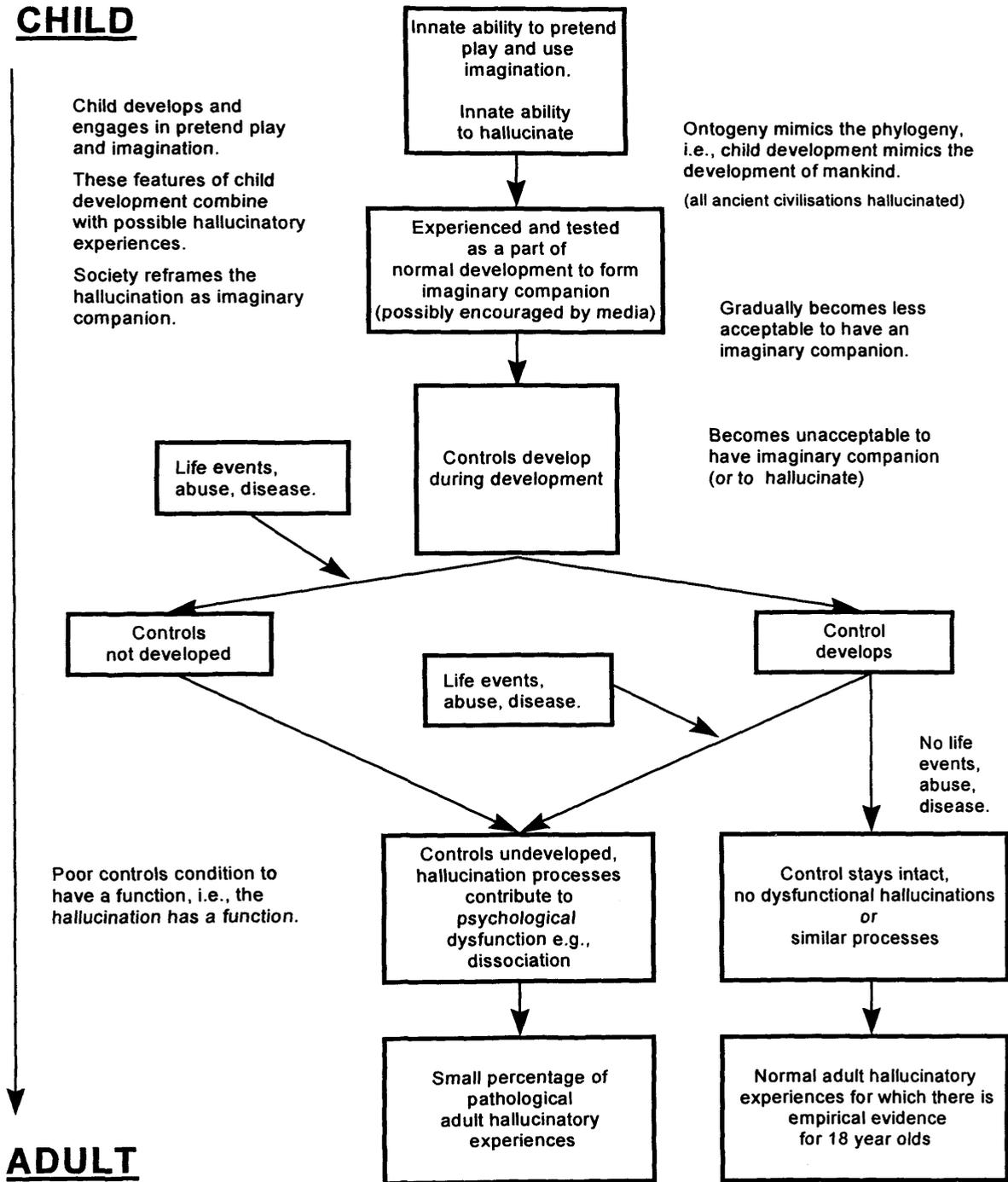
The link between imaginary companions and later psychological dysfunction has both its advocates and critics. Probably the strongest advocate is Putnam et al. (1991; 1993; 1996) who powerfully argues for a connection with adult dissociation.

Putnam et al. argue that dissociation is a complex psychophysiological process and ranges from minor (normal) to pathological. Hallucinations are considered as one of the

central domains of the development of dissociation. Putnam describes hallucinations as a 'potential substrate' for the development of alternate personality states. Putnam et al. report that 85% of their adult patients with dissociation had imaginary companions when children. Putnam et al. have identified a link, as yet unclear, between the hallucination process and imaginary companions. The present study may contribute towards clarifying this link.

Clearly not all children who have an imaginary companion (or hallucinate) have problems with dissociation in later life. If this were the case then approximately half the adult population would exhibit these problems. A similar argument would also apply to psychotic type hallucination problems such as schizophrenia symptoms. If life events or organic episodes prevent the control mechanisms from being effective then the hallucinogenic process could generate, facilitate, or be the foundation for later psychological dysfunction. The theoretical model could then be demonstrated by the following diagram.

Figure 9. A Proposed Developmental Model of Hallucination



The theoretical model proposes that ontogeny mimics phylogeny i.e. child development mimics the development of mankind (Uvarov, et al., 1971). As neurological structures grow, higher level behaviours develop in children. These higher level behaviours include an internalisation of society's rules. The proposal is that the development of the control of hallucinations is a part of this process. As the control mechanism develops, the child learns to interpret hallucinations as safe, encouraged imaginary companions. Children are allowed to hear or talk to an imaginary companion - but they must never voluntarily hallucinate.

There are various reasons for the controls not working properly. The controls can be influenced or overridden by environmental or organic circumstances. The most commonly reported environmental impact is abuse. Abuse in childhood can be physical, emotional or sexual. The recognition of abuse in past histories of adults with mental health problems has been previously reported e.g., Putnam (1996); Romme et al. (1989). The proposal is that abuse for example, can prevent the control mechanism from working later in adults. If the control mechanism is inefficient, then the individual relies on the function of the event e.g., the imaginary companion could contribute to the alternate personality development. If the abusive situation is intolerable then the alternative personality becomes essential and is able to challenge reality. Adult hallucinations seem to relate to individuals everyday lives (Slade & Bentall, 1988). If the individual has suffered abuse then it is likely that their hallucinations could also be abusive.

The theoretical model is not a main part of this study, nor is it designed to be more than a framework of ideas. Hopefully more complex theories or conceptions can be built onto

its frame. It seemed logical to evolve the imaginary companion - hallucination relationship, and then to go on and consider the possible impact upon adult mental health.

The study investigated whether children who experience imaginary companions may also be hallucinating. Only verbal hallucinations only were considered in order to prevent the study area from being too unwieldy. As the study progressed, three hypotheses were accepted.

1. Imaginary companions are not just the domain of very young children.
2. Childhood imaginary companions fall into the same parameters of definition as verbal hallucinations.
3. It is more acceptable for a child to have a conversation with an imaginary companion than for an adult to have a similar conversation.

The initial hypothesis was backed by strong empirical evidence. The finding that imaginary companions are common place experiences for children aged between five and twelve years provides new information. It has been commonly assumed that imaginary companion experiences were rare beyond the ages of six or seven years.

The second hypothesis was accepted; that childhood imaginary companions fell within the same parameters of definition as verbal hallucinations. At this point the reader has to exercise caution. The study could not provide empirical evidence that imaginary companions *are* verbal hallucinations. There were a number of methodological reasons which prevented gathering this evidence. The main reason was that only face validity was used for the comparison. Face validity was depended upon because the measures being compared came from seven studies all using different methodologies. There was also the problem that the comparison was being made between child and adult experiences (some of which were from

clinical populations). It was questionable as to how random the Study II population were. The subjects were approached using randomised selection. One hundred and sixty families were approached and seventy joined in the study. For ethical reasons there was very little information known about the non-participants. To some extent the study population were self selected. It could be surmised that if a family or child had problems surrounding imaginary companion experiences, they may well not have participated. This could go some way towards explaining why there were no problems perceived in completing the structured interview, or pathology recognised. The hypothesis that imaginary companions fall into the parameters of verbal hallucinations holds good but with the clear caveat that there is not sufficient evidence to state imaginary companions are verbal hallucinations.

Hypothesis three was designed to contribute information towards the construction of the theoretical model, rather than examining the relationship between imaginary companions and verbal hallucinations.

During the course of the study it was recognised that children naturally develop pretend play, imaginary scenarios, characters and worlds. Indeed it is this natural ability that has been exploited by the media and in particular television. Children are well practiced at using imagination and imaginary companions in this context are not surprising. Evidence was also presented that up to 71% of eighteen year olds report hallucinating experiences. However these experiences do not appear in child texts. These arguments give rise to three possible positions concerning the relationship between imaginary companions and hallucinations

1. the two phenomena are completely separate.

2. the two phenomena are in fact the same.
3. each phenomena develops naturally and goes on to enjoy a symbiotic relationship.

The first two positions have both merits and problems. In the first place as already mentioned there is little empirical evidence to link imaginary companions and hallucinations. A child's imagination is innate and can be observed through development and play. Although imaginary companions can easily be developed during play, they do seem to have long term stable identities. This also still leaves the problem of up to 71% of eighteen year olds reporting hallucinatory experiences. Presumably these hallucinatory experiences would have been present a few weeks before when they were seventeen, or maybe sixteen and so on. This argument does not provide the link but does recognise that the hallucinating experience is 'lost' in under eighteen year olds. The face validity comparison demonstrated that the topographies of the two phenomena are very similar.

At this point the third position that these two naturally occurring entities enjoy a symbiotic relationship becomes much more interesting. It is known that in child development pretend play and imagination occur naturally from a very young age. It is also known that hallucinatory experiences are reported by eighteen year olds, and that the ability to have hallucinatory experiences is innate in all children. The innate ability can be demonstrated at certain times e.g. high body temperatures particularly in fever, ingestion of certain substances etc. This third position implies that either hallucinations or imaginary companions would be more prominent according to circumstances and age. This position could be illustrated by the theoretical model in the previous section. Children naturally develop pretend play and imagination which could easily involve experiencing imaginary companions. This whole process is very acceptable or even encouraged by adult. If a hallucinatory experience were to

occur, it would be combined with natural imagination processes. The combination of imagination and possible hallucinatory experiences could both be expressed as an imaginary companion. Conditioning could strengthen this relationship as adults often encourage imaginary companions.

On balance there is sufficient information and data to seriously consider the third position. There is not sufficient empirical evidence to state that imaginary companions are hallucinations. It is however, possible that children can combine their naturally occurring play and imaginative abilities with hallucinatory experiences. This position would mean the process of hallucinating could be rendered socially acceptable in children by the hallucinations being reconstrued as imaginary companions.

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Appendices

- i. Consent letter to parents, Study I.
- ii. Covering letter sent by school.
- iii. Form used for creativity test (The Uses Test).
- iv. Form used if no creativity test, five to six year olds.
- v. Consent letter and invitation for Study II.
- vi. Acceptable behaviour questionnaire, seven year old.
- vii. Acceptable behaviour questionnaire, thirty seven year old.
- viii. Ethics Committee approval.
- ix. Raw data, selection from Study I.
- x. Raw data, Study II.

Appendix i

Consent letter to parents (Study I)



Isle of Wight Healthcare NHS Trust

Island clinical Psychology Service
The Gables
Halberry Lane
Fairlee
Newport
Isle of Wight
PO30 2ER

Tel (01983) 521464 or
(01983) 525326
Fax: (01983)521427

Dear Parent

We are involved in a University and Hospital based piece of research which is looking at normal aspects of imagination, creativity, and children's development. We would like to ask your child a few questions during school time. This is an initial stage of a project and will involve as many children as possible. The questions will take less than five minutes for each child and will only be concerned with various aspects of imagination and creativity. Children normally enjoy answering these sorts of questions. For example, a question may be "how many things can you think of to do with a rubber ball?".

A few of the children will then be selected. If your child is selected we will ask you if we could talk to you and your child at home. If you fall into this group, we will ask you again if you and your child would like to continue.

Children will only be asked the questions with your consent. Any information gathered will be treated with utmost confidentiality and will be destroyed at the end of the study. The person asking the questions will be a graduate psychologist employed by the Health Service. There will be a presentation at the end of the study for all interested families.

If you are happy for us to speak to your child, please could you sign the attached form. You can, of course, withdraw your child from the study at any point. If you have any questions about this study, please do not hesitate to contact Dave Pearson at the above address.

Please could you keep the top part of this letter for your information.

Thank you for your co-operation

✕.....
.....

I agree for members of the research team to talk to my child about normal aspects of imagination and creativity. Please could you return the bottom part of this form to school.

Child's name _____ Class _____

Signed _____

Relationship to child _____

Appendix ii

Covering letter sent by school

E.....C.....G..... County Primary School,
G.....Road.

18th April 1997

Dear Parents,

We have been asked to take part in a research project about children's imagination and play - please read the attached letter.

I have met with the project team and I am happy that the work will not disrupt your child's school day or cause any anxiety to them.

Please return the form to school on Monday next - 21st April - if you are willing for your child to take part.

Yours sincerely,
J.T.....
HEADTEACHER

Appendix iii

Form used for creativity test (The Uses Test)

Name _____

Class _____

Age _____

How many things can you think of that you could do with ...

NEWS PAPER	TABLE KNIFE	CUP	COAT HANGER
			

Appendix iv

Form used if no creativity test, ages five to six years

School

Class No.....

Please circle

Tick if child has educational problems	Name	Age	Gender		I.C. Now		I.C. Past	
			M	F	Y	N	Y	N
			M	F	Y	N	Y	N
			M	F	Y	N	Y	N
			M	F	Y	N	Y	N
			M	F	Y	N	Y	N
			M	F	Y	N	Y	N
			M	F	Y	N	Y	N
			M	F	Y	N	Y	N
			M	F	Y	N	Y	N
			M	F	Y	N	Y	N
			M	F	Y	N	Y	N
			M	F	Y	N	Y	N
			M	F	Y	N	Y	N
			M	F	Y	N	Y	N
			M	F	Y	N	Y	N

Appendix v

Consent letter and invitation (Study II)

17th October 1997

To the Parent/Guardian of

Dear Parent/Guardian

You may remember that John took part in a study at school about creativity and child development. We were interested to see that John may have an imaginary friend. We would like to come and see you both at home to ask a few questions about John's imaginary friend. The questions will take about twenty minutes.

The project is trying to find out as much information as possible about imaginary friends. We know that about one third of children have an imaginary friend at some point and this is a normal part of development.

If you are happy to continue in the project, please could you return the slip attached to this letter in the stamp addressed envelope and we will contact you to arrange a convenient time. You can withdraw at any time from the project if you or your child do not want to continue. Please could you keep this letter for your information. If you would like to know more about the project or have any questions, please could you contact me at the above address.

Many thanks for your co-operation.

Yours sincerely

David Pearson
Consultant Psychologist

✂-----

I would like to continue in the project looking at imaginary companions. I understand that I can withdraw at any point if I change my mind. I agree that you can contact me to arrange a convenient time.

Name of child *John Smith*

Signed

Date.....

Appendix vi

Acceptable behaviour questionnaire (7 year old)

You are invited to join in a questionnaire about your views on acceptable behaviour in people.

Could you tell us your: occupation _____

age _____

male/female _____

Please look at these situations and circle the **single** response you consider to be the appropriate.

The following situations refer to a **seven year old child**.

Is it acceptable for a seven year old child to

- | | | | | | |
|---|------------|-------------|-------------|----------------|-------------|
| 1. Get angry and shout at somebody in a public place? | 1
Never | 2
Rarely | 3
Unsure | 4
Sometimes | 5
Always |
| 2. Sometimes be afraid of the dark? | 1
Never | 2
Rarely | 3
Unsure | 4
Sometimes | 5
Always |
| 3. Take something of small value, which belongs to someone else? | 1
Never | 2
Rarely | 3
Unsure | 4
Sometimes | 5
Always |
| 4. Help a friend who has a problem? | 1
Never | 2
Rarely | 3
Unsure | 4
Sometimes | 5
Always |
| 5. Have a conversation with an imaginary friend? | 1
Never | 2
Rarely | 3
Unsure | 4
Sometimes | 5
Always |
| 6. Feel sad about something with no apparent cause or reason ? | 1
Never | 2
Rarely | 3
Unsure | 4
Sometimes | 5
Always |
| 7. Give money to charity? | 1
Never | 2
Rarely | 3
Unsure | 4
Sometimes | 5
Always |
| 8. Hand in some money that they found? | 1
Never | 2
Rarely | 3
Unsure | 4
Sometimes | 5
Always |
| 9. Get so scared of something harmless. like a spider or a beetle, that they avoid it ? | 1
Never | 2
Rarely | 3
Unsure | 4
Sometimes | 5
Always |
| 10. Be rude or outspoken to someone? | 1
Never | 2
Rarely | 3
Unsure | 4
Sometimes | 5
Always |

Thank You for completing this questionnaire
Island Clinical Psychology Service

Appendix vii

Acceptable behaviour questionnaire (37 year old)

Appendix viii
Ethics Committee approval

**ISLE OF WIGHT
LOCAL RESEARCH ETHICS COMMITTEE COMPOSITION
as at 14 February 1997**

Member Title & Name	Occupation (position)	Male/Female (M/F)
Chairman: Mrs Denise Grannum	Vice Chairman to IWHA Board	F
Secretary: Mrs M Granger	Secretary, IWHA	F
Dr T Dean	Research & Development Co-ordinator for St Mary's Hospital, Newport, IW	F
Mr P Irving	Nurse Member	M
Mr L R Merricks	CHC Representative Lay Member	M
Dr I Johnson	Medical Director, EMH	M
Mr N Staunton	Pharmaceutical Adviser to IWHA	M
Dr A Logan	Consultant Anaesthetist	M
Dr M Howell	General Practitioner	M
Dr R Seth	Consultant Psychiatrist	M
Dr P Hooper (Vice Chairman)	GP	M

Protocol No. 05/97: The Social Acceptability of 'Hearing Voices' (Stage 1) submitted by Mr D Pearson, Consultant Psychologist, The Gables, Halberry Lane, Newport, Isle of Wight was presented to the Isle of Wight Local Research Ethics Committee on Friday 14 February 1997 and approved, subject to a modification of the Parent Information Sheet.

[Handwritten Signature]

.....
Secretary of Ethics Committee

ETHICS COMMITTEE COMPOSITION

Protocol Code: 15/97

Study Code: The Social Acceptability of
'Hearing Voices'

Investigator's Name: Mr David Pearson

Hospital/Institution: Consultant Psychologist
Island Clinical Psychology Service

Address: The Gables, Halberry Lane,
Newport, Isle of Wight
P030 2ER

**Ethics Committee Name &
Address:
(if different)**

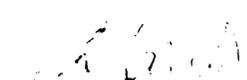
Isle of Wight Research Ethics
Committee

Isle of Wight Health Authority

Whitecroft, Sandy Lane, Newport
Isle of Wight, P030 3ED

Date of Protocol: 9 May 1997
Day **Month** **Year**

Signature:


Chairman/Secretary of Ethics
Committee
(Delete whichever is not applicable)

Member Title & Name	Occupation (position)	Qualifications (if applicable)	Male/Female (M/F)	Tick (✓) if member present when protocol reviewed
Chairman: Mrs Denise Grannum	Vice Chairman to IWHA Board		F	
Secretary: Mrs Gilly Jones	Secretary, IWHA		F	

Member Title & Name	Occupation (position)	Qualifications (if applicable)	Male/Female (M/F)	Tick (✓) if member present when protocol reviewed
Dr T Dean	Research & Development Co-ordinator for St Mary's Hospital, Newport, IW		F	✓
Dr P D Hooper	Vice Chairman of LREC		M	
Mr P Irving	Nurse Member		M	
Mr L R Merricks	CHC Representative Lay Member		M	✓
Dr P Rowlandson	Consultant Paediatrician		M	✓
Mr N Staunton	Pharmaceutical Adviser to IWHA		M	✓
Dr A Logan	Consultant Anaesthetist		M	✓
Dr M Howell	General Practitioner		M	✓
Dr R Seth	Consultant Psychiatrist		M	✓
Dr I Johnson	Medical Director, Earl Mountbatten Hospice		M	

appendix ix
Raw data, selection from Study I



6A

0

many things can you think of that you could do with

NEWSPAPER	TABLE KNIFE	CUP	COAT HANGER
 <p>read it, the paper - the objects, and your coming from at your y really, d your ewd - repair get black -gers m socking 5</p>	 <p>cut with it. bend it is a massive saw bend it is a set of teeth Kill someone Itab a knife in someone's back 5</p>	 <p>drink from it, make a cake in it put a fish in it to have a swimming lesson! make Joupin is, 4</p>	 <p>bend it, hang clothes from it, decorate it. twiddle with it, pull it out to shape So it is a long straight bit then make a barrier to keep my brother out of my room 5</p>

F A) N

LG A10

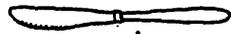
19

A

3



things can you think of that you could do with

NEWSPAPER	TABLE KNIFE	CUP	COAT HANGER
 <p>e. a hat with it . it things out</p> <p>up up</p> <p>4</p>	 <p>cut with it eat with it</p> <p>2</p>	 <p>Smash it drink out of it hold it drop it</p> <p>4</p>	 <p>Bend it hang things cut it</p> <p>3</p>

M N N

L6A09

12

6A

11

✓

things can you think of that you could do with

VSPAPER	TABLE KNIFE	CUP	COAT HANGER
 <p>NEWS</p> <p>wraplans bools ires die eit</p> <p>5</p>	 <p>cut things like chesse bread Spread butter</p> <p>2</p>	 <p>Smash put things in it drink out of it</p> <p>3</p>	 <p>bend brack hang this on</p> <p>3</p>

M N N

L6A07

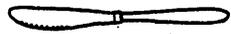
13



69 _____

11. _____

many things can you think of that you could do with

NEWSPAPER	TABLE KNIFE	CUP	COAT HANGER
 <p>- Airplane the parcel. - /read it hat. box mallet it all</p> <p>8</p>	 <p>a prefla-Airplane cut with it to make patterns</p> <p>2</p>	 <p>drink out of it. (Mad Scientist - flying cup.) experiments</p> <p>3</p>	 <p>Also ariel to hang things. a circle. a model of the Solar System.</p> <p>3</p>

F N N

LGA05

16

6a

10



any things can you think of that you could do with

NEWSPAPER	TABLE KNIFE	CUP	COAT HANGER
 <p>cut out pictures of your favourite pop star or actor.</p> <p>Make a paper hat.</p> <p>Make paper dolls.</p> <p>Use it for paper mache</p> <p>4</p>	 <p>Make a see saw with it.</p> <p>Cut food with it.</p> <p>2</p>	 <p>Paper mache around it.</p> <p>Grow a seed in it.</p> <p>Store things in it = beads of money.</p> <p>3</p>	 <p>bend it in to a zipline for a Action Man.</p> <p>hang paintings up to dry on it.</p> <p>2</p>

6A

11



any things can you think of that you could do with

NEWSPAPER	TABLE KNIFE	CUP	COAT HANGER
 <p>Put it at the top of your cage. Turn it into a flying outfit! Use it!!!! Use it on it. Use it as a paper Mashey. Use it as a giant aeroplane Use it and fly to the moon. 6</p>	 <p>Put honey on it, then eat peas with it. Play pirates.  Get loads of them and use so a magnetic force. 4</p>	 <p>Put it on your head and use it as a hat. Drink out of it! Paint it and give it to your Mum for Christmas. Fill it with water and give arts swimming lessons. 4</p>	 <p>Turn it into a radio aerial. Hang clothes on it! 2</p>

6A

11



any things can you think of that you could do with

NEWSPAPER	TABLE KNIFE	CUP	COAT HANGER
 can read a newspaper can open newspaper can MAKE all Plan's can make kinds of wit it 2	 you can put Butter and jam ^{on} on and Butte the Desec <hr/> You can cut then this you can cut thing with it 2	 you can drink out of it <hr/> you can smush it <hr/> you can put tea and coffer in it 3	 you can hang ^{hang} clought up with it <hr/> you can bend it <hr/> you can put it in the world be and you can use it for your to cable. 3

M N N

LGA02

10

✓

6A

11

any things can you think of that you could do with

NEWSPAPER	TABLE KNIFE	CUP	COAT HANGER
 <p> paper hat paper aeroplane paper boat fold it make a paper bomb paper make a fire 1 </p>	 <p> kill your sister eat with it cut things 3 </p>	 <p> drink out of it... Make a little boat. grow seeds flat Blow bubbles through handle. paint it break it and make something out of it. carve it 8 </p>	 <p> bend it into different shapes hang up clothes 2 </p>

f N N

L6A01

20

Appendix x
Raw data, Study II

Subject 1, 5 years, female, Section 1, 1a. 2 parents, 3 children, 2 from previous marriage. 1b. youngest. 2a. same. 2b. same. 3. painting, colouring, drawing, music, dancing, reading. 4. happy, outgoing, calm. 5a. no. Section 2, 1. yes. 2a. yes. 2b. 2. 2c. yes. 3. Kanga. 4a. talk. 4b. yes. 4c. talk. Section 3. 1. with child. 2. Family and friends. 3. Positive. 4. Quite. 5. As child. 6. Female. 7a. yes. 7b. don't know. 7c. younger. 8. Food - do things and help, things to do. 9. All day. 10. All day. 11. All day. 12. Happy. 13a. outside. 13b. yes. 14. Right. 15. Yes. 16a. no, but stays on right of child. 16a. yes. 17. Always. 18. Always. 19. Never. 20. Happy. 21. IC. 22. Yes. Section 4, 1. Always there. 2. More clever. 3. One. 4. 2. 5. Jasmine, friend from school who left. 6. One year plus. 8. Sometimes dances and boogies with me, he finds diamonds, he chases butterflies, gave a fright to me - turned round he was not there - I turned round he was there. Section 5, 1. No. 2. Security - moved house. 3. School friend left and Kanga who is like her came, close friends born together.

Subject 2, 5 years, female, Section 1, 1a. mum, dad, brother (17), brother (16), sister (8), sister (12), child (5). 1b. youngest child. 2a. same. 2b. same. 3. Everything. 4. lovely, funny. 5a. no. Section 2, 1. Yes. 2a. yes. 2b. 2. 2c. no. 3. Naomi. 4a. don't know. 4b. yes. 4c. gives you secrets. Section 3. 1. Bedroom. 2. Yes - family and friends. 3. Thinks she is kind. 4. Loud. 5. English. 6. Female. 7a. yes. 7b. same. 7c. -. 8. Playing. 9. Sometimes. 10. Lots of time - more than a few hours. 11. Afternoons. 12. Happy. 13a. inside. 13b. yes. 14. Upstairs. 15. Yes. 16a. yes. 16b. yes. 17. Never. 18. Never. 19. Sometimes. 20. Happy. 21. Naomi. 22. Yes. Section 4, 1. Happy. 2. Less clever. 3. 1. 4. 5. 5. Friend. 6. After started school, after 6 months. 8. Naomi moved. Section 5, 1. No. 2. Plays on own - shy - play things - reads. 3. -.

Subject 3, 5 years, male, Section 1, 1a. mum, dad, sister (15 ½), sister (14 ½), child (5), sister (8). 1b. youngest child. 2a. same. 2b. same. 3. Painting, model making, colouring in, homework, playing. 4. Typical boy, loving, cuddles, happy go lucky, shares. 5a. no. Section 2, 1. Yes. 2a. no. 2c. yes. 3. Tom. 4a. talk. 4b. yes. 4c. talks. Section 3. 1. Everywhere. 2. Mum, no-one else. 3. Good, nice child had a friend to talk to. 4. Quiet. 5. Like Tom, Jerry. 6. Male. 7a. yes. 7b. 11. 7c. -. 8. Holidays, nans. 9. Lots, everyday. 10. Long time. 11. Anytime. 12. Happy. 13a. outside. 13b. yes. 14. Behind the sofa. 15. No. 16a. yes. 16b. no. 17. Always. 18. Always. 19. Most of the time. 20. Happy. 21. Child. 22. Yes. Section 4, 1. Happy. 2. More clever. 3. 3. 4. 1. 5. Dad. 6. Always. 8. Plays the computer and water bottle, makes ice-cream. Section 5, 1. No. 2. In bedroom a lot, with Dean, likes company. 3. Tom - was a baby - miscarriage - granddad Tom.

Subject 4, 5 years, male, Section 1, 1a. mum, Daniel, sister (younger). 1b. first born. 2a. as above, plus dad, parents separated. 2b. as above. 3. Shouting, good listener, very good vocabulary, sports, P.E. school. 4. Outgoing, helpful, particularly with sister. 5a. no. 5b. Asthma. Section 2, 1. Yes. 2a. yes. 2b. 10. 2c. yes. 3. Kirk. 4a. talk to them out loud. 4b. yes. 4c. talks out loud. Section 3. 1. In hall at home, playground. 2. Yes. 3. Not sure. 4. Loud. 5. Like a cartoon, someone on TV, not really sure. 6. Male. 7a. yes. 7b. 5. 7c. -. 8. Computer games. 9. Everyday at school, 2 or 3 times a day. 10. About ½ hour. 11. Playtimes. 12. Happy. 13a. outside. 13b. yes. 14. Behind me. 15. No, only sometimes. 16a. yes. 16b. yes. 17. Always. 18. Always. 19. Most of the time. 20. Happy. 21. Kirk. 22. Yes. Section 4, 1. Happy. 2. Clever as you. 3. 2. 4. 2. 5. Myself. 6. When first started school, up to a year. 8. No. Section 5, 1. Mum, never heard of him so no. 2. Don't know. 3. Same names as friends, school, Daniel has had a lot of upsets in his life and is prone to sleep walking.

Subject 5, 5 years, male, Section 1, 1a. 2 parents, 2 children. 1b. youngest. 2a. same. 2b. same. 3. Climbing, jumping, playing P.E. 4. Warm, loving, bubbly, cheeky. 5a. yes. 5b. Speech and language, Statemented SEN. Section 2, 1. Yes. 2a. don't know. 2b. don't know. 2c. don't know. 3.

Michael. 4a. act it out, talk. 4b. yes. 4c. no. Section 3, 1. Forest, garden, tree, bedroom, wherever child goes. 2. Everyone. 3. Okay. 4. Don't know. 5. Like baby. 6. Male. 7a. no. 7b. -. 7c. younger. 8. Food, bed, aeroplanes, going out, family. 9. Daily. 10. One hour. 11. No. 12. Happy. 13a. outside. 13b. yes. 14. In London. 15. No. 16a. yes. 16b. -. 17. Sometimes. 18. Always. 19. Never. 20. Don't know. 21. Child. 22. No. Section 4, 1. Board. 2. Less. 3. 1. 4. 2. 5. No. 6. 5 months. 8. Wears booties, nighties, nappies. Section 5, 1. Influences, adapts to it, not disruptive. 2. Regression, baby things. 3. Family have to take on roles also, sometimes merge into one, needs to be called Michael.

Subject 6, 5 years, female, Section 1, 1a. 2 parents, 2 children. 1b. eldest. 2a. as above. 2b. as above. 3. Maths, reading, drawings, computers. 4. Polite, helpful, likes younger children, babies, energetic, active. 5a. no. Section 2, 1. Yes. 2a. no. 2b. -. 3. Sam. 4a. talk. 4b. yes. 4c. child says things for him. Section 3, 1. Home. 2. No. 3. -. 4. Quiet. 5. No. 6. Male. 7a. no. 7c. younger. 8. Watch video, listen to reading, play. 9. More than once a day. 10. 10 minutes. 11. All times stays. 12. Happy. 13a. neither. 13b. no. 14. Bu wall front. 15. No. 16a. yes. 16b. -. 17. Always. 18. Always. 19. Never. 20. Happy. 21. Both. 22. No. Section 4, 1. He will listen, happy, lonely. 2. As clever. 3. 1. 4. 1. 5. No. 6. Week, before then were others. One grandmother gave her, since Christmas. 8. Talks to IC in toilet, company in bed, can't call out in the night so talk to IC, looks at children. Section 5, 1. No. 2. No enough parent time. 3. Lots of death (4) in family in last few years. IC with Sam all the time - knows he has moved.

Subject 7, 5 years, male, Section 1, 1a. mum, dad, boy (5), girl (4). 1b. eldest child. 2a. as above. 2b. as above. 3. Policeman, lego. 4. Shy, sometimes then bright, sweet. 5a. no. Section 2, 1. Yes. 2a. no. 2c. no. 3. Betty. 4a. talk. 4b. yes. 4c. doesn't, didn't talk. Section 3. 1. Yes, under bed. 2. No. 3. -. 4. Quiet. 5. TV, Tots TV. 6. Female. 7a. yes. 7b. 16. 7c. older. 8. Pictures on the page, play. 9. 3 / 4 times a month. 10. Little time. 11. Afternoon. 12. Happy. 13a. outside. 13b. yes. 14. Under bed. 15. Yes. 16a. no. 16b. yes. 17. Sometimes. 18. Never. 19. Never. 20. Happy. 21. Child. 22. No. Section 4, 1. Happy. 2. Less. 3. 1. 4. 1. 5. No. 6. 3 years. 8. Sometimes hides, died Easter. Section 5, 1. No. 2. On own, social. 3. Moved to new house, not happy, next day had Betty.

Subject 8, 5 years, male, Section 1, 1a. mum, boyfriend, 5 year boy, 2 year girl. 1b. eldest boy. 2a. as above. 2b. as above. 3. Jumping high, writing, running, computers. 4. Jackal and Hyde, nice and nasty. 5a. no. Section 2, 1. Yes. 2a. no. 2c. no. 3. Jerry. 4a. -. 4b. yes. 4c. don't know. Section 3. 1. Yes, don't know. 2. Yes - nana and granddad. 3. Great. 4. Quiet. 5. TV. 6. Male. 7a. yes. 7b. 6. 7c. older. 8. Things to do together. 9. All the time. 10. All the time. 11. No. 12. Happy. 13a. outside. 13b. yes. 14. Bedroom. 15. Yes. 16a. no. 16b. yes. 17. Never. 18. Most of the time. 19. Sometimes. 20. Happy. 21. Me. 22. Don't know. Section 4, 1. Happy. 2. More. 3. 1. 4. 1. 5. Granddad. 6. 6 times. 8. Copies you, drawing, bouncing, racing. Section 5, 1. No, first time spoken about it. 2. Don't know. 3. No.

Subject 9, 5 years, male, Section 1, 1a. 6 - mum and stepdad, 4 children. 1b. 5 Bianca, 2, 10, 12. 2a. as above. 2b. -. 3. Drawing, building, cars. 4. Good, funny. 5a. no. Section 2, 1. Yes. 2a. no. 2b. -. 2c. yes. 3. Not got one. 4a. -. 4b. yes. 4c. does not. Section 3. 1. School, in toilet. 2. No. 3. -. 4. Quiet. 5. -. 6. Male. 7a. yes. 7b. 5. 7c. -. 8. -. 9. Sometimes. 10. All day. 11. No. 12. Happy. 13a. -. 13b. -. 14. Could not pretend. 15. -. 16a. yes. 16b. don't no. 17. Never. 18. Never. 19. Never. 20. Happy. 21. Just turns up. 22. -. Section 4, 1. Happy. 2. More. 3. 1. 4. 1. 5. No. 6. Long time. 8. -. Section 5, 1. No 2. Play with.

Subject 10, 6 years, male, Section 1, 1a. mum, child (6) sister (2). 1b. eldest. 2a. mum, dad separated. 2b. same. 3. Lego, writing. 4. Attention poor, hard to get to know, shy, probably because of marriage/trust. 5a. no. Section 2, 1. Yes. 2a. yes. 2b. 2. 2c. yes. 3. Buster. 4a. talk. 4b. yes. 4c. don't know. Section 3, 1. Yes, school. 2. No. 3. -. 4. Quiet. 5. No. 6. Male. 7a. no. 7c. younger. 8. Work, hard things, eg. Maths. 9. Every 2 days. 10. Long time (doesn't know time). 11. No. 12. Happy. 13a. inside. 13b. no. 14. Upstairs. 15. No. 16a. no. 16b. no. 17. Most of the time. 18. Always. 19. Never. 20. Happy. 21. Buster. 22. No. Section 4, 1. Happy. 2. More clever. 3. 3. 4. 1. 5. No. 6. Since moved, 2 ½ years since break up. 8. No. Section 5, 1. No, did not know about IC. 2. Insecure, break up of marriage, loss of people, lots of upset, took emotional function. 3. Into spiritualism, Buster was mum's godfather, not spoken about in front of Buster.

Subject 11, 6 years, male, Section 1, 2 parents, 2 children. 1a. eldest. 2a. as above. 2b. as above. 3. Drawing, roller-skating, computers. 4. Moody. 5a. no. Section 2, 1. Yes. 2a. yes. 2b. 4. 2c. yes. 3. Iggy. 4a. talk. 4b. yes. 4c. talk. Section 3. 1. Anywhere. 2. Nobody. 3. -. 4. Both. 5. Normal. 6. Male - all boys. 7a. yes. 7b. 5. 7c. younger. 8. Anything. 9. Daily. 10. 5 minutes. 11. After school. 12. Happy. 13a. outside. 13b. yes plus eyes. 14. On bed. 15. No. 16a. yes. 16b. no, opposite. 17. Always. 18. Sometimes. 19. Never. 20. Happy. 21. Child. 22. Yes, sometimes. Section 4, 1. Happy. 2. More clever. 3. 1. 4. 2. 5. No. 6. When baby, went to playschool. 8. He can play my Sega, he can ride a bike and rollerblade, he has rollerblades, good at climbing mountains, good at making models. Section 5, 1. no. 2. Okay. 3. -.

Subject 12, 6 years, male, Section 1, 1a. mum, dad, child girl (9), child boy (6). 1b. youngest. 2a. same. 2b. same. 3. Sport, cricket, computers. 4. Reserved at times, not a leader, a follower. 5a. yes. 5b. mild asthma. Section 2, 1. Yes. 2a. yes. 2b. 10. 2c. yes, 2. 3. Ben. 4a. asking. 4b. yes. 4c. asks child. Section 3, 1. Bedroom. 2. Yes. 3. Don't know. 4. Loud. 5. Yes, squeaks. 6. Male. 7a. yes. 7b. 6. 7c. -. 8. cheaters. 9. Everyday. 10. One hour. 11. Don't know. 12. Happy. 13a. inside. 13b. yes. 14. Next to child. 15. Yes. 16a. yes. 16b. yes. 17. Never. 18. Never. 19. Never. 20. Happy. 21. Child. 22. Yes. Section 4, 1. Sad. 2. Less clever. 3. 5. 4. 1. 5. Oliver, friend. 6. Not sure, but before study. 8. Plays games. Section 5, 1. No, did not know about it. 2. Confidence, friend. 3. -.

Subject 13, 6 years, male, Section 1, 1a. mum, 2 children. 1b. eldest. 2a. same. 2b. same. 3. Reading, drawing, artistic, swimming. 4. Shy, cheeky. 5a. no. Section 2, 1. Yes. 2a. yes. 2b. 2. 2c. yes. 3. Jack, Thomas. 4a. talk and play. 4b. yes. 4c. whisper. Section 3, 1. Anywhere. 2. Friends and family. 3. Fine. 4. Quiet. 5. Normal. 6. Male. 7a. yes. 7b. 20. 7c. older. 8. Musical instruments, teach. 9. Few times a day. 10. Hours. 11. No. 12. Happy. 13a. outside. 13b. yes. 14. Hiding in cupboard. 15. No. 16a. yes. 16b. yes. 17. Sometimes. 18. Always. 19. Never. 20. Happy. 21. IC. 22. Yes. Section 4, 1. Happy. 2. More clever. 3. 4. 4. 3. 5. No. 6. As long as can remember - change name. 8. Buy them ice-creams, pop stars sing. Section 5, 1. No. 2. Shy, they help out, miss dad someone to talk to. 3. -.

Subject 14, 6 years, female, Section 1, 1a. 2 parents, 2 children. 1b. youngest. 2a. as above. 2b. as above. 3. Reading. 4. Lively, outgoing, energetic. 5a. no. Section 2, 1. Yes. 2a. yes. 2b. 10. 2c. 2. 3. Sophie, Melissa. 4a. think. 4b. yes. 4c. talk. Section 3. 1. Bedroom. 2. Friends only. 3. Don't know. 4. Quiet. 5. Like child. 6. Female. 7a. yes. 7b. 6 - 7. 7c. older. 8. Asks questions. 9. Daily. 10. Minutes. 11. Bedtime. 12. Happy. 13a. inside. 13b. yes. 14. Outside. 15. No. 16a. yes. 16b. yes. 17. Sometimes. 18. Sometimes. 19. Sometimes. 20. Happy. 21. IC. 22. Yes. Section 4, 1. Lonely. 2. More clever. 3. 4. 4. 1. 5. Yes, friend. 6. One month. 8. -. Section 5, 1. No. 2. -. 3. -.

Subject 15, 6 years, female, Section 1, 1a. 2 parents, 2 children. 1b. youngest. 2a. as above. 2b. as above. 3. Drawing, numbers, cats, animals, reading, computer. 4. Sunny, happy, outgoing, confident. 5a. no. Section 2, 1. Yes. 2a. no. 2b. -. 2c. -. 3. No name. 4a. talk. 4b. yes. 4c. talk. Section 3. 1. Bedroom. 2. Friend and family. 3. Silly, they have them too, okay. 4. Quiet. 5. No. 6. Female. 7a. yes. 7b. 6. 7c. -. 8. Loads of stuff, cats. 9. More than once a day. 10. A minute. 11. Afternoon. 12. Happy. 13a. inside. 13b. yes. 14. In corner behind chair. 15. No. 16a. no, not much. 16b. yes. 17. Always. 18. Sometimes. 19. Never. 20. Happy. 21. Child plus IC depending on time of day. 22. Yes. Section 4, 1. Happy. 2. Less clever. 3. 2. 4. 2. 5. Hannah - best friend at school. 6. When 4 - 2 years. 8. Climbs on wall and ceiling, swings on lamp, IC has a pet dog. Section 5, 1. No. 2. Personal space, keeps her happy and secure. 3. No aware of IC before study, private, auntie had one.

Subject 16, 6 years, female, Section 1, 1a. mum, dad, 3 children. 1b. youngest. 2a. as above. 2b. as above. 3. Drawing. 4. Shy. 5a. no. Section 2, 1. Yes. 2a. yes. 2b. 3. 2c. no. 3. Emily. 4a. whisper in ear. 4b. yes. 4c. talks. Section 3. 1. Yes, up at the top. 2. No. 3. Positive. 4. Loud, shouts. 5. Yes, don't know what. 6. Female. 7a. yes. 7b. 6. 7c. -. 8. Who do you like the best? 9. Once a week (choice). 10. 1 hour (choice). 11. Afternoon, (choice). 12. Happy. 13a. outside. 13b. yes. 14. Right. 15. No. 16a. yes. 16b. yes. 17. Never. 18. Most of the time. 19. Never. 20. Happy. 21. Catherine (friend knows Emily). 22. Yes. Section 4, 1. Happy. 2. As clever. 3. 3. 4. 2. 5. No. 6. Long time, don't know how long. 8. -. Section 5, 1. No, shuts herself away sometimes. 2. Reads books to her, if like a teacher, goes over what is done at school. 3. Very interested.

Subject 17, 6 years, female, Section 1, 1a. mum, 2 children. 1b. youngest. 2a. plus dad. 2b. as above. 3. Maths, drawing, swimming, computers, sports - good at co-ordination. 4. Affectionate, tactile, was shy, now outgoing, sensitive, emotional. 5a. no. Section 2, 1. Yes. 2a. no. 2b. -. 2c. -. 3. Luke. 4a. say it in head. 4b. no. 4c. in head. Section 3, 1. Everywhere. 2. Secret. 3. Okay. 4. Quiet. 5. No. 6. Now. 7a. yes. 7b. 4. 7c. younger. 8. Allowed to go swimming, school. 9. All the time, talk 10 times a day. 10. 1 - 2 hours. 11. At school, in night. 12. Happy, can get annoyed. 13a. inside. 13b. yes. 14. On left shoulder or head. 15. No. 16a. yes. 16b. yes. 17. Sometimes. 18. Always. 19. Never. 20. Annoyed, trying to listen. 21. Child. 22. No. Section 4, 1. Bored. 2. Less clever. 3. 1. 4. 2. 5. No. 6. Started of school holidays. 8. Good at nothing, rides cats. Section 5, 1. No. 2. What is lacking in parents/child bond, not enough time, substitute. 3. Older child had one called Luke, may be like.

Subject 18, 6 years, female, Section 1, 1a. dad, mum, child boy (14), child girl (12), child (6). 1b. youngest. 2a. as above. 2b. as above. 3. Maths, lots. 4. Sunny, all rounder. 5a. yes. 5b. kidney problems, scanned in 2 weeks. Section 2, 1. Yes. 2a. yes. 2b. 2. 2c. yes. 3. Yes, forgotten it - dog. 4a. nicely, mix including talking. 4b. yes. 4c. barks at me. Section 3. 1. Yes under bed. 2. No. 3. -. 4. Quiet. 5. Nicely (no). 6. Male. 7a. yes. 7b. 6. 7c. -. 8. How day was at school. 9. After school - every day. 10. 3 hours per day. 11. After school. 12. Happy. 13a. inside. 13b. yes. 14. Bedroom, hiding under table. 15. Yes. 16a. yes. 16b. yes. 17. Most of the time. 18. Always. 19. Never. 20. Happy. 21. You, child. 22. Yes. Section 4, 1. Happy. 2. As clever. 3. 3. 4. 2. 5. No. 6. Since 5, before moved. 8. No. Section 5, 1. Did not know about it. 2. Big age gap between siblings, company, substitute friend. 3. Primary school, first school had him, child was in and out of hospital since 20 months.

Subject 19, 8 years, female, Section 1, 1a. mum, dad, 2 children. 1b. youngest. 2a. as above. 2b. as above. 3. Artistic dancing, drawing, singing, gymnastics, fashion, drama. 4. Outgoing, friendly, bubbly, honest, vivacious. 5a. no. Section 2, 1. Yes, plus before. 2a. no. 2c. -. 3. Ben. 4a. sign language. 4b. no. 4c. sign language, talk, special. Section 3, 1. Bed rail at op of bed. 2. Mum. 3.

Positive. 4. Both. 5. No. 6. Female. 7a. yes. 7b. older, but smaller. 7c. -. 8. Anything. 9. When in bedroom. 10. 5 minutes. 11. Anytime in bedroom. 12. Happy. 13a. outside. 13b. yes. 14. Bedroom. 15. Yes. 16a. yes. 16b. yes. 17. Sometimes. 18. Sometimes. 19. Sometimes. 20. Happy. 21. Child. 22. Yes. Section 4, 1. Down, sad. 2. As clever. 3. 1. 4. 1. 5. Best friend. 6. Since 3, Ben. 8. Likes friends to call her Ben, is pink wear's leather jacket, spikey hair, last colour was pink, change colour every time she had a birthday, changed on its own, good friend to have. Section 5, 1. No. 2. Brother has been difficult, find peace, relax alone. 3. Similar to toy troll been in room for long time.

Subject 20, 8 years, male, Section 1, 1a. 2 parents, 3 children, 10, 8, 4. 1b. second middle. 2a. as above. 2b. as above. 3. Swimming, gardening, environment, animals, dressing up, imaginative play. 4. Bouncy, energetic, sensitive, outgoing. 5a. yes. 5b. bed wetting. Section 2, 1. Yes. 2a. yes. 2b. 10. 2c. yes. 3. Jason. 4a. talk. 4b. yes. 4c. thinking. Section 3. 1. School. 2. Family. 3. Mixed. 4. Quiet. 5. Scottish. 6. Male. 7a. yes. 7b. 8 - 10. 7c. older. 8. Anything. 9. Twice a day. 10. 1 hour. 11. Morning, break-time at school. 12. Mixture, happy, sad. 13a. inside. 13b. no. 14. In corner, front. 15. No. 16a. yes. 16b. yes. 17. Never. 18. Sometimes. 19. Never. 20. Happy. 21. Child plus IC. 22. Yes, sometimes. Section 4, 1. Normal. 2. More clever. 3. 3. 4. 2. 5. School friend. 6. 2 - 3 years, more than 1 year. 8. Plays the piano, plays ice hockey, likes nature (as child). Section 5, 1. No. 2. Confidence, helps imaginative play. 3. Change school.

Subject 21, 8 years, female, Section 1, 1a. mum, husband, 3 daughters, grandma. 1b. middle. 2a. as above. 2b. middle child. 3. Everything, Quick learner, musical, country dancing, gym and trampoline, girls football, reading, drawing. 4. Complex - quite tolerant, stubborn, easy going, good sense of humour, sensitive. 5a. No. Section 2, 1. Yes. 2a. yes. 2b. 2, Naomi and Natalie. 2c. no. 3. Naomi. 4a. talk to them in my mind. 4b. -. 4c. they tell me things in their mind. Section 3. 1. No. 2. No. 3. -. 4. Quiet. 5. No. 6. Female. 7a. no. 7b. -. 7c. younger. 8. Anything, things I have been up to in the day. 9. Most of the time. 10. Couple of hours up stairs. 11. No. 12. Happy. 13a. inside. 13b. no. 14. On floor, in front of me. 15. No. 16a. yes. 16b. no. 17. Sometimes. 18. Never. 19. Sometimes. 20. Happy. 21. Me. 22. No. Section 4, 1. Happy. 2. Less clever. 3. 2. 4. 2. 5. No. 6. Couple of weeks. 8. -. Section 5, 1. No, mum did not know about IC until research. 2. Someone to talk to when upset, likes to be best, play with younger sister a lot, both quite sensitive if worried, keeps it a secret, does not like to be disrupted from a task, if out she worries we will all get lost, superstitious behaviour, very intelligent. 3.

Subject 22, 7 years, male, Section 1, 1a. step mum, dad, Jo and Vicky step sister. 1b. 11 years, Jo and Daniel same age, Vicky 8 years. 2a. mum - Sandown, half sister - London and Ventnor (dad's side) 14 and 10 years. 2b. as above. 3. Sports, maths, art, lots of energy, science. 4. Mum left at 5 years, difficult when sees mum, things better - since seeing psychologist. 5a. yes. 5b. writing etc. some difficulty, no medical problems. Section 2, 1. Yes. 2a. yes. 2b. lots. 2c. yes. 3. Butthead. 4a. did not speak. 4b. no. 4c. doing and saying. Section 3, 1. Went out, shop, part of house. 2. Someone from old school, mum and dad. 3. Did not believe me, no comment. 4. Quiet. 5. No. 6. Male. 7a. yes. 7b. around 200 years. 7c. older. 8. Did not talk, watch him muck around, had opened up hamster in a wheel in my head. 9. Most days. 10. 5 to 10 minutes. 11. In between lunch and dinner - afternoon. 12. Happy. 13a. inside. 13b. yes. 14. Near TV in corner, behind TV. 15. Yes. 16a. yes, a lot. 16b. no. 17. Sometimes. 18. Never. 19. Never. 20. Happy. 21. Him. 22. No. Section 4, 1. Come at any time. 2. Less clever. 3. 4. 4. 4. 5. No. 6. More than 3 years. 8. Orange top, orange hair, green trousers, always appeared when to be told off. Section 5, 1. Did not know about it. 2. Don't know. 3. No.

Subject 23, 7 years, male, Section 1, 1a. mum, dad, 3 children. 1b. eldest. 2a. as above. 2b. as above. 3. Making things, art, swimming. 4. Up and down, temper. 5a. yes. 5b. dyspraxia, co-ordination problems, non diagnosed, concentration problems, teacher thinks so - waiting to see doctor. Section 2, 1. Yes. 2a. no. 2c. -. 3. Chris. 4a. talk to him. 4b. yes. 4c. whisper to child. Section 3. 1. Only in bedroom. 2. No it is a secret, family only. 3. Happy. 4. Quiet. 5. Like child. 6. Male. 7a. yes. 7b. 12. 7c. -. 8. Playing, doing things, making things. 9. All the time. 10. 1 hour. 11. Morning - all time. 12. Lonely. 13a. outside. 13b. yes. 14. In bedroom. 15. Yes. 16a. yes, in bedroom. 16b. yes. 17. Always. 18. Always. 19. Never. 20. Very happy. 21. Child. 22. Yes. Section 4, 1. Happy. 2. More clever. 3. 1. 4. 1. 5. Friend - grandma's cat that died. 6. 4 years. 8. He likes me, plus Chris (friend) Section 5, 1. Did not know before. 2. It is child - what he wants to be - ideal self. 3. Would like to join in further studies.

Subject 24, 7 years, male, Section 1, 1a. mum, dad, 4 children. 1b. 3 born. 2a. as above. 2b. as above. 3. Drawing, painting. 4. Quiet, gentle, very mumsy - likes affection. 5a. no. Section 2, 1. Yes. 2a. no. 2b. -. 2c. -. 3. Tom. 4a. speak to him. 4b. yes. 4c. whispers. Section 3. 1. Bedroom. 2. Only family. 3. -. 4. Quiet. 5. Like child. 6. Male. 7a. no. 7b. -. 7c. younger. 8. What we are going to do. 9. Once a week. 10. Half day. 11. Night. 12. Happy. 13a. outside. 13b. yes. 14. In child's bed. 15. Yes. 16a. yes. 16b. yes. 17. Sometimes. 18. Most of the time. 19. Never. 20. Happy. 21. Don't know. 22. No. Section 4, 1. Normal. 2. As clever. 3. 4. 4. 1. 5. No. 6. Long time. 8. -. Section 5, 1. No. 2. Bring him out of shyness. 3. Big family, arguments, allie, would like to join in further studies.

Subject 25, 7 years, female, Section 1, 1a. father, one child. 1b. only. 2a. as above. 2b. as above. 3. School. 4. Load, caring, helpful. 5a. yes. 5b. therapy abuse, plus mother's mental illness. Section 2, 1. Yes. 2a. no. 2c. -. 3. Charlie Louise. 4a. whisper. 4b. no. 4c. whisper in ear. Section 3. 1. Bedroom or balcony. 2. Nobody. 3. -. 4. Quiet. 5. Spanish. 6. Female. 7a. yes. 7b. 6 years. 7c. younger. 8. All. 9. 3 times a week. 10. Hours. 11. Evening, night. 12. Happy, sad. 13a. outside. 13b. yes. 14. Balcony. 15. No. 16a. yes. 16b. no. 17. Never. 18. Always. 19. Sometimes. 20. Happy. 21. Child. 22. Yes. Section 4, 1. Happy. 2. Less clever. 3. 1. 4. 2. 5. No. 6. Summer holiday, 3 months. 8. When it is raining, can't go out and play, looks like a ghost, only as big as a box, got double braces does not speak properly, takes out child puts in a special case, she has asthma so uses an inhaler. Section 5, 1. 2. Comfort, somebody to talk to. 3. Mum mentally ill, came to live with father, sleep walking, conversations with her talks in room, child witnessed abuse, sees child psychotherapist.

Subject 26, 7 years, male, Section 1, 1a. mum, dad, one child. 1b. only. 2a. as above. 2b. as above. 3. Maths, conversation with adults, drawing, computer, running. 4. Outgoing, kind. 5a. no. Section 2, 1. Yes. 2a. no. 2c. -. 3. Rog. 4a. whisper. 4b. yes. 4c. talk. Section 3. 1. Bedroom, in house. 2. Yes. 3. Bit stupid, shock. 4. Quiet. 5. Accent, country. 6. Male. 7a. yes. 7b. 9. 7c. -. 8. Want mum and dad talk about, videos. 9. 2 times a day. 10. 1 - 2 hours. 11. Night. 12. Sometimes sad, sometimes happy. 13a. inside. 13b. yes. 14. bedroom. 15. Yes. 16a. no. 16b. yes. 17. Sometimes. 18. Always. 19. Never. 20. Happy. 21. IC. 22. No. Section 4, 1. Lonely. 2. More clever. 3. 1. 4. 2. 5. No. 6. 2 months approx. 8. Wears fancy clothes, posh, watches telly. Section 5, 1. No. 2. Only child, occupies child when bored. 3. Like to join in future research.

Subject 27, 7 years, female, Section 1, 1a. mum, 3 children. 1b. youngest. 2a. one other sister. 2b. youngest. 3. Drawing, reading, swimming. 4. Full of life. 5a. no. Section 2, 1. Yes. 2a. no. 2c. -. 3. James. 4a. whisper. 4b. yes. 4c. whispers. Section 3. 1. No - everywhere. 2. Just family. 3. Okay. 4. Quiet. 5. Like child. 6. Male. 7a. yes. 7b. 8. 7c. -. 8. Everything. 9. 3 times a week. 10.

Don't know. 11. Any time. 12. Happy. 13a. outside. 13b. yes. 14. Corner of room. 15. No. 16a. yes. 16b. no. 17. Sometimes. 18. Never. 19. Never. 20. Happy. 21. Nobody. 22. No. Section 4, 1. Normal. 2. Less clever. 3. 1. 4. 2. 5. No. 6. Since 5 years, 2 years. 8. -. Section 5, 1. No. 2. Sister gone. 3. Elder sister left home when child was 5.

Subject 28, 7 years, female, Section 1, 1a. mum, Ellie, older sister. 1b. youngest. 2a. mum's brother, mum's mum, dad's mum, living near by. 2b. youngest of 2 girls. 3. Maths, making a mess, playing games outside. 4. Determined, stubborn. 5a. no. Section 2, 1. Yes. 2a. no. 2c. yes. 3. Thingingmejig. 4a. thinks. 4b. yes. 4c. out loud (mum hears). 4c. thinks them in head. Section 3. 1. Garden shed. 2. No. 3. -. 4. Quiet. 5. Irish accent. 6. Boy. 7a. no. 7b. maybe older (bigger). 7c. bigger (so may be older). 8. About friends. 9. Afternoon after school. 10. 1 minute at a time, but a few times in an afternoon. 11. After noon after school. 12. Silly. 13a. inside. 13b. no, don't know. 14. In the TV. 15. No, often in fridge. 16a. yes. 16b. no. 17. Never. 18. Never. 19. Never. 20. Happy. 21. He does. 22. No, calls me snot face. Section 4, 1. Happy. 2. Less clever. 3. 3. 4. 5. 5. No. 6. 2 years. 8. He has no hair and wears a hat. Section 5, 1. No. 2. He makes child naughty for example told her to write on the wall. 3. Mum and dad remember well having IC's.

Subject 29, 7 years, female, Section 1, 1a. mum, 3 children. 1b. middle. 2a. sister and brother. 2b. middle. 3. Artistic, organising, colour co-ordinated, music and dancing. 4. Dreamer, scatty. 5a. yes. 5b. psychological therapy for trauma, family received therapy from Child Psychiatry. Section 2, 1. Yes. 2a. no. 2c. yes. 3. Lyndsey. 4a. I don't talk, they tell me things. 4b. no. 4c. -. Section 3. 1. All the time. 2. No. 3. -. 4. Sometimes loud quiet. 5. Posh. 6. Female. 7a. yes. 7b. 11 years. 7c. older. 8. About going out, growing up, can't wait until go to school. 9. Nearly every day. 10. 1 hour. 11. Dinner time, evening. 12. Happy. 13a. inside. 13b. yes. 14. Sitting on the chair 2 metres away. 15. Yes. 16a. yes. 16b. yes. 17. Sometimes. 18. Never. 19. Always. 20. Happy. 21. I decide. 22. Yes. Section 4, 1. Happy. 2. As clever. 3. 5. 4. 2. 5. Friend. 6. Lots of time, since 6 ½ years. Section 5, 1. No. 2. Someone to talk to and comfort. 3. Older brother arguments about computers, younger sister just born at time that IC developed, IC developed following trauma.

Subject 30, 7 years, female, Section 1, 1a. 3 children, mum, dad. 1b. eldest. 2a. mum, dad, 1 brother, 1 sister. 2b. oldest child. 3. Drawing, anything arty, enjoys fairy tales. 4. Loving, timid at time, other times quite outgoing, open, bulshy. 5a. no. Section 2, 1. Yes. 2a. no. 3. No name. 4a. quietly (whisper). 4b. yes. 4c. don't all the time. Section 3. 1. None. 2. No. 3. -. 4. Quiet. 5. Speaks like a horse. 6. -. 7a. yes. 7b. 12. 7c. older. 8. Sometimes secrets. 9. Everyday. 10. All day. 11. No, on Saturday's on my own. 12. Happy. 13a. outside. 13b. no. 14. Infront. 15. No, sometimes. 16a. yes. 16b. yes. 17. Always. 18. Most of the time. 19. Sometimes. 20. Happy. 21. I do. 22. Yes. Section 4, 1. Sad. 2. More clever. 3. 1. 4. 1. 5. My horse called Rusty. 6. Since I was 2 years. 8. -. Section 5, 1. No. 2. As a friend/companion because lived in the country with little contact with other children. 3. -.

Subject 31, 7 years, male, Section 1, 1a. mum - pregnant, child. 1b. only child. 2a. dad has contact, not very often, baby's dad regular contact. 2b. dad, no other children. 3. Everything. 4. Good. 5a. no. Section 2, 1. Yes. 2a. yes. 2c. yes. 3. Alex. 4a. speak. 4b. yes. 4c. whisper's in ear. Section 3. 1. Sometimes, different house. 2. No. 3. -. 4. Loud. 5. Loud and shouts. 6. Don't know. 7a. yes. 7b. 6. 7c. younger. 8. Play together, talk about the play things. 9. No norm, every week. 10. Hours. 11. Don't know. 12. Happy. 13a. inside. 13b. yes. 14. Garden. 15. Yes. 16a. yes. 16b. yes. 17. Sometimes. 18. Never. 19. Never. 20. Happy. 21. Child. 22. Yes. Section 4, 1. Happy. 2. Less clever. 3. 3. 4. 2. 5. No. 6. Don't know. 8. No. Section 5, 1. No. 2. Don't know. 3. -.

Subject 32, 8 years, female, Section 1, 1a. mum, dad, sister (15 ½), sister (14), brother (5), child (8). 1b. middle girl. 2a. as above. 2b. -. 3. Drawing, writing, painting, stories, playing babies, Barbie, princess Araura . 4. Imaginative, dainty, fluffy. 5a. yes. 5b. asthma, enuresis. Section 2, 1. Yes. 2a. yes. 2b. lots. 2c. yes. 3. John. 4a. talk. 4b. yes. 4c. does not talk. Section 3. 1. No. 2. No. 3. -. 4. Quiet. 5. No. 6. Now. 7a. yes. 7b. 10. 7c. -. 8. Friends, good to me. 9. Everyday (in bed and when come back from school). 10. ½ an hour. 11. After school. 12. Sometimes sad, angry, bored, happy. 13a. inside. 13b. no. 14. Bedroom. 15. No. 16a. yes. 16b. yes. 17. Sometimes. 18. Most of the time. 19. Most of the time. 20. Happy, bored. 21. Child. 22. Yes. Section 4, 1. Happy. 2. More clever. 3. 1. 4. 4. 5. No. 6. 2 years. 8. No. Section 5, 1. No. 2. Company, play. 3. Day dream all the time, no road sense, does not go out, general special needs - not stated, not focused on reality, concentration problems.

Subject 33, 8 years, male, Section 1, 1a. mum, dad, 2 children. 1b. youngest. 2a. as above. 2b. as above. 3. Maths, cricket. 4. Shy at first meeting, outgoing at home. 5a. no. Section 2, 1. Yes, dog. 2a. no. 2c. -. 3. Max. 4a. no. 4b. yes. 4c. talks. Section 3. 1. Just in the house. 2. Family. 3. Okay. 4. Quiet. 5. -. 6. Male. 7a. no. 7b. -. 7c. -. 8. Anything. 9. Once a day. 10. 1 hour. 11. Bedtime, evening. 12. Happy. 13a. inside. 13b. no. 14. Floor. 15. No. 16a. yes. 16b. yes. 17. Sometimes. 18. Always. 19. Never. 20. Happy. 21. Max. 22. Yes. Section 4, 1. Nothing. 2. As clever. 3. 1. 4. 1. 5. No. 6. As long as mum can remember (2ish). 8. -. Section 5, 1. No. 2. Always wanted a dog, was not allowed, helps to go to bed. 3. Would like to join in future research.

Subject 34, 8 years, female, Section 1, 1a. mum, Sarah (8), Samantha (youngest 5). 1b. oldest. 2a. mum, Sarah, Samantha. 2b. as above. 3. Dancing, swimming, exploring the beach. 4. Hyper - lots of energy, very open, friendly, talk to anyone. 5a. no. Section 2, 1. Yes. 2a. yes. 2b. 5, they make friend with other IC's and they grab them to get older people's imagination - 1 got 2 today, Marie, Joe, Tortoise Shell. Lucy, Paula and Mrs Ball - she is the school leader, Sue Tom. They talk to me when I am lonely in the play ground, they play games. 3. Paula. 4a. if I am lonely I tell her to gather up the rest in my mind. 4b. No, because other people will hear, so I tell her things in my head. 4c. they help me with ideas of what to draw in my head. Section 3. 1. When I am swimming, drawing and dancing - mainly dancing so I get things right. 2. No I keep them private. 3. -. 4. Loud and quiet. 5. Smoothly, calm. 6. Female. 7a. yes. 7b. 2 years old. 7c. younger. 8. When I am sad I tell her in head what's made me sad. 9. Most of the time but not much. 10. Half hour in morning every day. 11. Break time in morning and lunchtime. 12. Happy, most of the time except when I hurt myself. 13a. both, she is everywhere. 13b. seems like that, sometimes low down in my ear. 14. Around my face. 15. Yes. 16a. yes, sometimes through my eye, she moves around my face, but not below my nose. 16b. yes. 17. She is asleep when I wake, she is tired that guards me in the night, never. 18. Always. 19. Most of the time. 20. Happy. 21. I do, but she sometimes does. 22. Yes. Section 4, 1. Lonely, constantly waiting for her. 2. Little less clever. 3. 2, except when I am angry. 4. 2, she wakes me up. 5. Nicky our old dog. 6. 1 year. 8. -. Section 5, 1. No. 2. Yes - company. 3. Sarah selects a small number of friends, more happy with adults.

Subject 35, 8 years, female, Section 1, 1a. mum, 4 children. 1b. youngest (twin) 2a. as above. 2b. as above. 3. Small things, drawing, music, drum, dancing, artistic. 4. Patient, kind, loving, stubborn, shy. 5a. yes. 5b. Learning disability, reading, writing. Section 2, 1. Yes. 2a. yes. 2b. 2. 2c. no. 3. Roxanne. 4a. whisper. 4b. yes. 4c. talks. Section 3. 1. Garden. 2. Family. 3. Okay. 4. Loud. 5. Like child. 6. Female. 7a. no. 7b. same. 7c. -. 8. Toys, problems, school. 9. 8 times a day. 10. Less than 1 hour. 11. Afternoons. 12. Happy. 13a. inside. 13b. no. 14. Hiding. 15. No. 16a. yes, stay still when child is there. 16b. yes. 17. Most of the time. 18. Always. 19. Sometimes. 20. Happy. 21. IC. 22. Yes. Section 4, 1. Happy. 2. As clever. 3. 1. 4. 1. 5. No. 6. Since 3 / 4 talk to friend after

started school. 8. Dancing to music likes playing with toys, she makes a mess - by accident, nice and kind. Section 5, 1. No, like it, helpful, it will go away, 2 weeks of waking up in the night, could it be IC? 2. Was deaf at birth, loneliness, ideal self. 3. Born deaf - did not hear until 5 years old, ghost possible.

Subject 36, 8 years, female, Section 1, 1a. mum, dad, 3 children. 1b. middle, second. 2a. as above. 2b. as above. 3. English, ballet, violin. 4. Outgoing, good social skills, expressive. 5a. no. Section 2, 1. Yes. 2a. no. 2b. -. 2c. -. 3. Suzy. 4a. in your mind. 4b. no. 4c. talks. Section 3. 1. Bedroom, sleeps under bed. 2. Yes - best friend. 3. Wish she had one. 4. Quiet. 5. Like me. 6. Female. 7a. yes. 7b. 8. 7c. -. 8. What she been doing, doing anything exciting? Or going somewhere. 9. More than once a day. 10. 10 minutes - long as can. 11. Before and after lunch. 12. Happy, usually. 13a. inside. 13b. no. 14. Under the table, hiding. 15. No, when not near table or bed or hide under. 16a. yes. 16b. no. 17. Most of the time. 18. Most of the time. 19. Never. 20. Happy. 21. She does. 22. Yes. Section 4, 1. Waiting. 2. As clever. 3. 5. 4. 1. 5. Yes rainbow trawler, activity worker. 6. Since 6 - 7 years. 7. 1 - 2 years. 8. Kicks bed to wake up in mornings. Section 5, 1. No. 2. Personal, special. 3. In shadow of older sister would like to join in further research.

Subject 37, 8 years, female, Section 1, 1a. dad, mum, 1 children. 1b. only. 2a. 3 children from previous marriage. 2b. youngest. 3. Music, reading, spelling, sailing, maths, swimming. 4. Good with people, placid, cheeky, introvert when young - now outgoing, follower. 5a. no. Section 2, 1. Yes. 2a. no. 2c. -. 3. Fiona. 4a. don't talk. 4b. no. 4c. talk to IC. Section 3. 1. Anywhere. 2. Some friends. 3. Some have them also. 4. Both. 5. Normal. 6. Female. 7a. yes. 7b. 8, a few months younger than child. 7c. -. 8. Go in the garden, normal stuff. 9. Twice a day. 10. 2 hours. 11. Morning or after school. 12. Happy. 13a. outside. 13b. yes. 14. Garden. 15. No. 16a. yes. 16b. yes. 17. Never. 18. Never. 19. Sometimes. 20. Happy. 21. Nobody decides. 22. Yes. Section 4, 1. Happy. 2. As clever. 3. 4. 4. 2. 5. No. 6. Before summer holidays. 8. Reads books, drawing, physical - blonde hair, blue eyes, glasses, different clothes, no high heels, colourful. Section 5, 1. No. 2. Only child - wants a brother or sister, boredom. 3. Couldn't have thought of it on own, told at school, therefore idea.

Subject 38, 12 years, female, Section 1, 1a. mum, dad, 2 children. 1b. eldest. 2a. as above. 2b. as above. 3. Swimming, English, history, maths. Dancing, Athletics, making things. 4. Lively, friendly, quick tempered, resourceful, generous, caring. 5a. no. Section 2, 1. Yes. 2a. no. 2b. -. 2c. -. 3. Ethel. 4a. in mind or speak out loud. 4b. yes. 4c. talks back. Section 3. 1. No. 2. Family. 3. Okay. 4. Quiet. 5. No. 6. Female. 7a. yes. 7b. 13 - same as child. 7c. -. 8. Problems, worries. 9. When have problem. 10. Until there is an answer. 11. After school. 12. Needed, happy. 13a. both. 13b. no. 14. Next to me. 15. Yes. 16a. yes. 16b. yes, echo. 17. Sometimes. 18. Most of time. 19. Never. 20. Happy. 21. Child. 22. Yes. Section 4, 1. Tense - got problem. 2. More clever. 3. 2. 4. 1. 5. Grandmother - close. 6. 2 years. 7. 3. 8. Middle school - get picked on and bullied. Section 5, 1. No. 2. Help solve problems, way of thinking things through. 3. Never spoken much about it would like to join future research.

Subject 39, 8 years, male, Section 1, 1a. mum, dad, 2 children. 1b. eldest. 2a. as above. 2b. as above. 3. Reading. 4. Quiet, thinks a lot, popular at school. 5a. no. Section 2, 1. Yes. 2a. no. 2c. -. 3. Danny. 4a. talk to him. 4b. yes. 4c. answers for him out loud. Section 3. 1. Anywhere. 2. Only family. 3. Okay. 4. Both - quiet. 5. Like me. 6. Male. 7a. yes. 7b. 8. 7c. -. 8. Going out on bike, what ever you are doing. 9. All the time when alone. 10. As long as by myself. 11. Morning. 12. Happy. 13a. outside. 13b. no. 14. Sat left of child. 15. No. 16a. yes. 16b. no. 17. Sometimes. 18. Always. 19. Never. 20. Happy. 21. Danny IC. 22. Yes. Section 4, 1. No special - just when alone.

2. Less clever. 3. 5. 4. 2. 5. Friend at school. 6. Since 7 years - 1 year. 8. -. Section 5, 1. No - did not know. 2. Tell him things can't express out loud. 3. Would like further research.

Subject 40, 8 years, female, Section 1, 1a. mum, dad, 2 children. 1b. youngest. 2a. as above. 2b. as above. 3. Dancing, school work. 4. Reserved with strangers, but outgoing with friends, stubborn. 5a. no. Section 2, 1. Yes. 2a. no. 2b. -. 2c. no. 3. No name. 4a. talk. 4b. yes. 4c. don't tell you things. Section 3. 1. Bedroom. 2. Only family. 3. -. 4. Quiet. 5. Don't speak. 6. Female. 7a. yes. 7b. 2 or 3. 7c. -. 8. Stories. 9. 3 - 4 times a day. 10. Couple of hours. 11. No, anywhere. 12. Happy. 13a. inside. 13b. no. 14. Sitting next to me, left. 15. yes. 16a. yes. 16b. yes, some noise when close. 17. Most of the time. 18. Most of the time. 19. Sometimes. 20. Happy. 21. Me. 22. No. Section 4, 1. Sad. 2. Less clever. 3. 1. 4. 1. 5. No. 6. Long time - up to 1 month. 8. -. Section 5, 1. No. 2. Replacement friend - many are the other side of town, younger sister. 3. Wanted a sister.

Subject 41, 9 years, female, Section 1, 1a. mum, dad, child (9), sister (8). 1b. eldest. 2a. mum, dad, child (9), child (8), half sister (24) not at home, half brother (19) not at home. 2b. as above. 3. Talking, maths, dancing, TV. 4. Enthusiastic, bubbly. Temper, silly. 5a. no. Section 2, 1. Yes. 2a. yes. 2b. 15. 2c. yes. 3. Casper. 4a. talks, signs, pictures on the floor. 4b. yes. 4c. speaks into mind. Section 3. 1. School if friends are not there, bed time. 2. No. 3. -. 4. Quiet. 5. Someone on TV, Casper. 6. Male. 7a. yes. 7b. 9. 7c. -. 8. Anything, what ever comes in to mind. 9. When ever want him, every day. 10. When mum not there. 11. Morning and night, 12.30pm to 3.00pm. 12. Happy, sad. 13a. inside. 13b. no. 14. Upstairs. 15. No. 16a. yes sometimes. 16b. no. 17. Most of the time. 18. Sometimes. 19. Never. 20. Happy. 21. Sometimes me, sometime him. 22. Yes. Section 4, 1. Happy. 2. More clever. 3. 3. 4. 1. 5. Cousin and friend. 6. First time went to France, a year ago, different one. 7. 2. 8. Sometimes gets angry, if on holiday, reminds me to do things, bit like a ghost. Section 5, 1. No, does not say much, not explicit. 2. Something for when she is lost, needs someone to talk to in own way. 3. Had not mentioned to IC before this research.

Subject 42, 9 years, male, Section 1, 1a. mum, dad, 2 children. 1b. oldest (considers himself oldest) in family, half brother not around often. 2a. 1 other child 25 years. 2b. middle. 3. Swimming, most things. 4. Easily distracted, stubborn. 5a. no. Section 2, 1. Yes. 2a. no. 2b. -. 2c. -. 3. John. 4a. talk. 4b. yes. 4c. talks. Section 3. 1. Beach. 2. Recently, since letter, family only. 3. Nuts. 4. Quiet. 5. Same as me. 6. Male. 7a. yes. 7b. 12, about. 7c. -. 8. Everything, fishing. 9. Everyday, stays in in evenings. 10. All day. 11. Bedtime, sleeps under his bed. 12. Happy. 13a. both, outside when next to him, inside far away. 13b. yes, if you cover them up, can't hear him. 14. Corner, hiding behind plant. 15. No. 16a. yes. 16b. yes. 17. Always, until 10 'o' clock. 18. Always. 19. Never. 20. Happy. 21. Him. 22. Yes. Section 4, 1. Normal. 2. Good at maths, good at writing, can't swim, good at spelling, less clever. 3. 4. 4. 1. 5. Luke, friend (they look the same). 6. Since 7 years. 7. 4. 8. Nickname dash - fuzzy. Section 5, 1. Didn't know before, does not disrupt now either. 2. Being told off - never blames John, IC does not talk about him a lot. 3. Good at telling stories, named after a man - believed he was him.

Subject 43, 9 years, female, Section 1, 1a. dad, child (9). 1b. only child. 2a. mother, brother (8). 2b. eldest child. 3. Art, school subjects. 4. Jolly, friendly. 5a. no. Section 2, 1. Yes. 2a. no. 2c. yes. 3. Chelsea. 4a. squeak. 4b. yes. 4c. squeaks back. Section 3. 1. Bedroom. 2. Friend, has one too. 3. School. 4. Quiet. 5. Squeaks. 6. Female. 7a. no. 7b. -. 7c. younger. 8. Went out, things done. 9. Every ½ hour. 10. 2 hours. 11. Night time. 12. Happy, sad, sometimes either. 13a. inside. 13b. yes. 14. Under the bed. 15. Yes. 16a. yes. 16b. no. 17. Sometimes. 18. Most of the time. 19. Most of the time. 20. Happy. 21. Chelsea. 22. No. Section 4, 1. Normal, happy. 2. As clever. 3. 3. 4. 3. 5. Nobody, mouse. 6. May 1997, when mouse died. 7. 3. 8. No. Section 5, 1. No, did not know about it. 2. Got attached to mouse, compensates for it. 3. Mouse that died.

Subject 44, 9 years, male, Section 1, 1a. mum, 3 children. 1b. middle. 2a. partner of mother. 2b. as above. 3. Building things, making things, fishing. 4. Different? Not shy, extrovert. 5a. no. 5b. Asthma. Section 2, 1. Yes. 2a. no. 2b. -. 2c. -. 3. No name. 4a. talk to him. 4b. no. 4c. whispers. Section 3. 1. One house. 2. -. 3. -. 4. Quiet. 5. Like child. 6. Now. 7a. no. 7b. -. 7c. older. 8. All things. 9. 3 times a day. 10. 25 minutes average. 11. No. 12. Fine, happy, funny. 13a. outside. 13b. yes. 14. Floor, front. 15. No. 16a. yes. 16b. no. 17. Most of the time. 18. Most of the time. 19. Never. 20. Happy. 21. IC. 22. No. Section 4, 1. Happy. 2. More clever. 3. 5. 4. 2. 5. No. 6. Nearly one year. 7. 3. 8. -. Section 5, 1. No. 2. Asthma attacks. 3. Loner, doesn't mix much, would like future research.

Subject 45, 9 years, male, Section 1, 1a. mum, dad, Chris (9). 1b. only child. 2a. as above. 2b. -. 3. Being naughty, lots, sports. 4. Moody. 5a. yes. 5b. level 3, mild dyslexia. Section 2, 1. Yes. 2a. no. 2c. yes. 3. No. 4a. talking. 4b. yes. 4c. talking back. Section 3. 1. No. 2. No. 3. -. 4. Quiet. 5. No. 6. Male. 7a. yes. 7b. 9. 7c. -. 8. Anything. 9. Lonely/bored. 10. ½ hour. 11. No. 12. Happy. 13a. inside. 13b. yes. 14. Left, almost, most. 15. Yes. 16a. yes. 16b. yes, sometimes. 17. Never. 18. Never. 19. Never. 20. Happy. 21. Both. 22. Yes. Section 4, 1. Down, sad. 2. More clever. 3. 1. 4. 1. 5. No. 6. Since moved house, January on to Island. 7. 3. 8. No. Section 5, 1. No, did not know until research. 2. Lonely, play-mates 3. As above, moved house.

Subject 46, 9 years, male, Section 1, 1a. mum, dad, 3 children. 1b. oldest. 2a. one older child. 2b. second born. 3. destroying things ? taking things apart, making things, swimming, music, cups. 4. No fear, changeable. 5a. yes. 5b. statemented, behavioural problems, learning disability, respite care with foster family. Section 2, 1. Yes. 2a. no. 2b. -. 2c. -. 3. Alex. 4a. talking to radio. 4b. yes. 4c. sign language, whisper. Section 3. 1. No. 2. Yes. 3. Good. 4. Both. 5. Yes, speaks French. 6. Male. 7a. yes. 7b. 92. 7c. -. 8. Diggers, toys. 9. 2 times per day. 10. 4 minutes. 11. Evening, dinner time. 12. Happy. 13a. outside. 13b. yes. 14. Next to monkey on curtain, right. 15. No. 16a. yes. 16b. no. 17. Never. 18. Most of the time. 19. Never. 20. Unhappy. 21. Child. 22. No. Section 4, 1. Happy. 2. Less clever. 3. 1. 4. 1. 5. No. 6. 5 years. 7. 4. 8. Weighs 1 stone, used toys to make things, riding bike. Section 5, 1. No. 2. Help him to communicate. 3. -.

Subject 47, 9 years, female, Section 1, 1a. mum, (24), boyfriend (19) not dad, 2 children, other 4 years. 1b. oldest child. 2a. Shannon child, dad sees grandparents not much, auntie. 2b. as above. 3. Riding, lots. 4. Very friendly. 5a. no. Section 2, 1. Yes. 2a. yes. 2b. 4. 2c. yes. 3. Kimberly. 4a. talk and play. 4b. yes. 4c. talks back. Section 3. 1. Home and school. 2. Yes. 3. Don't know. 4. Quiet. 5. Someone off TV - funny. 6. Female. 7a. yes. 7b. 5. 7c. -. 8. Don't know. 9. Lots, very day. 10. Couple of times, long time. 11. Don't know. 12. Happy. 13a. outside. 13b. yes. 14. Right. 15. Yes. 16a. no. 16b. yes. 17. Not at all. 18. Never. 19. Always. 20. Happy. 21. Me. 22. No. Section 4, 1. Happy. 2. More clever. 3. 1. 4. 1. 5. Yes, a friend. 6. Since went to school, since January. 7. 3. 8. No. Section 5, 1. No, if on own pretend friends are there. 2. Bored, alone, no friends, pretend play. 3. No.

Subject 48, 9 years, male, Section 1, 1a. mum, boyfriend, child. 1b. only. 2a. dad, ex-husband, has 2 children, 1 daughter of partner. 2b. youngest. 3. Maths, swimming, computer, running. 4. Sensitive, stubborn. 5a. Asthma - serious, allergy to dairy products, lots of time off school. Section 2, 1. Yes. 2a. yes. 2b. yes. 2c. no. 3. No names. 4a. play. 4b. yes. 4c. child verbalises. Section 3. 1. Anywhere, outside. 2. Yes. 3. Has then as well. 4. Quiet. 5. Odd accent, don't know where from. 6. Both. 7a. no. 7b. -. 7c. older. 8. Space, play games, ship game, general, day games. 9. Once a day, all day in holidays. 10. 1 hour. 11. After school. 12. Changes mood. 13a. inside. 13b. yes. 14. Standing in window. 15. No. 16a. yes. 16b. no. 17. Never. 18. Most of the time. 19. Never. 20.

Fun, annoyed with bad ones, happy. 21. Child. 22. No, they call him Tom. Section 4, 1. Playing. 2. More clever. 3. 1. 4. 2. 5. Friends from school, dad's friend, Stephanie, had blobs, then new ones. 6. 1 year. 7. 4. 8. Some are robots, aliens, built the ship imagination, started the game. Section 5, 1. Spiritualists - some disruption, e.g. Stephanie getting more confident and less obedient. 2. Does not like being told off, since I see she gets less upset and stands up for herself. 3. Had at 18 months old, IC - Stephanie, spiritual friend - strict - never came back - wanted to play in the night. Around for 3 years. Spiritualists - spirit present in the house.

Subject 49, 9 years, male, Section 1, 1a. me, husband, Christopher and Samantha. 1b. oldest by 2 ½ years. 2a. mum, dad, Chris and Samantha. 2b. first child. 3. Good at computer games, watching TV. 4. Noisy, good to argue with. 5a. no. Section 2, 1. Yes, elephant, teddy, no-one else can see or hear talk. 2a. yes. 2c. -. 3. Teddy. 4a. speak quietly. 4b. yes. 4c. I just hear him. Section 3. 1. Bed. 2. No. 3. -. 4. Quiet. 5. No. 6. Male. 7a. no. 7b. younger, just a little bit. 7c. -. 8. What I do, playing on computer, going out. 9. At night time, every night. 10. 1hour. 11. Night time. 12. Happy. 13a. inside. 13b. yes. 14. With me. 15. No, in my bedroom. 16a. no. 16b. yes. 17. Quite a lot, he asked me what I have been doing, most of the time. 18. All, always. 19. Never. 20. Happy. 21. Me. 22. Yes. Section 4, 1. Happy. 2. Less clever. 3. 1. 4. 3. 5. No. 6. 5 years. 7. 4. 8. -. Section 5, 1. No, but mum puts him on the bed and hurts him, normally takes him everywhere, except holiday. 2. No. 3. -.

Subject 50, 9 years, male, Section 1, 1a. mum, child (9), sister (12). 1b. youngest. 2a. dad, dad's girlfriend. 2b. -. 3. Drawing, lego, instructions. 4. Sensitive, good tempered, shy at first, opposite to sister, good sense of humour. 5a. no. Section 2, 1. Yes. 2a. no. 2c. yes. 3. Has not got a name. 4a. don't, thinks things. 4b. no. 4c. think what they think. Section 3. 1. Bedroom, normally in there. 2. Yes, since a few months ago, since school. 3. Don't know. 4. Quiet. 5. No. 6. Male. 7a. no. 7c. don't know. 8. Things you've done together. 9. Once every 2 days. 10. A few minutes. 11. No. 12. Happy. 13a. inside. 13b. as if noise, prompted. 14. Sitting where no one usually sits. 15. Yes. 16a. yes. 16b. yes. 17. Sometimes. 18. Most of the time. 19. Most of the time. 20. Happy. 21. Child. 22. Yes, sometimes. Section 4, 1. Happy. 2. As clever. 3. 2. 4. 1. 5. No. 6. After dad left, less than 2 years. 7. 3. 8. No. Section 5, 1. No. 2. On his own, someone, company. 3. After dad left, he often has a different opinion.

Subject 51, 10 years, male, Section 1, 1a. mum, Steve (husband), Ricky (mum's son), Elmsy (Ricky's half sister). 1b. younger. 2a. as above, dad in Sandown. 2b. as above. 3. Good imagination when talking, conversation, imagination rather than practical. 4. Very laid back, good sense of humour, very nice boy, not a nasty streak at all, funny, lazy. 5a. no. 5b. possible, slight asthma. Section 2, 1. Yes. 2a. yes. 2b. 2 civilisations, good and bad - more than one each - knows the kings and leaders but there are others - planets, goodies and 1 ½ badies another ½.. 3. got no names. 4a. talk to them. 4b. argue about things. 4c. talk like hologram projected out of my mind. Section 3. 1. In bed. 2. Matthew, friend, made him one up yesterday, explained to mum when second letter came. 3. Thought he was lying about something said but think believed me that I had one. 4. Can change depending on what mood in, angry loud, calm, quiet. 5. Good guy - American, buddy, New York, like guys who carry pick axe - tough. 6. Male. 7a. -. 7b. -. 7c. older, nut still quite young, 20's or 30's. 8. Anything that comes up, have life and tell them what been doing in there life, tell them what has been happening in Ricky's life. 9. Daily, can make them come, bad day, and a lot good days, think about them much. 10. One minute - 45 minutes, when in bed. 11. Bedtime. 12. Both have good days and bad days. 13a. brain tricks me, makes noise come from outside. 13b. both, yes. 14. Depends where put, next to me or looking at your paper. 15. No, can be anywhere in room, or could be outside. 16a. yes, can walk about. 16b. yes, bit louder - just testing. 17. Most of the time, on alarm clock until going into the bathroom, most days. 18. Sometimes. 19. Never. 20. Feels normal, just used to them.

21. Most of the time I ask, but sometimes they come to say hi. 22. Yes. Section 4, 1. If bored asked to come, if sad cheer me up, if happy tell them what happy about. 2. Good guys have knowledge about things I like, or hammer, paint and make, men have wars, bad guy knowledge about guns, drugs, less clever, good guy, tell me lots, bad guy a bit thick. 3. If doing something, don't want to stop them, threaten them - they always stop, 1. 4. 2, good like average 11 year old, 4 bad. 5. Bad guy reminds if scout has a war hammer chain around his neck, war games miniatures. 6. 2 - 3 years 9, 3, to me. 8. Like beating each other up, both as strong as each other, good guy - flat top, bad guy 3 spikes, chain from ear to chin to ear. Section 5, 1. No not at all. 2. Helps the child to eat meals, got o bed etc., can't say as only found out, not sure if existed previously, said did not want me to tell anyone, ask he mind, don't mind. 3. 3 - 6 years, imaginary friend called Stephen, I remember him, not sure I believe him.

Subject 52, 10 years, male, Section 1, 1a. mum, 3 children. 1b. middle. 2a. as above. 2b. as above. 3. Drawing, stories, good imagination, reading, art. 4. Quiet, sensitive. 5a. yes, special unit once a week, having problems when younger, sorted out age 7, before it fluctuated, hum to himself - could hear this to take away the quietness. Section 2, 1. Yes. 2a. no. 2c. -. 3. Diddy. 4a. talk. 4b. yes. 4c. talks. Section 3. 1. Bedroom, never out of house. 2. Family. 3. Fine - they all talk to him. 4. Quiet. 5. Like child. 6. Now. 7a. yes. 7b. 2. 7c. younger. 8. School, things done at work. 9. 1 - 2 times a day. 10. Minutes, not more than 1 hour. 11. Afternoon after school, bedtime. 12. Happy, likes being talk to. 13a. outside. 13b. yes. 14. On lap. 15. No. 16a. yes. 16b. yes. 17. Sometimes. 18. Most of the time. 19. Never. 20. Comforted when scared. 21. IC. 22. Yes. Section 4, 1. Happy. 2. More clever. 3. 2. 4. 1. 5. No. 6. 2 years. 7. 4. 8. Likes climbing trees, never known him to be sad, so far in 2 years he has not been sick once, helps me clean my room, tells me when its getting a bit mucky and tells me when to clear it up, he is usually swinging on the door knobs and jumping on chairs, he likes all sorts of fruits. If anyone is not in a good mood he cheers them up. Section 5, 1. No, not a bad influence at all, a good influence. 2. Does not make close friends very easily, 2 good friends moved to mainland at about aged 7. 3. IC encouraged move to new address.

Subject 53, 10 years, male, Section 1, 1a. mum, dad, 2 children. 1b. eldest. 2a. as above. 2b. as above. 3. Drawing, football, computers. 4. Mood swings, becomes shy. 5a. yes. 5b. Asthma, hayfever, dyslexia? Section 2, 1. Yes. 2a. no. 2c. -. 3. Granddad, died in February. 4a. talk to him. 4b. yes. 4c. whispers to him. Section 3. 1. Mostly in bedroom, playground. 2. Only family. 3. Touched. 4. Loud. 5. Like me. 6. Now. 7a. no. 7b. -. 7c. older. 8. Toys, mum and dad. 9. One a day. 10. ½ an hour. 11. Morning. 12. Happy. 13a. inside. 13b. sometimes. 14. Sitting in corner. 15. No. 16a. no. 16b. yes. 17. Sometimes. 18. Never. 19. Sometimes. 20. Happy. 21. He does, granddad, IC. 22. Yes, sometimes. Section 4, 1. Happy. 2. More clever. 3. 4. 4. 1. 5. Granddad. 6. Since February. 7. 2. 8. -. Section 5, 1. No. 2. -. 3. On the end of his bed, in the evenings, would like future research.

Subject 54, 10 years, female, Section 1, 1a. mum, partner, 2 children. 1b. eldest. 2a. as above. 2b. as above. 3. Reading, talking, football. 4. Caring, old for age. 5a. no. 5b. -. Section 2, 1. Yes. 2a. no. 2b. -. 2c. -. 3. Different names. 4a. think to him. 4b. yes, sometimes. 4c. thinks them back. Section 3. 1. Follows nearly everywhere. 2. Friend, family. 3. Got one too. 4. Quiet when sulk, can be loud. 5. No. 6. Male. 7a. no. 7b. -. 7c. same age. 8. Anything, school. 9. Nearly always. 10. Depends on his moods. 11. No. 12. Sulky, friendly, shy. 13a. inside. 13b. no. 14. Floor, in front. 15. No. 16a. yes. 16b. no. 17. Sometimes. 18. Never. 19. Never. 20. Different every day, depending on his mood. 21. He does (IC). 22. No. Section 4, 1. Don't know when he will come, usually normal. 2. Less clever. 3. 4. 4. 3. 5. No. 6. When moved, before brother born, 3 years. 7. 4. 8. Looks like blonde hair in a mop, normal person, pointy nose, green eyes, wears coloured clothes, bright and funny, socks with orange spots, no good at sports, good at writing and likes school. Section 5, 1. Did

not know before. 2. Bad summer, mother ill and pregnant, played lots on own, others not friendly at school. 3. Mother pregnant when IC arrived.

Subject 55, 10 years, female, Section 1, 1a. 2 parents, 2 children. 1b. youngest. 2a. as above. 2b. as above. 3. Everything, sport, academia. 4. Booming, shy with strangers, friendly, polite, outgoing in general. 5a. no. Section 2, 1. Yes. 2a. no. 2c. -. 3. Darren. 4a. whisper. 4b. yes. 4c. think. Section 3. 1. Bedroom. 2. Family and friends. 3. Positive. 4. Both. 5. Normal. 6. Male. 7a. same age. 7b. -. 7c. -. 8. What been doing. 9. Daily. 10. 1 ½ hours. 11. Evening. 12. Happy. 13a. inside. 13b. yes, sometimes. 14. Bedroom. 15. Yes. 16a. yes. 16b. yes. 17. Always. 18. Always. 19. Sometimes. 20. Happy. 21. Both. 22. Yes. Section 4, 1. Normal. 2. As clever. 3. 4. 4. 2. 5. No. 6. 4 years. 7. 3. 8. No good at drawing, draws big noses, good at making jokes, good at writing poems, plays tricks on me at school, jokes are rude ones, good at handwriting, long stories. Section 5, 1. No. 2. Secret - can't spread, problem resolution. 3. -.

Subject 56, 10 years, male, Section 1, 1a. mum and dad, 2 brothers. 1b. Adam, oldest. 2a. as above. 2b. as above. 3. Maths, making a mess! DIY. 4. Bubbly, not shy, no problem speaking in class, helpful, makes friends easily. 5a. no. Section 2, 1. Yes. 2a. no. 2c. -. 3. Fred. 4a. think it in my mind. 4b. no. 4c. like a voice. Section 3. 1. Bedroom. 2. No, parents don't know. 3. -. 4. Quiet. 5. No. 6. Male. 7a. no. 7b. -. 7c. -. 8. Hobbies. 9. When ever in bedroom, everyday. 10. How long in bedroom for. 11. After school. 12. Happy. 13a. inside. 13b. no. 14. Don't know, would only be in bedroom, any part of the room. 15. Yes. 16a. yes. 16b. yes. 17. Never. 18. Never. 19. Never. 20. Happy. 21. He does. 22. No. Section 4, 1. Lonely. 2. As clever. 3. 5. 4. 1. 5. No. 6. About 2 years. 7. 1. 8. No. Section 5, 1. No. 2. No. 3. No, Pete's Dragon, video - mum wonders whether it started there, dragon, only one person can see and talk to.

Subject 57, 11 years, male, Section 1, 1a. mum, 2 children. 1b. youngest. 2a. mothers partner. 2b. -. 3. Musical, stories. 4. Cheeky, funny, sensitive, caring. 5a. no. Section 2, 1. Yes. 2a. no. 2b. -. 2c. -. 3. Plonker. 4a. like normal. 4b. yes. 4c. talk back. Section 3. 1. Every where. 2. Friends and family. 3. Stupid. 4. Loud. 5. Strange voice. 6. Male. 7a. no. 7b. -. 7c. older. 8. All sorts. 9. All the time. 10. -. 11. Anytime. 12. All. 13a. outside, inside, both. 13b. yes. 14. In bedroom, jumps about. 15. No. 16a. yes. 16b. no. 17. Sometimes. 18. Most of the time. 19. Never. 20. Depends. 21. IC. 22. Yes. Section 4, 1. Depends. 2. More clever. 3. 1. 4. 2. 5. Mrs Umbrella, children's weather program. 6. Since 5 years old. 7. 2. 8. Sense of humour. Section 5, 1. No. 2. Gets picked on, friend does not do that. 3. Gets on better with adults than children, little confidence.

Subject 58, 11 years, male, Section 1, 1a. mum, 2 children. 1b. eldest. 2a. plus dad, plus 2 children. 2b. eldest. 3. Cooking, art. 4. Sensitive, needs security, routine for everything. 5a. yes. 5b. dyslexic. Section 2, 1. Yes. 2a. no. 2b. -. 2c. -. 3. Roger. 4a. talk to him. 4b. yes. 4c. talks back. Section 3. 1. In the garden, in the tree. 2. Only family, one friend. 3. Nothing. 4. Quiet. 5. No accent. 6. Male. 7a. yes. 7b. 12. 7c. -. 8. Music. 9. When alone. 10. 1 hour plus until have to go. 11. No. 12. Cheerful, happy. 13a. outside. 13b. yes. 14. In tree. 15. No. 16a. yes. 16b. yes. 17. Sometimes. 18. Most of the time. 19. Never. 20. Luke with a friend, normal. 21. Don't know. 22. No. Section 4, 1. Lonely, frightened. 2. More clever. 3. 5. 4. 1. 5. No. 6. 5 years, since 6 years old. 7. 2. 8. -. Section 5, 1. No. 2. Security blanket. 3. -.

Subject 59, 11 years, female, Section 1, 1a. mum, Sarah, step-father. 1b. 3 brothers, plus a sister, youngest by 10 years. 2a. mum, dad, 3 brothers, one sister. 2b. youngest by 10 years. 3. Good with other children and animals, music. 4. Quiet, helpful, friendly, caring, amused herself. 5a. -. 5b. 6

months asthmatic. Section 2, 1. Yes. 2a. yes. 2b. lots. 2c. yes. 3. Ally. 4a. talk out loud. 4b. yes. 4c. hears outside sometimes, talks. Section 3. 1. Bedroom. 2. Mum, best friends cousin. 3. Okay, cousin got one. 4. Loud. 5. American. 6. Female. 7a. -. 7b. same age. 7c. same. 8. Anything. 9. From school, when get until go to bed, when get up. 10. 5 hours in evening, one hour morning. 11. Evening and morning. 12. Always happy. 13a. both. 13b. yes. 14. Next to me with me. 15. Yes. 16a. when she feels like it, yes. 16b. no. 17. Always. 18. Always. 19. Sometimes. 20. Happy. 21. She decides. 22. Yes. Section 4, 1. Depends. 2. As clever. 3. 3. 4. 2. 5. Cousin. 6. Since 4 or 5. 7. 3. 8. -. Section 5, 1. Mum had one, big gap between children, no. 2. Keeps company, big gap with siblings. 3. Have got dogs.

Subject 60, 11 years, female, Section 1, 1a. mum, dad, 2 brothers (14), (13), child (11). 1b. youngest child. 2a. as above. 2b. as above. 3. Music, Irish dancing, maths, english, P.E. 4. Bubbly and happy, always has a smile. 5a. no. Section 2, 1. Yes. 2a. no. 2c. yes. 3. Cubby - polar bear. 4a. talk. 4b. yes. 4c. speaks. Section 3. 1. Always in bedroom. 2. No. 3. -. 4. Quiet. 5. Like mum. 6. Don't know. 7a. yes. 7b. half year. 7c. -. 8. Things that happened at school, if weekend - say what have done. 9. Every day. 10. Evening, school - bedtime. 11. No. 12. happy. 13a. outside. 13b. yes. 14. Right side of child - next to her. 15. Yes. 16a. yes, sometimes. 16b. yes. 17. Always. 18. Always. 19. Sometimes. 20. Happy. 21. Child. 22. Yes. Section 4, 1. Happy. 2. As clever. 3. 1. 4. 2. 5. No. 6. Month before, IC, first question, no sure. 7. 2. 8. No. Section 5, 1. No, did not know. 2. Company, as boys are together. 3. Used to have imaginary play mate, 3 / 4 years old, had animals - long time, stopped to have one again, after seeing a film.

Subject 61, 11 years, male, Section 1, 1a. mum and dad, 2 children. 1b. oldest. 2a. as above. 2b. as above. 3. Computers, electrical, spelling, CB radio, science and investigating, drawing diagrams, planning games. 4. Friendly, vivacious, bubbly, kind, outgoing, full of life. 5a. yes. 5b. ADHD, Ritalin, adopted. Section 2, 1. Yes. 2a. no. 2b. -. 2c. -. 3. Goey-goey. 4a. no. 4b. yes, stopped doing it. 4c. no. Section 3. 1. Outside, the lounge. 2. Family. 3. Fine. 4. Both. 5. -. 6. Male. 7a. -. 7b. same age. 7c. -. 8. Naughty things. 9. Daily. 10. Minutes. 11. Anytime. 12. Happy. 13a. outside, smashing things. 13b. don't know. 14. Anywhere. 15. No. 16a. yes. 16b. no. 17. Never. 18. Never. 19. Never. 20. Happy, relieved. 21. IC. 22. No. Section 4, 1. Worried. 2. As clever. 3. 1. 4. 4. 5. No. 6. 5 years. 7. 2. 8. Blame for naughty things. Section 5, 1. Yes, influence. 2. Release in trouble a lot, sometimes did not take blame, relief don't have to punish. 3. -.

Subject 62, 12 years, female, Section 1, 1a. mum, 2 children. 1b. eldest. 2a. same. 2b. same. 3. Music, getting into trouble. 4. Moody, outgoing, friendly, Jeckal and Hyde. 5a. no. Section 2, 1. Yes. 2a. yes. 2b. 4, 1 died. 2c. yes. 3. Zac. 4a. talk and write, whisper. 4b. yes. 4c. talk, once, writing. Section 3. 1. Anywhere. 2. Family and friends. 3. Mental, cranky. 4. Both. 5. American. 6. Male. 7a. 12 soon. 7b. 11. 7c. -. 8. Friends when they fall out, everything else. 9. 7 - 8. 10. 5 minutes. 11. Anytime. 12. Happy. 13a. outside, inside, both. 13b. yes. 14. On the toilet. 15. No. 16a. yes. 16b. no. 17. Never. 18. Never. 19. Never. 20. Bored, funny (ha ha). 21. Child. 22. Yes. Section 4, 1. Normal. 2. A clever. 3. 3. 4. 2. 5. Friend in America. 6. Friday 27th May 1997. 7. 2, 3. 8. Blonde hair, brown eyes, he is small and has long fingers, snake, can't drive, really sad clothes sometimes. Section 5, 1. Annoying but not too bad, have to wait etc. 2. Not enough of mothers company. 3. Spends along time in room.

Subject 63, 12 years, female, Section 1, 1a. mum, dad, 2 children. 1b. youngest. 2a. as above. 2b. as above. 3. Cross stitch. 4. Bubbly, chatty. 5a. yes. 5b. squint in one eye. Section 2, 1. Yes. 2a. yes. 2b. 6 approx. 2c. no. 3. -. 4a. speak out loud. 4b. yes. 4c. talk. Section 3. 1. In house. 2. Family. 3. Like sister (aunt). 4. Normal. 5. Normal. 6. Female, usually mixture. 7a. yes. 7b. 13. 7c. -. 8.