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Behaviour Research and Therapy 42 (2004) 343–356

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# The effect of cues on young children's abilities to discriminate among thoughts, feelings and behaviours

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Received 28 January 2003; received in revised form 16 April 2003; accepted 1 May 2003

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## Abstract

*Objective:* To determine if cues help young children discriminate among thoughts, feelings and behaviours.

*Participants:* Ninety-six children aged 4–7 years from three schools in Norwich, UK.

*Design:* Within each age band (4, 5, 6, 7), children were randomised to the cue or the no cue condition on a stratified basis ensuring that equal numbers of boys and girls from each school were in each of the eight cells (cue condition × age). Cues were glove puppets and post boxes. The effect of IQ was controlled.

*Measures:* A discrimination task, in which children were asked to identify a thought, a feeling and a behaviour from each of six brief stories, and a brief IQ assessment were administered to children individually.

*Results:* There was a significant effect of age and cue condition on performance; older children and those who were presented with the cue performed better. There were no gender differences and no interaction between cue condition and age.

*Conclusion:* Many young children discriminated among thoughts, feelings and behaviours suggesting that they may be able to engage in this aspect of cognitive behaviour therapy. Simple cues (puppets and posting boxes) improved children's performance and these may be useful therapeutic tools with young children.

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*Keywords:* Children; CBT; Meta-cognitive skills; Cognitive development

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## 1. Introduction

The ability to discriminate among thoughts, feelings and behaviours is an important requirement of participation in cognitive behaviour therapy (CBT). This paper seeks to examine the performance of children aged 4–7 years and determine if the use of cues aids performance. The development of cognitive behaviour therapy for young children is of considerable practical importance and this study aims to contribute to this development.

Mental health problems affect approximately 10% of children under 10 years (Office for National Statistics, 1999) and psychological interventions for young children are, as yet, poorly developed compared with those available for adults. For example, for adults, CBT is effective for many common mental health problems including depression (e.g. Gloaguen et al., 1998) and anxiety disorders (e.g. Westen & Morrison, 2001), as well as for chronic and enduring problems such as psychosis (e.g. Gould et al., 2001). There is however, a difficulty in simply transferring CBT to the treatment of young children because of specific concerns about the extent to which children's limited cognitive development precludes them from actively participating in therapy (e.g. Reinecke, Dattilio, & Freeman, 1996; Stallard, 2002). However, there is evidence that developmentally appropriate CBT approaches can improve the behaviour of 4–8 year old children with conduct problems (Webster-Stratton, Reid, & Hammond, 2001). In addition, Greenberg et al. (1995) demonstrated that school-based preventative training programmes which include components related to CBT (the PATHS programme) can improve children's knowledge about emotions and their cognitive abilities.

There remains considerable uncertainty about the development of children's understanding about thinking and feeling, although recent research in cognitive development suggests that children's development may be substantially in advance of that proposed by Piaget (1952). According to Piagetian stage theory, young children cannot engage in abstract reasoning (e.g. about their own thinking) until late childhood or adolescence. However, more recent developmental research provides a range of evidence that young children have considerable emotional and meta-cognitive skills. For example, Dunn and Hughes (1998) reported that 4 year old children talk about real-life negative emotions (anger and sadness) and that this ability was related to their performance on a set of "theory of mind" tasks. At age 7, these children were followed up. Their emotional understanding was further advanced and they often identified thoughts and beliefs as causes of anger or sadness (Hughes & Dunn, 2002). A series of studies by Flavell, Green and Flavell has identified that by 8 years of age, children recognise that thinking is a process (Flavell, Green, & Flavell, 1995) that thoughts can be difficult to control (Flavell, Green, & Flavell, 1998) and that thoughts and feelings are linked (Flavell, Flavell, & Green, 2001).

There is evidence that in clinical work, practitioners are influenced both by Piagetian models and by more recent research. For example in line with Piagetian theory, Reinecke et al. (1996) in describing cognitive behaviour therapy with children and adolescents stated that

"School age children, for example, typically are unable to readily identify their current thoughts or to discriminate and label specific emotional states" (p. 5).

In contrast, clinicians such as Ronen (1992), Kendall (1992) and Young and Brown (1996) argue that, with appropriate adaptation, young children can understand the principles of, and

engage in, cognitive behaviour therapy. This is consistent with Vygotsky's ideas about child cognitive development and in particular the concept of the "zone of proximal development". This, according to Vygotsky (1962), refers to the potential ability of a child if they are provided with appropriate "scaffolding", i.e. assistance from adults or more advanced peers.

Some clinicians have suggested specific methods that would help children engage in cognitive therapy. These include the use of stories (e.g. Friedberg, 1994), cartoons (Kendall, 1992), and thought bubbles (e.g. Young & Brown, 1996). There is some indirect evidence that such methods may help children understand. Dyer, Shatz and Wellman (2000) examined the text in books for children aged 3–4 years and 5–6 years and reported that references to mental states were high for both age groups and that story books provide a rich context for learning about mind. Wellman, Hollander and Schult (1996) demonstrated that children as young as 3 years old understood that the content of a thought bubble referred to a thought or belief. However, Quakley et al. (2003) asked children aged 7–11 years to discriminate between sentences referring to thoughts and sentences referring to behaviours and found that minimal visual cues (i.e. an action doll and a stick person with a thought bubble) did not improve children's performance. The majority of children performed the task at a high level and some were at ceiling; thus the task may have been too easy for these children and/or the cue may not have been sufficiently helpful for them.

The current study builds on Quakley et al. (2003) by increasing task difficulty, increasing the impact of the cues, and observing the performance of children aged 4–7 years to avoid ceiling effects. The main aim of the study is to examine if the use of salient age-appropriate cues will improve task performance. Secondary aims involve examining the effects of age and gender on performance. If cues do aid performance, this will provide important practical and conceptual information for clinicians working with children.

## 2. Method

### 2.1. Design

Children aged 4, 5, 6, or 7 were assigned to the cue or non-cue conditions through stratified randomisation by gender and school. This ensured that each cell (age by condition) had equal numbers of boys and girls, and equal numbers of children from each school.

### 2.2. Participants

Ninety-six children aged between 4 and 7 years were recruited from three schools in Norwich, UK. There were 24 children in each of four age bands; 4, 5, 6 and 7 years. Within each age band, there were 12 boys and 12 girls and eight children from each school. Children were assigned at random to one of two conditions; the presence or absence of cues.

The participating schools were selected at random from a list of schools on the Ofsted website. According to an atlas of local health needs (Haynes & Gale, 1997), two of the schools were located in areas of high need (e.g., high male unemployment, overcrowding, proportions of children under 5 years) and one school was in an area of medium health needs.

Within each school head teachers removed from registration lists any children who were known

to be attending a clinic for therapy, if they had a statement of special education needs, speech or language deficits, or if English was not their first language. Ninety-six children were then randomly identified from the school register with 24 from each year group. Information sheets and consent forms were sent to each of their parents. Consent forms were returned to the school and study participants were then selected from these on a stratified random basis (ensuring equal numbers of boys and girls and an equal distribution of age). Overall, 51% of parents gave consent for their child to take part in the study (54%, 52% and 48% from each of the three schools). There was no association of gender or age with the probability of consent being given by parents,  $\chi^2=1.3$ ,  $p > .40$ .

After children were selected for the study, they were randomised to the two conditions: cue and non-cue.

### 2.3. Measures

#### 2.3.1. The thought/feeling/behaviour card sort task

This task was specifically designed for the study and aimed to determine if children could discriminate among thoughts, feelings and behaviours, and if age appropriate cues would improve their performance. Thus the task was administered under two conditions; with cues and without cues (as described below).

All the children were read aloud six brief stories about a child (see Appendix A). For the boys taking part in the study, the child in the story was a boy (Harry), for girls, the character was a girl (Mary). Half of the stories were mildly positive and half were mildly negative. Each story was three sentences long; one sentence included a thought, one a feeling and one a behaviour. Across the six stories, the order in which the sentences appeared was counter-balanced. The six stories are shown in Appendix A. An example is as follows;

Christmas was coming and Mary was very excited (feeling). Mary wished that Father Christmas would bring her a new puppy (thought). Mary made a home for the puppy with a blanket and a cardboard box (behaviour).

Each of the three sentences was also written on a card. After the story had been read out loud, the child randomly selected each sentence from an envelope. This was placed in front of the child and read aloud by the experimenter. The children were asked to identify each sentence as either including a thought, a feeling or a behaviour. The task was scored as the number of correct responses by the child (max = 18).

A sample story was used to demonstrate the task to the child; this was not scored.

**2.3.1.1. Cue condition** In this condition, 'Mary' or 'Harry' were represented by glove puppets and the children were told that they could help 'Mary' or 'Harry', who had been having a lot of trouble remembering things. The story was read to them as described above. After the story was read, children were given standard instructions (see Appendix A). They were asked to help 'Mary' or 'Harry' by posting each sentence card into one of three posting boxes. Each box was labelled "feeling sentences", "thinking sentences" or "doing sentences". On the feeling box was a picture of a smiling boy and a sad girl, on the thinking box were a boy and girl with thought bubbles,

and on the doing box was a boy decorating a Christmas tree and a girl reading (see Fig. 1). The child randomly selected the sentences, these were read out loud and the child was asked to help Mary/Harry to post the sentence into one of the boxes.

*2.3.1.2. No cue condition* In this condition, after the experimenter read each story, the sentences were selected randomly by the child, placed in front of the child and read out loud by the experimenter. The child was asked if the sentence was a “thinking sentence”, a “doing sentence” or a “feeling sentence”. A verbal response only was required.

*2.3.2. Short form of the WISC III (Wechsler Intelligence Scale for Children III; Wechsler, 1992) or the WPPSI-R (Wechsler, 1990)*

Children aged 71 months or younger (i.e. under 6 years) were assessed using the short form of the WPPSI-R and children aged 72 months and over (i.e. 6 or 7 years) were assessed using the short form of the WISC III. As recommended by Sattler (1982), the Vocabulary sub-test and the Block Design sub-test were used; both correlate highly with IQ over a wide age range. The combined age scaled scores of the sub-tests were converted to estimated Full Scale IQ scores.

#### 2.4. Procedure

The assessments took place at school. A trainee clinical psychologist (SQ) individually tested children in a quiet room away from the classroom. The task was explained briefly, the children were told it was not a test and that they could stop at any point. The IQ assessment and the



Fig. 1. Thoughts, feelings and behaviour posting boxes.

though/feeling/behaviour task were presented in random order. Discontinuation criteria were established in advance and were (i) if the child became distressed at any point or, (ii) if the child took longer than 45 s to respond to five consecutive items. It was not necessary to discontinue the procedure with any child.

### 2.5. Ethical issues

Ethical approval was obtained from the University of East Anglia, Health Schools Ethics Committee. Consent was obtained from head teachers to recruit children from their school. All three head-teachers who were approached agreed to participate. Parental consent was obtained for all children and the children themselves were also asked if they wished to take part. None of the children became distressed and most seemed to enjoy the task.

## 3. Results

The results are shown in Fig. 2. At all ages, children in the cue condition (i.e. used the posting boxes and puppets) obtained higher scores than the children who did not have cues. In addition, older children performed better than younger children. The mean score for 4-year old children was close to that obtained by chance (i.e. 6). However, by age 7, the mean score was much closer to the maximum possible score (i.e. 18).

The relationship between IQ and task performance was of interest with the assumption being that children with higher IQ scores would perform better on the task. The mean IQ for the group was 92 (SD = 14.5) with a range of 52–123. There was no significant difference in IQ between

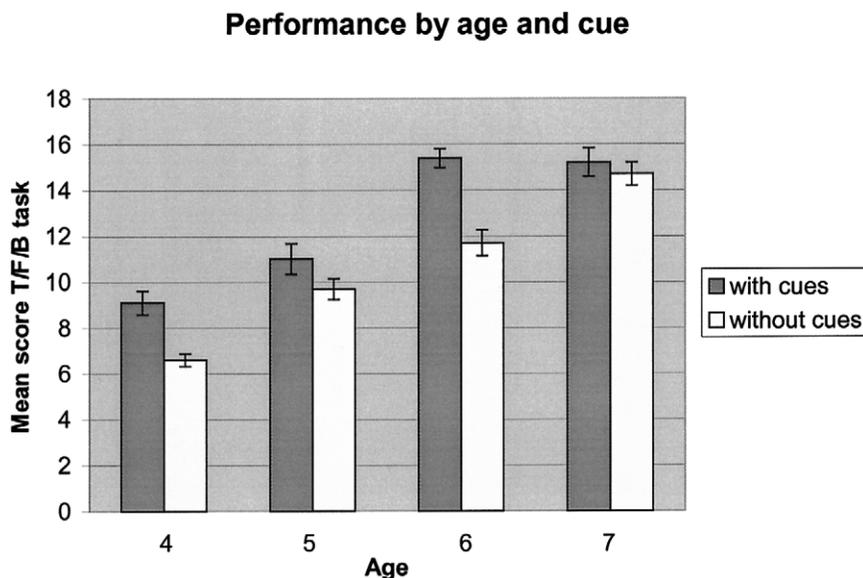


Fig. 2. Children's performance on discrimination task.

ages,  $F(3,95) = 1.12$ ,  $p < 0.34$ . As expected, there was a significant association between IQ and task performance ( $r = 0.64$ ,  $p < 0.001$ ). Therefore, the effect of IQ was controlled in a two-way ANCOVA (age  $\times$  cues). The results indicated a significant main effect of age,  $F(3,87) = 22.21$ ,  $p < 0.0001$ , a significant effect of cue,  $F(1,87) = 7.88$ ,  $p < 0.001$ , and a non-significant age by condition interaction,  $F(3,87) = 0.66$ ,  $p < 0.43$ . Thus, performance was better amongst older children and was enhanced by using the cues after controlling for the effects of IQ.

Finally we examined gender differences in performance. The mean score for girls was 11.69 (SD = 4.74) and for boys was 11.62 (SD = 4.43) suggesting that there were no gender differences. A two-way ANOVA (age  $\times$  gender) showed a significant effect of age, a non-significant effect of gender,  $F = 0.78$ ,  $p < 80$ , and a non-significant age by gender interaction,  $F = 0.90$ ,  $p < 40$ .

#### 4. Discussion

The results of this study provide clear evidence that using simple cues with young children enhances their ability to discriminate among thoughts, feelings and behaviours. This evidence thus supports those clinicians who argue that young children can engage in cognitive therapy if appropriate age adjustments are made, and is in accord with the developmental literature which shows that young children have good understanding of thinking by about 8 years. At all ages between 4 and 7 years, children who were given simple cues were more successful in discriminating among thoughts, feelings and behaviours. In addition, the study provides evidence that the ability to discriminate among thoughts, feelings and behaviours develops rapidly between the ages of 4 and 7 years. The data presented here suggest that at 4 years, most children could not discriminate between a thought and a feeling or between a feeling and a behaviour. However, by the age of 7 years, the majority of children (with and without cues) performed close to ceiling. An important caveat to these results relates to the unknown validity of the task we used in this study. Although the task has reasonable face validity, it has not been linked to children's performance in CBT and thus we do not know what level of performance is necessary for children to engage successfully in CBT.

This research provides normative data on one aspect of children's meta-cognitive development as well as a simple tool that clinicians could adapt for use in assessment or in therapy to help young children understand the core concepts that are used in CBT. In order for CBT to be developed for young children, there is a need to understand the developmental trajectory of children's cognitive and meta-cognitive skills and to develop simple and practical methods of assessing these in individual children. It is plausible that variants of CBT could be developed and meta-cognitive assessment of children could become an important precursor to making decisions about treatment choices. Thus for children who have not yet developed appropriate meta-cognitive skills, behaviourally oriented treatment may be more suitable. In contrast, children with meta-cognitive skills may be suitable candidates for more cognitively oriented CBT.

Assessment of suitability for CBT does require considerably greater development as it is not known which skills are necessary prerequisites for successful engagement in therapy. We need to determine the necessary individual skills, and the range and combination of skills that are required, match this to the evidence available from developmental psychology, and identify the

remaining gaps in knowledge. There could then be a programmatic approach to research that could rapidly contribute to direct clinical care. There has been little cross-fertilisation between the developmental psychology literature and the CBT child literature and thus cognitive developmental research has not been planned to answer clinical questions or to enhance clinical treatment.

This study was conducted with children who came from relatively low to medium socio-economic backgrounds and who had a range of IQ scores, with the mean somewhat below the population mean. Previous researchers (e.g. Cutting & Dunn, 1999) have demonstrated strong class differences in young children's cognitive performance, thus this sample is of interest as there is unlikely to be significant confounding with high social class. The sample of children who took part in this study may be unrepresentative in that their parents opted-in to the study by giving informed consent but in other respects no systematic bias is apparent. However, the children were selected from a non-clinical sample and there is a need to transfer these research findings to samples of clinically referred children, to compare their performance to that of their non-referred peers, and to examine associations between cognitive performance and aspects of mental health.

## Appendix A

### *Thoughts, feelings and behaviour*

#### *Rationale*

I would like you to help me with some work that I am doing, which looks at how children of different ages think. It is not a test and there are no right or wrong answers. I won't be telling your teachers or your mum and dad about the answers you give, they are just for my project, to help me understand how children of your age think about things.

I will make some notes as we go along but I won't write your name down on the notes, just a number. I will be recording our meeting on a tape so that my supervisor, who is a bit like my teacher, will be able to listen to make sure I have asked all the questions properly. I won't write your name on the tape, it is just being made to make sure I have asked my questions properly. I will be asking lots of children your age the same questions and I will also be asking lots of children older/younger than you the same questions.

Are you happy to take part in my study? Do you have any questions now? If you have any questions later then you can ask me at any point. If you feel that you want to stop at any point then just say.

*Debriefing* At the end of all the tasks, the children were asked the following questions

Was that easy or hard?

Did the task make you think about anything?

Do you have any questions?

Finally, all the children were thanked for taking part.

*Procedural instructions for the T/F/B card sort task*

*Non-cue group* Say I am going to read you some stories about a little girl called Mary (or a little boy called Harry, for boys). In each of the stories, you will find out something that Mary has been doing, something Mary has been thinking, and something that Mary has been feeling. When I have finished reading the story, I will read you three different cards one by one, which each have different parts of the story on them. I would like you to tell me which card is about something that Mary was doing, ‘a doing part’, which card is about something that Mary was feeling, ‘a feeling part’, and which card is about something Mary was thinking, ‘a thinking part’.

Let me show you

Read demonstration story to child (Behaviour—feeling—thought, positive)

Mary cleaned her teeth before bedtime. Mary was very happy because the next day she was going on holiday. Mary wondered if there might be a bouncy castle on holiday.

Say Now I am going to read three cards to remind us of what happened in the story

*Read card 1, a ‘doing sentence’:* ‘Mary cleaned her teeth’.

Say Now, ‘Mary cleaned her teeth’, was something Mary was doing so this is a ‘doing part’ of the story.

*Read card 2, a ‘feeling sentence’:* ‘Mary was very happy.’

Say Now, ‘Mary was very happy’, was something Mary was feeling, so this is a ‘feeling part’ of the story.

*Read card 3, a ‘thinking sentence’:* ‘There might be a bouncy castle on holiday’.

Say Now, ‘There might be a bouncy castle on holiday.’ was something which Mary was thinking so this is a ‘thinking part’ of the story.

Say Now I would like you to try.

Sample story (Thought—behaviour—feeling, positive)

*Read sample story to child:* ‘Mary knew that it was her friend Emma’s birthday next week. Mary brought Emma some chocolate for a present. Mary was happy that she had bought her friend a present.’

Say Now I am going to read you three cards to remind you of what happened in the story. I would like you to tell me which card tells you something that Mary was doing, ‘a doing part’, which card tells you something that Mary was feeling, ‘a feeling part’, and which card tells you something that Mary was thinking, ‘a thinking part’.

*Read card 1, ‘a feeling sentence’:* ‘Mary was happy’.

Say Now, is this something that Mary was doing, ‘a doing part’, or is it something Mary was feeling, ‘a feeling part’, or is it something that Mary was thinking, ‘a thinking part’.

Note the child’s response. If the child answers correctly, praise the child and move on to the next item.

Say ‘Very good, let’s try another’.

If the child answers incorrectly, correct them by saying for example

Say ‘Good try, but ‘Mary was happy’ is something Mary was feeling so it is a ‘feeling part’ of the story.

*Read card 2, a ‘doing sentence’:* ‘Mary bought her friend some chocolate’.

Say Now is this something that Mary was doing, ‘a doing part’, or is it something that Mary was feeling, ‘a feeling part’, or is it something that Mary was thinking, ‘a thinking part’?

Note the child’s response. If the child answers correctly, praise the child and move on to the next item.

Say ‘Very good, let’s try another’.

*Read card 3, a ‘thinking sentence’ card:* ‘It is Emma’s birthday next week’.

Say Now is this something that Mary was doing, ‘a doing part’, or is it something that Mary was feeling, ‘a feeling part’, or is it something that Mary was thinking, ‘a thinking part’?

If all items are correct, move onto the main task. If some items are incorrect, repeat these and continue until the child has got each item correct and then proceed to the main task.

*Cue group* The examiner has one of the glove puppets on her hand and introduces the female glove puppet to girls and the male glove puppet to boys.

Say ‘This is Mary (or Harry for boys). Mary has been very busy doing lots of different things lately. I’m going to tell you some stories about all of the different things that Mary has been doing.’

Say ‘But Mary has become very muddled up. She can’t remember what she has been ‘doing’, she can’t remember what she has been ‘thinking’, and she can’t remember what she has been ‘feeling’. Mary needs us both to help her remember what she has been ‘doing’, what she has been ‘thinking’ and what she has been ‘feeling’.

Say ‘I am going to read you some stories about Mary and in each of the stories, you will find out something that Mary has been doing, something that Mary has been thinking, and something that Mary has been feeling. When I have finished reading the stories, I will give and read to you three different cards, one by one, which each have different parts of the story on them. You need to help Mary decide which card tells you something that Mary was doing, ‘a doing part’, which card tells you something that Mary was feeling, ‘a feeling part’, and which card tells you something that Mary was thinking, ‘a thinking part’.

Say ‘You need to help Mary to post the cards into one of these post boxes which are here to help Mary to remember what she was doing, thinking and feeling.’

*Point to post boxes*

Say ‘This is a box to help Mary remember what she was doing. It says ‘Doing sentences’ on it. You can see other children on the box doing different things to help remind you. This girl is reading and this boy is decorating a Christmas tree.’

Say ‘This is a box to help Mary remember what she was thinking. It says ‘Thinking sentences’ on it. You can also see a boy and a girl thinking on this box to help remind you. They both have thinking bubbles coming from their heads just like a comic book.’

Say ‘This is a box to help Mary remember what she was feeling. It says, ‘Feeling sentences’ on it. You can also see a boy and a girl feeling different things on this box to help remind you. This boy is happy and this girl is sad.’

Point to each box separately.  
Give the glove puppet to the child  
Say ‘Let me show you’.

*Read demonstration story to child (Behaviour—feeling—thought, positive) Mary cleaned her teeth before bedtime. Mary was very happy because the next day she was going on holiday. Mary wondered if there might be a bouncy castle on holiday.*

Say Now here are three cards to remind us of what happened in the story. You need to help Mary to post the cards in the right boxes.

*Read card 1, a ‘doing sentence’ and give card to glove puppet held by the child: ‘Mary cleaned her teeth’.*

Say Now, ‘Mary cleaned her teeth’, was something Mary was doing so this should go in the doing box’.

Point to the box and get the child to post the card.

*Read card 2, a ‘feeling sentence’ and give card to glove puppet held by the child: ‘Mary was very happy.’*

Say Now, ‘Mary was very happy’, was something Mary was feeling, so this card should go in the ‘feeling box’.

Point to the box and get the child to post the card.

*Read card 3, a ‘thinking sentence’ and give card to glove puppet held by the child: ‘There might be a bouncy castle on holiday’.*

Say Now, ‘There might be a bouncy castle on holiday.’ was something which Mary was thinking so this card should go in the ‘thinking box’.

Point to the box and get the child to post the card.

Say ‘Now I am going to get you to help Mary by yourself. I’m going to read you another story about what Mary has been doing lately, then give you some cards to put in the correct boxes, just as we have done together.’

Sample story (Thought—behaviour—feeling, positive)

*Read sample story to child: ‘Mary knew that it was her friend Emma’s birthday next week. Mary brought Emma some chocolate for a present. Mary was happy that she had bought her friend a present.’*

Say Now I am going to read you three cards to remind you of what happened in the story. Please

help Mary to remember what she was doing ‘a doing part’, what she was feeling, ‘a feeling part’, and what she was thinking, ‘a thinking part’.

*Read card 1, ‘a feeling sentence’ and give the card to the child: ‘Mary was happy’.*

Say Now, is this something that Mary was doing, ‘a doing part’, or is it something Mary was feeling, ‘a feeling part’, or is it something that Mary was thinking, ‘a thinking part’?

Say ‘Now help Mary to post the card in the correct box.’

Note the child’s response. If the child answers correctly, praise the child and move on to the next item.

Say ‘Very good, let’s try another’.

*Read card 2, a ‘doing sentence and give the card to the child’: ‘Mary bought her friend some chocolate’.*

Say “Now is this something that Mary was doing, ‘a doing part’, or is it something that Mary was feeling, ‘a feeling part’, or is it something that Mary was thinking, ‘a thinking part’?”

Now help Mary to post the card in the correct box”.

Note the child’s response. If the child answers correctly, praise the child and move on to the next item.

Say ‘Very good, let’s try another’.

*Read card 3, a ‘thinking sentence’ card and give the card to the child: ‘It is Emma’s birthday next week’.*

Say Now is this something that Mary was doing, ‘a doing part’, or is it something that Mary was feeling, ‘a feeling part’, or is it something that Mary was thinking, ‘a thinking part’?

Help Mary to post the card in the correct box.’

Note the child’s response. If the child answers correctly, praise the child and move on to the next story.

If all items were correct, proceed with the main task.

Say ‘Well done, I’m going to tell you some more stories about Mary now and ask you to help Mary to sort some more cards into the right boxes.

If a child gets any item incorrect on the sample story, correct the child by saying for instance Good try, but ‘Mary bought her friend some chocolate’ is something that Mary was doing, so it is a ‘doing part’ of the story and should be posted in the ‘doing sentences’ box.

After an incorrect response proceed with other items until all three cards have been read out and posted. At the end of the task, repeat incorrect items. Continue to correct the child until they have got each item correct.

Then proceed with the main task.

Read each story out to the child and for each story randomly select the order in which the three cards are read out and handed to the child by drawing them blind from a bag. Note the child’s responses but do not correct them.

After each response from the child say:

‘Good lets try another’.

After each story say:

‘Well done, I’m going to tell you another story about Mary now, and ask you some more questions about the story.’

#### *Stimuli for the T/F/B task*

For the cue group, read stimulus cards and present stimulus cards to the child for sorting. For the non-cue group, simply read stimulus cards. For boys, the name Harry is used.

#### *Item 1—Feeling—Thought—Behaviour (positive)*

Christmas was coming and Mary was very excited. Mary wished that Father Christmas would bring her a new puppy. Mary made a home for the puppy with a blanket and a cardboard box.

#### *Item 2—Feeling—Behaviour—Thought (negative)*

Last week at school Mary was very upset. Mary ran in to the school cloakroom to hide from everybody. Mary wondered if anybody would come and find her.

#### *Item 3—Behaviour—Thought—Feeling (negative)*

It was home time from school and nobody was there to pick Mary up. Mary walked into the playground to find her mum. Could it be that mum had forgotten to come to the school? Mary was very worried.

#### *Item 4—Behaviour—Feeling—Thought (positive)*

Mary went shopping with her mum on Saturday. Mary was very pleased with her new hat. Mary hoped her hat would match her scarf.

#### *Item 5—Thought—Feeling—Behaviour (negative)*

Last night, there was a loud thunderstorm. The thunder sounded a bit like fireworks to Mary. Mary was very frightened. Mary hid under the table.

#### *Item 6—Thought—Behaviour—Feeling (positive)*

It was teatime on Tuesday. Mary wondered what her mum was cooking. Mary shouted into the kitchen to find out. Mary was very glad to hear that she had chips, which were her favourite.

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