Study 4: Samuel and Bryant (conservation)

Qs (page 75)
1. Samuel and Bryant used three different conservation tasks whereas Rose and Blank only tested conservation of number.
2. The transformation is when the display is changed, for example from a bunched row of counters to a spread out one.
3. The age of the child.
4. The number of questions asked (standard, one judgement, fixed array) and the kind of task (mass, number, volume). There was even another IV which was that of equal and unequal conditions.
5. Ability to conserve.
6. By the answer the child gives to the question about whether the quantities are the same or not.
7. To see if this affected children’s ability to conserve. It might be that children would be able to conserve if their answer to the first question was no.
8. It might make them more anxious and thus more likely to be very confused by the experiment.
9. Yes there were (otherwise the mean number of errors would be zero). It might be that some older children had less experience and/or were slower to mature, or maybe they were very confused by the experiment.
10. Even though the younger children did better when asked only one question, there were still age-related differences supporting Piaget’s stage theory.

Qs (page 76)
1. The children who were older were more able to conserve.
2. Children of all ages made fewer errors in the one-question condition, but some of them of all ages did make errors.
3. In all age groups, children made more errors in the control condition (fixed array) which shows that seeing the pre-transformation display was important in being able to answer the final question correctly, as they used this information.
4. Many young children can conserve but there are still age-related differences.
5. The two-question condition might create demand characteristics because the second question (as it is identical to the first) appeared to ‘demand’ a different answer.
7. Number – perhaps they had more experience with number and that meant they had learned to understand conservation of number better.
8. Possibly – we are only shown mean errors which means that some did better and some did worse.
9. Yes there were (otherwise the mean number of errors would be zero). It might be that some older children had less experience and/or were slower to mature, or maybe they were very confused by the experiment.
10. Even though the younger children did better when asked only one question, there were still age-related differences supporting Piaget’s stage theory.
11. Yes, because the details of what to do were recorded clearly, although some details were omitted, e.g. dealing with ethical issues, the time given to show the displays, and the specific seating arrangement.

Evaluating the study by Samuel and Bryant (page 77)

NB all answers should be contextualised.

The research method
Laboratory experiment
Strengths: It is possible to control all variables, especially extraneous variables which might have affected whether children focused on the tasks, e.g. other children talking nearby.
Limitations: The task is so much taken out of the context of real life (lacks representativeness) that the child doesn’t behave ‘normally’, e.g. child might have felt anxious on their own with a stranger.

Quasi-experiment
Strengths: This is the only way you can study certain things such as age differences.
Limitations: It is not possible to claim that age (maturational actually causes conservation, but it can be suggested that conservation abilities are related to maturation (age).

Qualitative or quantitative?
Quantitative data: Whether the child could or could not answer the final question correctly, i.e. was able to conserve: this was compiled into mean number or errors for each group.
Strength: Ease of data analysis and of making direct comparisons between the age groups.
Limitation: May mask other important information.
Collecting different data: You could interview the children and ask a number of different questions about conservation (open questions), e.g. using familiar cups or glasses from their family home and ask them which ones hold the most milk. The results might show that children can conserve.

The participants
Children may be more ‘suggestible’ than adults, e.g. more easily influenced by leading questions and demand characteristics (wishing to please the experimenter). They also may be more affected by being participants (suffering psychological harm).

Ethical issues
Informed consent – probably asked parents or teachers for consent, rather than the children.
Psychological harm – some children might be distressed by being questioned on so many tasks by a stranger. They also might feel their IQ was being assessed and if they thought they failed they might feel lower self-esteem.

Ecological validity
The tasks are quite similar to everyday life (representativeness) but the way the questions were asked (e.g. children might have felt anxious) means that they may not have behaved normally and therefore caution should be exercised when generalising the findings. It might be that the experimenters unwittingly provided other cues in the experiment about how to answer the questions. This could explain why the children found the fixed array control task more difficult. No information is given in the article about whether the experimenters (as distinct from the researchers who designed the experiment – sometimes they are different) knew the aims of the experiment. Even if they didn’t know the aims they may have unwittingly cued the children.
It is difficult to know to what extent the children behaved as they would in everyday life. Unless they were asked the question, they might not think about these particular issues. Possibly, for conservation of liquid volume, for example, if they were playing with water in a natural setting, e.g. kitchen sink or bath, and then asked the conservation question they might be more likely to get it right. This is because they would be more relaxed and would be more mentally prepared for the question if they had just been handling the material. The question might also make better sense to them.

Applications/usefulness

The findings are useful because they tell us something about Piaget's theory, as this study still demonstrates age differences in conservation. This can be applied to education and the manufacture of toys which should take into account children's abilities and the kinds of tasks they might benefit from practising (e.g. relating volume). The results also are important in relation to child participants in psychological research – they show that when children are asked questions they may be easily confused and led to give certain answers, so interviewers must be very careful.

What next?

It might be better to get teachers to conduct the experiment so it is someone the child knows and even give the children some practice, as according to Piaget practice shouldn’t improve performance – children can only do things when they are ready. You might find that children perform better not because of practice but because they are more relaxed and can show their real skills.

Exam-style questions (page 79)

Section A questions

1 Factor 1 – age of the child. Factor 2 – whether the question is asked both before and after the transformation. Factor 3 – whether or not the child is shown a pre-transformation display with two identical beakers containing equal amounts of water before they are poured into non-identical beakers. Factor 4 – the material – number, mass or volume.

2 One condition was the standard, Piagetian condition. Here, in the conservation of liquid volume task, children are shown two identical beakers, both filled up with water and then asked: ‘Are they the same?’ Next, the water from one beaker is poured into a shorter, fatter beaker, and again the question is asked. In the ‘one-question condition’, everything is the same as the standard condition except that the question is asked only once – after the transformation.

3 a One problem when interviewing children is that they might have trouble expressing their thoughts and feelings as their language is not as developed as an adult.

b One way to deal with this problem is that they can use child-friendly tasks to help them such as pictures or ‘emoticons’ that children can point to if they want to show how they feel; or tasks for the children to do which are specially designed to engage the child and show what they can or cannot do.

4 One conclusion is that conservation improves with age – the older the child the more likely it is that they can conserve. Another conclusion is that asking the same question twice has a negative effect on their ability to show that they can conserve – children were more able to demonstrate the ability to conserve in the one-question condition.

5 a Validity refers to whether a test or task or experiment is measuring what it claims to measure.

b One difference was the number of times the question was asked. In Piaget's study it was asked both before and after the transformation of the substance. However, in Samuel and Bryant’s one-question condition, everything was the same except that the question was only asked after the transformation.

6 One piece of evidence that supports Piaget’s claims was that older children were better at conserving than younger children. One piece of evidence to challenge Piaget’s claims was that young children were more able to conserve when asked only one question.

7 One way is that older children are more able to conserve in all materials than younger children, and more able in the ‘harder’ materials (mass and volume). This shows that the ability to do the activity is related to the child’s development, and not due to other factors such as the way the questions are asked.

Section B questions

a One IV was the material used – number, mass or volume. The DV was the number of errors on the conservation task (i.e. the number of times they answered correctly or incorrectly).

b The sample consisted of 252 primary and nursery school children from Crediton in Devon, aged between 5 and 87 years and divided into four age groups – 5 years 3 months, 6 years 3 months, 7 years and 3 months and 8 years and 3 months. They were probably an opportunity sample.

One limitation of this sample is that, because they are all from one area of the country and one education authority then it is possible that they are not entirely representative of children around the country. It may be that their ability to conserve is different (better or worse) than children in general. Thus it would have been better to have a more representative sample of children from around the country.

c Behaviour was measured in response to the target question ‘Are they the same or different?’ which was always asked after the transformation. Children were shown (in the conservation of mass condition) two identical balls of plasticine, both the same size and shaped in the same way and then asked: ‘Are they the same?’ Next, the one ball of plasticine was rolled into a longer, thinner sausage shape, and again the question was asked. This was the basic procedure and repeated for liquid volume (beakers of water) and for number (counters or buttons).

Behaviour was also measured in relation to asking one or two questions. In the ‘one-question condition’, everything is the same as the standard condition except that the question is asked only once – after the transformation. In the fixed array condition, the children only see the post-transformation display and were only asked the question then. Children could answer ‘yes’ or ‘no’ to the question and depending upon their answer, might be asked a further question such as ‘Which one do you think is larger?’

d One way to check the validity would be to get the same children to do a different test that assesses conservation ability. If the first test is valid, the scores on it should correlate with scores on the other test. Children could be given a test such as Miller’s insects or boats conservation task, as well as the ones used here. In general, if they are both valid tests of conservation, then a child who can conserve number using counters, should be able to do so with boats. If they do not overall agree, this would suggest that one of the tests is not a valid test of conservation.

e Samuel and Bryant found that older children made fewer errors on the conservation tasks for all materials. They also found that children were more able to conserve in the one-question condition than the standard two-question condition. The most difficult condition was the fixed-array condition when they did not see the transformation. Finally, children were more able to conserve on the number task, they were next best on the mass task and finally the volume task.

f One change to the study could be to use a more diverse sample of children. The new sample could be of children from around the country. The new sample could be from one area of the country and one education authority.

One limitation of this sample is that, because they are all from one area of the country and one education authority then it is possible that they are not entirely representative of children around the country. It may be that their ability to conserve is different (better or worse) than children in general. Thus it would have been better to have a more representative sample of children from around the country.

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regional background and so on. This probably wouldn’t make much, if any, difference to the overall results, but it would mean that because the sample is more representative that we could be more sure that the results are generalisable to all children … rather than just Devon children!

Another change to the study would be to let children play with the materials before the researchers asked them the questions. They could be asked while playing with, e.g. beakers of water in a ‘wet play’ area in their primary school, or with counters, or with plastocine/play-dough. They could be allowed 5 minutes of play time (or active self-discovery) to help the children remind themselves of the materials and be mentally more primed for the task. Then the researchers could go through the normal conservation questions. I think that regardless of the condition (one-question, two-question or fixed array) this would increase the chances that children would get this right. However, it is still likely that correct answers would be higher in the one-question condition (supporting Samuel and Bryant) and increase with the age of the child (still supporting Piaget).

Section C questions

a One assumption of the developmental approach is that as children grow and mature they change. Many developmental psychologists believe that these changes are not just a matter of quantity (e.g. just more logic or more language) but qualitative changes – that, for example, their thinking actually changes from, for example, being able to think concretely to being able to think about abstract concepts.

b The developmental approach would explain conservation in a Piagetian way (it was his idea, after all!). The ability to conserve or not conserve depends upon the maturity of the brain and how that limits or allows certain patterns of thinking. For example, a child still in the pre-operational thought stage, according to Piaget, would not be able to conserve because they would not be capable of the logical operations needed. For example, they are overly influenced by the appearance of objects, so that if one looks taller or longer, they think it must be bigger overall. In other words, they cannot see that the increase in height is compensated for by the decrease in width (in the case of the water beakers) so cannot realise that overall they are the same. Another logical operation that kids under 7 lack is the ability to mentally ‘rewind’ or reverse what they have just seen. Children over 7 in the concrete operational stage can mentally reverse the transformation and know that if the water was poured back into the original beaker then it can clearly be seen that it was of equal quantity.

c One ethical issue is that of consent. Working with children is always difficult because they themselves cannot give consent and so often consent is often given by someone else on their behalf, such as a teacher or a parent. This is sufficient in order to meet the BPS ethical code of conduct. However, some say it still remains a bit of an issue, because even if an adult consents, it does not mean to say that the child wants to go through with the experiment. They may feel coerced or forced into it. This could be the case with Samuel and Bryant because their sample were all young children and we do not know if both teachers/parents and children gave their consent and the children willingly took part.

Another issue is that of harm. Although it would not be a big problem, the children might feel confused about being put on the spot and might find the task difficult (there was quite a high rate of errors, especially for the younger children) and this might affect how confident they feel. They might feel confused or even misled into somehow giving the wrong answer (e.g. in the two-question condition). Because children are young they are more likely to interpret events in unpredictable ways and may be more fragile mentally than adults and so researchers have to be very careful and even a task as seemingly innocuous as a conservation task might affect a child’s self-perception.

d One strength of the developmental approach is that it is possible to see how humans change with age. For example, in the Samuel and Bryant study, we can see that as children get older they become more logically and cognitively able. The evidence for this is that they are more likely to be able to conserve the older they get, regardless of the condition or the material. It is helpful to know how children’s thought patterns change with age so that education programmes can be designed which best fit into this pattern and do not try to teach some concepts too early or too late.

Another strength of the developmental approach is that it underlines how different humans are at different ages and stages … and that the difference is not just of quantity (as mentioned in part a) but also of quality. Younger children cannot conserve partly because, as Piaget believed, they are not mentally mature enough and therefore lack ‘logical operations’ and think in a different way. It is useful to know that there are qualitative differences because it reminds society that it is not appropriate to treat children just like little adults – they need special consideration and understanding.

One limitation of the developmental approach is that, although it should be concerned with lifespan development – i.e. how we change throughout our whole lifetime – then actually most of the research has been on children. For example, all the studies in the OCR specification in developmental psychology, like Samuel and Bryant, focus solely upon children and not on changes throughout adulthood. This means we do not understand enough about different stages of adulthood, about the changes and challenges that adults face as they progress through life and may not be best supported by society, the state and employers.

Another limitation of the developmental approach is that for very clear conclusions to be drawn about how children change over time, the research should be longitudinal. In other words, in the case of Samuel and Bryant, they should start off with a sample of children who are aged 5, and test them every 6 months on the conservation tasks until they are aged 8. This way, it would be possible to know when the changes take place in the children. Otherwise, it could be possible that the differences between the age groups in the design that Samuel and Bryant used might not be to do with age, but some other effect, e.g. a particular class teacher or new educational initiative that some children in one age group experienced and some didn’t. Thus, one limit of a lot of research in the developmental approach is that it doesn’t really look at genuine development – just differences between children of different ages.

Qs (page 80)

Core study: Samuel and Bryant

1 In this study the children were selected in four age groups: about 5, 6, 7 and 8 years. The children were tested with three materials: plasticine (conservation of mass), water (conservation of volume) and counters (conservation of number). This is a snapshot design because we just see each child at a particular snapshot in time in terms of their ability to conserve. The study could have used a longitudinal design instead. One advantage of using a longitudinal design here is that it is a way to control any differences between the children because the same child is being studied as he/she gets older. In a snapshot design the differences between the children in the age groups might not be because of the age (as Samuel and Bryant assumed). It might be because of an extraneous factor which one age group has been exposed to with which the others haven’t. For example, it might be that the older children had had a different teacher, or a different curriculum at school, or were particularly bright and that could explain the differences in the ability to conserve.
Another advantage of using a longitudinal design is that you need fewer participants than in a snapshot design because you would only need one group instead of the four groups that had to be used in this study (63 instead of 252 participants). One disadvantage of using a longitudinal design is that it would take a long time to conduct the study – from when the children were 5 years old until they were 8 years old. Using the snapshot design the study could be conducted during a very short period of time – just as long as it takes to test 252 children.

Another disadvantage of using a longitudinal design is that some of the children would drop out during the course of the study because they moved school or were unwell on the day of the study. It might be that some children actually refused to take part after the first series of tests so that you would be left with a self-selected group of students who might have special characteristics. In order to counteract the dropout rate you would have to start with a larger group which means that there is slightly less of an advantage in terms of having to use fewer participants.

(There would be another major disadvantage, which is that the students would be practising the tasks each year when they took the test and therefore improvements would be due to practice rather than maturation.)

2 A longitudinal design in this study could be done by getting one group of, e.g. 80 children aged between 5 and 5½ years. They could be tested on the conservation tasks (three materials, three different question conditions) once a year for 4 years until they were 8. Then the results could be compared within participant (how they changed). This might make the results of the study show stronger age differences in ability to conserve as it controls for participant variables and so will remove some of the ‘noise’ in the results.

3 One core study that uses a longitudinal design is that of Freud. He studied Little Hans over about a 2.5 year period. One disadvantage of this is that, by their very nature, longitudinal studies take a long time! This means that by the time the research is concluded, the researcher will have invested a really long time and it would be a huge disappointment if the results are inconclusive. This might motivate a researcher to interpret things maybe too strongly.

Study 5: Bandura \textit{et al.} (imitation of aggression)

\textbf{Qs (page 85)}

1 Yes, and these differences might be related to their previous experiences or inherited factors.

2 You need to have something to make a comparison with, to see if children just behaved aggressively after watching any model or whether it was specifically the model’s aggressive behaviour. You also need a control to see if the children might have behaved that way with the toys even without having watched a model.

3 The DV is aggressive behaviour shown towards Bobo and other toys.

4 To demonstrate that the observations were accurate, each rater should produce exactly the same record. The higher the inter-rater agreement, the more the observations were the same and we can rely on them (reliability and validity).

5 Some children might be more aggressive by nature and this would lead them to behave more aggressively, i.e. it would affect the DV.

6 Matched, as the children were matched across the groups for their pre-existing levels of aggression.

7 Making them behave more aggressively, and/or they might be scared of the model’s aggressive behaviour (psychological harm).

8 He might be biased because he had already dealt with the children and knew which ones saw which model, which might lead him to interpret the children’s behaviour in line with his expectations.

9 Tinker toy set, stickers and potato prints – none of which should provide a trigger for aggressiveness.

10 So there were no cues from the previous rooms – this would show that learning transferred from one environment to another.

11 To avoid the possibility that some children’s behaviour could be explained by the Bobo doll being more obvious/closer to them and that’s why they chose to play with it. Position in the room would therefore act as an extraneous variable.

\textbf{Qs (page 87)}

1 So it would be clear that a child was imitating the model’s behaviour rather than just behaving in a generally boisterous fashion.

2 To make sure the child noticed.

3 (1) Children imitate specific acts of aggression beyond the situation where the behaviour was viewed, (2) watching such violence results in a generally higher level of aggressive behaviour, and (3) male models have a stronger influence (on physical aggression) than female models on both boys and girls.
4 Probably, though it is possible that children are less sensitive to such aggressive behaviour because they see it more on TV/videos; therefore they might already have modelled such behaviour and not been directly reinforced so are less likely to try it again. On the other hand, they might have found that aggression was a successful strategy and thus would be ready to repeat it.
5 Because aggression is a masculine-typed behaviour and therefore boys and girls attend (are attentive) more readily to male models.

Evaluating the study by Bandura et al. (page 87)

NB all answers should be contextualised.

The research method

Strengths: It is possible to control extraneous variables, such as making sure that children are matched on aggressiveness so that you can be more certain that it is the IV that caused the aggression shown.

Limitations: Reducing behaviour to a simple set of variables may make it meaningless so we can't really relate the findings to everyday life – aggression has multiple causes. A laboratory experiment is a contived environment and children may not behave as they normally do.

The sample

American culture is more aggressive than some other cultures; the same results might not occur in a society where people were generally less aggressive. The participants were children and are probably more easily influenced than adults so the findings may not be relevant to adolescent or adult behaviour. Middle-class children may be less aggressive so we cannot generalise to all American children – children who are exposed to more violence might react differently. Finally, the children were all children of parents who had jobs in a high status and prestigious university. This might make them more obedient and prone to copying adults rather than other children who might be more encouraged to argue back or ignore adult behaviour. Or it might make them less aggressive overall. Altogether, this very specific sample is bound to have had some impact upon the results and it might be that the findings and support for social learning theory (SLT) should not necessarily be generalised to all people.

Qualitative or quantitative?

Quantitative data were collected, for example number of times a child imitated specific acts of violence.

Strengths: Makes it easier to analyse the data because you can directly compare children in the different conditions (aggressive or nonaggressive mode or control) to see whether the children with the aggressive model did behave differently. Using such data you can draw a bar chart to see at a glance the differences between groups and can also do statistical tests to determine if the difference is significant.

Limitations: Just looking at the different number of times a child behaved in a certain way doesn’t necessarily explain why some children did imitate the model they watched whereas others didn’t. Also grouping quantitative data together means you sometimes mask certain trends, for example there were some occasions where the children with the aggressive model were less aggressive than the children with the nonaggressive model. Looking at the quantitative data as a whole means you sometimes overlook specific trends.

You could interview the children and ask them about their behaviour and whether they thought the model had influenced their behaviour. This would produce qualitative data. Some of the children in the aggressive model condition didn’t behave aggressively so it would be interesting to try to understand why some did and some didn’t.

Nature or nurture?

There is evidence for both views. This study suggests that aggression can be learned and we probably do learn by seeing other people behave aggressively and get what they want, as this then leads us to imitate the same behaviour. There is also evidence in this study that levels of aggression may be innate as the boys were more aggressive than the girls, i.e. there may be more of a predisposition in males. Other studies also suggest aggressiveness is innate, e.g. some evidence that the male hormone testosterone makes people behave more aggressively (though this has recently been challenged).

Ethical issues

It isn’t ethically acceptable to try to teach children to become more aggressive and it’s not acceptable to provoke them. The children may have been alarmed watching the model behave aggressively towards the Bobo doll. The covert observation is probably acceptable because, even though it involved deception, it wouldn’t particularly affect the children.

Ecological validity

People may well not do the same things to a real person that they would to a doll, which means that these findings can’t be generalised to other situations – though Bandura tried the same study using a film where a woman beat a live clown: when the children went into a room with a live clown, they punched, kicked and hit him with hammers just as they had seen in the film. The results of this study may not be very useful in understanding long-term aggression (as the children’s aggression was only measured very soon after exposure to the model), though if a child is continually exposed to such models then it might explain long-term behaviours.

Applications/usefulness

This evidence is very important in trying to explain media effects. It suggests that people may well imitate what they see on TV – both the specific acts and general aggression. The results can be generalised to other forms of behaviour, e.g. modelling helpful behaviour (though research has found that children are less likely to imitate such behaviour for various reasons, e.g. they already are exposed to pro-social norms so seeing such behaviour has less influence).

What next?

You could repeat this study with older children or even adults. I think they wouldn’t be as likely to imitate the behaviour because they have developed their own ideas of what is acceptable behaviour.

Exam-style questions (page 89)

Section A questions

1 a One example of imitative aggression is hitting the Bobo doll with a mallet. One example of non-imitative aggression was slapping the Bobo doll.

b The study looked at both because they wanted to see if watching an aggressive model resulted in imitation of the specific acts of aggression (imitative aggression) and/or use of aggression in general (non-imitative aggression). They needed to observe both in order to find out.

2 Previous levels of aggressiveness: controlled by matching the children in the three experimental conditions according to how their nursery school teachers had rated them. The possibility of some toys cueing aggression more than others: controlled by always arranging the toys in the final room (where the DV was measured) in exactly the same way so that any differences in children’s aggression was not just because the Bobo doll and hammer were closer and more obvious on some occasions than others.
3 a They were taken to another room where there were some attractive toys they could play with. After two minutes the experimenter stopped them, saying she had decided to reserve those toys for other children.

b They wouldn’t have any reason to imitate the aggressive behaviour unless it was appropriate, i.e. they were feeling aggressive.

4 In everyday life, children are unlikely to witness aggression directed towards an inflatable doll. Additionally, it is likely that the aggression children might witness directly in real life (and not on TV) would involve someone they know well, are familiar with, and probably care about. This would probably make any real life act of aggression more scary for a child.

5 a Bandura predicted that observing an aggressive model will lead a participant to copy such aggressive acts, whereas this would not be true of participants who observed a non-aggressive model or no model.

b This was supported by the study. Bandura found that children in the aggressive model condition imitated many of the model’s aggressive behaviours in terms of specific physical and verbal aggressive acts. In contrast, the children in the non-aggressive condition, tended not to display these acts (70% had zero scores for imitative aggression). Therefore, there is very good support for this conclusion.

c One strength of the developmental approach is that it helps us foster good education, parenting and social support for children to help them grow into happy, balanced and confident adults.

Section B questions

a The aims were to find out whether children learn from imitation, and whether learning in one situation will be reproduced in another situation. More specifically, they wanted to see whether children who witness an aggressive model will reproduce those specific acts later on when provoked and/or show a general increase in their aggression.

b The data they collected was mainly through the observation of the child in the third room. Each child was observed for 20 minutes and given a score for their aggressive behaviour (see answer to c) according to three categories. One strength of collecting this kind of data is that it is quantitative and means that it is much easier than qualitative data to compare the behaviour of the children in the different groups. For example, it was easy to see that children in the aggressive model group had much higher mean scores for imitative aggression.

c The room the children were observed in contained a variety of toys – some which were aggressive such as a mallet and a 3-foot Bobo doll – and some non-aggressive such as a tinker toy set, etc. The child was observed through a one-way mirror by the male model and sometimes one other person. In their observation schedule they had to record what the child was doing every 5 seconds for 20 minutes (giving 240 observations per child). The behaviour was recorded in three main categories – (i) imitative aggression (e.g. imitating specific acts the model had made such as hitting Bobo with a mallet), (ii) partially imitative responses (e.g. using the mallet on other toys) and (iii) non-imitative aggressive responses being aggressive in a way which did not directly imitate the model, e.g. slapping Bobo or saying aggressive things which the model had not said. These observations were counted so that each child had a score for each of the three categories.

b They needed to be matched in order to control for this variable and make sure that prior levels of aggression did not act as a confounding variable such as if, by ‘accident’ all the more naturally aggressive children were allocated to the passive model condition, the results would have been altered and be less valid.

d One way of assessing the reliability would be to look at the inter-rater reliability. For a sample of the observations, two observers actually recorded the behaviour. It would be possible to compare the two observers’ scores for each child observed by doing a correlation and plotting a scattergraph with one variable being Observer A’s scores plotted against Observer B’s scores. If the result is reliable, there should be a high positive correlation (i.e. the scores should match and be consistent). If the scores show a weak correlation, this shows that different observers were giving different scores for aggression for the same children and that they were being inconsistent in how they score the child. This would mean the data was not reliable.

e Bandura concluded that people will produce new behaviours that they have observed and generalise these behaviours to new situations. This is one way in which we learn new behaviours, through observation and modelling as well as vicarious reinforcement – as explained by social learning theory.

Bandura also concluded that people are more likely to imitate a model similar to themselves. In particular, boys are more likely to imitate an aggressive male model because aggressiveness is stereotypically a more male behaviour and the children expressed some surprise that a lady might show such aggression. They also found that the children who had seen an aggressive model were more likely to show generally higher levels of non-imitative aggression.

f One change to Bandura would be to show them videos of a model hitting a Bobo doll. The whole procedure could be identical except for this fact. This would be an interesting change because a lot of aggression children see is on the TV and it would be useful to see if kids imitate behaviour seen on TV as well as behaviour in real life. I think this would show similar results overall in terms of imitating specific acts and would also show an increase in general aggression. However, I do not think the differences would be so great between the two groups. This is because the impact of seeing someone do something on screen is less than seeing someone do the same thing in real life.

Another change could be to have older children as the sample. Again, the procedure could be basically the same as the original study, except the children could be aged 5–8 (i.e. lower primary school age, rather than pre-school). The toys and props could probably remain more or less the same, though it might be a good idea to introduce one or two older toys. I think the results would be different in that there would be less imitation. The children would be less likely to copy the models because they are more capable of thinking logically and might ask themselves ‘Do I want to hit the Bobo doll?’ and their characters at this age are already much more formed and less prone to being influenced. Therefore, I think the difference between the two groups will decrease, though there will still be some imitation of aggression.

Section C questions

a One strength of the developmental approach is that it helps to explain how influences upon us in childhood can affect who we become as adults. This is useful as it can help us foster good education, parenting and social support for children to help them grow into happy, balanced and confident adults.

b The developmental approach would explain aggression in terms of influences upon us as we grow up. According to social learning theory (SLT) a lot of our behaviour is learnt from observing other people. Therefore, if children see people behaving in an aggressive fashion, they are more likely to produce that behaviour themselves. Thus, a great influencing factor upon us is how other people behave around us as children.

c One weakness in Bandura’s study is it has low ecological validity. The study took place in highly controlled conditions which must have seemed strange and artificial to the children. Also, the way in which the model behaved towards the Bobo doll would have seemed strange and unnatural.
Another strength of the developmental approach is that it is possible to see how factors influence children and how it might affect them in growing up and possibly later in life. For example, in Bandura, we can see that role models are a really important influence on children and their behaviour.

Another strength of the developmental approach is that it is really useful. Developmental psychology suggests lots of applications that can help society. For example, from Bandura we know of the importance of role models and so society should take some care in the types of role behaviour children are exposed to. This means that TV programmes that involve antisocial behaviour should not be on before 9pm so that children do not imitate negative behaviours. Also, parents need to be mindful of what roles they are setting for their children. Therefore, the developmental approach is particularly useful.

One weakness of the developmental approach is that for the research to be genuinely developmental (looking at how humans develop) it should use a longitudinal design – but much developmental research just uses a snapshot design. For example, in Bandura, one weakness is that we only know how the children behaved minutes after the exposure to the model. We do not know if role models have a longer term influence of the children’s behaviour or not. Ideally, they should be followed up days, weeks and possibly months later to see how long the effect of a role model might last. This means that the results are not as useful as they might at first appear.

Another weakness of the developmental approach is that, inevitably, it uses children as participants and this means that ethical issues are often raised. This is because children are much more sensitive and susceptible to harm precisely because they are so young. In Bandura, ethical issues are raised because the children were exposed to aggression which may have been frightening (i.e. caused some harm) as well as the children becoming more aggressive themselves. Although the aggression was relatively mild, it might have appeared to endorse violence. This is ethically questionable.

Study 6: Freud (Little Hans)

Qs (page 91)

1. There are no definite answers! However, this question should prompt you to think hard about the nature–nurture debate.

2. The Dement and Kleitman study shows us that dreaming and REM co-occur or go together, as well as describing the typical pattern of a night’s sleep in terms of different stages of sleep. The fact that the majority of people seem to go through these stages of sleep in the same order (and that we all do sleep!) suggests that sleep is actually basically an innate behaviour that is hardwired into all humans and that we inherit. It is no doubt written into our genetic code.

3. The most obvious study for nurture is Bandura. As a behaviourist, he would support the nurture side of the debate and suggest that most or all behaviour is learnt from the environment and what we are exposed to. In the case of Bandura’s study, one of the main ways in which we learn behaviour is through observation and imitation of role models. His study supports the idea of social learning theory (SLT) for learning aggressive behaviour.

4. One strength of conducting research on the nature–nurture debate is that we can understand where behaviour comes from. For example, with Bandura it tells us that aggression can be learnt and is not just innate. This can help parents understand why a child becomes aggressive and try to remedy it by reducing the amount of aggression they experience on TV or via their peers etc.

Another strength of conducting research on the nature–nurture debate is that it can help us prevent or treat behaviours appropriately and effectively if we find out whether the cause is nature or nurture. For example, with Bandura, it might be that a lot of aggression could be prevented if children were not exposed to violent role models; or if someone already has a problem with aggression it could be reduced by exposure to positive role models who can model how to deal with situations in a non-aggressive model. Equally, with Dement and Kleitman, knowing that sleep stages are biological, it would be inappropriate to use only nurture-based techniques on someone who is experiencing a sleep disorder. Probably they would need some sort of physical or chemical treatment.

Qs (page 95)

1. Sister: Wished her gone so he could have mother to himself. Mother: Felt sexual desire towards her but her rejections made him anxious, also created castration anxiety because she threatened to have his penis cut off because of his feelings. Father: Mixture of love and hate – jealous of father’s relationship with mother and wished him gone, but also loved him.

2. ‘And you used to think to yourself you were the Daddy?’ is a leading question because it suggests what the answer should be.

3. (1) Because his mother threatened to have his penis cut off, and (2) because his father said women don’t have widdlers, which, Hans reasoned, means they must have been cut off.
4 Because he wished his sister would drown in the bath and that his mother would let her go. This became translated into a fear that his mother might equally let Hans go.

5 (1) Because he heard a father tell his daughter that horses bite if you touch them and this was associated with the anxiety that his mother would leave if he asked her to touch his penis, and (2) because he saw a horse pulling a cart drop down dead (also because horses represented his father, and laden carts represented pregnancy).

6 Because the cart represented a pregnant woman, and Hans didn’t understand where babies come from, which was one of his anxieties, and this anxiety was projected onto the cart because it seemed related to where babies come from.

7 Freud suggested that the black around the horses’ mouths and the blinkers in front of their eyes had a hidden meaning, they might be symbols of his father’s moustache and glasses – the symbols of manhood.

8 Anxieties are repressed into your unconscious and repressed thoughts seek expression elsewhere, e.g. through dreams or phobias.

Qs (page 96)

1 They were a means of expressing his anxieties.

2 They wanted to show that Freud’s theory was correct. Therefore Freud was likely to interpret Hans’ behaviour in terms of what he hoped/expected to be true about unconscious behaviours. Hans’ father also would be influenced by his beliefs in Freud’s theory and therefore more likely to interpret Hans’ behaviour in a particular and biased way. Furthermore, Hans’ father also was close to Hans and therefore might be biased in trying to present him in a good light and to present himself in a good light. Therefore he might have ignored some evidence.

3 One method was interviews. Freud himself interviewed Hans and collected self-report data and Hans’ father collected data from Hans by asking him questions (informal interviews). Another method was observation. Hans’ father observed Hans’ behaviour, for example playing with dolls or being afraid of horses.

4 Therapists may unwittingly or unwittingly suggest why the person in therapy has behaved in a certain way. Freud believed that a child would not be influenced by such suggestions but continue to act and behave in the same way as before with the same motivations as before. Therefore, any suggestions would not ‘contaminate’ their behaviour according to Freud.

5 (1) Freud responded that even if a response is triggered by suggestion, it is not arbitrary. In any case Hans did sometimes disagree with his father’s suggestions. (2) There were benefits to the study of the close relationship, as more intimate details would be revealed.

6 (1) Freud concluded that Little Hans provided support for his ideas about infant sexuality, i.e. psychosexual development. (2) He concluded that conflicts in childhood are a normal feature, especially during the phase of the Oedipus complex. (3) Phobias are just a relatively normal manifestation of anxieties and conflicts. In Hans’ case they were a manifestation of his anxieties surrounding his desire for his mother and fear of his father. (4) All children might benefit from ‘casual’ psychoanalysis to free them of their repressed wishes which might otherwise create anxieties.

7 Freud believed that this study supported his theory of childhood sexuality because it showed how, during the phallic stage of development, a little boy desires his mother and therefore wants his father out of the way (as evidenced by Hans’ dreams). Freud called this the Oedipus complex. Hans wanted his father to go away. However, this caused fear in case his father might castrate him.

8 Dynamic means, among other things, of or pertaining to force or power. The forces which we see at work in this study are Hans’ unconscious forces – his desire for his mother and to be close to her, which we can see through his fantasy of being married to her, of wanting her to touch his widdler and so on. According to Freud, because of this unconscious force, many other things happen – his fear of his father, fear of carts, horses and bath water.

9 This is one for you to think about! Personally, I think he would have grown out of his phobias, come to terms with the existence of his little sister quite happily without Freud’s ‘interventions’ – but what do you think and why?

Evaluating the study by Freud (page 97)

The research method

Strengths: It enables an in-depth study, drawing on lots of information (e.g. his father’s recollections of past events, interviews with Hans, reports of his dreams) and relates to an unusual case (though Freud claimed it wasn’t that unusual). Case studies also enable us to study unusual behaviours such as phobias (you would have to study a lot of boys to find the ‘right’ cases).

Limitations: The ‘uniqueness’ of the case casts doubt on how much it relates to ‘normal’ development. The fact that the interviewer gets to know his participant means that they are likely to become biased.

The research technique

Naturalistic observation

Strengths: You can observe people in their normal environment just going about things naturally, and as this technique requires no interference, there is nothing to cause them to behave differently to normal.

Limitations: If the person knows they are being observed they may alter their behaviour. Hans did know he was being observed but since he was being watched all of the time he might have just got on with it (as they do in the Big Brother house) – or he might have acted up to it a bit and exaggerated his phobias etc.

Father’s interviews

Strengths: You can find out what people are thinking, which you can’t do if you just observe their behaviour. For example, Hans talked about his dreams, anxieties etc. which could not be found out about just using observational techniques.

Limitations: People often don’t tell the truth; they shape their answers to provide the answers required or answers that put them in a good light. They may also be affected by leading questions, as may well have been the case with Hans who may have said what he thought his father wanted to hear.

The sample

Hans was a middle-European boy from an intelligent middle-class family and from a specific period of time (circa 1900). Characteristics such as how children are brought up vary enormously. Middle-class families and individualist cultures expect their children to be independent by a young age. The 1900s was a much stricter time and sexual issues were probably less talked about, though Hans’ father seemed quite relaxed about sexual issues in some respects (however he did not want to let on to Hans where his little sister came from!). Still, all of this means that Hans was a product of a particular time and place and it suggests that the results and conclusions are probably historically and culturally specific and unlikely to be generalisable to different historical periods or different cultures.

Ethical issues

Informed consent was obviously given by the parent but Hans may not have wished his past made so public, especially when his identity must have been quite recognisable at the time. So privacy is another issue. The fact that he recalled nothing later suggests that no psychological harm was done by his notoriety. Freud might have asked for his consent to publish the case.
Chapter 3 Developmental psychology

Qualitative or quantitative?

Qualitative data
Strengths: Provides a mass of information about the factors that affected Hans’ development, gives insight into thought processes.
Limitations: Difficult to analyse everything and so one person may come up with a different interpretation to that of Freud and Hans’ father.

Validity
If Hans’ father influenced the information provided then we can’t really rely on this evidence – it becomes meaningless and lacks validity. So the actual data collected may be useless. Furthermore, the interpretations offered may lack validity because Hans’ father and Freud might have shaped these to fit their expectations.

Applications/usefulness
This study was valuable as evidence for Freud’s theory and his explanation of phobias, which can be applied to understanding other phobias and mental disorders that have their origins in early childhood. Freud suggests that such insights could be used in helping other children deal with the anxieties that are common in childhood.

What next?
It would be good to have several case studies of boys of this age to compare similarities and differences. It may be found that some of the conclusions were true because they happen in several cases. This would make the data more valid.

Exam-style questions (page 99)

Section A questions
1 (1) The black round the horse’s mouth might symbolise his father’s moustache, and (2) the horse falling down represented his wish that his father would fall down and this is what Hans said to Freud when they met (although the questions were rather leading).
2 One dream was about two giraffes – Hans dreamt of a big giraffe and a crumpled one. The big giraffe cried out because Hans took the crumpled one away and then he sat on the crumpled one. Another dream/fantasy involved a plumber who came and took away his ‘behind’ with a pair of pincers and replaced it with a larger one and did the same with his ‘widdler’.
3 a The Oedipus complex refers to a boy’s wish to become his mother’s sexual partner/husband and get rid of his father in order to do so. This wish makes him feel anxious and guilty and fearful that his father may find out. It is resolved when the boy comes to identify with his father.
b Hans wanted his mother to touch his widdler.
4 a One feature of the phallic stage is an increased interest in genitals. Hans showed this by wanting his mother to touch his genitals and also showed this in all his dreams about his widdler. Another feature of the phallic stage is the Oedipus complex. It is said that Hans showed this by wanting to be close to his mother and his dream about the crumpled giraffe.
b One weakness is the way in which the data were collected. Hans’ father, who interviewed Hans and collected most of the information, was a friend of Freud’s and wanted to interpret everything in terms of Freudian theory. This means that it is likely that he was biased in what information he collected in the first place and secondly biased in how he interpreted that information. For example, we do not know that the giraffe fantasy really did represent Hans sitting on his mothers genitals! This was just his father’s interpretation.
5 a Freud said that the phobia of horses was a conscious expression of repressed anxieties. His fear of horses biting him represented a fear of his father castrating him – which itself originated in the guilt of having sexual feelings for his mother. The link with biting horses was also created when Hans heard someone else say to their daughter that a horse may bite you if you touch it – Hans linked this to when he asked his mother to touch his widdler. Further, the horse represented his father in other ways – when a horse fell down in real life, it represented Hans’ secret wish for his father to fall down and die (so that he could have his mother to himself).
b Another explanation is that when Hans saw a horse fall down it was just actually quite scary to a small boy. Thus the phobia could be explained through classical conditioning – an association between a horse and feeling scared.
6 a Hans thought of his dad (so the theory goes) when the horse fell down because he had a secret death wish for his father and he wanted his father to fall down too. This was a product of his Oedipus complex – he was in love with his mother and wanted his father written out of the picture so that he could have his mother to himself.
b It is a leading question. The question suggests what answer is expected. Because of this, Hans may well have believed he had to say ‘yes’ even if that is not really what he thought.

Section B questions
a The aim of this study was to investigate Freud’s theory of infantile sexuality and the Oedipus complex using the case study of a boy (rather than an adult patient). Another aim arose during the course of this study – Hans developed a phobia of horses and so this gave Freud an opportunity to describe the origin of a phobia in terms of his theory.
b Data in this study was collected in three ways. First of all Hans’ father observed Hans and wrote notes upon his behaviour and later recorded them in letters which he sent to Freud. Secondly, the father also questioned/interviewed Hans to find out information on why he had done certain things, or asked him about his dreams and fantasies etc. Again, these were recorded in letters to Freud. Finally, Freud himself met Hans on one occasion when Hans was about 5 years old and interviewed him and talked to him about his phobia of horses.
c One advantage of this method is that rich and detailed data has been collected. Freud’s original article describing Hans runs to about 140 pages and so gives a very in depth account. This means we can get a very full understanding of Hans and the events and issues surrounding his early life, his family relationships and the formation of his phobia.
One disadvantage of this method is that there is a lack of objectivity. Hans’ father was a friend and follower of Freud which meant that he did not see Hans’ behaviour objectively or impartially – he was looking to interpret it in terms of Freudian theory. This means that he was probably quite selective in terms of what he reported to Freud – i.e. chose to write about the things that Hans said and did which matched Freud’s theory, and ignored behaviour which did not fit it. Also, it means that Hans’ father (and later Freud) interpreted the events in order to match that theory – they are not simply recorded as facts. This means that the study is low in validity.
d One ethical issue is that of consent (although there were no such things as ethical guidelines at the time of this study in 1909). Hans himself did not consent to this study. By modern guidelines, this in itself is officially not a problem as the father certainly would have consented upon his behalf. However, there is still an issue that Hans himself did not consent to have all the inner details of his childhood, desires for his mother, death wish for his father scrutinised and then published around the world for all to see.
Another ethical issue is harm. Hans’ father and Freud often used leading questions and may well have planted quite strange, confusing and frightening thoughts into the little boy’s mind which had not existed before. For example, the father ‘asks’ once ‘You thought then that if only Daddy were to die you’d be daddy?’ Hans replies ‘yes’. But it is more than possible that Hans had never had such a thought until his father suggests it. This must have been highly confusing and even quite frightening. During the course of the study it was suggested to him that he wanted to sleep with his mother, get rid of his father and drown his little sister. Some might see planting these confusing ideas as a form of child abuse. In Freud’s defence, however, it is reported that when Hans was 19 he met Freud, appeared to be completely normal and had no memory of the events recorded in the case study.

e  Freud concluded that the case study of Little Hans provided support for his ideas about infant sexuality, and the psychosexual stages of development. He concluded that conflicts in childhood are a normal feature, especially during the phase of the Oedipus complex. The phobia was just a manifestation of his anxieties and conflicts surrounding his desire for his mother and fear of his father. When Hans was able to see this was the case (through a conversation with Freud) his phobia of horses diminished.

f  One change to the study would have been for someone impartial to interview and observe Hans. This means that all of Hans’ behaviour (or at least a much greater range) and Hans’ reports of dreams, fantasies and fears could have been recorded and not just those behaviours which matched Freud’s theory. Then, Freud would have had much more information to base his ‘diagnosis’ of Hans upon. It may be, with a wealth of more information and seeing the bigger picture, there might have been less evidence in Hans for the Oedipus complex, and that overall Hans’ behaviour may have seemed very well adjusted.

Another change which could be made to the study would be to examine a number of young children with phobias instead of just one. In the study as it is, Freud links the genesis of Hans’ phobia to his being in the phallic stage of development. Freud could do case studies on e.g. 10 children with a range of phobias, including phobias of specific animals. He could interview the children and their family to discover the events preceding the onset of the phobia. It is difficult to say what the findings would be, but possibly Freud may find little evidence among a larger number of children for subconscious explanations of phobias (i.e. arising out of repressed fears and anxieties) and find only more ordinary explanations such as bad experiences that conditioned the children into the phobic response.

Section C questions

a  One assumption of the psychodynamic approach in psychology is that humans have a ‘tripartite division of personality’. This means that there are three parts of the personality: the id – the pleasure principle; the superego – responsible for behaving ethically and appropriately; the ego – which controls the desires of the id and the requirements of the superego.

b  The psychodynamic approach would explain the development of phobias in terms of subconscious conflicts, fears and anxieties; as a way of manifesting these deep and painful conflicts in a person’s outer world. For example, it might be that a person hates or fears their mother, which would cause conflict at a subconscious level through deep seated guilt due to this hatred or hatred, and repression of outward feelings of hatred. Therefore, the person would need to project this hatred onto a more acceptable target. Thus, phobias are caused by complex subconscious conflicts, according to the psychodynamic approach.

c  One similarity with Thigpen and Cleckley is that both studies used a case study method. Freud’s case study was on a 5-year-old boy with apparently some abnormality. Thigpen and Cleckley conducted a case study on Eve White, a young woman with some abnormality. Both studies have rich, in-depth accounts of a person’s behaviour based both on self-report and observations.

One difference between Freud and Thigpen and Cleckley is the expertise of the people who collected the data. Thigpen and Cleckley were both qualified psychiatrists who, it can be presumed, had some experience of observing and interacting and treating people. They would have had some training in collecting data in a way which would be valid and impartial. In contrast, the majority of the information reported in Hans’ case study came from Hans’ father, who was not a psychiatrist by training or with any experience – in fact he was a musicologist! He was a friend of Freud’s and admired the theory. Therefore, it is possible that the ways in which he observed Hans, interviewed him and recorded the data lacked expertise. He might have been overzealous in finding evidence to support his friend’s theories. This may explain why he asked particularly leading questions.

d  One strength of the psychodynamic approach is that it opens up all sorts of interesting explanations for behaviour which are rich and varied. For example, in Freud, Hans’ phobia of laden carts was explained by his inability to accept his new little sister and the laden carts represented a pregnant woman. He was scared that carts might fall over because this represented giving birth and this was a painful thought to Hans because he had a repressed detestation and jealousy of his sister because she had taken some of his mother’s attention away from him. This is an interesting explanation of a phobia and has a certain amount of internal logic to it. Another strength of the psychodynamic approach is its focus upon the function and role of dreams. To Freud, dreams were not just random collections of images, but a way for the subconscious to express its feelings. However, the meaning is still disguised (otherwise, Freud said, we might find them very shocking) and so the dreams needs interpreting. An example of some dream analysis is in the Little Hans study. One dream Hans reported was of two giraffes. One was big and the other crumpled. The big one called out because Hans took the crumpled one away. The big one stopped calling out and then Hans sat on the crumpled one. (Freud (or Hans’ father) interpreted this dream as Hans having a deep-seated subconscious desire for his mother. Sitting on the crumpled giraffe represented sitting on his mother’s genitals. The big giraffe represented Hans’ father. One weakness of the psychodynamic approach is that it is highly sexist. Freud apparently believed that ‘anatomy is destiny’ and that a person’s course of development and personality traits are determined by whether you have a penis or not. For Freud, having a penis was definitely better! Because of their penis, boys experience the Oedipus complex and come out the other end identifying with their father and a wonderfully developed superego. For example, Little Hans eventually resolves his conflicts, and identifies with his father. Girls, meanwhile do not go through this; girls experience penis envy and this is only partially resolved through identification with their mother. As a result, girls develop a weaker superego and are less morally developed. This sexism in a theory is unacceptable, certainly by modern standards. Another weakness of the psychodynamic approach is that it is wholly unscientific and based purely on speculation and seeing what you want to see. One cannot directly observe the subconscious, the id etc. They are totally unverifiable.

However, it is possible to interpret almost anything in terms of Freudian theory if that is what you want to do, but it does not mean it has any validity or scientific basis. It is more difficult to test hypotheses in controlled, experimental
situations and most psychodynamic ‘research’ takes the form of case studies where the therapist overlays every action with a heavy interpretation of Freudian theory. For example, in Little Hans, even where Hans apparently agreed with interpretations of his fear of baths, horses and carts, the questions were always leading questions. Therefore, this doesn’t provide genuine evidence that Hans’ phobias were a result of these dark subconscious conflicts. This is just one interpretation.

Qs (page 101)

1 In Bandura, it is possible to explain the aggression (at least partly) by using ideas from the psychodynamic model. In the second room (the aggression arousal stage), the children were shown particularly lovely and special toys and were allowed to play with them. However, after just a very short time – about 2 minutes – an adult came along and told the child that they had to stop playing with these toys as they were ‘for other children’. This may have provoked the children in a Freudian way. The children would have felt frustrated with the researcher because they could not continue their play with these special toys. However, they could not take out their frustration on the researcher as this would not be socially acceptable. Therefore, they would need a more socially acceptable target on which to displace these uncomfortably emotions – i.e. a Bobo doll. Thus, a Freudian explanation would be of ‘displacement’ – taking it out on the Bobo doll instead of the researcher. (The reason why the children were more likely to do this in the aggressive model condition is because having seen someone else do it makes it seem socially acceptable.)

2 The psychodynamic approach broadly says that there are emotions deep down (to some degree, these forces are innate) which children cannot control, and every now and again these will erupt in a fit of temper or bad behaviour. The behaviourist approach says that children learn through observation or reinforcement. Children are blank slates to begin with. Certainly, on the side of the behaviourists, if children are reinforced for bad behaviour through increased attention, this will increase the probability that the bad behaviour will be repeated. However, it does not necessarily explain where the behaviour comes from in the first place. Think about a toddler having a tantrum in a supermarket. They are crying, shouting, stamping their feet, refusing to move. It is unlikely that they have seen an adult behave in this way! (So it cannot be explained by SLT.) ‘The terrible twos’ affects a majority of children so perhaps it is something which comes from within, part of a developmental stage, and may be explained by some Freudian ideas.

3 and 4 These are two questions for you to think about.