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Reproductive cloning: science and science fiction



Box 8.2 Activity: Group discussion

On 24 February 1997 *The Sun* (England's largest circulation tabloid newspaper – daily circulation of approximately 3 250 000) reported on Dolly's birth as follows:

SCIENTISTS have 'bred' the world's first cloned adult animal – sparking fears a woman could give birth to her father's twin.

Other horror scenarios include a dictator replacing himself, and showbiz moguls cloning dead stars. The team who made the breakthrough by cloning a sheep at Edinburgh's Roslin Institute say the idea it could be used on humans is 'repugnant'.

But expert Dr Patrick Dixon said one woman already wanted to bring back her dead father as her own baby.

The Roslin experts took a cell from a sheep called Dolly, used it to replace genetic material in another ewe's egg, then planted it in the womb of a third. The resulting lamb was Dolly's exact double.

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Discuss *The Sun's* report of Dolly's birth. You might like to use the following questions as prompts for discussion:

1. Do you think this report is biased?
2. Has *The Sun* got the scientific facts wrong?
3. Are the 'horror scenarios' described in the report far-fetched?
4. If the horror scenarios *could* come about, however far-fetched, isn't *The Sun* right to draw readers' attention to them?
5. If you were a *Sun* reporter, would you have written this piece differently? If not, why not? If so, how would you have written it?

(Note: *The Sun* has got the facts wrong. Dolly was the product of cloning, not the sheep from whom the donor cell was taken.)



Box 8.3 Activity: Analysing and evaluating arguments

Can you set out Meilaender's argument logic-book style, then evaluate it in accordance with the usual procedure?

Answer:

Premise one: Human clones will not have free will.

Premise two: It is wrong to bring into the world human beings who lack free will.

Conclusion: Human cloning is wrong.

Variations on this theme are fine so long as they accurately represent this argument. The argument should be evaluated in the usual way (Does the conclusion follow from the premises? Are the premises true?).



Box 8.6 Activity: Identifying and evaluating arguments

We have examined two arguments for the claim that clones will lack autonomy. Neither is convincing. But science fiction stories are often predicated on the idea that clones lack free will. Might we be missing something?

Participants should choose a science fiction book or film dealing with the issue of cloning (a couple are mentioned in the further reading section at the end of the chapter). As they read or watch it they should try to identify any argument given for *why* clones would lack free will.

These arguments should then be brought to the whole group and evaluated in the usual way. Participants might then discuss the impact of science fiction on public opinion about cloning.

This activity could also be used to stimulate discussions of other biotechnological advances where the media has greatly influenced public perception or where the 'yuk' factor (see Chapter 6 under 'it's disgusting') might arise, for example:

- GM crops (see Chapter 19)
- creating new life forms (see Chapter 16)
- xenotransplantation (see Chapter 19).



Box 8.7 Activity: Identifying arguments

Can you analyse Meilaender's argument and set it out logic-book style?

Answer: Here is one analysis of the argument:

Premise one: It is a necessary condition of human dignity that a human being be the result of an act of love between husband and wife.

Premise two: A clone is not the result of an act of love between husband and wife.

Conclusion: The human clone lacks human dignity.

If you have something other than this you are not necessarily wrong. You should check that your conclusion really is a way of expressing the claim that Meilaender is making, and that your premises really are the reasons that he offers for his claim.



Box 8.8 Activity: Revision

In talking of children being 'ends in themselves' Meilaender is tacitly appealing to one of the three ethical theories we considered in Chapter 4. Can you say which one?

Do you think that all those embracing this theory would have to agree with Meilaender's view?

Answer: The theory appealed to is deontology, specifically Kant's version of deontology. If cloning *does* essentially involve treating the clone as a means to the ends of others then Kantian deontologists would have to agree with Meilaender's view that human reproductive cloning is wrong.



Box 8.9 Activity: Small group discussion

Here are some situations in which people might want to clone a child:

1. Rob is infertile. He and Tina want to clone Rob and implant the clone into Tina's womb. Because of the contribution of Tina's mitochondrial DNA, the resulting child will be genetically related to both of them.
2. Elizabeth and David were informed after the birth of Sarah they would be unable to have more children. Sarah died in an accident aged two. Elizabeth and David want to clone Sarah. They have had extensive counselling to make sure they are not attempting to replace Sarah.
3. The gametes of both Phil and Marti are unusable. The couple would like to clone the genome of Marti's beloved great grandmother, who lived to an old age, free from disease and sharp as a pin.

Participants should be divided into small groups and given 20 minutes to discuss the questions below before giving feedback to the group as a whole:

Would a clone produced by these couples be nothing more than a means to their ends?

If so does this mean such couples should be barred from using the technology of cloning to produce a child?

If not, is there any other reason to stop these couples from cloning (assuming the technology is now safe)?



Box 8.10 Activity: Revision

The argument just discussed might be based on a confusion between a truth about *the beliefs someone has* with a truth about *the truth of the beliefs someone has*. We discussed this distinction in Chapter 6 (pages 86–87). Can you remember what this distinction is?

Answer: It's the distinction between first and second order beliefs. Consider the fact that there is a distinction between:

- (i) Mary believes that those whose parents weren't married lack dignity.
- (ii) Those whose parents weren't married lack dignity.

Claim (i) is a claim about Mary's belief about whether others have dignity.

Claim (ii) is a claim about whether others have dignity, about the *truth* of Mary's belief.



Box 8.12 Activity: Identifying arguments

O'Neill's argument is an inductive argument. Can you identify it and set it out logic-book style.

Answer:

Premise one: Children with confused and ambiguous relationships do not flourish.

Premise two: Clones will have confused and ambiguous family relationships.

Conclusion: Clones will not flourish.

We have seen that premise two is true. If we are to question the conclusion, therefore, we must question the strength of the induction itself, or premise one, the claim from which the conclusion is inductively inferred (see Chapter 5, pages 62–64).



Box 8.13 Activity: Creative writing

In your imagination put yourself into the position of a person whose family relationships, during childhood, were confused and ambiguous for some reason.

Explain why this was the case and how it affected, and affects, you.

In particular you might say or imply whether you believe that the adults responsible for putting you in that situation (if any) were morally irresponsible to act as they acted.



Box 8.14 Activity: Playing devil's advocate

It is morally irresponsible to bring into the world a child whose family relationships will be confused and ambiguous.

Participants should be divided into two groups, one arguing for this claim the other against. If participants find themselves in a group other than that towards which they tend they should treat it as good practice in applying the principle of charity and playing devil's advocate to themselves.

**Box 8.15 Activity: brainstorm**

It is not good to be morally irresponsible. Therefore being morally irresponsible should be against the law.

Participants should be asked to brainstorm reactions to this claim.

**Box 8.16 Activity: Debate**

This house believes that reproductive cloning, when safe, will be morally acceptable.

Participants might choose their sides freely or be allocated a side on which to argue.