CPD 4 Ethical debate

Preparatory tasks

Frequently asked questions

Read these 'Frequently asked questions' about ethical debate in advance of the group session.

Introduction

SNAB is unusual among Advanced Level biology courses in that students are expected to be able to reason ethically. We acknowledge that this places fresh demands on teachers. Here are some 'Frequently asked questions' that we hope will prove valuable.

1 What do I do if I don't know any ethics?

Answer: First of all, we all know quite a bit of ethics. Ethics is simply about being able to give reasons for what you think is morally right and what you think is morally wrong. If you stick to the four frameworks introduced in SNAB, you and your students can't go wrong.

2 What happens if my students won't engage in discussion?

Answer: If your students don't engage in discussion, don't initially require them to. You can, after all, get them to take part in a question-and-answer session with you (rather than discussing amongst themselves), or you can even get them to work in silence (though this would be a pity). Ethical analysis is facilitated by discussion but does not require it. If you aren't used to having lengthy discussions in your class it is probably best to start off with a few very short discussions and then gradually build up if these go well. Write a clear question on the board that you have prepared in advance. Tell your students to think about it on their own for two minutes and make a few written notes. Then tell them to discuss it with their neighbour for three minutes and write a common response. Get pairs of students to read out their responses and try asking the rest of the class what they think.

3 Isn't ethics all about expressing your own opinion? What am I supposed to teach them?

Answer: Teaching ethics *is* different from teaching most of biology. For example, we can't prove whether abortion is right or wrong in the way that we can prove whether blood pressures differ in arteries and veins. But this doesn't mean that students can simply express their own opinions and expect to gain maximum credit. What they must be able to do is give reasons for their views *and* understand the views of others. For example, someone opposed to abortion under all circumstances would need to be able to provide reasons for this. They might argue that it is wrong to kill people and maintain that a zygote is a person from the moment of conception. However, such a person should also understand that an opposing argument is that a pregnant woman has a *right* to choose whether to carry a fetus to term.

4 What do I do if some of the students get upset?

Answer: Sometimes getting upset is a positive sign of student engagement. For example, there is nothing wrong with students having heated disagreements about whether GM crops should be permitted. However, it is worth bearing in mind that much ethical discussion can be about sensitive issues. For example, if you are about to launch into a discussion about whether or not gene therapy for cystic fibrosis should be encouraged, keep in mind that your students may know someone with cystic fibrosis. This isn't necessarily a reason to avoid discussing the issue but it does mean that the issue is a 'real' one, and should be handled with empathy and understanding.

5 What do I do if my students don't seem to get any better at their ethical reasoning?

Answer: We want to encourage students to develop their thinking throughout the course in all areas of biology. If their ethical thinking doesn't seem to be getting any better, try probing more. The classic Socratic method (named after the Ancient Greek philosopher Socrates) is to keep on getting people to try to provide reasons for their views. For example, suppose you have a student who is against GM crops on the grounds that they are 'unnatural', try getting them to explain what is so bad about being unnatural (are laptops natural?). If you have a student who believes that it's wrong to experiment on animals, get them to clarify if this is because the animals suffer or because they can't give their consent (two logically quite distinct possibilities). Then get the student to think about whether they feel that medical experiments should never be carried out on babies (in which case, we can only guess at the effects of drugs by extrapolating from the drugs' effects on older patients).

Optional background reading

The article, 'How we reach ethical conclusions' by Michael Reiss, is provided with this module for optional background reading.

Activity 1 Ethical issues related to genetic screening: identifying the issues

Purpose

- Introduction to an ethical debate on a particular topic may start with identifying the ethical issues around the topic. This activity allows the ethical issues associated with four areas of practice to be identified.

Task

What are the issues related to genetic screening?

Choose *one* of the four areas of practice for genetic screening described below, and identify *one* or *two* related ethical issues. Share your ideas with other groups who may have chosen a different area of practice

1 Pre-conception screening of parents

Couples considering becoming parents can be screened to identify a potential reproductive genetic risk. For example, this type of screening can identify carriers of genetic diseases such as cystic fibrosis.

2 Pre-implantation screening

In an IVF-like procedure, around 6–10 embryos are created and tested. Embryos containing a gene for the disorder being screened for are discarded. Only two (or sometimes three) healthy embryos are implanted.

3 Pre-natal screening

Cells of the fetus are screened for a particular genetic disorder. Chorionic villus sampling can be carried out between 8 and 12 weeks of pregnancy, and amniocentesis can be carried out at around 15–17 weeks.

4 Screening of adults

Adult screening can detect existing or late-onset diseases such as Huntington's or Alzheimer's. Screening can test for susceptibility to certain cancers with a genetic basis, and polygenic diseases. It can identify carriers of recessive disorders.

Activity 2 Using ethical frameworks

Purpose

- Teaching about ethical frameworks and how to construct a valid ethical argument is an alternative approach to coaching students to produce a discrete set of ethical arguments around a particular topic in an examination course.

Task

Read the following statement about the ethics of pre-natal genetic screening.

> *Pre-natal genetic screening not only carries risk of miscarriage, it also leads to the possibility of abortion where the test result is positive. Most people would not consider getting rid of a child or adult with a genetic disorder such as Down's or cystic fibrosis – a newborn baby with either of these conditions is offered medical care and support to lead the fullest possible life. How can it be right to abort the same individual a few months previously, as a result of genetic screening?*

You will be provided with a range of ethical arguments challenging or supporting the statement above. Sort these arguments into four groups, depending on which of the four ethical frameworks described in 'What is right and what is wrong?' in the SNAB AS Student book, pp. 93–95, best fits each one. The four ethical frameworks are listed below.

- Rights and duties
- Maximising the amount of good in the world
- Making decisions for yourself
- Leading a virtuous life.

When you have finished the sorting, try to produce at least one *additional* argument relating to the passage within each framework.

Activity 3 Applying your knowledge of ethical frameworks

Purpose

- Have the activities succeeded in teaching about ethical frameworks? An activity such as this one can help you to find out what you have learned.

Task

Use the article in Student Activity 2.21 Genetic screening to test your skills in identifying particular ethical frameworks.

Use a colour code to identify arguments within each of the four ethical frameworks described in 'What is right and what is wrong?' in the SNAB AS Student book, pp. 93–95.

Highlight statements in the article that you consider to have a basis in one of the four frameworks.