

Analysis of arguments

Skills and terms

Skills in analysis of arguments are needed for both Section A and Section B. What skills are we looking at here?

- the ability to distinguish between the different parts of an argument: reasons, conclusions (intermediate and main), evidence and examples
- the ability to state assumptions that are made in arguments
- the ability to identify counter-claims/counter-assertions and counter-arguments
- the ability to identify principles
- the ability to identify analogies
- the ability to identify hypothetical reasoning

You will notice that OCR uses the term *argument element* for what we would normally call an *argument component* and for the familiar terms *reason*, *example*, *evidence*, *intermediate/main conclusion*, and *counter-claim/counter-assertion/counter-argument*. So when you see a question with the term *argument element* in it, just look for part of an argument such as these.

Notice that we are talking here about analysis, not evaluation. To be able to identify the structure of an argument is not the same as to judge whether it's good or not. Of course, if we're not able to analyse an argument, we can't do much evaluation, but the two skills are separate.

Analysis questions

What sort of analysis questions do we get in Unit F502? As we've seen, they occur in both Section A and Section B.

Section A

The following are typical analysis questions:

- **Which of the following is the *main conclusion* of the above argument?**
- **Which of the following is the *intermediate conclusion* of the above argument?**
- **What is the name given to the following *argument element* in the above passage?**
- **Which of the following is the best statement of the *counter-assertion* in the above argument?**
- **Which of the following is an *underlying assumption* of the above argument?**

Section B

The following are typical analysis questions:

- **State the main conclusion of the argument.**
- **State an/the intermediate conclusion of the argument.**
- **State the principle used in the argument/in paragraph x.**

Now that we're clear about what sort of analysis questions we need to practise, we should do some. We'll start by doing some simple analysis.

Reasons, conclusions and assumptions

Look at the following passage:

Though a billion litres of bottled water were drunk in 2008, sales have fallen steeply since 2006. This is unsurprising. Only 9% of people in Britain believe tap water to be of poor quality. People are now less willing to pay at least 900 times the price of tap water to get a bottle of mineral water. The decline in the sales of bottled water will continue.

When we're doing analysis, the question we're really asking is, 'What's going on?' (or, if you prefer, 'What's occurring?'). This simple question takes us to the heart of a passage. It's asking what the author's doing and how they're doing it. So what *is* going on in this passage?

The author tells us that sales of water have fallen and then predicts that sales will continue to decline. That's the essence of the argument, and knowing this also gives us strong clues to its organisation.

Armed with these insights, let's look at the passage in more detail so that we can identify its structure.

What supports the main conclusion that 'the decline in the sales of bottled water will continue'? It is the claim that it's 'unsurprising' that 'sales have fallen steeply since 2006'. And why does the author think it's 'unsurprising'? The first reason is: 'Only 9% of people in Britain believe tap water to be of poor quality.' The second is: 'People are now less willing to pay at least 900 times the price of tap water to get a bottle of mineral water.'

So the argument consists of two reasons leading to an intermediate conclusion which is then used to draw the main conclusion. These two reasons are what are called independent reasons. In other words, each of them could be used separately to draw the conclusion.

As you can see, when you ask the question 'What's going on?' you make good progress in analysis.

If you were asked in the exam to identify the intermediate conclusion, it is of course the second sentence. But it would be helpful to unpack the word *this*, so that we can see that the intermediate conclusion is: ‘The steep decline in sales of bottled water since 2006 is unsurprising’ (or ‘It is unsurprising that...’).

Let’s show the argument with its structure clear:

R1: Only 9% of people in Britain believe tap water to be of poor quality.

R2: People are now less willing to pay at least 900 times the price of tap water to get a bottle of mineral water.

IC: It is unsurprising that, though a billion litres of bottled water were drunk in 2008, sales have fallen steeply since 2006.

C: The decline in the sales of bottled water will continue.

Now that the structure has been laid bare, let’s do some further analysis of the argument. What does the author of the argument have to assume?

(By the way, don’t fret about the word ‘underlying’ in the multiple-choice questions about assumptions. The way the term is used, assumptions are never anything but ‘underlying’, so you can ignore it.)

You will notice that the question below is: ‘Does the author have to assume any of these?’ The words *have to* are central to the question. The question isn’t ‘Might they assume any of these?’ or ‘How probable is it that any of these are assumed?’ The words *have to* remind us that assumptions are very demanding things. When we say that such and such is assumed in an argument, we’re saying that the author cannot argue the way they do without including this claim in their reasoning. What we’re really saying is, ‘What is an additional reason that the author uses in their argument?’ So let’s return to the question.

Does the author have to assume any of these?

- (a) Sales of bottled water in 2008 were lower than expected.
- (b) People drink more tap water than they do bottled water.
- (c) The price of bottled water won’t come down substantially.
- (d) The percentage of people in Britain who see tap water as of good quality will increase.

Let’s take them one by one.

Is (a) assumed? The author reports that sales of bottled water were low in 2008 compared to 2006, but they don’t *have to* believe that this decline in sales was lower than expected. It would be consistent with their argument either way (sales lower/higher than expected). The fact that the sales had declined was enough for their argument.

Is (b) assumed? This seems to be consistent with the author’s argument that people are switching away from bottled water to tap water, but it takes a step too far. The

author could still argue the way they do if they believed the opposite. It could be, for example, that although people are switching to tap water, they still don't drink more of it than of bottled water.

Is (c) assumed? One of the two reasons used to draw the conclusion is that people are now less willing to pay so much for bottled water. The author, you will remember, predicts the continuing decline in sales of bottled water partly because of this price issue. So if the price came down substantially, the prediction would be a problem. As a result, the author does have to include (c) as an additional reason. In other words, (c) is assumed.

So is (d) also assumed? Although (d), if true, would strengthen the argument, it is not a necessary part of it. If the percentage of people seeing tap water as of good quality remained the same, the conclusion would still follow.

Counter-claims and counter-arguments

You will have come across arguments in which the author acknowledges or refers to an opposing position. They might do this in order to respond to this position or simply to note it. When the author merely refers to an opposing claim, we're looking at a counter-claim or counter-assertion. Here's an example:

Though it is often claimed that modern Britain is a place where people are shown little respect, the reality is very different. In a recent report, 79% of people questioned said that everyone or most people showed them respect. We can see that all this talk of 'broken Britain' is so much nonsense.

The author refers to the claim that disrespect is common in Britain in order to provide the lead into their own argument which disputes the claim. The claim about respect is, in this argument, no more than that: it is a claim or assertion that goes against (or counter to) the author's own argument. In other words it is a counter-claim or counter-assertion.

Look at the next example:

Some newspapers persist in giving the impression that support for the National Health Service has been declining. People, it is said, are not happy with the services offered by the NHS, so they are looking at using private medical care instead. However, the percentage of people satisfied with the NHS is now 51% (an increase of 17% since 1997). Dissatisfaction is at its lowest level since 1984 (only 30%, as opposed to 50% in 1984). The NHS is increasingly supported by the public.

In this argument, the author presents not just a counter-claim/-assertion but also an argument that presents the other side. This is the second sentence. As you can see, it is a simple argument:

(R) People are not happy with the services offered by the NHS, (C) so they are looking at using private medical care instead.

Here we have, then, a counter-argument. We use the term when we find not just a reference to the side opposing the author's position, but this other side given in the form of an argument (with at least one reason used to draw at least one conclusion).

You will see that the first sentence is relevant to the counter-argument in the second but, though it is relevant, it is not part of this counter-argument. In relation to the whole argument, it is a counter-claim.

So let's look at the structure of the whole argument. We use the abbreviations CA for counter-argument and CC for counter-claim.

(CC) Some newspapers persist in giving the impression that support for the National Health Service has been declining. (CA) People, it is said, are not happy with the services offered by the NHS, so they are looking at using private medical care instead. (R1) However, the percentage of people satisfied with the NHS is now 51% (an increase of 17% since 1997). (R2) Dissatisfaction is at its lowest level since 1984 (only 30%, as opposed to 50% in 1984). (C) The NHS is increasingly supported by the public.

You will have noticed that in both of the above examples, the author provides helpful signposts to indicate the presence of a counter-claim or counter-argument. These are words such as *however*, *but* and *alternatively*. It can be indicated, as in the first example, with phrases such as 'Though it is often claimed that'. Look out for this signposting, because it will help you see what's going on more quickly and easily.

Another thing to note is that a counter-claim or counter-argument tends to appear near the beginning of a short passage. This is not inevitable, but is very likely. This is because of the way in which we often argue. We would say, 'Some people believe X (because Y), but...' In other words, we set up the counter-position that we're about to knock down.

In longer passages, the counter-position could come later. This is because the author might well have all sorts of reasoning to present, and the counter-position is relevant to only part of it.

In the previous examples, we find the counter-position being included in the passage as something separate from the main argument. You will remember the point about words such as *however* and *but*. There are other passages in which the counter-position can appear in an argument but be absorbed into the argument, so to speak. Look at the next example:

Arrests of girls and women have reached a record high level. This can be explained by females acting more and more like males (in behaviour such as drinking, being out late at night, and using violence). Thus we should stop

thinking that increases in female crime are a passing phase. The increase in female crime is going to be a growing problem.

You can see that the last but one sentence contains a counter-claim: 'increases in female crime are a passing phase'. The author rejects this with the reason given in the last sentence. The counter-claim is thus absorbed into the conclusion. Watch out for this type of counter-position.

Evidence and examples

When we're looking at the structure of an argument, we often find evidence and examples given as part of the overall argument. So do they play a part in the structure? This is a very slippery area, and trying to find our way through it results in all sorts of problems.

Look at the following brief argument:

Cows that are given names produce more milk than those that are treated as just one of a herd. Therefore, if farmers want to increase their milk yield, they should treat their cows as individuals.

What is the structure of this argument?

(R1) Cows that are given names produce more milk than those that are treated as just one of a herd. (C) Therefore, if farmers want to increase their milk yield, they should treat their cows as individuals.

It's simple because there's so little going on. A piece of evidence forms a reason to support an inference. You can't get any simpler than $R \rightarrow C$.

What about the next argument?

In the nineteenth century, rich industrialists used to give money to set up local universities. For example, Bristol University received money from Mr Wills (tobacco) and Mr Fry (chocolate). It is unreasonable to expect the taxpayer to pay for most of the cost of higher education. We should encourage universities to raise money from rich individuals and companies.

What is the structure of this argument? The conclusion is obvious, but what are the reasons for it?

R1: In the nineteenth century, rich industrialists used to give money to set up local universities.

R2: It is unreasonable to expect the taxpayer to pay for most of the cost of higher education.

The first reason is actually a piece of historical evidence. So what is the function of the second sentence in the passage? It obviously provides an example (or two, if you like) of the evidence. But what happens if it's not there? Not much. The evidence-claim that in the nineteenth century rich people gave money to universities stands or falls according to its historical truth. If this did happen, then there are presumably lots of examples. Giving the Bristol example does not make the argument stronger, does not *add* reasoning. Thus this second sentence is no more than an example.

However, examples can sometimes *also* supply reasons. Look at the next argument:

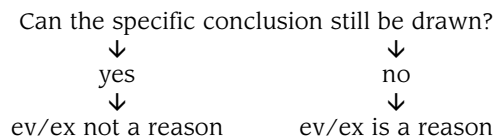
In the nineteenth century, Bristol University received a lot of money from two rich industrialists, Mr Wills (tobacco) and Mr Fry (chocolate). Universities need a great deal of money for research. We should today encourage rich individuals and companies to give a lot of money to universities.

In this version, the example of Bristol University provides one of the reasons for the conclusion. You can check this by omitting the second reason:

In the nineteenth century, Bristol University received a lot of money from two rich industrialists, Mr Wills (tobacco) and Mr Fry (chocolate). We should today encourage rich individuals and companies to give a lot of money to universities.

As you can see, the argument changes somewhat. It's an argument now about carrying on a tradition, rather than seeking to solve a problem.

So where are we with all this? Having looked at different arguments, we can see that there is a useful test we can use to judge whether evidence and examples are reasons or merely provide some support for reasons. In the following diagram, 'ev/ex' stands for evidence/example.



At the start of this section, a list of skills used in analysing arguments was provided. Let's have a look at this list again and see what we have so far covered:

- the ability to distinguish between the different parts of an argument: reasons, conclusions (intermediate and main), evidence and examples
- the ability to state assumptions that are made in arguments
- the ability to identify counter-claims/counter-assertions and counter-arguments

We've still got the following to cover:

- the ability to identify principles
- the ability to identify analogies
- the ability to identify hypothetical reasoning