
THINKING SKILLS

9694/22

Paper 2 Critical Thinking

May/June 2016

MARK SCHEME

Maximum Mark: 45

Published

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1 (a) How reliable is the evidence in Source B about ‘big cat sightings’? [3]

Reliable because several sightings which corroborate each other [1]. However, all the witnesses are elderly and may have poor sight [1]. None of them appears to have any expertise which would help them to discern clearly what in fact they saw [1]. Also, there seems to have been a general awareness of the phenomenon (“Beast of Trintown”) that may have contributed to an imagined sighting [1]; furthermore, people may have a vested interest to become involved in the hype and obtain 5 minutes of fame [1]. We do not know the quality of the photo and therefore cannot assess its reliability [1]. There seems to be inconsistency about the size of the beast [1].

(b) How useful is the evidence in Source D? [3]

Very reliable as the first case features evidence based on a controlled scientific experiment [1]. There is convincing factual evidence (slits v. round pupils) [1] which shows the cat in the second case could not have been a ‘big cat’ [1]. However, this photo is only one case so it is not necessarily representative of the other sightings of big cats [1]. Source D is generally useful, as it shows some of the ways by which mistaken sightings come about [1].

(c) How significant is the evidence in Source E? [3]

Significant as it gives a possible explanation for big cats being seen in alien environments [1]. This would mean that the sightings were real not imaginary [1]. However, the significance is decreased because we do not know if the UK has had significantly more cat sightings than other countries which do not have such laws [1] and we do not know whether cat sightings in the UK increased after this legislation was passed [1]. It would not provide significant evidence for any sightings outside the UK [1]. It also does not explain why the sightings are of big cats as opposed to other exotic animals which were probably released [1]. The UK law mentioned was passed 40 years ago, and so most if not all animals released for this reason would be dead and so could not be responsible for any recent sightings [1].

(d) What is the most likely explanation for the reported sightings of Alien Big Cats? Write a short, reasoned argument to support your conclusion, with critical reference to the evidence provided and considering a plausible alternative conclusion. [6]

Level 3 5–6 marks	A strong answer, which provides a reasoned argument including thorough evaluation of all or most of the evidence to support an acceptable conclusion in terms of probability and evaluates the plausibility of at least one alternative conclusion.
Level 2 3–4 marks	An answer which evaluates some of the evidence, draws an acceptable conclusion in terms of probability and may mention the plausibility of at least one alternative conclusion.
Level 1 1–2 marks	A weak answer, which refers to some of the evidence, possibly including a simple evaluative comment. The conclusion may be unstated or over-stated.
Level 0 0 marks	No credit-worthy material.

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Indicative content

Possible answers:

- Alien Big Cats do exist and are the result of people releasing them/their escaping.
- Alien Big Cats are figments of the imagination (influenced by media reports).
- Alien Big Cats are a deliberate hoax (either by the media or other groups).

Given the number of sightings across the world one cannot rule out the idea that there are big cats on the loose in areas to which they are not native. It seems feasible that such animals could have escaped from zoos or other private ownership. In the case of the UK, the Dangerous Animals Act would have given owners of such animals a pressing reason to release their 'pets' into the wild. However, the lack of convincing evidence for their existence, as indicated in Source C, is a problem. There is something of a contradiction between the number of sightings and then an explanation for the lack of irrefutable evidence on the grounds that these animals are shy, retiring etc. Some of the evidence, as in Source B, seems to suggest they are more like urban foxes and thoroughly at home in a situation where there are people around. Given that a variety of animals may have escaped from zoos etc., it seems odd that the sightings are nearly always of black big cats. Source D suggests that the sightings are actually of simply big domestic cats. This raises the question of why people transform their perception of domestic cats into a conviction that they have seen a 'big cat'. This may be because a general awareness of the Alien Big Cat phenomenon distorts their perception.

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2 (a) Look at Source A. The author does not offer a conclusion.

(i) Identify the conclusion which is implied by the reasoning in the passage. [1]

Dredging is not the solution to the problem of rivers flooding on flood plains.

(ii) Identify an unstated assumption upon which this conclusion would rely. [2]

A 1–2% increase in the dispersal rate of flood water [1] is not sufficient to make a significant impact on the problem of flooding [1].

(b) ‘Highways are man-made, whereas rivers are natural features.’ To what extent does this difference undermine the use of the analogy drawn in Source C between dredging rivers and building three-lane highways? [3]

Not at all [1]. The key point is that the solution creates problems if it is not maintained throughout the length of the route/river [1]. The difference being pointed out is irrelevant to this specific point [1].

(c) The data given in Source E is not sufficient to draw any conclusions about the effectiveness of the dredging on flood prevention. Suggest three of the pieces of additional information which would be necessary in order to draw such a conclusion. [3]

The amount of flooding in each of the years.

The amount of rainfall in each of the years / other sources of water e.g. snow melt.

The timing of the dredging with respect to the timing of the rainy season.

The capacity of the river (in each of the years) / rate flood water is dispersed.

The rate at which the river collects silt.

Whether any dredging took place in the intermediate years.

Whether the river was prone to flooding before dredging commenced.

Other measures that might have been taken to prevent flooding.

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(d) 'Dredging is ineffective therefore it should be discouraged.'

To what extent do you agree with this claim? Write a short, reasoned argument to support your conclusion, using and evaluating the information provided in Sources A–E.

[6]

Level 3 5–6 marks	A reasoned argument, which uses and evaluates all or most of the evidence provided.
Level 2 3–4 marks	A simple argument, which uses and/or evaluates evidence.
Level 1 1–2 marks	A weak answer, which makes some correct reference to evidence but consists of opinion and/or assertion rather than argument or an argument which makes no reference to evidence.
Level 0 0 marks	No credit-worthy material.

Indicative content

- Source A suggests that dredging is ineffective as regards preventing flooding and gives a good explanation of why it is ineffective.
- This would give grounds for discouraging dredging if one assumes that one should discourage inefficient practices. However, if dredging provided a great many jobs, one might still want to continue it even though it was inefficient.
- Source B shows us that in certain circumstances, dredging benefits the ecology of the river and restores it. This challenges the points about environmental damage in Sources A and D.
- Source C challenges the point about causing flooding downstream by suggesting dredging does not cause this problem if carried out the whole length of the river.
- However, this does not challenge the main point in Source A which is that the amount of water shifted by a dredged river is insignificant.
- Source A also opposes dredging on different grounds than effectiveness namely environmental damage.
- Source D backs this up but also suggests dredging is an effective way of keeping river channels navigable.
- Even Source A does not challenge the effectiveness of dredging for the above purpose.

The evidence suggests the claim is far too sweeping. There are no challenges to the effectiveness as regards shipping channels. The effectiveness as regards flood prevention is not clear.

The statement could also be challenged by suggesting it is the environmental damage caused by dredging that is the key reason to oppose it. However, Source B challenges the idea that dredging is always environmentally damaging.

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- 3 (a) Using the exact words from the passage as far as possible, identify the main conclusion. [2]

2 marks: The art establishment should take immediate action to prevent art works from becoming a form of investment.

1 mark: This has undermined the aesthetic value of these works of art.

- (b) Using the exact words from the passage as far as possible, identify three intermediate conclusions. [3]

1 mark for each of the following, to a maximum of 3:

- This [paintings becoming a form of currency] has undermined the aesthetic value of these works of art.
- If this trend continues, eventually no-one will be able to enjoy works of art.
- A painting created in order to make money is not a true work of art.
- action could be taken to combat the problem of paintings becoming a form of currency.

Allow one additional element or one significant omission in each case.

If more than three answers are offered, mark the first four only.

- (c) Evaluate the strength of the reasoning in the argument. In your answer you should consider any flaws, unstated assumptions and other weaknesses. [5]

Marks for each evaluative point as follows, up to a maximum of 5 marks:

2 marks: Valid evaluative point, clearly expressed.

1 mark: Weak attempt at a valid evaluative point.

Paragraph 1

- Generalisation – from famous notable paintings to all paintings.
- Assumption – a form of currency cannot have aesthetic value
Allow for 1 mark – a work of art cannot have both aesthetic and economic value

Paragraph 2

- Assumption – more people would have seen the art work when it was in a room in a house.
- The last sentence is a slippery slope argument.

Paragraph 3

- Assumption – Van Gogh not selling a painting is a reliable indicator that he did not paint in order to pay the bills.
- Inconsistency – having said paintings worth millions merely indicate a painting has become a ‘banknote’, the author now seems to be using the value of Van Gogh’s paintings to indicate their aesthetic merit.
- Irrelevance – the issue of the role of money in the production of art is different from the issue of the role of money once art has been produced.

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Paragraph 4

- Invalid analogy – a painting has a unique, physical quality which books and musical compositions do not. The aesthetic impact of a novel is when it is read, a musical composition when it is performed. The original manuscript/score do not therefore have the same aesthetic function as an original painting.
- Non-sequitur – the reasoning in the paragraph does not at all show that “action could be taken...”.

Paragraph 5

- Contradiction – if other art forms have avoided becoming a form of currency/investment then it suggests an international agreement is not the ‘only way’. However, if it is the ‘only way’ in the case of paintings it suggests the comparison with these other forms of art is not valid.
- Assumption – the super-rich could not obtain these works of art through other/illegal means.
- Contradiction – if it were impossible to buy or sell these works of art, then those currently in the possession of the super-rich would remain in their clutches.

General

- Assumption – art was at an affordable price before it became a form of investment.

(d) ‘Painting makes no contribution to society.’

Write your own short argument to support or challenge this claim. The conclusion of your argument must be stated. Credit will not be given for repeating ideas from the passage.

[5]

Level 3 4–5 marks	Developed, coherent argument. Reasons strongly support conclusion. Development may include intermediate conclusion or apt examples. Simply structured argument – 4 marks. Effective use of IC etc. – 5 marks.
Level 2 2–3 marks	A simple argument. One reason + conclusion – 2 marks. Two or more separate reasons + conclusion – 3 marks.
Level 1 1 mark	Some relevant comment.
Level 0 0 marks	No relevant comment.

*Maximum 3 marks for wrong conclusion or if conclusion is implied but not stated.
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Specimen level 3 answers

Support (98 words)

Painting may be a central life interest for some individuals but it makes no contribution to society. Photography has replaced any practical use that painting may have once had. Even professional artists paint as a form of self-expression rather than with the intention of being socially useful. When expressing an opinion as to what skills are necessary in the economy, it is unknown for a businessman to say something like “I am looking for people who can paint.” So, painting does not involve any socially-useful skills, which means that painting does not make a contribution to society.

Challenge (113 words)

Painting is an important pastime for many people relieving stress and promoting relaxation. A failure to relieve this stress may mean such individuals are not productive at work or even become a burden on society due to demands on mental health services. Moreover, the paintings of the great artists such as Rembrandt and Picasso have an inspirational effect on many people. We cannot measure this effect, but it is not unlikely that many key professionals such as doctors would function less effectively without this effect. To say painting makes no contribution to society relies on a false distinction between the individual and society. So painting does make a contribution to society.