

Essay Tips: Knowledge Issues

- *Read these paragraphs and consider what, if any, knowledge issues are addressed.*
- *As you read you should attempt to distinguish between clarity of Knowledge Issue addressed and the success in analysis. It is perfectly possible to excel at the former but not the latter.*
- *The paragraphs are taken from various points in essays; as such it is quite hard to judge them out of context. However some general pointers should emerge from discussion.*

1 Are Reason and Emotion equally necessary in justifying moral decisions?

...There can be little doubt that emotions are developed and influenced through our cultural paradigms; the mental frameworks by which we organise our reasoning and knowledge. They determine when, where and to what extent it is appropriate to experience an emotion. Therefore solely through using emotions, what we perceive to be morally correct in one society is different to what the inhabitants of another society would accept to be morally correct. The dispute between England and The United States in 2002 proves a worthy example. Four Britons were held in Cuba and sentenced to the death penalty after committing crimes; however, the UK government made its opposition to the death penalty clear and requested they be punished back in England. The contrasting cultural paradigms between the two societies caused conflicting opinions as to what was morally correct. Consequently, when justifying moral decisions using emotion we must continuously be aware of the dangers and bias that paradigms present and remember that theories must be supported by well-reasoned evidence.

2 ‘Seek Simplicity and distrust it.’ Is this always good advice for a knower?

... When approaching, for example, a complex social situation, many responses are oversimplified, thereby causing more problems. This was something I encountered first hand when researching my Extended Essay on the efficiency of Sri Lankan aid in the wake of the Asian Tsunami. Many organisations and donors reacted in an oversimplified manner. In the district of Trincomalee, many fishermen lost their boats and livelihood to the Tsunami. Foreign NGOs entered the area and took a census to determine how many men had previously been employed; many listed ‘fisherman’ on the census, and foreign agencies then gave each fisherman a new boat. Though this seemed to be a simple and practical solution it was a complete failure; the agencies had failed to recognise that there were several types of fishing and so the boats they had donated were only appropriate to one type. Due to this oversimplification, many fishermen were still left without boat and many boats were left rotting away on the shore. The simplification of a complex situation was, in this case, to be strongly distrusted.

3 Are Reason and Emotion equally necessary in justifying moral decisions?

...Inductive logic is a method of justifying moral decisions. The method seems reasonable at first; if something happened often in the past, then it is likely to occur again. However, the ‘general’ conclusion cannot be relied on in justifying a moral decision; as the example illustrates, past opinions can be distorted by context. For reasons that are not relevant, I believe Euthanasia is wrong, but in twenty years if I was to be in the situation myself with my mother pleading me to end her misery, I would definitely have to re-consider my point of view. Using inductive logic you would expect me to let her live, demonstrating how perspectives on moral issues can contradict one another when one is personally involved, proving that inductive logic can not validate a moral decision.

4 Are truths obscured by the languages in which we express them?

...Language is an important factor, which can effectively hinder our knowledge and pursuit for truth. Misinterpretation of words either in one language or in translation, due to how you choose to define and understand them, can make us wonder if languages play a vital role in the search for truth. If we consider the language we speak to be a way of communicating truths, then truth between cultures is potentially unattainable, due to the difficulties faced when translating. I often find, when reading aloud a French text straight into English, that a direct translation is not possible, not due to the structure of the sentence but rather due to the grammar and different kinds of meanings of the words. This is not to say that a translation cannot be made, but it is evident that the same definite meaning cannot be acquired in both languages, which suggests that the language does have an effect when sharing knowledge with others.

5 “We will always learn more about human life and human personality from novels than from scientific psychology.” Would you agree?

...Language is an important way of knowing in both literature and psychology, but it is used differently in each area. When Esquivel writes of “an endless silence in which Tita’s soul shrank...” she does not mean that Tita’s soul *literally* shrank. To many atheists, Tita does not even have a soul, and yet the words have meaning to any reader, whatever their philosophy. The words say more than their precise physical meaning; in literature, words do more than express simple fact – hence the cliché “read between the lines”. Authors convey much “deeper” meanings which humans understand, and which provide insight into another person’s point of view, by using words more artistically than scientific psychologists. This is how the game of language is played in literature

Teachers Notes: KNOWLEDGE ISSUES

Give students these paragraphs to read. They can then discuss each one in groups, and discuss the Knowledge Issues in each case. The following suggestions may be helpful – though note that there are other possible Knowledge Issues that might be identified; this is not meant to be an exhaustive analysis. Note also that *these paragraphs are not meant to be exemplars for detailed analysis and development of ideas*, even when the Knowledge Issue is clear; analysis and development often takes several paragraphs and cannot be shown in a brief document like this.

Example 1: The paragraph has Knowledge Issues embedded in it, but it is not clearly expressed or easy to extract.

- The paragraph addresses issues centred around culture, emotions and moral knowledge. It is not entirely clear what these issues are, and the paragraph does not stay ‘tight’ on an issue but gestures towards issues rather vaguely.
- The example is potentially excellent, but it has not used to develop analysis effectively.
- It is not entirely clear how emotion and moral decisions are linked; the terms are used but no real progress is made.

Example 2: The paragraph does not address any Knowledge Issue

- This is a superficially very good paragraph which has details of a fine example, and clear student voice. However none of the many possible Knowledge Issues have been addressed even implicitly.
- Issues that could have been addressed using this as a platform might be:
 - To what extent can someone from one culture understand knowledge about another?
 - Do language issues prevent us from knowing another culture? (This refers to the apparently single meaning ‘fisherman’ in English, which did not match up with the Tamil language).
 - How might our interpretations about unfamiliar situations in the social sciences be undermined by hidden assumptions in the premises of our reasoning?
- Despite its general attractiveness, this is barely a piece of TOK writing though it has considerable potential for analysis.

Example 3: The paragraph addresses a good Knowledge Issue

- The Knowledge Issue is ‘To what extent can we justify moral decisions through inductive logic?’ which clearly fulfils the criteria for a good Knowledge Issue.
- Despite the clear focus on the Knowledge Issue, the issue is not developed in a useful way, and the example is not explained in a way that supports the analysis.
- On the limited evidence of this paragraph, criterion A would receive more credit than criterion C.

Example 4: The paragraph has a Knowledge Issue embedded in it, but it is not clearly expressed or easy to extract.

- The paragraph addresses an issue centred around language and meaning. It is not entirely clear what the issue is; perhaps something like ‘what impact do problems of translation have for sharing knowledge with speakers of different languages?’
- The Knowledge Issue does not clearly fulfil the criteria for a good Knowledge Issue, but it is nevertheless couched in the language and ideas of TOK.
- One wonders if the student would be able to identify the issue; it is rather implicit.

Example 5: The paragraph explicitly addresses a good Knowledge Issue.

- The paragraph addresses the question ‘What kind of ‘truth’ can be conveyed by non-literal language such as that found in literature?’ This fulfils the criteria for a good Knowledge Issue.
- The Knowledge Issue is not treated in the abstract but embedded in a specific situation via an original example.
- Despite the clear focus on the Knowledge Issue, further detail and development is needed.
- There is an awareness of multiple perspectives built into the analysis (even though the ‘atheist’ perspective is rather throwaway and unnecessary).

Essay Tips

INTRODUCTIONS

In your introduction spend a few lines explaining the question, perhaps giving some concrete examples, and clarifying how you are going to interpret it. You should certainly indicate the direction of the essay, and *perhaps* provide some ‘signposts’ that indicate what the sort of conclusion you will establish (this works best if your conclusion is unusual). Avoid dictionary definitions.

1 Mathematicians have the concept of rigorous proof, which leads to knowing something with complete certainty. Consider the extent to which complete certainty might be achievable in mathematics and at least one other area of knowledge.

When I handed in my HL Maths portfolio which examined whether or not a certain animal population would reach more than 10,000 in 5 years, I had to check and re-check my calculations to be sure I had the answer right. The feeling of how much you trust the conclusion is what we call ‘certainty’, and I will be exploring this idea in three areas. Firstly, I shall explore the rigorous mathematical proof where the connections between steps are explicitly laid out in order to achieve certainty within the closed system of mathematics. Secondly, in science it seems to be impossible to achieve *complete* certainty, and so it’s more about degrees of certainty, which are, most of the time, sufficient to apply science to everyday life without definitive proof. Lastly, in ethics there exists a potential conflict between reason and emotion in order to achieve certainty, making universal certainty impossible. I shall attempt to show that despite certain differences between the different areas, there are often significant similarities.

2 Evaluate the Strengths and Weaknesses of Reason as a Way of Knowing

Reason is defined as the “capacity for rational thought or inference or discrimination” (www.dictionary.com, accessed 09/09/09) or as “a fact that logically justifies some premise or conclusion” (www.wordnet.princeton.edu/perl/webwn, accessed 10/10/10). It is one of the four methods by which humans try to compile knowledge about the world and its truths, along with perception, emotion and language. Benefits certainly ensue from reasoning, for it is employed regularly in daily life and we rely on it for much of our knowledge, but it has limitations. Thus by analysing the method of reasoning, comparing it to other ways of knowing and examining its uses, we can properly evaluate reason as a way of finding knowledge.

3 “The knowledge that we value the most is the knowledge for which we can provide the strongest justifications.” To what extent would you agree with this claim?

- Smoking causes almost 90% of lung cancer deaths.
- If 3 people are photographed together, the one in the middle will die first.

The former claim is an official statistic issued by Cancer Research UK, justified inductively through empirical evidence; the latter is a mere superstition. Logically, we are more inclined to trust and value the first statement, and thus upon first glance, this claim seems to be true. However, coming from an Oriental background, I grew up with my parents decorating the house with a vast quantity of red banners and “festive” flowers for Chinese New Year, with the purpose of deterring demons and bringing fortune and prosperity into the household. I know these beliefs are rooted within ancient Chinese myths, which I do not take to be strongly justified, but these practices are extremely common and this form of cultural knowledge is highly valued by me and my family; this seems to disagree with the claim. Furthermore, what we determine to be valuable is influenced particularly through our religious and cultural paradigms. In this essay, I will, therefore, not be discussing whether valued or justified knowledge is in fact true, but rather whether valued knowledge must be strongly justified and whether justified knowledge is necessarily valuable.

4 Our senses tell us that a table, for example, is a solid object; science tells us that the table is mostly empty space. Thus two sources of knowledge generate conflicting results. Can we reconcile such conflicts?

Our role as critical thinkers is to examine complex situations from several points of view in order to come to a conclusion that we, as individuals, can justify personally. However these different points of view sometimes conflict with each other to give seemingly contradictory results. When I came across the foul-smelling durian fruit in Sri Lanka, the smell (reminiscent of rotting sewage) was enough to satisfy me that it would be inedible. It took the persuasive power of my parents, our guide and the stallholder to convince me to try a piece and I was surprised to find the fruit delicious. Human nature makes us uncomfortable living with inconsistencies and paradoxes, and in this essay I shall explore how such conflicts arise, and how we can resolve them should we want to.

Teachers Notes: INTRODUCTIONS

Give students these introductions to read. They can then discuss each one in groups, and work out what are the strengths/weaknesses of each one. The following suggestions may be helpful – though note that you really need to read the whole essay for the points to fully make sense.

Essay 1: This is a very good introduction

- Clear focus on KI: ‘dos certainty means different things in different AoKs?’
- Clear language
- Structure is easy to follow and there is a clear sense of direction.
- The example is personal, original (could be better used) and reasonably used.
- The distinctions that are to be made in the essay are clearly indicated, and in the final lines there is a clear thesis which is, presumably, to be explored in the body of the essay.
- The term ‘certainty’ is clarified concisely without a dictionary.
- It is interesting.

Essay 2: This is a very poor introduction

- This could be said to be focussed on the KI of the question, but as it is simply re-iterating rather than exploring the issues, there is little credit; one would need to see some development.
- The use of a dictionary adds nothing to the essay; there is no indication that the student understands what these quotes mean.
- There is no specific direction for the essay. It says little more than ‘I shall answer the question’.

Essay 3: This is a good introduction

- Clear focus on the KI in the question
- The initial juxtaposition is thought-provoking and original, though the smoking example needs a reference.
- Clear language.
- Original, personal example is very well used.
- It is certainly possible to use the term ‘true’ in addressing this title, but using this problematic term in line 3 as if it were clear, only to say in line 11 that it will not be discussed in the essay, is unwise and confusing.
- The direction of the essay is clearly outlined in the last two lines, but these really say no more than ‘I shall investigate the question’. Some more detail, or a thesis, would help.
- It is interesting.

Essay 4: This is a good introduction

- Clearly focussed on the KI of the question, but while it does explore (cf essay 2), it does not explicitly develop the ideas (cf essay 1). Of course, this development may come later in the essay.
- Clear, simple language.
- Excellent personal voice.
- Shows a clear and direct understanding of the title.
- It is interesting.
- The last two lines do hint at a direction ‘..should we want to..’ but there is room for a little more in this respect.

Essay Tips: Examples

These paragraphs are taken from various points in the essays; as such it is quite hard to judge them out of context, but some general pointers should emerge from discussion.

1 Can literature tell the truth, better than other arts or areas of knowledge?

First we must determine what is meant by truth. Truth is different in different areas of knowledge. Mathematical truth is different from the truth in literature. In mathematics it is true that $1 + 1 = 2$, because if you have one book, and then another book, you will always have two books in total. All of mathematics is based on truths such as these that are definite and factual. In literature truth is not definite. Literature can be ambiguous and subjective. It can hold a different truth to different individuals as they relate to the piece differently. For example, the line from the poem 'After Apple Picking' "*there may be two or three / apples I didn't pick upon some bough*", which remembers wasted opportunities in the lifetime, may convey different truths about life to an old man than to a youth.

2 Mathematicians have the concept of rigorous proof that leads to knowing something with complete certainty. Consider the extent to which complete certainty might be achievable in mathematics, and at least one other area of knowledge.

There is more to Mathematical certainty than rigorous proof; we come to certainty gradually, with use and over time. I was taught in middle school that $\sqrt{-1}$ does not exist. This was certain for me. But I now know from my higher-level maths course that $\sqrt{-1}$ does exist, and it is i . I initially had problems believing my teacher, and I was very uncertain about this 'truth', but now, I'm using i so often and in so many mathematical calculations that it has taken on its 'own life' for me and I feel certain about it. So in maths there is a psychological and emotional component to certainty as well as a strictly logical one. While I am only a low-level mathematician, this idea is supported also by the mathematician G.H. Hardy, who believes that "*there is strictly no such thing as mathematical proof... proofs are ...designed to affect psychology... ...devices to stimulate the imagination of pupils*". We shall return to this point about imagination and psychology later, when we examine ethical knowledge.

3 It is an oversimplification to claim that some ways of knowing provides with facts, others provide us with interpretations?

The universe depends on Quantum Theory, Buddy Holly is a good musician and squares have four corners. All of these are pieces of information from different areas of knowledge, which involved the use of different ways of knowing. But are they facts? Are they interpretations? Or might it be possible that they are both?

4 Our senses tell us that a table, for example, is a solid object. Science tells us that it is mostly empty space. Thus two sources of knowledge generate conflicting results. Can we reconcile such conflicts?

Damien Hurst described his art installation of a tiger shark in a tank of formaldehyde as the “Physical Impossibility of Death in the Mind of Someone Living”. In biology, I would describe the tiger shark as *Galeocerdo Cuvier* (Family *Carcharhinidae*). Here two different areas of knowledge, art and science, apparently conflict as the same object is not only being labelled in different ways, it is “being” two different things at once. This is more than just a straight linguistic conflict. The two different users of language actually want us to see the object in two different contexts. As art, the shark is a metaphor for mortality both as a predator capable of causing death and as an animal that was itself once alive. From a taxonomical point of view, however, it has a place in the natural kingdom, with a specific family genus and species descriptor, from which we infer certain physical and behavioural characteristics - not metaphorical ones. Once we appreciate that language is being applied to different areas of knowledge in order to understand the different aspects of a single entity, the conflict does appear to be resolved.

5 Are reason and emotion equally necessary in justifying moral decisions?

Often reason and emotion conflict in when we justify our ethical beliefs. “Thou shalt not steal” is an example of ethical knowledge that most of us believe in, and we would probably say that we have good reasons for believing in it. However, there are cases when this belief is very difficult to apply. Suppose you were the father of a family and your children were starving. You are out one day looking for food, when you pass a baker's shop. There is nobody in it and you have the chance to steal a loaf of bread. What do your reason and emotion tell you about how you should behave? Your reason would tell you that stealing is wrong, but your emotional love for your family would tell you that it's more important to feed your family than to worry about right and wrong. Under such circumstances, you would probably use emotion to justify the moral decision that it was right to take the loaf of bread and reason would not be such an important way of knowing. This emotion can overpower reason in justifying ethical knowledge.

Teachers Notes: EXAMPLES

Give students these paragraphs to read. They can then discuss each one in groups, and work out how well the examples have been used in each case. The following suggestions may be helpful – though note that examples can be used in different ways for different purposes and need to be adapted to the forms and structure of the essay.

Example 1: This is a weak use of examples – *even though the basic point may be sound.*

- The mathematics example, $1 + 1 = 2$ is clichéd; worse, it does not really tell us anything about mathematical truth. It does not support analysis.
- While it may be true that $1 + 1 = 2$ is always mathematically definite and factual, the example of the books is not helpful; we can find examples from the physical world, where such truths do not hold (one raindrop plus one raindrop equals one bigger raindrop). So this example seems to have been chosen without actual care for the complexities of the situation.
- The line from the poem, while fresh and presumably from the student's own reading, is used to support the claim that literature is 'ambiguous and subjective', but it does not really allow the reader to understand the claim any better. That is, it too does not *support* analysis but simply acts as description.

Example 2: This is a good use of an example

- The example is clearly from the student's own educational experience.
- As well as original, the example shows a clear sense of reflection and self-awareness on the part of the student.
- The use of the quote is good; it bridges from the example in Maths to Ethics, via the concept of 'imagination'.

Example 3: You cannot really tell how good these examples are...

- This was an introductory paragraph; the examples have clearly been chosen to contrast and to immediately illuminate the problem of distinguishing between fact and interpretation. As such they are successful, but if these are not referred to again then they are undeveloped and have rather a 'throwaway' feel to them.
- If the essay revisits these examples and develops them then they might provide a narrative thread on which to hang analytical points; this might be an excellent structuring device for an very open essay title.

Example 4: This is a very good use of an example

- What immediately stands out is the way the student does not say "here's a TOK point and here's an example of that point". Rather the example is *integrated* into the point being made, and it is not clear where the example ends and the analysis starts.
- The example is used as a mechanisms to compare different areas of knowledge; as such it supports and furthers the analysis, and is used to move the essay forward, rather than just punctuate it.

Example 5: This is a very poor use of an example.

- It is hypothetical, not real.
- It is an extreme example, and lacks all nuance and understanding of subtlety.
- The example is completely contrived to support the point that emotion can overpower reason.
- Even though contrived to do so, the example completely fails to demonstrate that emotion can overpower reason. One might equally argue from this example, that the father's reason told him to steal the food, and his emotion (fear of being caught?) told him not to steal it.

Essay Tips **CONCLUSIONS**

In your conclusion do not waste words reiterating your argument at length. Try to summarise (very briefly – one or two sentences) what you have said, and to address the argument itself (is it strong? Weak? Surprising? Of limited use?) rather than make it again. Try also to end with a forward-looking view. This might be an explanation of exactly why you were unable to answer the question, or what you would need to know in order to answer the question, but it should show why the question is an interesting or important one. The conclusion should ‘step back’ from the argument. It should also, ideally, end with some sort of flourish and *if appropriate* refer to some point/example made in the introduction.

1 Consider the meaning of ‘justification’ in different areas of knowledge. Is any one kind of justification more compelling than any other?

With all the pondering ways of knowing, or the justifications of knowledge; history, art, natural science, humans science ethics and maths, it is clear to see that maths has the most justification of knowledge. True maths has its flaws, but it has the least amount of flaws within the justification of knowledge. Through using the laws, axioms and ratios you can gain the uttermost amount of knowledge conceivable to man.

2 Our senses tell us that a table, for example, is a solid object; science tells us that the table is mostly empty space. Thus two sources of knowledge generate conflicting results. Can we reconcile such conflicts?

In conclusion, it seems that conflict and contradiction are natural consequences of living in a world where there are different ways of knowing, each having its own different perspective. Whether or not we can reconcile these conflicts depends on the nature of the conflict itself and the degree to which we are prepared to accept it or work harder to resolve it. Some conflicts are resolved simply by understanding the limitation and idiosyncrasies of the different ways of knowing, others by appreciating the different context of the knower. However, some conflicts are best left unresolved, like the paradoxical durian, extending and enriching the totality of human experience.

3 ‘To understand something you need to rely on your own experience and culture. Does this mean that it is impossible to have objective knowledge?’

Originally I did not believe that that it is impossible to have objective knowledge. However, following my research I have concluded that it is increasingly likely to be the case. Even an area such as Mathematics appears to now contain less objective knowledge than I had suspected. This may result from my view of objective knowledge; it is not, as I first thought, simply something that is commonly accepted, but is, rather, something which is unaffected by individual experience – and often culture prevents this. In Mathematics, although there are accepted, recognised axioms, cultures within the subjects have entirely different ideas about how knowledge is gained. At least in Mathematics the axioms could be considered objective, but in areas such as History, particularly with sensitive events, it is hard to see how total objectivity could be ever be achieved. The most positive conclusion that I can hope to come to is that Areas of Knowledge such as Art or Ethics do not necessarily require objective knowledge. Ethics, in particular, governed as it is by our moral values, does not have any need for objectivity. Culture and experience are integral and essential part of our moral laws, and I believe they should stay that way.

4 When should we trust our sense to give us the truth?

The answer to the question depends on how we define the word ‘truth’. I think that we can trust our senses to give us certain types of truth; the word ‘truth’ has different meanings in different areas of knowledge. If I am seeking to gain an objective truth then I do not think I can ever be sure, by using just my senses, that it is the truth. This does not matter greatly in everyday life, because I manage to avoid the everyday hazards well enough by trusting my sense. But I think it *is* possible to gain an artistic truth through our senses (or an emotional truth, based on art). Artistic truth can be given to us through our sense because it is by its nature a subjective truth.

Teachers Notes: CONCLUSIONS

Give students these conclusions to read. They can then discuss each one in groups, and work out what are the strengths/weaknesses of each one. The following suggestions may be helpful – though note that you really need to read the whole essay for the points to fully make sense.

Essay 1: This is a very weak conclusion

- Argument of essay is clear; that though it is imperfect, ‘Maths has the most justification’; so there is, at least, a knowledge issue addressed.
- Poor use of language means it is vague; ‘most justification’, ‘pondering’, ‘ratios’, ‘uttermost’, ‘conceivable’.
- There is no sense of stepping back from the content and looking (critically) at the arguments (it might be worth asking students what that might be; possibly that “this conclusion is surprising given that we rely on justifications all the time and tend to take them for granted”. Obviously this point could be made at varying levels of sophistication).
- The final sentence attempts a flourish, but slips into pomposity and the grandiose.

Essay 2: This is a very good conclusion

- Clear, simple language
- Good summary of the argument; directly addresses the KI in the question. Notice that through the answer is complex (it depends on the nature of the conflict and how we approach it); the points are not simply reiterated at length (cf essay 3). This is an example of stepping back from the essay, though there is room for more in this respect.
- The Durian example was made in the introduction and has been used to make the flourish that wraps us the essay.

Essay 3: This is a good conclusion.

- Clear personal voice; the way she is aware of how she has come to see things differently after writing thinking about them.
- Clear KI focus
- Rather verbose.
- Reasonable summary, but in contrast to essay two, there is too much detail. Lines 3 - 8 (‘Even an area... ..is gained’) get into too much detail (cf essay 3).
- The final 4 lines do address the big picture; they step back and address the ‘so what’ question. She is saying ‘OK, so I agree it’s impossible to have objective knowledge in Art or Ethics, but you know, that’s OK; I believe that Culture and Experience *should* play key roles in these areas.’

You could ask students to re-write lines 1 – 9 (suggest something like ‘Though I did not initially think so, I have come to believe that attaining objective knowledge is problematic in all areas, even Mathematics, where I had thought it most likely. In other areas, such as History....’

Essay 4: This is a good conclusion

- Clearly addresses question, but qualifies the question by referring to specific distinctions. Note that this sort of original distinction is an analytical way of showing personal voice (examples are a more obvious but often less effective way of doing this).
- Summaries argument clearly
- Clear focus on KI in the question.
- There is some evidence of stepping back from the arguments of the essay (“this does not matter greatly...” though there is room for more in this respect.