



## GENERAL COMMENTS

Students generally performed well on the 2008 Philosophy examination, the first examination of the revised study, which commenced this year. Students had a good knowledge of the texts studied and responses suggested that many were well prepared for the increased emphasis on 'doing' philosophy. There were, however, a number of students who approached the questions as tests of comprehension. Students are reminded that the examination requires reasoned, personal reflection on the views expressed within the set texts as much as it requires a thorough knowledge of concepts and arguments.

Some students wrote on texts no longer prescribed or produced answers which suggested that they were unfamiliar with the required reading. Both teachers and students should check the list of prescribed texts published annually by the VCAA to ensure they are reading the correct texts, excerpts and translations.

### Areas of strength and weakness

#### Strengths

- Many students had a good understanding of the Unit 3 texts and in particular, the arguments and viewpoints expressed in *The Sovereignty of Good* and *Beyond Good and Evil*.
- In general, students offered responses that were logically structured and which did not include extraneous information.
- Most students understood the significance of giving reasons and using concrete examples to support their conclusions.

#### Weaknesses

- Although the importance of giving reasons to support conclusions was clearly acknowledged, a significant number of students referred to personal opinion (for example, 'I disagree because I am a Physicalist') to substantiate their claims. Such a response is inadequate and students should be encouraged to use counter-examples and counter-arguments, rather than assertion or opinion, when discussing and evaluating arguments and viewpoints.
- It is important, when making judgments as to the truth of premises and the validity, cogency or soundness of arguments, that students have a clear understanding of such terms and provide reasons why they have made such judgments. When asked to evaluate arguments in Section C of the examination a substantial number of students simply said they agreed with the philosopher's conclusion because 'the premises are true and the conclusion logically follows on from the premises.'
- Although many students demonstrated a good understanding of the arguments and viewpoints expressed in the set texts, a number of students confused the views of Nietzsche with those of Callicles (mainly when responding to Question 2 in Section B). To describe Nietzsche as a hedonist implies a superficial understanding of his philosophy. To avoid this, students should be encouraged to think comparatively about the arguments and viewpoints expressed within the texts throughout the year.
- A number of students mixed up the views of Popper and Kuhn in Section D. Students are reminded of the importance of knowing the texts thoroughly and of reading over their responses before completing the examination.
- Students are reminded to read each question carefully. In Section B, Question 1 a number of students wrote extensively on where opinions about who or what is good may come from but failed to address the issue of whether or not we can be sure we are right. In Question 2 of the same section an overwhelming number of students wrote about the philosophers' views regarding the good life rather than pleasure and many compared the views of Callicles and Socrates rather than those expressed in at least two **texts**. This was also the case in Section D of the examination where many students, in particular those who responded to Questions 1 and 2, did not explicitly address the question they were asked. In the lead-up to examinations students should practise breaking down questions and identifying precisely what they are being asked to do.
- While some students used personal opinion where it was inappropriate to do so, others offered no opinion where it was required. For example, in Section B, Question 3 a number of students wrote extensively on Nietzsche's 'herd morality' but failed to provide an explicit judgment in response to the question. As these kinds of questions have been included in the examination to invite students to 'do' philosophy rather than simply engage in comprehension, such a response is inadequate. The best responses to these kinds of questions are those which demonstrate a thorough knowledge of the text(s) combined with a high level of personal reflection.



- Although many students understood that comparison necessarily involves the examination of two or more views, a significant number of students simply listed these views without explicitly comparing them or providing any critical analysis. Questions which invite critical comparison, such as Question 2 in Section B, require students to find points of comparison between the chosen perspectives and, from this comparison, offer some evaluation of the views.
- Students still seemed to struggle with the process of evaluation, instead offering an interpretation or elaboration of an argument. Extensive discussions on this fundamental aspect of studying philosophy can be found in previous Assessment Reports.
- Students should note that when being asked to refer to the set texts, these are the texts prescribed for Units 3 and 4 by the VCAA. They do not include any additional texts which may have been studied in class.

## SPECIFIC INFORMATION

**Note: Student responses reproduced herein have not been corrected for grammar, spelling or factual information.**

### Section A

#### Question 1

Marks	0	1	2	3	4	Average
%	9	10	22	25	33	2.6

Socrates believes this because a good mind is an orderly or self-disciplined mind. Bad behaviour indicates a lack of self-discipline. Another possible response could have been because Socrates believes it is worse to do wrong than to suffer it.

To receive full marks for this question students needed to say why Socrates believed that 'the worse thing for a criminal is to commit crimes,' if they agree or disagree and provide a reason why.

#### Question 2

Marks	0	1	2	3	Average
%	25	11	23	41	1.8

Aristotle believes that, in feelings and actions and states of character, virtue is a mean lying between the vices or extremes of excess and deficiency.

His examples include:

- courage, between rashness and cowardice
- liberality, between prodigality and stinginess or meanness
- temperance, between licentiousness or self-indulgence and insensitivity
- magnificence, between tastelessness or vulgarity and niggardliness
- proper pride, between 'empty vanity' and 'undue humility'
- good temper, between irascibility and 'unirascibility'
- truthfulness, between boastfulness and mock modesty
- ready wit, between obsequiousness or flattery and being quarrelsome or a 'surly kind of person'
- modesty, between shamelessness and bashfulness
- righteousness, between envy and spite.

To receive full marks for this question, students needed to explain Aristotle's view and give one of his examples. Students who did not use one of Aristotle's examples could not receive full marks.

#### Question 3

Marks	0	1	2	3	4	Average
%	2	5	20	37	36	3

Possible responses to this question included:

- morality serves to constrain our instincts/desires. Thus morality is an expression of obedience to the 'rules' of society
- our timidity and fear of uncertainty drives us to seek consolation in some 'sedative' or mode of thought. These ways of thinking then become our 'compass' for what is right or wrong. Thus we become obedient to their rules

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- although morality may be viewed as an expression of the ‘herd’ and therefore an expression of obedience, it can also be understood as nothing more than a ‘preferred perspective.’ Thus, rather than obedience, it is an expression of our creative moods
- the purpose of morality is to secure the safety of the masses through controlling the strong. Thus morality is an expression of obedience to convention
- morality reflects what is objectively right, thus it is an expression of what is right rather than of obedience/it is the outcome of clear vision.

Although the question did not explicitly ask for a Nietzschean response, most students chose to refer to Nietzsche’s views in their answer. To receive full marks students needed to provide an explicit statement of response to the question. The best answers were those which drew upon the set texts to inform a carefully reasoned, personal judgment.

Following is a student example which demonstrates these characteristics.

*According to Nietzsche adherence to conventional morality as a set of prohibitive rules certainly constitutes obedience as it demands that we subjugate our drives. He described a second type of morality though which is based on freedom, where an individual chooses how to behave for themselves and acts by self-command. Thus morality is an expression of obedience, but it doesn't have to be.*

## Question 4

Marks	0	1	2	3	4	Average
%	3	8	21	33	35	2.9

Possible responses to this question included:

- according to Murdoch, beauty can be the starting point for the good life because ‘we discover value in our ability to forget self, to be realistic, to perceive justly.’ Through forgetting ourselves we are able to transcend, or rise above, the selfish ego, know the real and act in accordance with this
- beauty may not be the starting point for a good life as it can be a source for the inflation of the ego and a breeding ground for self-consoling fantasy
- the contemplation of beauty may incite desire which, to follow Socrates’ reasoning, could lead to a bad life
- the contemplation of beauty brings pleasure, pleasure brings happiness, happiness is central to a good life, thus beauty is a starting point for the good life.

Students could also raise any number of points from Murdoch’s discussion of the relationship between art and virtue.

Although the question did not explicitly ask students to refer to the views of Murdoch in their answer, an overwhelming number of students chose to do so. As with the previous question, full marks could only be awarded to students who included an explicit statement of response to the question and the best answers were those that went beyond an exposition of a philosopher’s argument to provide reasoned, personal reflection on the question.

Following is an example of a successful response.

*Murdoch develops the view that the contemplation of beauty, be it natural or artistic, can be the starting point for the good life since it reorients the consciousness away from the selfish psyche and helps us to appreciate the world as it really is. This is a necessary mindset for taking an objective and virtuous approach to moral problems in our lives. I believe Murdoch is right, though it is perhaps questionable how realistic it is to expect that the appreciation of objective beauty will automatically translate into an ability to solve moral questions objectively, which are quite different to art or nature.*

## Section B

### Question 1

Marks	0	1	2	3	4	5	Average
%	1	3	13	25	30	27	3.6

This question required students to ‘do’ philosophy. To successfully answer it, students needed to propose an argument(s) and justify it with reasons. Students did not need to refer to the set texts and a number of those who did often had difficulty trying to make what they had selected fit the question.

Many students chose to invoke some kind of relativism in responding to the question. This worked most successfully when students used it to evidence a particular claim and was less successful when students simply gave an answer like



'everyone has different opinions on what's right or wrong so we can never be sure we're right.' The best answers were those that presented a developed argument supported with evidence.

Following is an example of response that demonstrates these characteristics.

*Even if morality and the good are objective and absolute, we cannot be sure that our particular version of them is correct. We should keep in mind that our views are strongly influenced by the social and religious climate of our time, and by our personal upbringing and experiences. Nietzsche rightly observes that even moral philosophers ignored these factors in their search for a 'rational ground' for their moral codes – moralities vary too much across time and cultures for such confidence to be justified.*

**Question 2**

Marks	0	1	2	3	4	5	Average
%	2	5	14	23	24	32	<b>1.9</b>

Possible points to consider in this response included:

**Socrates**

- Through the example of courage and cowardice in war (and the example of the catamite), Socrates demonstrates that Callicles' view that those who seek pleasure are good, is untenable.
- Rhetoricians can be seen as those who seek the pleasure of others. Their goal is not the good but flattery, thus men such as Themistocles, Cimon, Pericles, etc. are not good in the true sense.

**Aristotle**

- Aristotle holds that our tendency to pleasure needs to be carefully governed by our reasons (as practised in the context of the mean) if we are to be good people. Thus people who seek pleasure as their ultimate goal are not good people.
- More generally, Aristotle held that the cultivation of a fine moral character is necessary to be considered a good person.
- To be considered good, a thing must perform its unique function well. As the unique function of human beings is reason, and the pursuit of pleasure is a life 'fit for beasts,' a good person is not one who seeks pleasure as their ultimate goal.
- Aristotle also holds that a truly virtuous life will be pleasant, since acting virtuously involves doing the right thing with pleasure.

**Nietzsche**

- Not all pleasures are to be sought. Nietzsche condemns the 'sedative (for example, Epicurean or Christian) medicine and mode of thought' which seeks 'the happiness of repose, of tranquillity.'

**Murdoch**

- Believes that it is through the cultivation of a virtuous character that we make ourselves better.
- Does not explicitly state that a good person does not devote themselves to pleasure but it could be suggested that the pursuit of pleasure necessarily involves a degree of selfishness. To be a good person, according to Murdoch, requires transcending such selfishness.
- Both nature and good art provide delight, but this delight is not all that matters; 'the enjoyment of art is a training in the love of virtue'. Virtue is a requirement of the good person.

To answer this question successfully students needed to offer an explicit statement of agreement or disagreement and critically compare the views expressed in two texts. Although students were not asked to refer to the set texts, the majority chose to and all of the Unit 3 thinkers were represented.

An overwhelming number of students wrote on philosophers' views regarding the good life rather than pleasure, and many simply listed these views and did not critically compare them. Some students read the question incorrectly and wrote on Callicles and Socrates. Many students also incorrectly described Nietzsche as a hedonist – a description which may have resulted from some confusion between the views of Nietzsche and Callicles.

The best answers were those that critically compared the views of two or more philosophers and from this comparison arrived at an explicit, personal position in response to the question.



**Question 3**

Marks	0	1	2	3	4	5	Average
%	9	5	12	19	29	27	3.4

This question required students to draw connections between the arguments and viewpoints expressed in the set texts and contemporary debates about how we should live. Common issues raised by students included global warming, the recent financial crisis, consumer culture and political corruption.

Overall, student performance was reasonably strong, however some students had difficulty identifying debates or misread the question and identified and discussed debates within the texts. Some students also struggled to draw connections between the arguments and viewpoints and contemporary issues. Of concern was the fact that a small number of students discussed texts that were not on the prescribed list.

The most successful responses were those which selected pertinent issues relevant to specific arguments or viewpoints expressed in the texts and drew meaningful connections between these issues and the arguments/viewpoints. These responses also demonstrated a high degree of personal reflection.

Following is a response which demonstrates these characteristics.

*The issue of whether pleasure constitutes the good life has relevance to today's debates about materialism. One can easily imagine a 21<sup>st</sup> century Callicles advocating the consumerist lifestyle as it is highly focused on pleasure. We should keep in mind Socrates' powerful objections, particularly the jar analogy and the argument from opposites.*

*Also, the issue Aristotle raises about honour and the good life is clearly still relevant in today's world, particularly in politics, where our leaders can quickly fall out of favour and be voted out of office –as Aristotle argues, we should be wary of associating the good with something so short-lived.*

**Section C**

**Question 1**

Marks	0	1	2	3	4	5	Average
%	6	12	27	20	18	17	2.8

- I can doubt the existence of my body.
- I can doubt the authorship of my thoughts.
- I cannot doubt the fact of my own doubting.
- I am thinking and, at least while I am thinking, I must exist (cogito, ergo sum).

Possible evaluations included:

- while it is possible to doubt the existence of the body, is it plausible? It would seem the evidence for its existence is stronger than that of the mind which cannot be seen
- if one can doubt the authorship of one's thoughts this would imply that doubt cannot be used as evidence that 'I' think
- is Descartes entitled to say 'I' think? Perhaps all that Descartes has demonstrated is that thinking exists, not the I (fallacy of reification/Ryle's category mistake)
- 'I think therefore I am' may be considered tautological. Thus Descartes cannot be said to have proven anything to us at all.

When answering this question a significant number of students either failed to provide an evaluation or instead provided an elaboration/interpretation of the argument. Some students referred to personal convictions to substantiate their evaluation or dismissed Descartes' argument by saying 'I agree because the premises are true and the conclusion logically follows on from the premises.' These approaches did not result in full marks as students have not addressed the question adequately.

**Question 2**

Marks	0	1	2	3	4	Average
%	28	16	19	14	23	1.9

Armstrong thinks that in the search for truth, only in science do we find that people eventually reach substantial agreement or 'intellectual consensus.' We should grant a 'peculiar authority' to the discipline that can achieve consensus.

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Possible evaluations included:

- how relevant is consensus to truth? Some views which run against the prevailing consensus can be correct
- science may achieve consensus in its own sphere, but does this grant it authority over other spheres? Isn't Armstrong presupposing that the mind is a physical entity by suggesting science has authority in this sphere?
- as science has got it wrong before, should it really be granted a 'peculiar authority' simply on the basis of consensus?

The problems identified in Question 1 also appeared in Question 2. In addition, many students who attempted evaluation mistakenly evaluated Armstrong's Physicalism rather than his argument for the authority of science. Such responses could not be awarded full marks.

Following is an actual student's answer which includes both an exposition and evaluation of Armstrong's argument. It should be noted that a briefer exposition of the argument could also have been given.

*Armstrong exalts the authority of science in determining the nature of man, as the scientific community provides a consensus of learned people that is unprecedented in other areas, such as morality or religion. Therefore, Armstrong adopts the premise that neural states and processes are the inner causes of behaviour. However it can be said that the process of science is fallible, and thus that learned consensus cannot offer absolute certainty. For example, there was once a 'consensus of the learned' that the universe was geocentric, yet we now assume that it is heliocentric. Thus consensus is subject to change. It may be equally as rational to accept the doctrine of Christianity based on the assertion that it has not change for thousands of years.*

### Question 3a.

Marks	0	1	Average
%	51	49	0.5

Either of:

- Armstrong agrees with the Behaviourists that there is no spiritual substance/the cause of behaviour is physical
- Armstrong agrees that a human being is 'nothing but a physico-chemical mechanism'.

### Question 3b.

Marks	0	1	Average
%	52	48	0.5

Either of:

- the mind is an inner arena, not simply an expression of behaviour
- that mental states are not identical with behaviour but lie behind and produce it.

### Question 3c.

Marks	0	1	2	3	4	Average
%	30	12	18	20	21	1.9

Question 3c. asked students to critically discuss the answer given for either Question 3a. or 3b.

Possible responses could have discussed:

#### Question 3a.

- Assertion may be queried by asking whether Materialism can account for certain important features of our mental life.
- It may also be queried by discussing the distinction between seeing brain activity on a scan and the direct and rich experience of thought.
- The issue of qualia and the fact that although brains and mental processes can be quite similar, humans can have very different experiences of phenomena.

#### Question 3b.

- In terms of the first point, a further discussion of the problem of Behaviourism and the similarities and differences between Descartes' and Armstrong's position.
- In terms of the second point, the distinction between outward behaviour (swearing, yelling) and actual states (being angry) could be discussed, demonstrating that although a mental state and outward behaviour are often linked they are sometimes not, which shows they are different things.



Many students struggled with this question and seemed unsure of the directive to ‘critically discuss’, and instead simply fleshed out what they had written in Question 3a. or 3b. Some responses did not correspond to the answers previously given and some students who chose to evaluate their claim resorted to personal opinion (‘I agree because I am a Physicalist’). To receive full marks students had to produce a well-developed discussion of a point or points relevant to what they had written in either Question 3a. or 3b.

Following is a student response which demonstrates these characteristics. This response is particularly notable for its incorporation of carefully reasoned, personal reflection on the issue.

*If the mind is physical, then the pitfalls of dualism (how do mind and matter interact, and why?) are easily avoided, but the implications are arguably more unattractive. Firstly, we are wholly a part of the Physicalist cause-and-effect system, which implies we do not have freewill – determinism. Also, the ‘soul’ invoked by dualism to explain the mind is usually a premise for belief in the afterlife, but this is denied by Physicalism. Of course, these implications do not mean that Physicalism is false, only that it is less attractive and perhaps less intuitive.*

## Section D

Question chosen	None	1	2	3
%	1	21	29	49

Marks	0	1	2	3	4	5	6	7	8	9	10	Average
%	3	3	5	4	5	6	7	7	8	10	9	8.3

It is not possible to anticipate all acceptable responses to the essay questions. The questions do, however, imply that all essays will engage at some level in critical, comparative discussion of the relevant set texts and produce a reasoned judgment about the arguments and viewpoints they express. Students will necessarily have to produce some kind of exposition – either of arguments, viewpoints or concepts – provide evaluation of these arguments, viewpoints and concepts and use concrete counter/examples.

Below are some possible solution pathways for each question and the criteria with which all essays were assessed.

## Assessment criteria

### Expression

- Did the student present the argument in an organised way?
- How clear and precise was the language used by the student?
- To what extent was the language appropriate to philosophy?

### Achievement level

- 0 The student had not reached level 1.
- 1 The student expressed some basic ideas but it was not always clear what the argument was trying to convey. The use of language was not appropriate to philosophy.
- 2 The student presented some ideas in an organised manner. There was some clarity of expression, but the argument could not always be followed. The use of language was not always appropriate to philosophy.
- 3 The student presented ideas in an organised way and the development of the argument could be easily followed. The use of language was appropriate to philosophy.
- 4 The student presented ideas in a clear and coherent way and insights were clearly articulated. The use of language was effective and appropriate to philosophy.
- 5 The student presented ideas in a coherent and incisive way, insights were clearly articulated and the argument was focused and sustained. The use of language was precise and fully appropriate to philosophy.

### Knowledge and understanding

- To what extent did the student demonstrate knowledge of the philosophical issues?
- How well had the student understood philosophical arguments and concepts?



### Achievement level

- 0 The student had not reached level 1.
- 1 The student demonstrated a superficial knowledge of philosophical issues but there was only limited understanding of the concepts used.
- 2 The student demonstrated some knowledge of philosophical issues and there was a basic understanding of the concepts used.
- 3 The student demonstrated a secure knowledge of philosophical issues, and concepts were generally understood.
- 4 The student demonstrated a wide-ranging knowledge of philosophical issues, which were used effectively to support arguments. Philosophical arguments and concepts were largely understood.
- 5 The student demonstrated knowledge which was comprehensive and in-depth, and was used incisively to support arguments. Philosophical arguments and concepts were fully understood.

### Identification and analysis of relevant material

- How well had the student understood the specific demands of the question?
- To what extent did the student provide relevant supporting material?
- To what extent did the student provide appropriate examples?
- How effectively did the student analyse the supporting material?

### Achievement level

- 0 The student had not reached level 1
- 1–2 The student showed little awareness of the specific demands of the question and identified relevant material in only a limited way. There was little analysis and few or no examples.
- 3–4 The student showed some awareness of the specific demands of the question and identified and analysed some relevant material. Some appropriate examples were used.
- 5–6 The student showed a good understanding of the specific demands of the question and identified material which was nearly always relevant. There was a sound analysis of the material. Examples were appropriate and gave support to the argument.
- 7–8 The student showed a clear understanding of the specific demands of the question and identified relevant material which was analysed in a thoughtful way. Examples directly supported the overall argument in a persuasive manner. Some counter-arguments were presented.
- 9–10 The student showed a full understanding of the specific demands of the question and identified material which was always relevant. The implications of this material were drawn out in a detailed analysis. Examples were well-chosen and compelling in their support of the argument. Counter-arguments were presented in a convincing way.

### Development and evaluation

- Did the student develop the argument in a coherent way?
- How well did the student test ideas and arguments?
- To what extent did the student express a relevant, personal response?

### Achievement level

- 0 The student had not reached level 1.
- 1–2 The student developed ideas and arguments in a basic way but there was little or no evaluation.
- 3–4 The student developed some ideas and arguments but the development was simple, or was asserted with support or reference. There may have been some basic evaluation of the ideas and arguments.
- 5–6 The student developed ideas and arguments in a sound way and there was a consistent attempt to evaluate them, even if this was not fully developed.
- 7–8 The student developed ideas and arguments from a consistently held perspective. Evaluation of the ideas and arguments was thoughtful and convincing.
- 9–10 The student developed ideas and arguments from a consistently held and well-justified perspective. Evaluation of the ideas and arguments was compelling or subtle with strong evidence of personal reflection.

### Question 1

This question did not mention any of the set texts, although most good answers referred to them.

#### Possible points for discussion

- Plato's distinction between, and descriptions of, knowledge and belief. For Plato, knowledge and belief are two different 'faculties,' like sight or hearing. As such they have different domains. The domain of knowledge is reality whereas the domain of belief is 'unreality,' a point between reality and incomprehension. Knowledge is therefore connected with the truth of things – 'things as they really are' – whereas belief is synonymous with





opinion. To further illustrate the difference between these two concepts Plato uses the image of the Divided Line. A line is divided into four segments, two which represent the visible realm (which is aligned to belief) and two which represent the intelligible realm (which is aligned to knowledge). The visible realm, which encompasses both the physical objects of the world and their likenesses, is characterised by change and imperfection, whereas the intelligible realm, which contains the 'objects' of knowledge, is characterised by permanence and perfection. As the objects of the visible realm are only imperfect copies of things which belong to the intelligible realm, they cannot be objects of knowledge. To believe so is to mistake knowledge for belief.

- The distinction between knowledge and belief could also be enunciated via Plato's Cave and his Simile of the Sun. An extension of the Divided Line and part of his argument for the Philosopher Kings, Plato's Cave describes a group of prisoners watching shadows which they mistakenly believe constitute reality. When one of the prisoners ascends from the cave, he or she is suddenly presented by things as they are, and the distinction between knowledge and belief is made apparent – a point illustrated by the prisoner's return to the cave. The Simile of the Sun describes the connection between the Good and knowledge. Just as an individual requires the sun to see the physical world distinctly, we apprehend knowledge (things as they really are) by the light of the Good.
- Popper's falsification. According to Popper, what distinguishes science from pseudo-science is its capacity to be falsified (argument outlined below). As scientific theories are always open to testing and therefore open to eventual falsification, we can never really know whether these theories reflect what is true.
- Kuhn's discourse-based understanding of science. According to Kuhn, science may be defined as a cyclical process governed by a series of stages (detailed below in Question 2). Rather than being representative of the truth of things, scientific knowledge is built upon, and reflects, the ideas of the prevailing scientific paradigm
- What is truth? How does the different ways we define this term change our responses to the assertion?
- If knowledge is **justified true belief**, what sorts of justification count?
- Do all kinds of knowledge concern truth?
- Of what kinds of truth can we have knowledge?
- How exactly do things we consider matters of belief differ from things we consider matters of knowledge and how significant are these differences?

## Question 2

### Plato

- For Plato, knowledge and belief are two distinctly different things. The domain of knowledge is reality. It is concerned with the objects of the intelligible realm and is accessible via reason. The domain of belief is 'unreality,' a point between reality and incomprehension. Belief is concerned with the objects of the visible realm, which 'partakes of both reality and unreality,' and is apprehended through the senses.
- The objects of the visible realm are imperfect copies of the universals which exist within the intelligible realm. Unlike the objects of the visible realm, these objects are perfect, permanent and unchanging.
- Thus what constitutes knowledge, in Plato's sense of the word, cannot be proven wrong or overthrown by a new set of beliefs. Only belief, which is concerned with the visible realm and mistakes resemblance for reality, can be subject to change.

### Possible points for discussion

- If Plato's definitions of knowledge and belief are accepted, then the assertion has to be false as it collapses the distinction between the two terms. Thus a salient point for discussion is whether or not knowledge and belief are two separate things and if so, how. Such a discussion would involve an interrogation of the grounds for Plato's distinction between the two terms.
- While what we **call** knowledge may be little more than a set of beliefs waiting to be proven wrong or overthrown by a new set of beliefs (as evidenced by the scientific endeavour). Perhaps this is because, like the sightseers and prisoners in the cave, we have mistaken belief for knowledge.

### Popper

- For Popper, science is defined as that which has the capacity to be falsified, refuted, or tested.
- Popper arrives at this conclusion via his exploration of what he terms the 'problem of demarcation'. This is the problem of how to distinguish a science from a pseudo-science.
- According to Popper this problem cannot be resolved simply by invoking empirical (inductive) method. As he points out, a pseudo-science such as astrology may appeal to evidence based on observation.
- Rather it is a theory's capacity to be tested and falsified, a capacity which can only be the result of 'risky predictions'.



- To evidence this point, Popper refers to, and compares, four theories of currency in post-Imperial Austria – Einstein’s relativity, Marx’s theory of history, Freud’s psychoanalysis and Adler’s ‘individual psychology.’ What distinguished the first from the other three was that it involved a risk – if observation showed that a predicted effect was absent, the theory was refuted.
- For Popper, the criterion of the scientific status of a theory is its ‘falsifiability, or refutability or testability.’
- If this is the case then scientific knowledge may certainly be understood as a set of beliefs waiting to be proven wrong or overturned by a new set of beliefs as any scientific theory is open to further testing and therefore to eventually becoming falsified.

Possible points for discussion

- Although Popper’s theory implies that absolute knowledge is impossible – as all theories are capable of eventually being falsified – the fact that some theories have resisted genuine efforts to disprove them would suggest they have a greater claim to knowledge than theories which cannot be disproved in any way.

**Kuhn**

- According to Kuhn, science is a cyclical process governed by a series of stages (detailed below).
- As scientific paradigms both uncover answers and raise further questions, it seems inevitable that they will experience a period of crisis, during which the prevailing paradigm will be overturned by a competitor that appears to address, or all but address, the problems of the previous paradigm.
- **Scientific** knowledge may be understood as little more than a set of beliefs waiting to be overturned by a new set of beliefs.
- This is not to suggest, however, that scientific knowledge is also a set of beliefs waiting to be proven wrong – paradigm shifts occur not because a paradigm is wrong, but because the puzzle-solving capacity of the paradigm cannot address particular anomalies which have become pronounced and persistent.

Possible points for discussion

- How accurate is Kuhn’s portrait of science? Kuhn suggests that, even during times of crisis, the concrete problem solving abilities of the former paradigm are not discarded, which would suggest there are kinds of knowledge gained through science which are not subject to the vagaries of paradigm shift.
- Although retrospectively the scientific endeavour appears to behave in a way which accords to Kuhn’s theory, this is no guarantee that it will continue to behave in this way.
- It is difficult to see how some of the knowledge gained through science might be superseded or considered as nothing other than belief. Some ideas in anatomy and biology (for example, the physiology of the body) have not changed for centuries and it seems absurd to consider their epistemological status as equal to ideas about what is moral or good.

**Question 3**

**Plato**

- In his image of the Divided Line, Plato draws a clear distinction between the visible and intelligible realms.
- The visible realm, which encompasses the objects of the world and their shadows and likenesses, is apprehended through the senses and our ‘knowledge’ of it may be described as opinion or belief.
- The intelligible realm describes a more fundamental reality which encompasses the ‘forms’ of things both material and conceptual in the visible realm. Its ‘objects’ are apprehended through reason and therefore not subject to the vagaries of change which characterise the visible realm. As it is concerned with what is real, it is a source of knowledge and truth.
- As science concerns itself with the visible realm and derives its truths empirically, one may assume that Plato would not believe that science can provide us with truth.
- This point may be further illustrated by highlighting the synonymy between the practice of empirical science and Plato’s Allegory of the Cave – like the prisoners in the cave who see only shadows, science deduces its ‘knowledge’ from the visible realm.

Possible points for discussion

- The knowledge gained from the visible realm, when acted upon, yields practical results which help us to live our day-to-day lives. It seems counter-intuitive to conclude that this knowledge is really only belief.
- Although knowledge gained through science may be subject to change, does this really mean it is inferior? After all, scientific discoveries have led to significant achievements, particularly in fields such as medical science.



- Even if we accept the forms, why accept that they're more real than the things which participate in them, or that those things aren't real and occupy only a 'dream world?' Such a claim seems odd in light of the above arguments.

### Popper

- The question which Popper addresses is not whether a theory is true or acceptable, but of how science differs from pseudo-science. Thus Popper is not, at least explicitly, concerned with the relationship between science and truth.
- In his quest to draw a line of demarcation between science and pseudo-science, questions regarding the relationship between science and truth are hinted at.
- According to Popper, what separates science from pseudo-science is not the use of empirical (inductive) method. As he points out, a pseudo-science such as astrology may appeal to evidence based on observation.
- It is a theory's capacity to be tested and falsified, a capacity which can only be the result of 'risky predictions'.
- To evidence this point, Popper refers to and compares four theories of currency in post-Imperial Austria – Einstein's relativity, Marx's theory of history, Freud's psychoanalysis and Adler's 'individual psychology'. According to Popper what characterised the latter three was their 'explanatory power' – whatever happened always confirmed them. Einstein's theory was different as it involved a risk – if observation showed that a predicted effect was absent, the theory was refuted. This leads Popper to the following conclusions:
  - confirmations are easy to find
  - they should count, however, only if they result from risky predictions
  - every 'good' scientific theory prohibits certain things – the more it forbids, the better the theory
  - if a theory is irrefutable it is non-scientific; irrefutability is not a virtue of a theory but a vice
  - every genuine test of a theory is an attempt to falsify it. However, some theories are more testable than others
  - confirming evidence should only count when it results from a genuine test of a theory
  - some genuinely testable theories, when found to be false, may be 'rescued' by **ad hoc** changes. Such rescue of a theory (**conventionalist twist**) comes at the price of destroying, or at least lowering, its scientific status.
- The criterion for the scientific status of a theory is its 'falsifiability or refutability or testability'.
- Although Popper does not explicitly make any claims regarding the relationship between science and truth, the above arguments seem to suggest that knowledge or truth is perhaps partially discoverable through the process of showing previous notions are false. However, as any scientific theory is open to further testing, it is also open to eventual falsifiability. It is therefore questionable whether science can provide us with truth.

### Possible points for discussion

- It would seem that, through the process of falsification science could be moving towards some truth via the elimination of what is false.
- However, if all scientific theories may eventually be falsified, it does raise the question of how useful a tool science is for discovering the truth.
- Popper also suggests that it is possible that pseudo-scientific theories can stumble on the truth, whereas scientific theories can be false, therefore suggesting that there is no necessary relationship between science and truth.

### Kuhn

- According to Kuhn, science is characterised by cyclical change governed by a series of stages – pre-science, which describes a period of disorganised activity before the formation of an overarching scientific paradigm; normal science, a period of theoretical homogeneity during which scientists engage in puzzle-solving under a ruling scientific paradigm; crisis, during which pre-existing anomalies within the paradigm have become so pronounced as to threaten the paradigm; revolution, when a competing theory comes along which solves, or all but solves, the problems of the previous paradigm and which is generally accepted by the scientific community; and new normal science, when science again enters a period of theoretical homogeneity under the new paradigm.
- To illustrate this theory Kuhn uses the example of the shift from the Ptolemaic astronomy to the Copernican universe.
- When a paradigm shift occurs all but the concrete problem solving abilities of the previous paradigm are discarded. As such, the history of knowledge may be seen as moving in waves of revolution.
- This is not to suggest, however, that science is moving **towards** a refined and complete understanding of the world. Like Darwinian evolution, science is simply changing and adapting in accordance with its environment.

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- While science may uncover answers to particular questions it will, at the same time, raise further questions resulting in further paradigm shifts.
- Science, although capable of providing us with some kind of knowledge cannot provide us with knowledge in the sense to which Plato refers.
- Either science cannot provide us with truth, or it cannot provide us with truth of the kind that Plato is suggesting.

## Possible points for discussion

- Although science appears to be a series of successive discourses, is it necessarily true that it is not leading towards some deeper truth? Kuhn claims that, when a paradigm shift occurs, the concrete problem solving abilities of the former paradigm are maintained. Also, ideas such as unification suggest science could indeed be moving towards some kind of final and complete idea of the universe.
- Perhaps rather than denying a relationship between science and truth, Kuhn's theory invites us to reconsider truth – for example, through the lens of reliabilism or coherentism.