

# Critical Thinking

## Session Five

*Fallacies III: Conspiracy Theories and Analogies*

Inferences to explanation go wrong

(1) When we fail to consider some worthwhile contenders among the candidate hypotheses, and;

(2) When we make a bad judgement about which is the most probable hypothesis.

# The 'Just So' Fallacy

A 'Just So' argument is an argument in support of a particular hypothesis where the only evidence offered for the hypothesis is that it fits the data - it is consistent with all the known facts about the phenomenon.

# Example

The sudden and dramatic death of Diana, Princess of Wales, in 1997 becomes completely unmysterious if we think of it as the outcome of an elaborate plot by the British Government. Suitably filled out, this theory accounts for the behaviour of the Princess's chauffeur, the presence of the photographers and many other strange aspects of the event. I believe this story, because it fits the facts so well.

# Conspiracy theories

A conspiracy theory is an explanation that cites the existence of a conspiracy as a salient cause of an event.



# Example II

Trevor Loudon and Bernard Moran have recently argued that the anti-nuclear stance taken by the incoming Labour Government of New Zealand in 1984 was the result of an elaborate plot by the Communist Party of the Soviet Union to destabilise the ANZUS alliance. Moran and Loudon claim to have had a source within the Socialist Unity Party who went to the Soviet Union and learnt that the KGB felt that it had such control over the SUP that they could be considered agents for Mother Russia. Loudon and Moran also rest a large chunk of their argument upon the public comments of Dr. Bassett, who has claimed in the past that David Lange's leadership of the Labour Party was fraught with factionalised tensions and that the anti-nuclear stance was forced upon him by his more Socialist colleagues. Loudon and Moran insinuate that these more Socialist colleagues were working on behalf of the SUP, suggesting a Soviet Conspiracy.

Some people think that conspiracy theories are results of inferences to any old explanation rather than the result of an inference to the best explanation.



A conspiracy theory will only be warranted (rational to believe) in a situation where we can show that:

There existed a conspiracy

*A set of plotters who worked in secret to achieve some end*

and:

The conspiracy is a salient cause of the event we want to explain

*It is the best explanation of the event*

# *Definition*

The fallacy of Suppressed Evidence is an argument in which the premises omit crucial information which must be tracked down and added before we can tell whether the premises form part of a strong argument. The omitted information may count for or against the conclusion. All arguments in which evidence is suppressed are fallacious.

# Example

I am beginning to think that the stories of a hidden tunnel complex deep within North Head might well be true. I have spoken with three people who worked on North Head when it was under the control of the Navy, and they swear that they have been in tunnels that they can no longer find access to on the hill.

# Example II

The Boeing Seaplanes and five other aeronautic contraptions from the New Zealand Flying School at Kohimarama were shipped to Torpedo Yard in Devonport when the school was shutdown. Five of the planes were burnt and two were put into storage in tunnels on North Head. These tunnels were subsequently lost and the planes were never extracted. Thus, the two Boeing Seaplanes are still within the hill.



# Analogy

The structure of an atom is a lot like that of a rich Christmas pudding. The individual ingredients, the protons, neutrons and electrons are together in a dense and heavy, quite solid, mixture with not (quite) enough space between them to hide a five-cent piece.

The structure of an atom is like that of a planetary system. In the centre of the atom is the nucleus, which acts as a gravitational centre for all the rest of the particles that spin around it, very much like our sun. The electrons, the particles that orbit the nucleus travel around it like planets travel around the sun.

# *Definition*

To draw an analogy between two things A and B is to assert that they are similar in ways relevant to the discussion that is underway.

We should distinguish between:

Illustrative analogies

and

Arguments by analogy.



# Illustrative Analogy

An analogy designed to make an item, or some of its features, easier to grasp.

# Example

The Chinese economy is like an oil-tanker. It takes a lot to get it going, but it also takes a lot to slow it down.

His lips are like petals, his eyes more beautiful than the beautiful blue amethyst of Galvenston.

# Argument by Analogy I

An argument whose premises assert that as item A and item B are similar in certain respects, *item B will share some further feature that item A has.*

# Example

The government is rightly committed to providing satisfactory defence for all citizens. In just the same way, it should be committed to ensuring satisfactory health care, housing and education for all citizens.

The above argument is an expansion of the following simpler argument, which does not proceed by analogy.

P1. If something is an essential social service, then it is right for the government to be committed to providing it for all citizens.

P2. Satisfactory health care, housing and education is an essential social service.

Therefore,

C. It is right for the government to be committed to providing satisfactory health care, housing and education for all citizens.

# Evaluating Arguments by Analogy

Several considerations bear on the relative strength or weakness of an non-deductive argument by analogy.

1. Number of items B which are compared with A: more items in the B set strengthen an analogy; fewer weaken it.

2. Variety among the B Items; the more variety there is among the items being compared with A, the stronger the analogical argument becomes.

3. Number of respects in which B items are like the A item: the more similarities there are between the items being compared in the analogy, the stronger the argument.

4. Relevance of the similarities between B and A to the conclusion (an imprecise notion): the respects in which the compared items are similar must be relevant to the further respect in which the argument claims they are similar.

5. Number of relevant dissimilarities between B and A: the fewer relevant dissimilarities between instances and conclusion, the better an analogical argument is.



6. Modesty of conclusion: arguments by analogy are stronger when their conclusions are more modest (less bold) with respect to their premises.

# Faulty (or Questionable) Analogies

There are two reasons why an argument by analogy may be fallacious (that is, logically flawed, but also psychologically persuasive).

a) (Bad Principle) The reason for thinking that any items which are similar in the original respects must or are likely to be similar in sharing the new feature turns out to be false or at least controversial.

b) (Bad Analogy) The two situations described in the argument do not in fact have all the features attributed to them in the argument. The two cases are not sufficiently similar for the premises to be plausible. They are different in relevant and important respects.

# Recall

The government is rightly committed to providing satisfactory defence for all citizens. In just the same way, it should be committed to ensuring satisfactory health care, housing and education for all citizens.

[P1. Defence is an essential social service.]

P2. It is right for the government to be committed to ensuring satisfactory defence for all citizens.

**[P3. (The 'Principle' Premise) The reason why it is right for the government to be committed to ensuring satisfactory defence for all citizens is that the following principle is true: If something is an essential social service, then it is right for the government to be committed to providing it for all citizens.]**

**[P4. (The 'Analogy' Premise) Just like satisfactory defence, the provision of satisfactory health care, housing and education falls under this principle.]**

[Therefore,

C1. Satisfactory health care, housing and education is an essential social service (from P4)

and

C2. If satisfactory health care, housing and education is an essential social service, then it is right for the government to provide it for all citizens. (also from P4.)

Therefore,

C3. It is right for the government to be committed to providing satisfactory health care, housing and education for all citizens. (From C1 and C2.)

# Faulty Analogy Example

Minds, like rivers, can be broad. The broader the river, the shallower it is. Therefore, the broader the mind, the shallower it is.

# The Fallacy of Analogical Literalism

An overly zealous response to the assertion of an analogy.

# Example

I'm sick of people saying that retirement's like a long holiday! It's not. A long holiday is a gap between periods of work - and usually one gets paid for at least some of a holiday. Retirement's not like that at all!

# The Fallacy of Illustrative Analogical Argument

An argument by analogy where the analogy is useful only as an illustration - not as a basis for this argument.



# Example

The universe is like a complex machine with parts fine-tuned for specific purposes. But, as we know, any complex machine has a design. So, somebody must have designed the universe.

# The Strawman Fallacy

A Strawman fallacy is an argument against an opponent's position in which that position is misrepresented and then the misrepresentation rather than the opponent's real position is attacked.

Strawman arguments have the following pattern.

1. Person A has position X.
2. Person B presents position Y (which is a misrepresentation of position X).
3. Person B attacks position Y.
4. Person B claims that therefore position X is false/incorrect flawed.

Here are some common versions of the Strawman Fallacy.

Yvonne Eastman suggests that we should instigate a new archaeological investigation of North Head to find the planes. Digging up North Head to find these missing Boeing Seaplanes will result in the complete and utter destruction of the hillside.

*Claiming that somebody's position has extreme practical implications which it might not have.*

Ms. Eastman thinks we should instigate a dig on North Head to find these missing tunnels. We don't really want bulldozers digging up the hillside, do we?

*Simplifying (by ignoring the details of) somebody's position in a way which makes it more extreme than it is.*

Some people still reckon that there are planes hidden under North Head. Worse, these people think that more time and effort could be put in by Government officials to investigate this matter. Clearly they think we should take money away from health or education or some other Government initiative. How, I must ask, will finding the missing Boeing Seaplanes do anything to help this country along?

*Taking somebody's argument out of context.*

The tunnel conspirators are utterly mad. One of them, Maurice Chevalier believes that North Head is actually a UFO refuelling station, and this is the reason why the tunnels are hidden.

*Finding someone who holds an extreme or implausible version of a position and portraying them as representative of the position.*

Teaching more advanced theories of Physics would mean getting more specific about how the atom might work, the Pudding Bowl model, and I hardly think that wacky theories like that are suitable for the twenty-first century classroom.

*Criticising an earlier, speculative, cutting-edge, or relatively crude version of a theory instead of more up-to-date, sophisticated or standard versions and taking the criticism to apply to the theory as it stands now.*