**Critical Thinking**

**Tutorial 2: Criteria for evaluating arguments**

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**Exercise 1: Assessing support**

For each of the following arguments, say whether the premises support the conclusion. That is, assuming the premises are all true, would they provide a good reason to accept the conclusion as true? Explain your answer.

(1) Joab was the son of Zeruiah. Therefore, Zeruiah was the father of Joab.

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| P1. Joab was the son of Zeruiah  Therefore,  C. Therefore, Zeruiah was the father of Joab  Invalid because missing information (can be mother) |

(2) Advertisement: HomeGlo Paints Inc. has won the prestigious ‘Golden Paintbrush’ Award given to the one paint manufacturer in the country that has increased the environmental safety of its product most over the past three years for HomeGlo Exterior Enamel. The Golden Paintbrush is awarded only on the basis of thorough tests by independent testing laboratories. So when you choose HomeGlo Exterior Enamel, you will know that you have chosen the most environmentally safe brand of paint manufactured in this country today.

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| P1. HomeGlo Paints Inc. has won the prestigious ‘Golden Paintbrush’ Award given to the one paint manufacturer in the country that has increased the environmental safety of its product most over the past three years for HomeGlo Exterior Enamel  P2. The Golden Paintbrush is awarded only on the basis of thorough tests by independent testing laboratories.  Therefore,  c. when you choose HomeGlo Exterior Enamel, you will know that you have chosen the most environmentally safe brand of paint manufactured in this country today  true premise both  (The premise doesn’t prove it is the most environmentally safe) |

(3) Democracy will only function well if the majority of citizens are well-informed about current issues. Unfortunately the majority of citizens are not well informed about current issues. Therefore, democracy will not function well.

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| P1. Democracy will only function well if the majority of citizens are well-informed about current issues.  P2. Unfortunately the majority of citizens are not well informed about current issues  Therefore,  C. democracy will not function well.  (valid) |

(4) Irrigation runoff from neighbouring farms may well have increased the concentration of phosphorus in the local swamp above previous levels, but the claim that the increase in phosphorus is harming the swamp’s native aquatic wildlife is false. In fact, the phosphorus concentration in the swamp is actually less than that found in certain kinds of bottled water that some people drink every day.

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| P1. Irrigation runoff from neighbouring farms may well have increased the concentration of phosphorus in the local swamp above previous levels  P2. the increase in phosphorus is harming the swamp’s native aquatic wildlife is false.  Therefore,  the phosphorus concentration in the swamp is actually less than that found in certain kinds of bottled water that some people drink everyday (false because not all people every day drink water) |

**Exercise 2: Drawing conclusions**

Identify the conclusions that can be drawn from the following statements (in some there may be more than one conclusion that can be validly drawn).

1. Johannes is either in Hong Kong or in Thailand. But according to his family, he is not in Hong Kong. Therefore, he may be in Thailand.
2. Countries that do not have a great deal of water need to be careful about how much they use. Australia does not have a great deal of water. Therefore,
3. If God is perfect, then God knows what people intend to do in the future. If God knows what people intend to do in the future, then God can stop people from doing evil. Therefore ….
4. The fault is either in the filter, the modem or the extension cable. We have tested the modem and the filter and both are working fine. Therefore …
5. People with lupus always have a rash on their face. But this patient has no rash on her face. Therefore ….
6. All the students in my class are good critical thinkers. Only people with flexible minds are good critical thinkers. Therefore ….
7. If the patient is dead, then there will be no pulse. If there is no pulse, then the red light will turn on. But the red light is not on. Therefore ….

**Exercise 3: Construct your own argument**

Take the following statements:

1. All authors are philosophers. (false)
2. All philosophers are readers. (true)
3. All philosophers are Greeks. (false)
4. All authors are Greeks. (false)
5. All Greeks are authors. (false)
6. All philosophers are authors. (true)
7. All readers are authors. (false)

Now construct arguments fulfilling the following conditions. Each argument should have two premises and one conclusion.

1. The argument is valid, both premises are false and the conclusion is false.

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| Premise 1:  Premise 2:  Conclusion: |

1. The argument is valid, both premises are false and the conclusion is true.

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| Premise 1:  Premise 2:  Conclusion: |

1. The argument is valid, one premise is true, the other false, and the conclusion is false.

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| Premise 1:  Premise 2:  Conclusion: |

1. The argument is valid, one premise is true, the other is false, and the conclusion is true.

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| Premise 1:  Premise 2:  Conclusion: |

**Exercise 4: The philosophical argument of the week – What kind of argument is it and what does it tell us?**

God is, or He is not. Reason can decide nothing here. [...] A game is being played at the extremity of this infinite distance where heads or tails will turn up. [...] Let us weigh the gain and the loss in wagering that God is. [...] If you gain, you gain all; if you lose, you lose nothing. Wager, then, without hesitation that He is. (Blaise Pascal, 1670, *Pensées*, §233)

Some of the premises of the argument are hidden. Fill in the following decision table, which helps make them explicit. If we accept Pascal’s reasoning, in which scenarios do you win, in which do you lose?

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|  | Christian God exists | Christian God doesn’t exist |
| Lead Christian life and believe Christian God exists |  |  |
| Don’t lead Christian life or believe Christian God exists |  |  |

* **What does this argument tell us about God's existence?**
* **And is it inductively or deductively valid?**