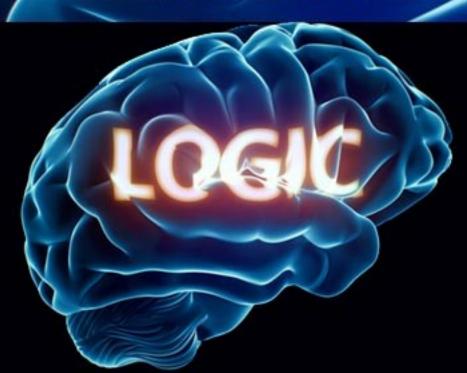
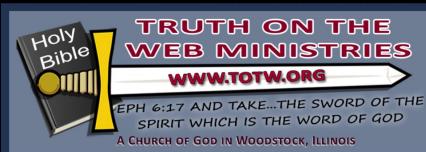
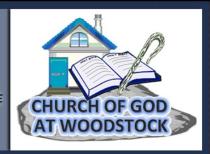
# LOVE THE LORD WITH ALL YOUR MIND: A STUDY IN LOGICAL THINKING



# PART FOUR COGNITIVE BIASES











#### **Review of Terms**

**Argument**: a coherent series of reasons, statements, or facts intended to support or establish a conclusion.

**Propositions**: true / false statements that, when taken together, constitute an argument. There are two basic types of propositions.

**Premises**: true propositions that support the conclusion.

**Conclusion**: the truth that logically follows the premise(s).

#### **Review of Terms**

#### **Strong or Valid argument:**

- A deductive argument where all the premises are true, thus the conclusion must be true.
- An inductive argument in which all the premises are true, and the conclusion is very likely to be true.

#### Weak argument:

 An argument (deductive or inductive) in which the conclusion is not certainly or highly likely to be true (but it might be true).



#### **Review of Terms**

#### **Invalid argument:**

An argument in which one or more of the propositions are false.

- Premise(s) might be false
- Conclusion is false based on premise(s)

#### Logical fallacy:

 Reasoning that is logically invalid, or that undermines the logical validity of an argument.

slippery abusive black-or-white slippery true herving burden incredulity Circumstanti Cproof scotsman & pleading loaded association of a second of the second of t begging 💈 🥟 loaded Strawmred Strawmred bifurcation cause slip proof Sign middle question bifurcation emotion slope of anecdotal slope composition appeal dilemma middle red begging abusive Bandw

|                                   | Logical Fallcies    |                      |
|-----------------------------------|---------------------|----------------------|
| Red Herring                       | Appeal to Authority | Composition/Division |
| Ad Hominem (Abusive)              | The Fallacy Fallacy | No True Scotsman     |
| Ad Hominem (Circumstantial)       | Slippery Slope      | Bifurcation          |
| Ad Hominem<br>(Tu quoque)         | Special Pleading    | Black-or-White       |
| Ad Hominem (Guilt by Association) | Loaded Question     | False Dilemma        |
| Strawman                          | Burden of Proof     | Anecdotal            |
| Personal Incredulity              | Ambiguity           | Middle Ground        |
| False Cause                       | Bandwagon           | Begging the Question |
| Appeal to Emotion                 |                     |                      |

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Logical, rational thinking is to pursue truth. It puts our knowledge, decisions and actions on a firm foundation - Truth.

Thinking logically is thinking as God thinks.

Romans 8:28-29

And we know that all things work together for good to them that love God, to them who are the called according to his purpose. For whom he did foreknow, he also did predestinate to be conformed to the image of his Son, that he might be the firstborn among many brethren.



# **Invalid Argument**

#### **False Premise**

- All have sinned.
- Only God can forgive sins (for eternal life).
- Jesus never said He was God.

**Therefore**, sins cannot be forgiven through Jesus.





# **Invalid Argument**

#### **False Premise**

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Therefore, sins cannot be forgiven through Jesus.





# **Invalid Argument**Unsupported Conclusion

- Jesus was born into the tribe of Judah.
- Jesus was born about 2,000 years ago.

Therefore, Jesus was born in Bethlehem.





# **Invalid Argument**Unsupported Conclusion

- Jesus was born into the tribe of Judah.
- Jesus was born about 2,000 years ago.

Therefore, Jesus was born in Bethlehem.

While both premises are true, neither relates to the conclusion.

- There were many cities in Judah that Jesus could have been born in.
- There were many cities 2,000 years ago that Jesus could have been born in.



# **Invalid Argument**

#### **Logical Fallacy**

- Each religion has its own 'way' to salvation.
- There are many religions.

Therefore, Jesus cannot be the only Way to salvation.





### **Invalid Argument**

#### **Logical Fallacy**

- Each religion has its own 'way' to salvation.
- There are many religions.
- It is possible Christianity is the only correct religion.

Therefore, Jesus cannot be the only Way to salvation.

Fallacy: False dilemma



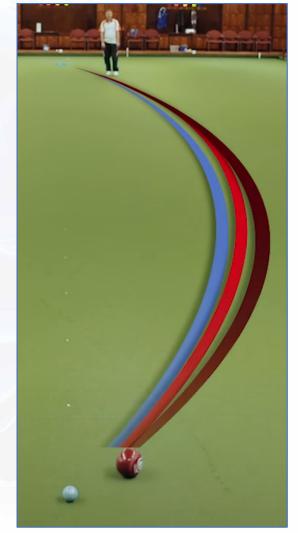


**Bowls / Lawn Bowling** 



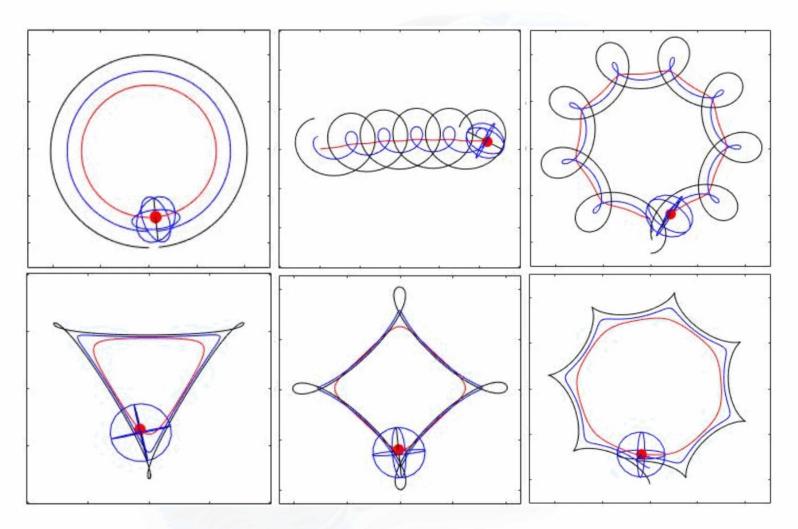
















#### BIAS

#### [Bahy-uhs], noun

- 1. A weight on the side of a bowl which turns it from a straight line.
- A leaning of the mind; inclination; prepossession; propensity towards an object, not leaving the mind indifferent;

Websters 1828 online dictionary





### **COGNITIVE**

[Kog-ni-tiv], adjective

Knowing, or apprehending by the understanding, manner of thinking

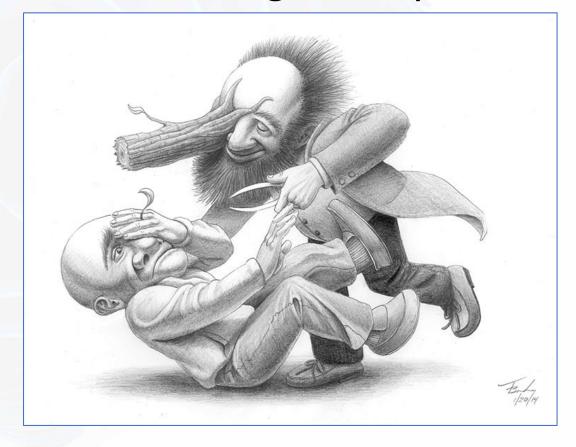
dictionary.com



#### **Bias Blind Spot**

Seeing biases in others but failing to see your

own biases.



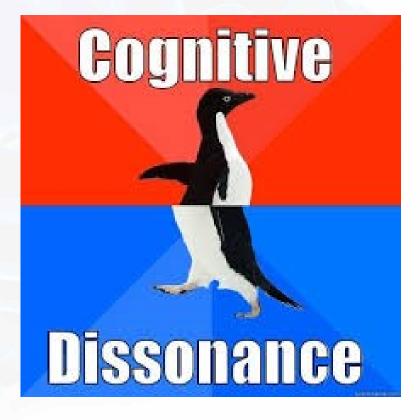




#### **Cognitive Dissonance**

Holding two contradictory ideas at the same

time.

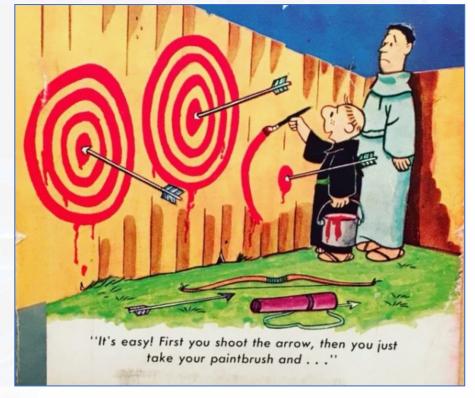




#### **Congruence Bias**

Designing an experiment to confirm your hypothesis instead of an experiment that

challenges it.







#### **Creeping Normality**

A significant problem that doesn't cause alarm

because it happens slowly.







#### **Expectation Bias**

Allowing expectations to unconsciously influence perception or methods.







#### **Group Attribution Error**

Viewing groups of people as more uniform than they are in reality.

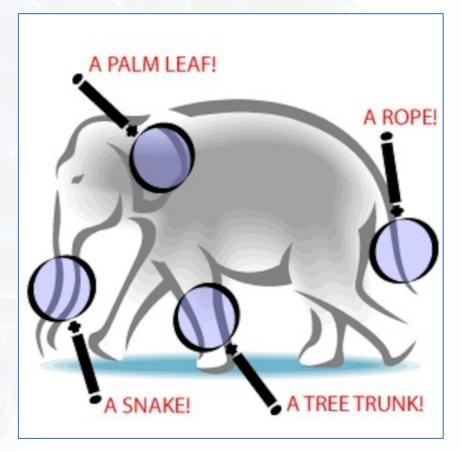
For example, falsely assuming that people from a particular denomination or religion all think

alike.



#### **Hasty Generalization**

A generalization based on insufficient evidence.





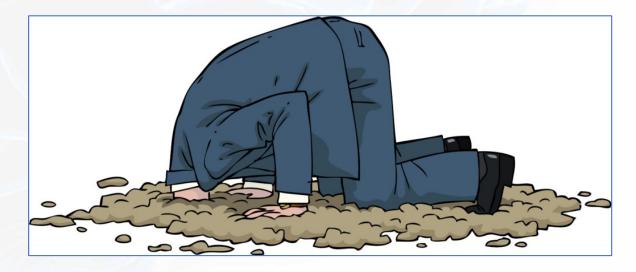


#### **Ostrich Effect**

Ignoring an obvious fact because it is unpleasant.

For example, many people, even some that claim to be Christians, don't like to think of their unsaved family members as sinners headed for

destruction.







#### **Outcome Bias**

Judging a past decision by its outcome as opposed to the quality or soundness of the decision.







#### **Projection Bias**

Projecting your thoughts and emotions on to others.

For example, assuming that other people are happy when you are in a good mood.







#### **Rosy Retrospection**

Recalling past experiences as more pleasant than they actually were.





#### **Sour Grapes**

A tendency to criticize something you want but

can't obtain.





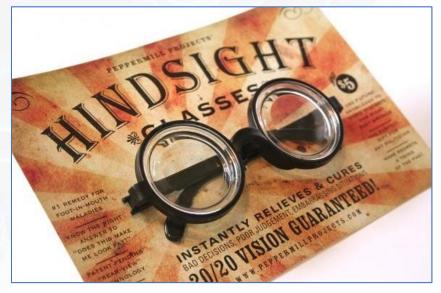


#### **Hindsight bias**

The common tendency for people to perceive past events as having been more predictable than they actually were.

Also known as 'The knew-it-all-along

phenomenon'







#### **Anchoring**

Relying too heavily on the first information you receive.

For example, car dealerships tend to put the most expensive cars up-front, thus setting the

price anchor high.





#### **Sunk Cost**

Clinging to things that have already cost you something.

For example, when you've invested time, money, or emotion into something, it hurts to let it go.







#### **Availability Heuristic**

Judging things based on what's available in your memory.

For example, people tend to overestimate the likelihood of "newsworthy" events such as an aircraft safety incident because such events are

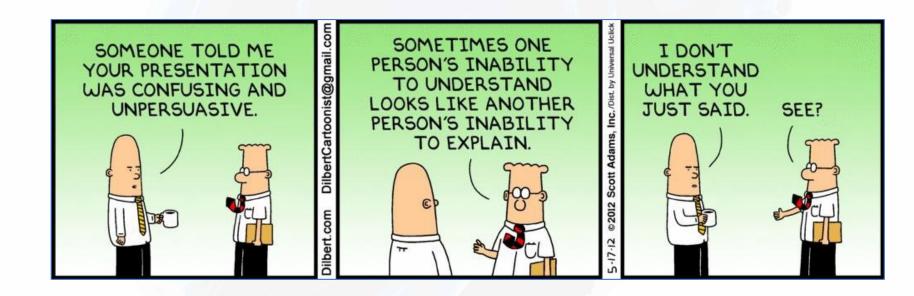
easy to recall in memory.





#### The Curse of Knowledge

Once you understand something you presume it to be obvious to everyone.



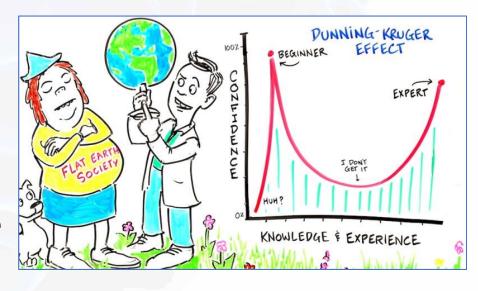




## The Dunning-Kruger Effect

The more you know, the less confident you're likely to be.

The tendency for beginners and unskilled individuals to overrate themselves and experts and highly capable individuals to underrate themselves.







#### **Fundamental Attribution Error**

Judging others on their actions / character, but yourself on the situation.

For example, if you haven't had a good night's sleep, you know why you're being a bit slow; but if you see someone else being slow you might presume them to just be slow.







#### Reactance

Urge to do the opposite of what someone is

trying to make you do.







#### The Backfire Effect

A tendency to harden a belief or opinion after being challenged.

Also known as 'Attitude Polarization'







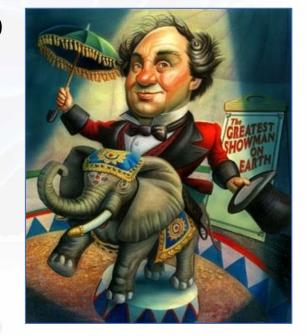
#### **Barnum Effect**

Viewing general information as an accurate and insightful depiction of your personality.

For example, the ability of 'fortune tellers' and 'personality tests' to impress with statements

such as "you value friendship but also find your friends challenging from time to time."







# **Cherry Picking**

Favoring things that confirm your existing beliefs.

Also known as 'Confirmation Bias'







### **Cognitive Inertia**

A general tendency for beliefs to endure even in the face of mounting evidence that suggests they are wrong.







#### **Belief Bias**

If a conclusion supports your existing beliefs, you'll rationalize anything that supports it.











#### Jeremiah 17:9

The heart is **deceitful** above all things, and desperately wicked: who can know it?





#### Jeremiah 17:9

The heart is **deceitful** above all things, and desperately wicked: who can know it?

#### John 3:19

And this is the condemnation, that light is come into the world, and men loved darkness rather than light, because their deeds were evil.





#### Romans 8:9-11

But ye are not in the flesh, but in the Spirit, if so be that the Spirit of God dwell in you. Now if any man have not the Spirit of Christ, he is none of his. And if Christ be in you, the body is dead because of sin; but the Spirit is life because of righteousness. But if the Spirit of him that raised up Jesus from the dead dwell in you, he that raised up Christ from the dead shall also quicken your mortal bodies by his Spirit that dwelleth in you.



#### Romans 12:1–2

I beseech you therefore, brethren, by the mercies of God, that ye present your bodies a living sacrifice, holy, acceptable unto God, which is your reasonable service. And be not conformed to this world: but be ye transformed by the renewing of your mind, that ye may prove what is that good, and acceptable, and perfect, will of God.



# LOVE THE LORD WITH ALL YOUR MIND: A STUDY IN LOGICAL THINKING

ENJOY THE REST OF THE SABBATH

# PART FOUR COGNITIVE BIASES

