# The Logical secrets of an argument: some techniques to use and some traps to avoid

## Different types of arguments

One can use different approaches in building up an apologetic argument:

**Arguments derived from history** (archeological proofs, data from the Bible, prophecies from the Bible, etc.)

**Arguments easy to understand intuitively** (yet these are very heavily depending on cultural traditions)

Arguments based on logical deductions – yet these depend on the premises used (and accepted) and on the logical mechanism of the argument. The foundation and the building above. For example: it is logical to suppose that things were derived from something / somebody, until we reach the limit of an uncreated cause or person. Anselm of Canterbury and Thomas d'Acquinas argued that existence is stronger than non-existence and personhood is more important, has priority in front of non-personhood).

Arguments based on human knowledge: scientifical or experiential. Science is the sum of our knowledge plus the theories we develop in order to explain this knowledge of facts. Arguments based on design, observed patterns and theories that explain the connection.

### Arguments based on human life experience:

The satisfaction argument (C.S. Lewis: the possibility to enjoy and desire argue for the existence of that ideal source of enjoyment)

The argument from suffering and troubles (the problems and suffering in the life of humankind are a good argument that there is something wrong we can call "sin", and there should exist somewhere a salvation and a saviour)

The ethical argument: the existence of a moral or ethical order in the Universe, or desire, indicates there should exist a Supreme and Just creator).

One of the problems from using this type of logical approaches in our postmodern times is the acceptance of relativity in thinking and values, the denial concerning any absolute values or references.

Are there several types of logics? What are these?

Binary logics (true-fale, black-white, good-wrong, o-1). What about gray areas or shades – or shades of gray?

Multiple values logics

(tertiary logics: true-false-undecided, etc.) (quaternary logics: true-false, conditionally-true, conditionally-false)

## **Elements of Classical Binary Logic**

There are four main laws or principles of Classical Binary Logic:

- I. Identity (clarity and precision)
- II. Non-contradiction (coherence)
- III. The third is excluded (rigor, consistency)
- IV. Sufficiency (basics, certainty, confirmation).

## **Identity**

What is A? Answer: A=A (description, explanation)

When B is A? Answer: If A=B

This is how we answer the question: What is A? And when is B the same with A?

The Identity principle leads to clarity and precision in our statements or affirmations.

# Non-contradiction and the third is excluded (tertium non datur).

Let there be A1="Paul is an apostle" Let there be A2="Paul is not an apostle"

A1 and A2 cannot be true at the same time. If A1 is correct, then A2 is not correct. A1 and A2 are contradictory. Two statements cannot be both true, if one is the first one denied (the negation of the first). Or, the affirmation of something cannot be the same thing with its negation – or denial. Or, the existence of a quality cannot be the same thing with its non-existence. In binary logics there is nothing that could be true and false at the same time.

In the Bible much is in binary logical form: truth and lies, good and evil, life and death, blessings and curses, light and darkness, day and night. The creation of the world in Genesis 1-3 start with this information: there are things like strong pairs of opposite terms, or antithetical terms, they are fundamental to this Universe and to life as it is known.

The third out principle says, there is no A3 possibility so that A1 and A3 be both false and A3 should be true (correct). Paul is an apostle or Paul is not an apostle, there is no possibility that both are true or both are false, there is no third possibility.

Now, if there different deffinitions to the word "apostle", there could be a third meaning possible...

Let's say apostle could mean:

- a) One of the 12 apostles
- b) Another apostle, the 13th apostle.

Then both A1 and A2 could be false or true, because there is a third possibility.

Thus.

A1. Paul is an apostle (yet he is the 13th apostle)

A2. Paul is not an apostle (yes, he is not one of the 12 apostles).

We have, then, another possibility:

A3. Paul is an apostle, of a different kind than the 12 apostles. apostol – dacă este vorba despre cei 12 apostoli, însă el este apostol, dacă este vorba să ne gândim la faptul ca este apostolul neamurilor, fiind numit și "al treisprezecelea apostol".

Or, in another example:

Beautiful and Ugly – are the binary opposites? Can there be something that is beautiful and ugly at the same time?

On God. See Isaia 44.6-8

Thus says the LORD, the King of Israel and his Redeemer, the LORD of hosts: "I am the first and I am the last; besides me there is no god.

Who is like me? Let him proclaim it, let him declare and set it forth before me. Who has announced from of old the things to come? Let them tell us what is yet to be.

Fear not, nor be afraid; have I not told you from of old and declared it? And you are my witnesses! Is there a God besides me? There is no Rock; I know not any."

The definition of God, according to the Bible, is that he is unique and absolutely good and righteous, and powerfull, all knowing, etc.

So, according to this definition, to affirm there are several Gods is a contradiction.

Or something like that:

God is all-powerful,

Then can create anything, ie a stone he cannot lift.

If he does that, then he cannot be God

because he cannot do indeed anything in the Universe

## The Sufficiency principle

There are three types of statements that can be made or conditions, or characteristics that could be affirmed in relation to something.

- a) Necessary, yet not sufficient;
- b) Sufficient, yet not necessary;
- c) Necessary and sufficient this is the complete minimal set of conditions so that something may exist.

To start a race is necessary in order to win it, yet not sufficient.

To start, to run and to end it - is necessary yet not sufficient to win it.

To start, to run faster that all, and end it, this is necesarry and sufficient in order to win it.

Or,

To fall in love is sufficient for getting married.

To fall in love, to ask, to be accepted and to declare it publically, before the state and the church, is necessary and sufficient in order to be married.

## Syllogism as a major logical mechanism in arguments

A three pronged (stages) deductive argument:

Premise 1 (condition 1) – the major premise Premise 2 (condition 2) – the minor premise

Conclusion

White is good.

This light is white.

This light is good.

Dogs bark and bite.

Rex is a dog.

Rex barks and bites.

Cats eat mice.

Katy is a cat.

Katy eats mice.

Never ending circular conclusions or contradictions:

Epimenides says all Cretans are liers.

Epimenides is a Cretan.

Epimenides is a liar.

## Usual traps and mistakes in logical arguments:

ad hominem Atacking people, not their

arguments. (Look how ugly he

is, ... he cannot be right).

Post hoc ergo propter hoc If one comes after another, the

> first is the cause of the second... (not necessarily, it is just later... sequence or does not mean succession

causality or generation...)

Cum hoc ergo propter hoc If two things happen in the

> same time it does not mean they are related in anv

significant way...

If somebody did it before me, it Tu quoque

> does not mean I have the right to do it as well (precedence does not mean excellence... tradition is not be default a

good thing...).

I take it to be true, because ad ignorantiam

nobody proved it to be wrong...

ad silentio I take it to be true, because

> nobody said something

contrary to it...

To believe that if something is ad novitatem

new, is also better...

superior.

ad populum (ad numerum, consensus gentium)

To believe that if many do accept something, this must necessarily be good, and correct.

Apeal to mercy – if you love me, or care for me, or value what I have done for you, you should accept what I am saying

**Using threat to convince** ... – if you don't believe me and accept me, then there will be consequences, because I have other means to make you accept it...

**Circular arguments** – moving in circles, repeating the premise in the conclusion, instead of reaching a new conclusion. Example:

"Straw man" - argument - I oversimplify something or some one, and present it as something or someone that needs to be rejected, and then reject it.

What is this little soldier, it is just a simple, good looking, blond hair boy, I will kill him like more that a dog... (Goliath on David).

### Let's do some Bible reading:

#### THE BIBLICAL TEXT: 1 CORINTHIANS 15:12-20

Now if Christ is proclaimed as raised from the dead, how can some of you say there is no resurrection of the dead?

If there is no resurrection of the dead, then Christ has not been raised;

and if Christ has not been raised, then our proclamation has been in vain and your faith has been in vain.

We are even found to be misrepresenting God, because we testified of God that he raised Christ-- whom he did not raise if it is true that the dead are not raised.

For if the dead are not raised, then Christ has not been raised.

If Christ has not been raised, your faith is futile and you are still in your sins. Then those also who have died in Christ have perished. If for this life only we have hoped in Christ, we are of all people most to be pitied.

But in fact Christ has been raised from the dead, the first fruits of those who have died.

#### LOGICAL STRUCTURE OF THE BIBLICAL TEXT:

Now if Christ is proclaimed as raised from the dead, how can some of you say there is no resurrection of the dead?

#### Premise 1:

If there is no resurrection of the dead,

#### **Conclusion 1:**

then Christ has not been raised:

#### Premise 2:

and if Christ has not been raised,

#### **Conclusion 2:**

then our proclamation has been in vain

#### **Conclusion 3:**

and your faith has been in vain

#### **Conclusion 4:**

We are even found to be misrepresenting God, because we testified of God that he raised Christ whom he did not raise

(if it is true that the dead are not raised).

(Again:)

#### Premise 1:

For if the dead are not raised,

#### **Conclusion 1:**

then Christ has not been raised.

#### Conclusion 1=Premise 2

If Christ has not been raised,

#### **Conclusion 2**

syour faith is futile

#### **Conclusion 3**

and you are still in your sins.

#### **Conclusion 4**

Then those also who have died in Christ have perished.

#### Conclusion 5

If for this life only we have hoped in Christ, we are of all people most to be pitied.

Counter-argument, it means that the premise 1 is wrong

**But** in fact Christ has been raised from the dead, the first fruits of those who have died.

(Then the premise 1: there is no resurrection, nobody will rise to life again, is wrong)