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# Do's and Don'ts of Teaching about Faith and Science

Ministry Days 2019 Deacon Ken Crawford



# Introduction

- Deacon Ken Crawford
  - Degree in Computer Engineering
  - Convert to the faith (RCIA Sacraments Easter 1999)
  - $_{\circ}$  Ordained June 2018
  - $_{\odot}~$  Passion for helping people learn the faith



#### Overview

- Review misconceptions people have
  - o Rationality
  - Science
  - Faith -> Religion & Theology
- Ideologies we have to fight
  - Fundamentalism
  - Scientism
- Do's and Don'ts
  - Ways we unintentionally re-enforce the misconceptions
  - Opportunities to teach

# Faith and Science Misconceptions



# **Rationality - Definitions**

- Rational
  - Relating to, based on, or agreeable to reason

#### Reason

the power of comprehending, inferring, or thinking especially in orderly rational ways : INTELLIGENCE

#### Intelligence

 The ability to apply knowledge to ... think abstractly as measured by objective criteria

(Definitions from Merriam-Webster)



# **Rationality – Assumptions**

- Reason requires a starting point
- All reason is based on starting assumptions
- Yes, really!
- Even science

# **Definition of Science**

- Science (from Merriam-Webster)
  - A system of knowledge covering general truths or the operation of general laws especially as obtained and tested through scientific method

#### Scientific method

- 1. Make an observation or **observations**.
- 2. Ask questions about the **observations** and gather information.
- 3. Form a hypothesis a tentative description of what's been **observed**, and make **predictions** based on that hypothesis.
- 4. Test the hypothesis and **predictions** in an experiment that can be **reproduced**.
- 5. Analyze the data and draw conclusions; accept or reject the hypothesis or modify the hypothesis if necessary.
- 6. **Reproduce** the experiment until there are no discrepancies between **observations** and theory.

(Definition from LiveScience.com)



## **Science assumptions**

- Our observations are real and trustworthy
- We live in an ordered universe
- The order does not change over time
- God does not frequently interfere with the order



# **Methods of discovery**

- Science
- Mathematics
- Philosophy
- Religion/theology/meta-physics

#### All are exercises in the use of reason



# **Faith -> Religion & Theology**

- Many presume that 'Faith' must not use reason, logic or have evidence
- Articles of Faith of most religions are based on observed events
- Theology is an extension of observation, using reason and logic to do so

# Fundamentalism



### **Christian Fundamentalism**

- Definition from Merriam-Webster
  - A movement in 20th century Protestantism emphasizing the literally interpreted Bible as fundamental to Christian life and teaching
- Literal understanding of Genesis
  - Literal 7 days of creation
  - Literal Adam and Eve
  - $_{\odot}$   $\,$  Literal Eve made from literal rib of literal Adam  $\,$
  - View 1st few chapters of Genesis as effectively a scientific explanation of the origins of the universe

# Catholics are not fundamentalists

- Scripture must be understood in the context in which is was written
  - Genesis is not trying to describe the physics of the creation of the universe
  - $_{\odot}$  ~ It is a description of the nature of creation
    - God is the creator of everything one could imagine (and more)
    - Creation is good
    - God made mankind in His image
- Catholics respect scientific inquiry and discovery
  - $_{\odot}$   $\,$  scientists must restrict their conclusions to the observable universe
  - We also expect scientific research to respect moral limitations





#### Scientism

- Definition from Merriam-Webster
  - An exaggerated trust in the efficacy of the methods of natural science applied to all areas of investigation (as in philosophy, the social sciences, and the humanities)
- Scientists who assume that the only truths are those that come from the observable universe, believe in the 'religion' of Scientism.



## **Limits of science**

- Questions science can never answer
  - Any 'Why' question
  - Whether anything exists outside the observable universe
  - Prove a miracle (caveat: It can disprove a false one)
  - Validity of any moral judgment





#### **Don't: Defend Church with Galileo**

- Concession: The Church is not perfect
  - Throughout its history the Church has made plenty of mistakes
  - Similarly, the Church's actions with Galileo were not ideal, particularly as we view things today.

#### • Church made plenty of mistakes

- House arrest was a bad idea
- Forced to recant scientific discoveries
- Used power/authority instead of argument and persuasion
- Banned books beyond even what it rightly was concerned about



#### **Do: Put Galileo in context**

- Key question: Why Galileo and not Copernicus?
  - Galileo's research build upon Copernicus' research
  - Copernicus was a priest in good standing with the Church
- Answer: Galileo didn't limit himself to science
  - He had an uncontrolled temper
  - He demanded that his hypothesis be accepted as fact
  - He meddled in the Scriptures
  - He disrespected the authorities of the Church
  - $_{\odot}$   $\,$  His beliefs beyond science were indeed heretical
- Again, admit the Church wasn't perfect, but these events weren't just about science

# **Do: Share examples of Catholic Scientists**

- William of Ockham
  - O Created Ockham's Razor

#### Copernicus

- Catholic priest who first discovered heliocentrism
- Do: Learn how to pronounce co pern eh cus

#### Christopher Clavius

- Jesuit who drove Pope Gregory XIII to promulgate the Gregorian calendar
- Gregor Mendel
  - Augustinian Friar who is the father of modern genetics

#### George Lemaitre

Catholic priest and father of the Big Bang theory



#### **Don't: Defend fundamentalists**

- Lot's of reasons to be charitable to fellow Christians
  - $\circ$  This isn't one of them
- Too many people think their view of scripture is universally used throughout Christendom



#### **Do: Justify moral limits on research**

- Conclusions of science never explicitly have moral implications
- Experiments can be immoral
  - Anything that violates the dignity of the human person
  - Anything that tortures animals
  - Anything excessively destructive



### Don't: Avoid word 'religion'

- Trend to use the word 'faith' instead has negative consequence in this realm
- Words that increase rationality
  - Theology
  - Doctrine
  - Meta-physics
- Less troublesome alternates to 'faith'
  - World-view
  - Devotion
  - Spirituality
  - Church
  - Communion

#### Do: Talk about evidence for Catholic beliefs

#### • There is lots of evidence for what we believe

- Life of Jesus is well documented
  - Including extra-biblical and non-Christian sources
- Resurrection has evidence
  - Scripture
  - Archeological (can apply the same thinking to Assumption)
- Miracles are investigated by the Church
  - Often rejected by Church as either natural event or fraudulent
  - Note: Who is more free to investigate a miracle? Someone who can accept either answer (either miraculous or not) or an atheist who will only accept one answer (not miraculous)
- Much of what we believe is rational extension of what we have evidence for



# Don't: Overstate the "proofs" for our faith

- While there is lots of evidence, it can't be proven
- It doesn't hurt our cause to admit that
- Instead it makes us look rational



# **Don't: Use the word "proof" when discussing science**

- Some will claim science has a method to "prove" it's truths
  - It has become a common vernacular to use the word "proof"
  - We should not give into the temptation to go along
- Scientific method is a negative model for discovering truth, not a positive one
- It can never "prove" anything
  - But nor can anything else

#### **Do: Differentiate between Scientism and Science**

• Too often the difference is ignored or

#### forgotten

- Scientists use the scientific method to discover new truths about the physical universe
- Believers in Scientism falsely suggest their beliefs are "proven" by science, and ignore that it is a belief system

#### Make sure to promote good science

The differentiation rings hollow if we don't actually promote good science



#### **Do: Talk about rational religion**

- Meta-physics is not merely "blind faith"
  - There is much evidence for our faith
- Rational Religion
  - Revelatory evidence
  - o Reason



### Conclusion

- Science and theology should work in concert with one another
- Pope Leo XIII
  - "There can never, indeed, be any real discrepancy between the theologian and the physicist, as long as each confines himself within his own lines, and both are careful, as St. Augustine warns us, 'not to make rash assertions, or to assert what is not known as known.'"



### **Additional Information**

- Webpage:
  - o <u>http://deaconken.org</u>
- E-mail:
  - ken@deaconken.org
- Slides
  - <u>http://deaconken.org/blog/category/presentations/</u>
- Audio/Video may be available at a later date.
  - o Check <u>http://deaconken.org/blog</u>







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