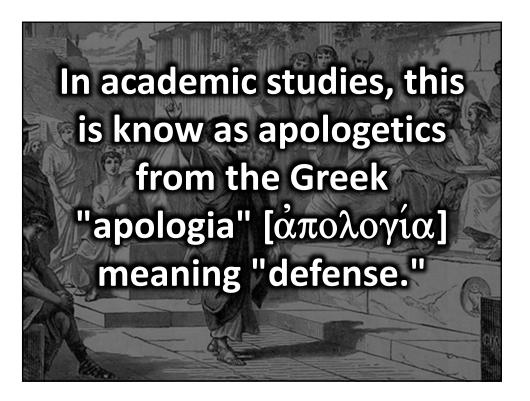
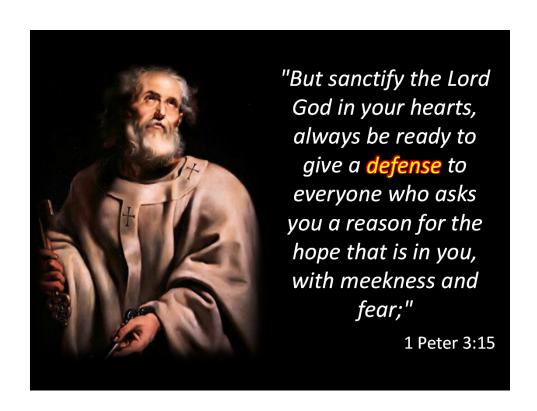
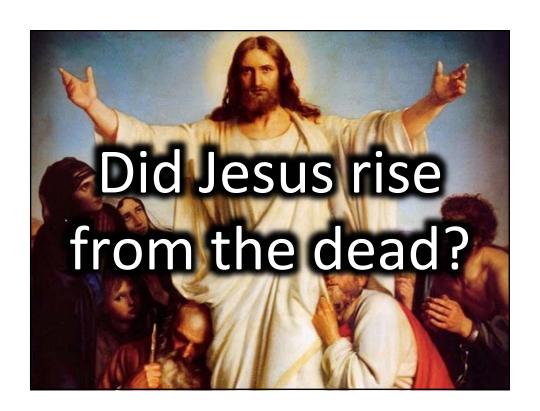


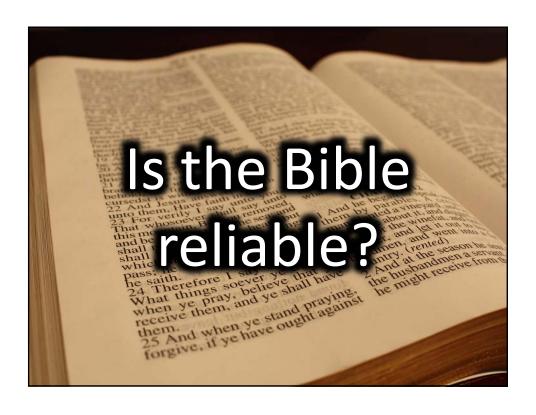
Giving the case for Christianity means putting forth evidence and arguments demonstrating that Christianity is true.

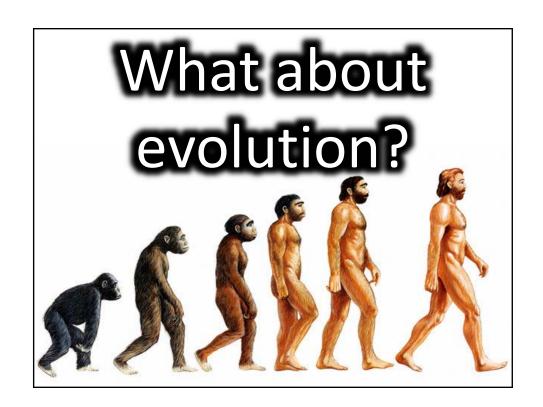


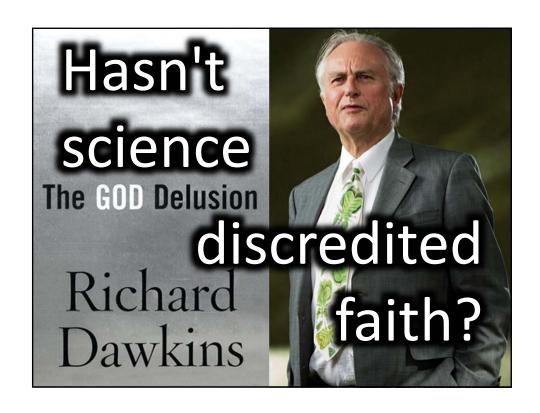


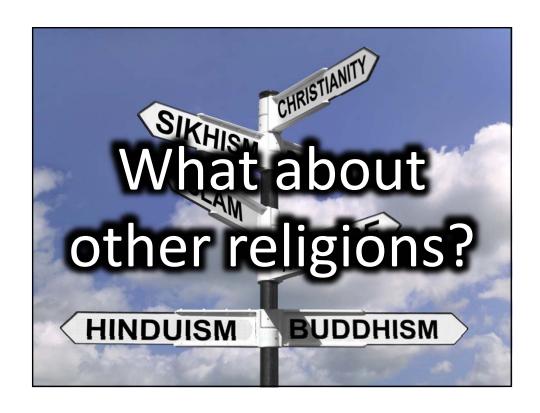




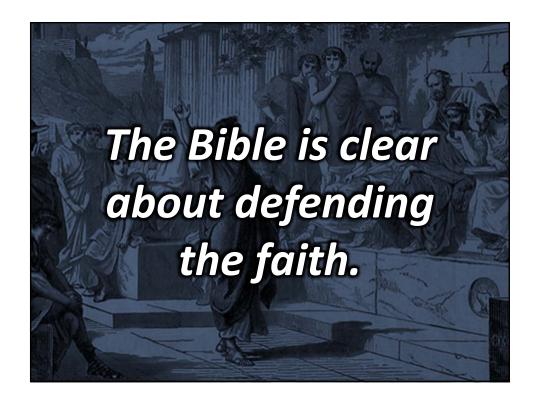


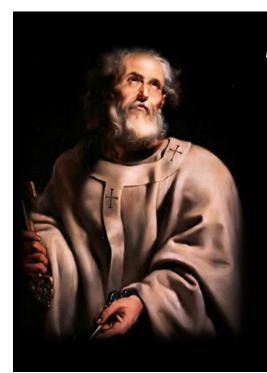












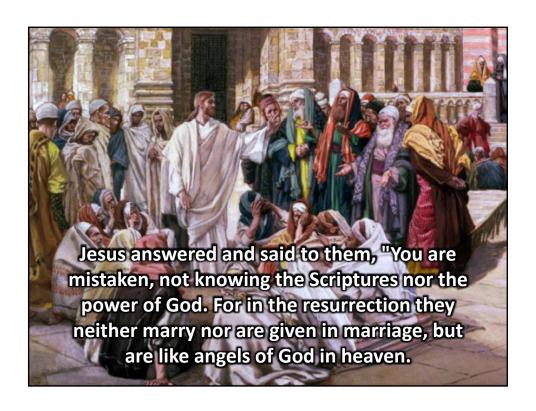
"But sanctify the Lord God in your hearts, always be ready to give a defense to everyone who asks you a reason for the hope that is in you, with meekness and fear;"

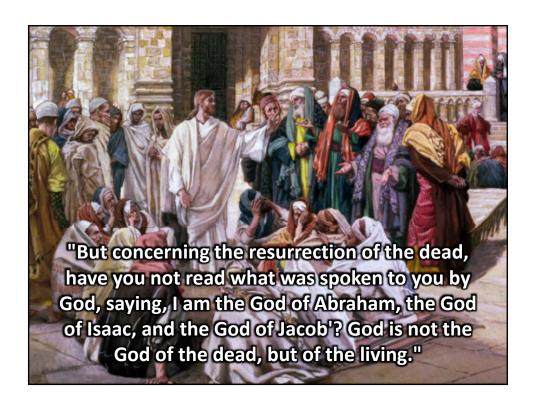
1 Peter 3:15

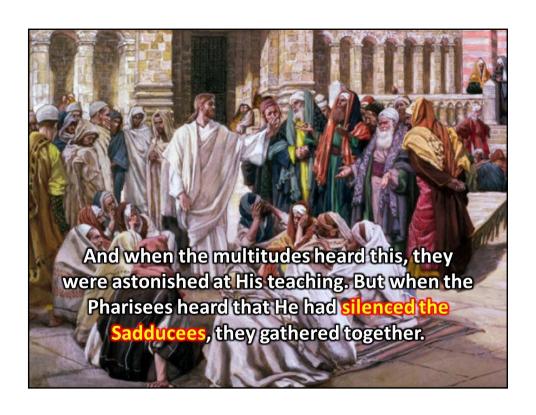


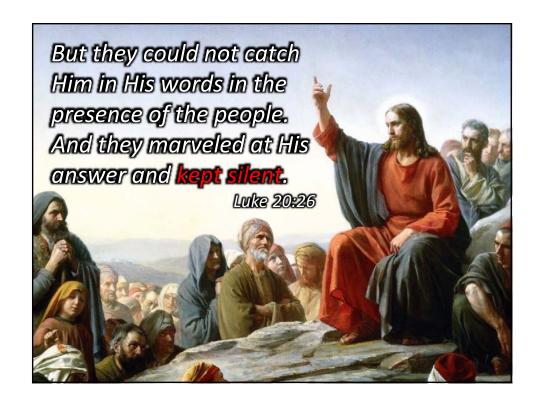
"For there are many insubordinate, both idle talkers and deceivers, especially those of the circumcision, whose mouths must be stopped,"

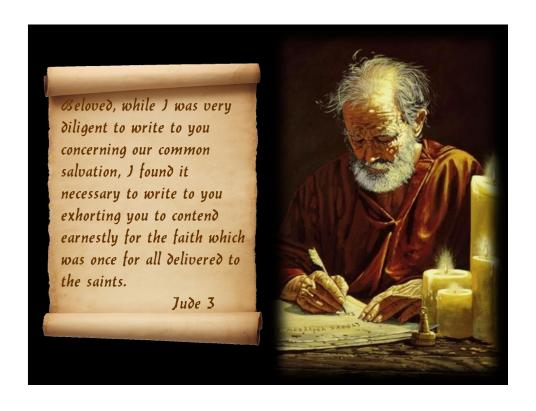
Titus 1:10-11a (cf. Matthew 22:29-34)

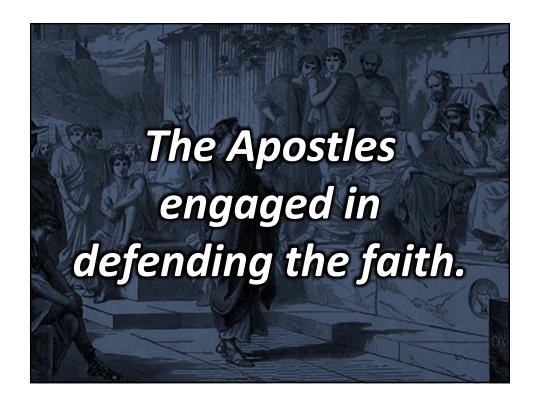


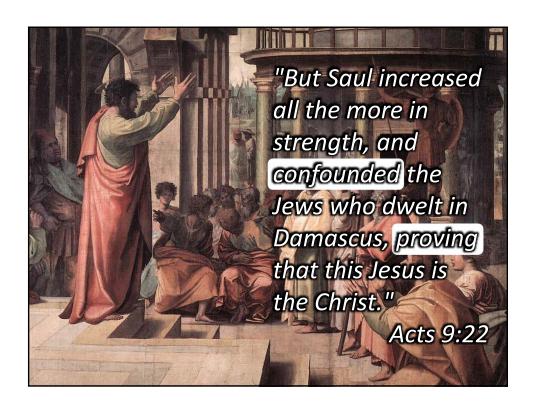


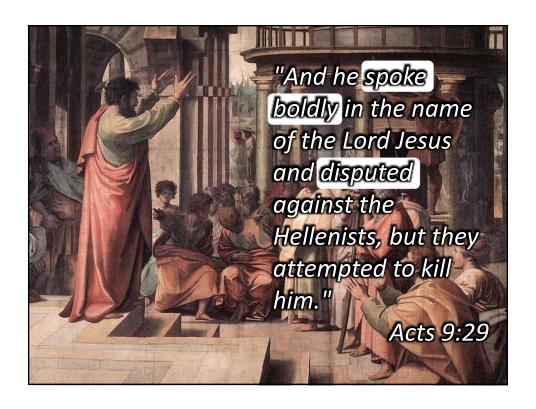


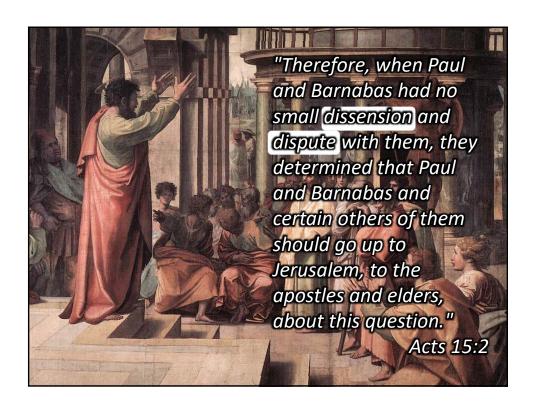


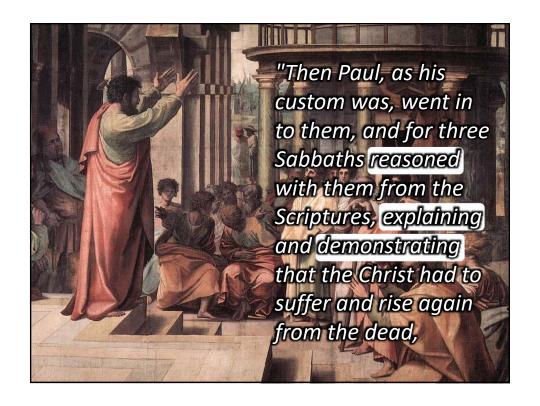


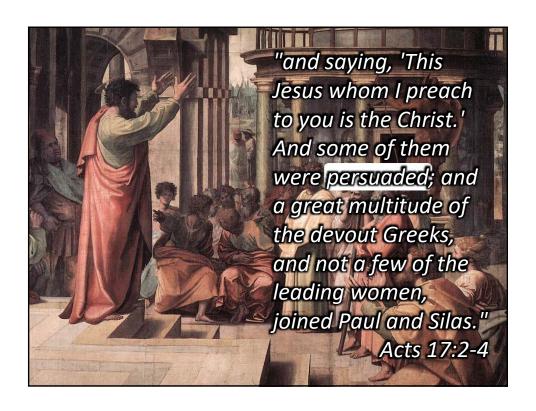


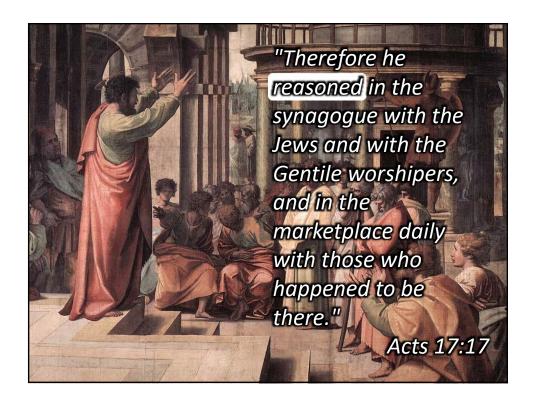


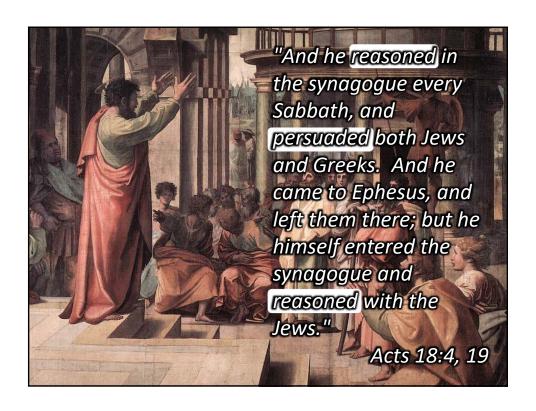


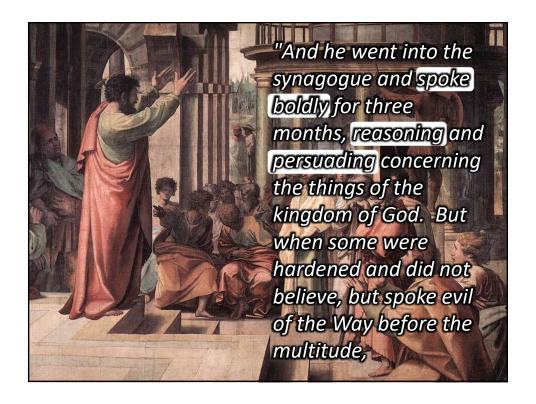


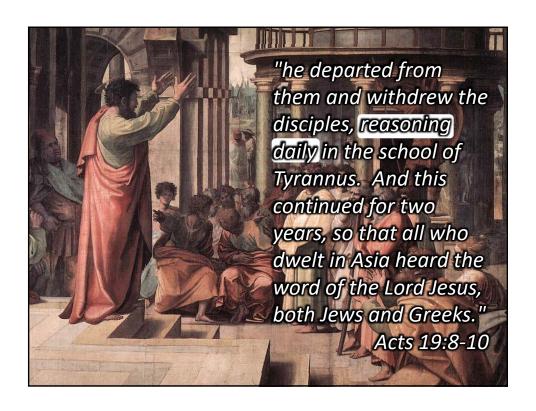


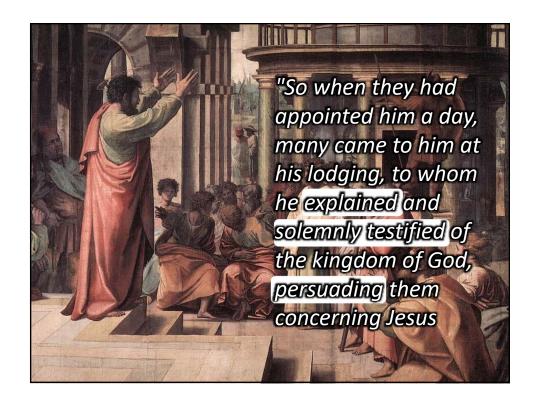


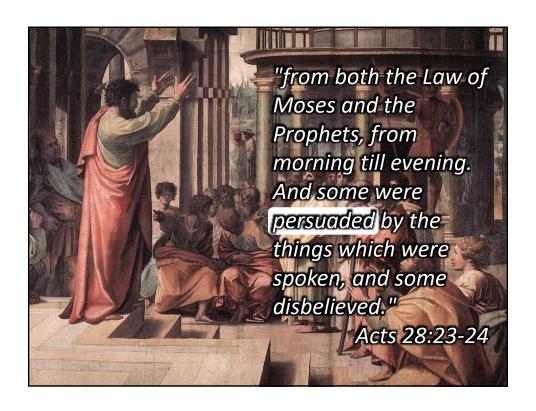


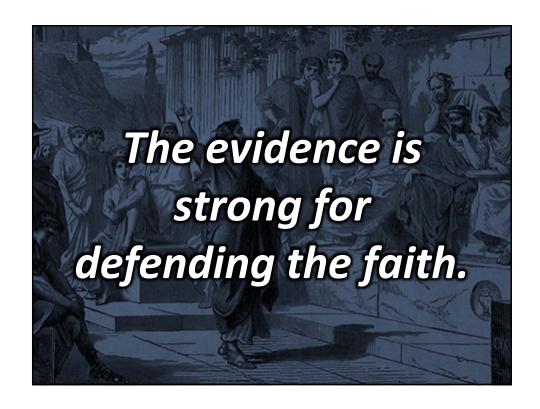


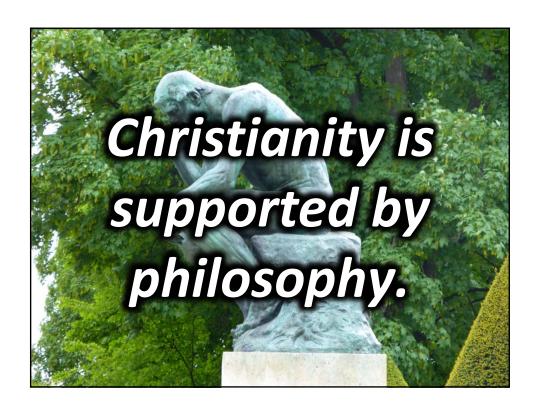






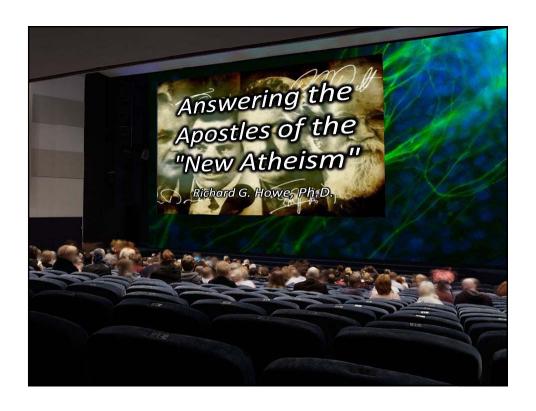


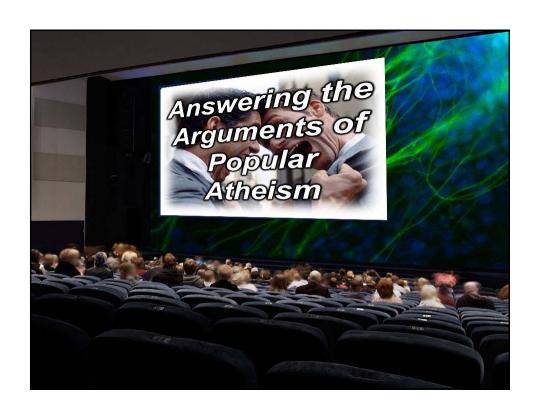




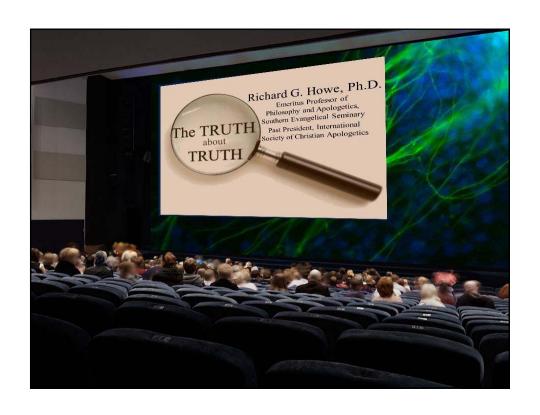






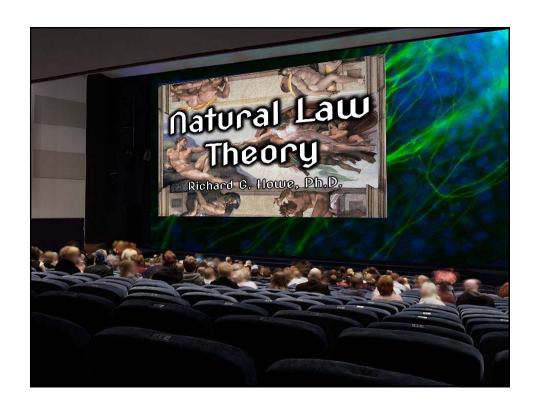




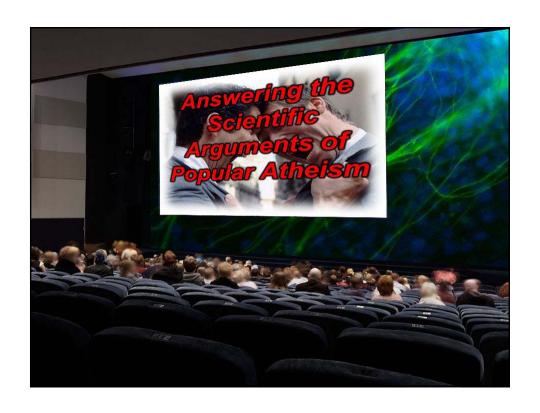


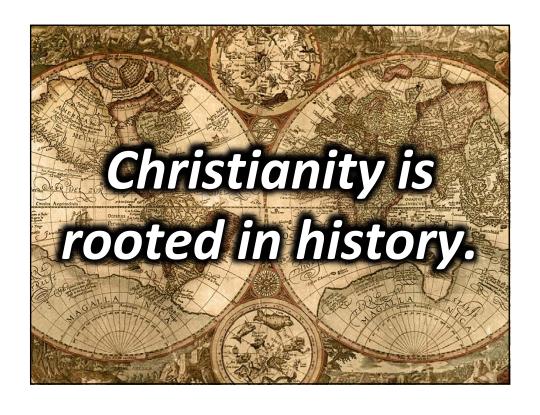




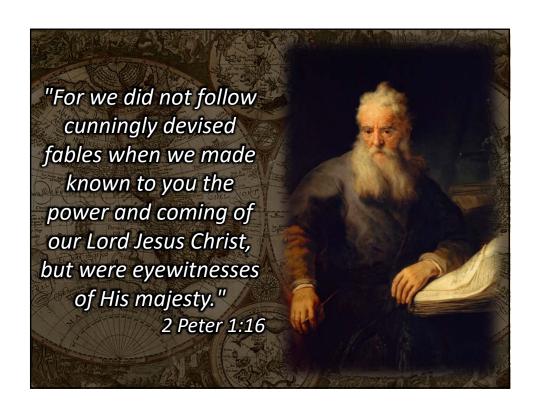


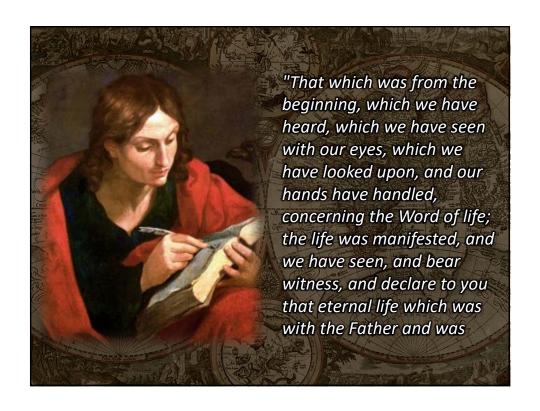


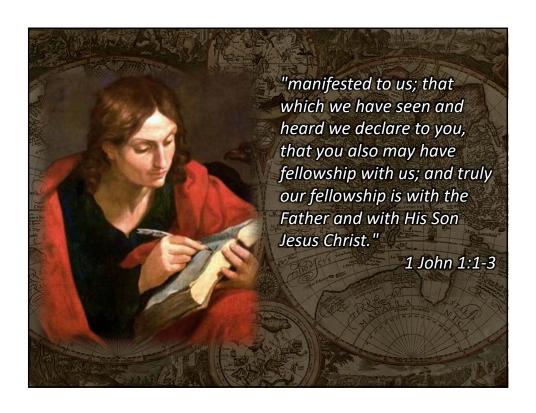


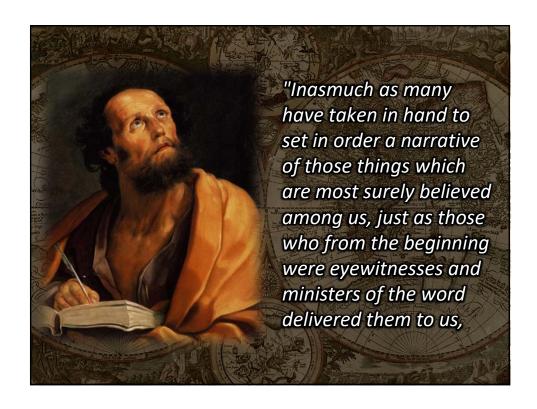


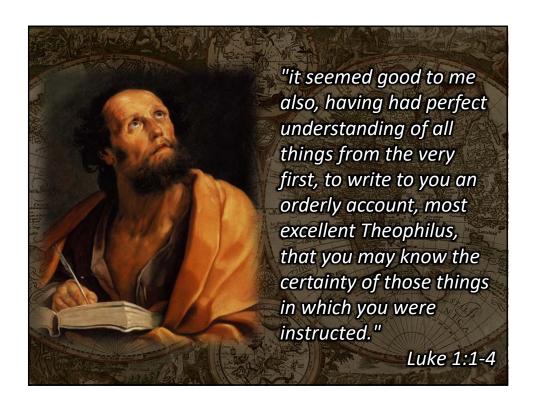


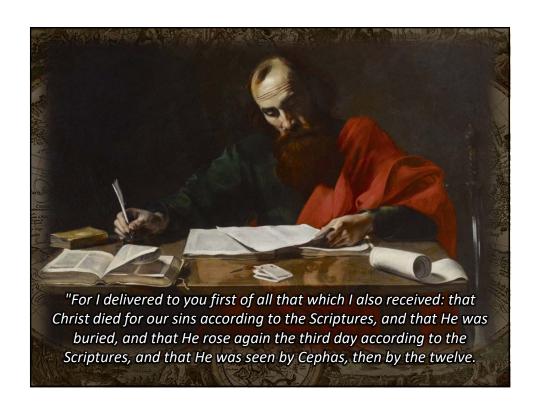


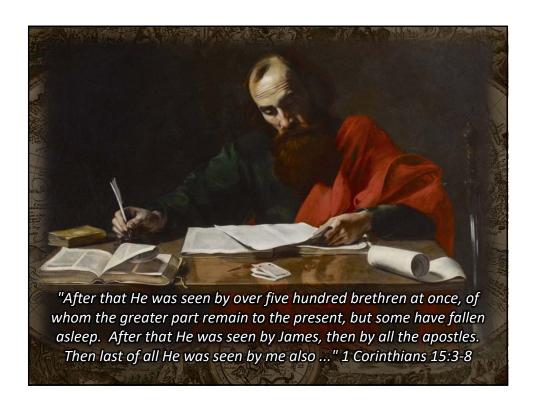


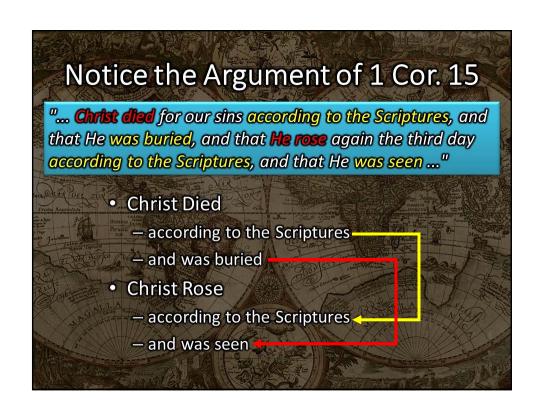


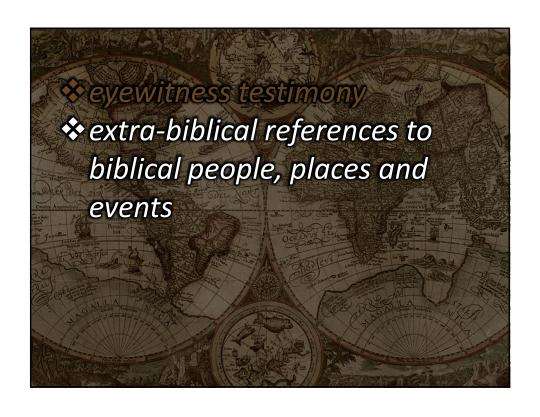




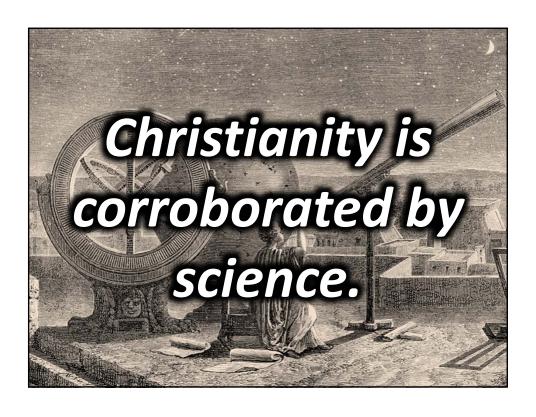


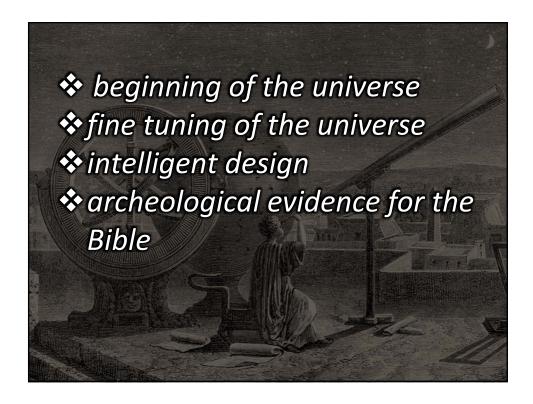




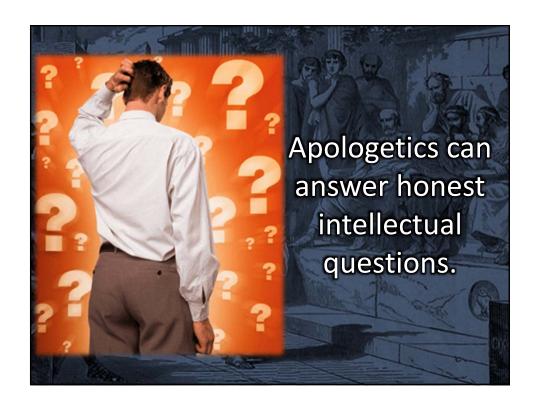






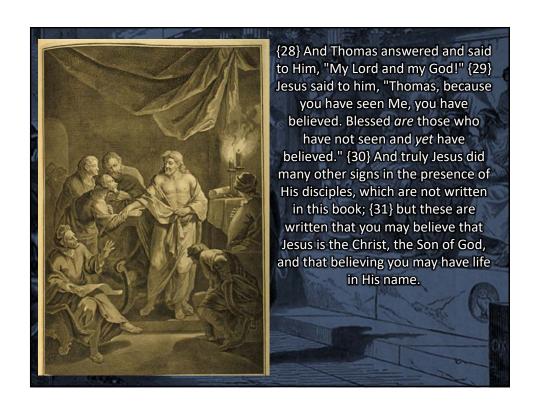


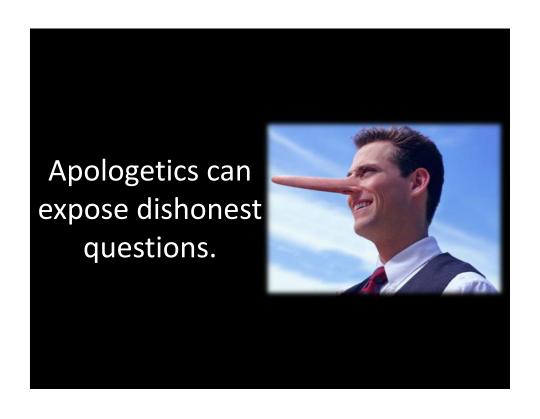


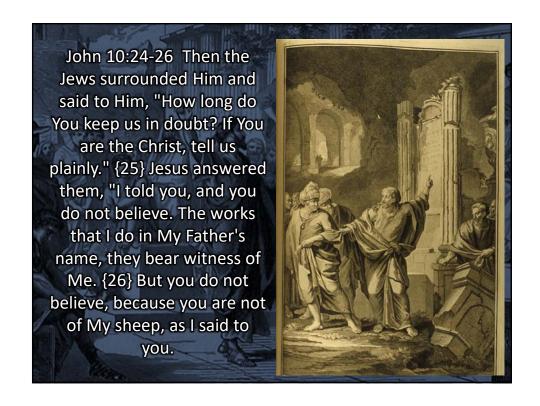


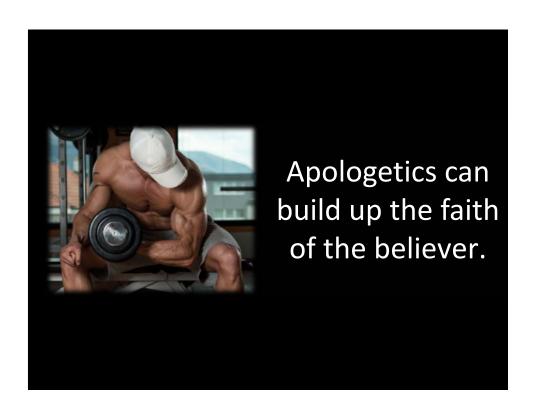


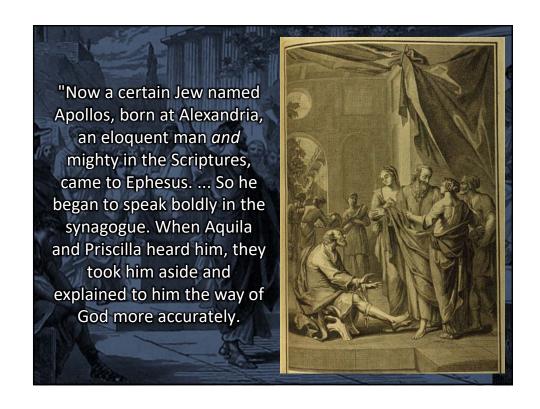
John 20:24-31 Now Thomas, called the Twin, one of the twelve, was not with them when Jesus came. {25} The other disciples therefore said to him, "We have seen the Lord." So he said to them, "Unless I see in His hands the print of the nails, and put my finger into the print of the nails, and put my hand into His side, I will not believe." {26} And after eight days His disciples were again inside, and Thomas with them. Jesus came, the doors being shut, and stood in the midst, and said, "Peace to you!" {27} Then He said to Thomas, "Reach your finger here, and look at My hands; and reach your hand here, and put it into My side. Do not be unbelieving, but believing."

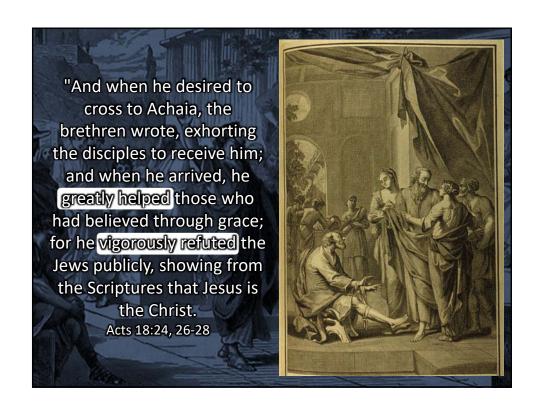




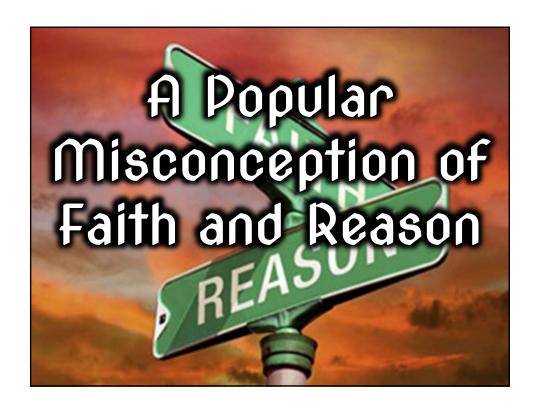


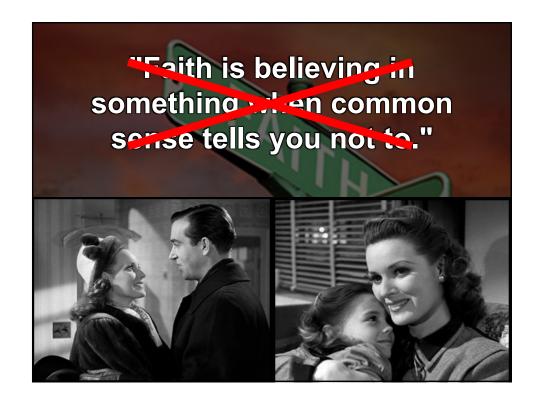


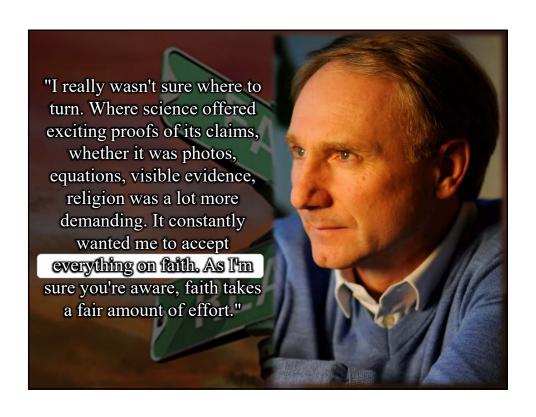




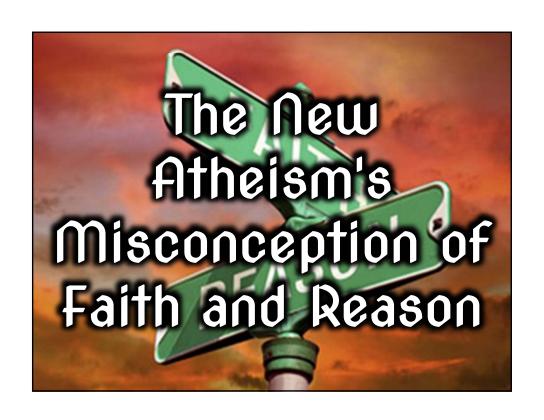


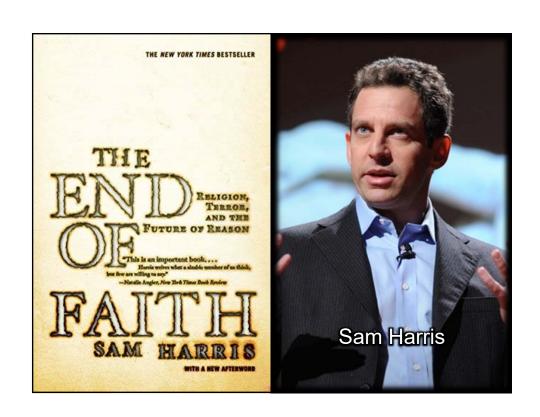


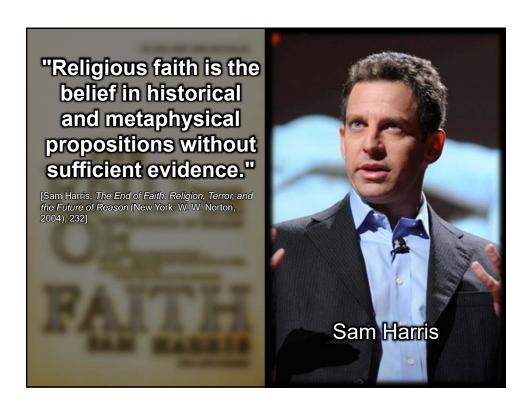








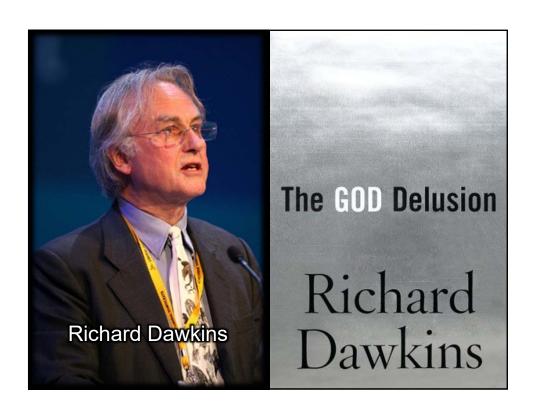


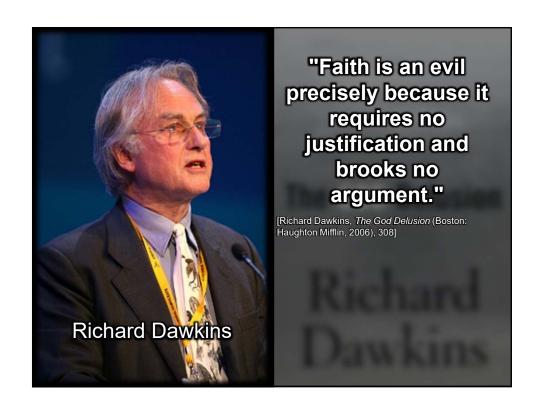


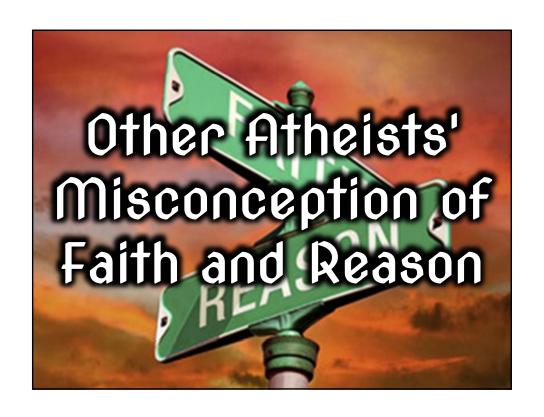
"Faith is the mortar that fills the cracks in the evidence and the gaps in the logic, and thus it is faith that keeps the whole terrible edifice of religious certainty still looming dangerously over our world."

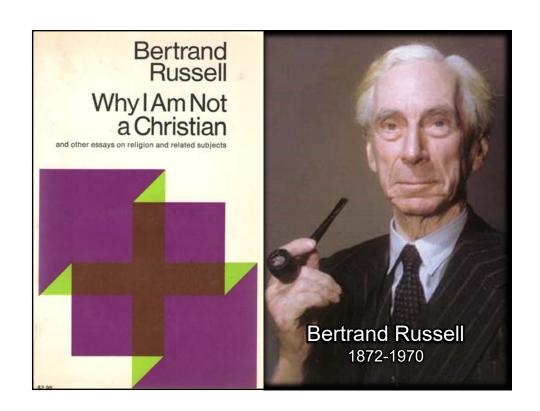
[Harris, The End of Faith, 233]





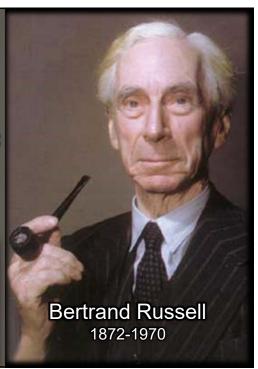


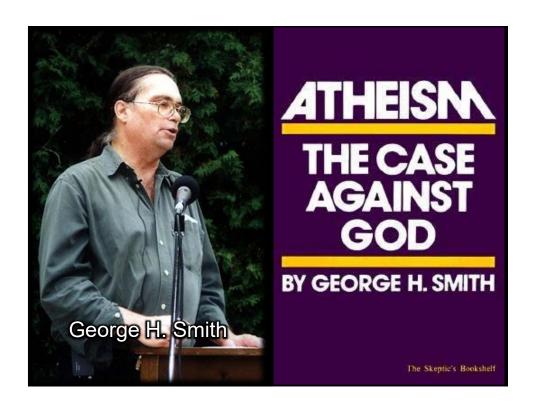


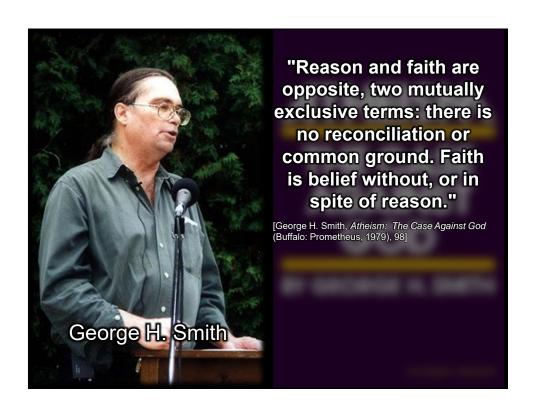


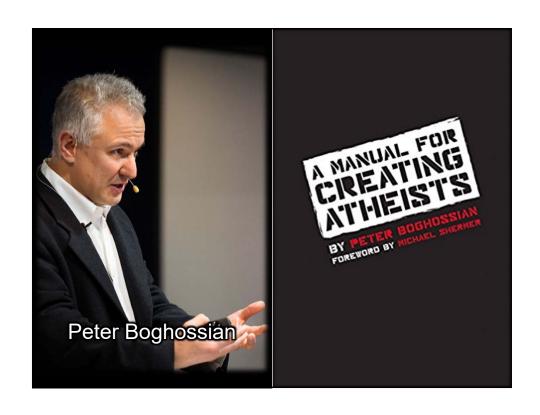
"As regards the kind of belief: it is thought virtuous to have Faith—that is to say, to have a conviction which cannot be shaken by contrary evidence. Of, if contrary evidence might induce doubt, it is held that contrary evidence must be suppressed."

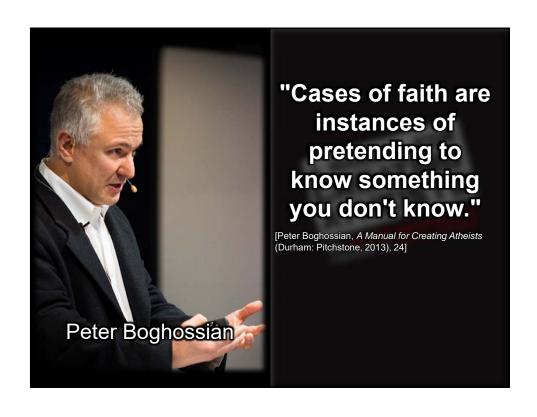
[Bertrand Russell, Why I Am Not a Christian and Other Essays on Religion and Related Subjects, (New York: Simon and Schuster, 1957), from the preface, p. vi]

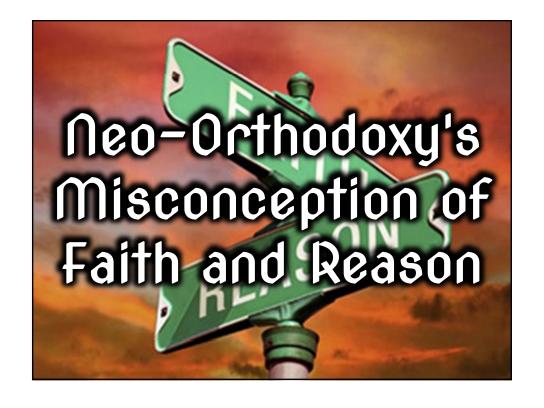


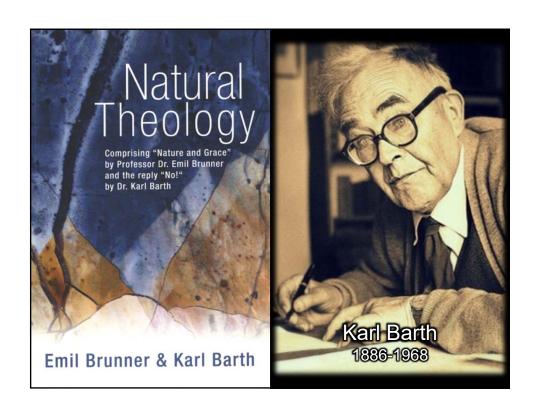


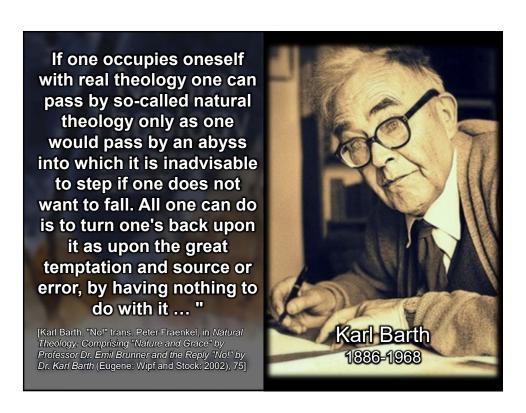


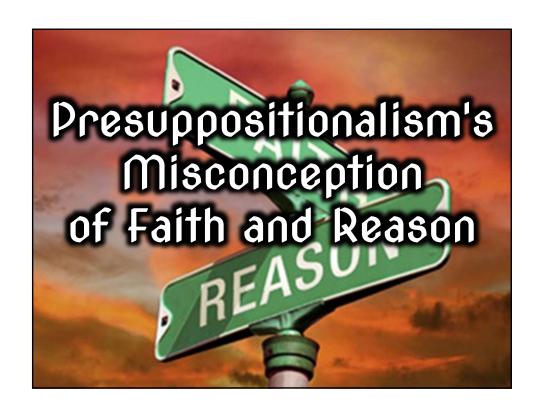


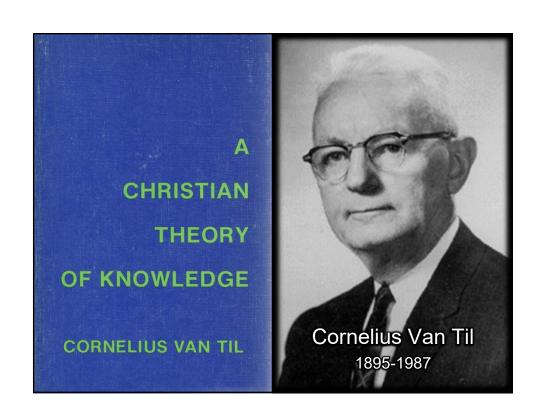


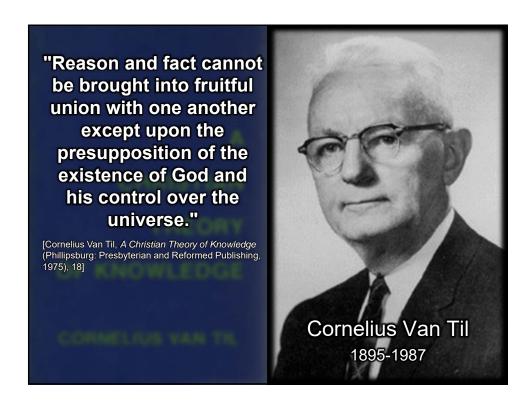


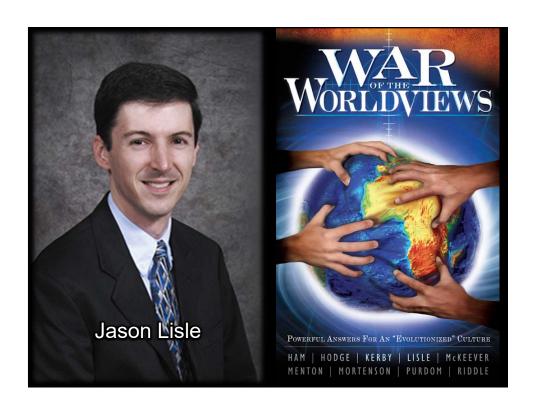




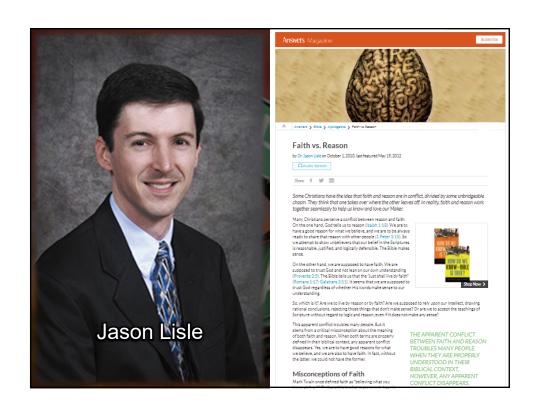


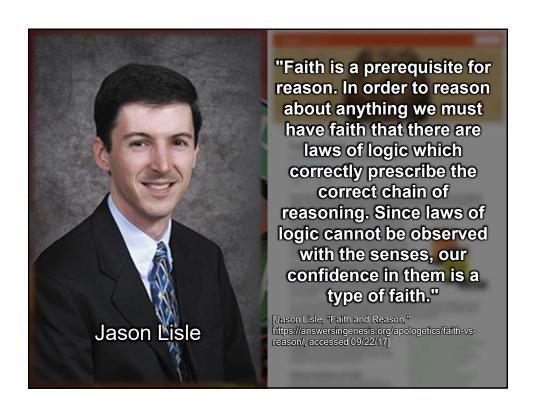


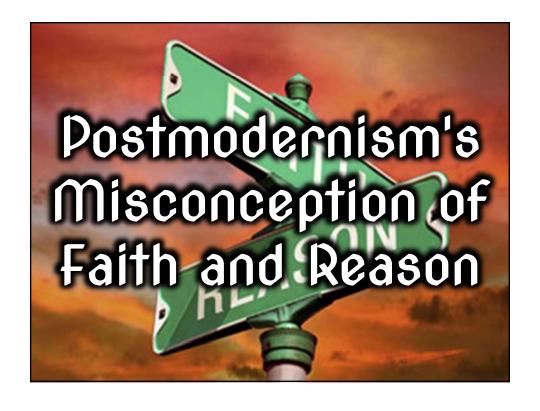


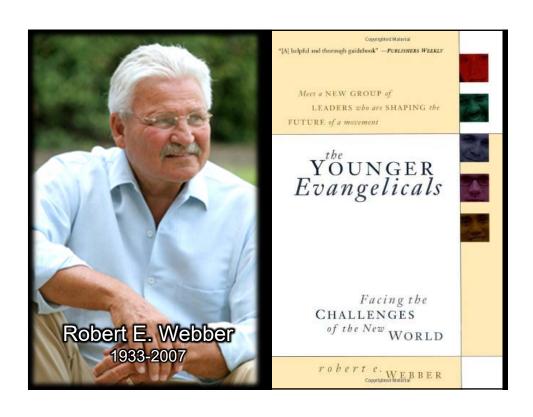


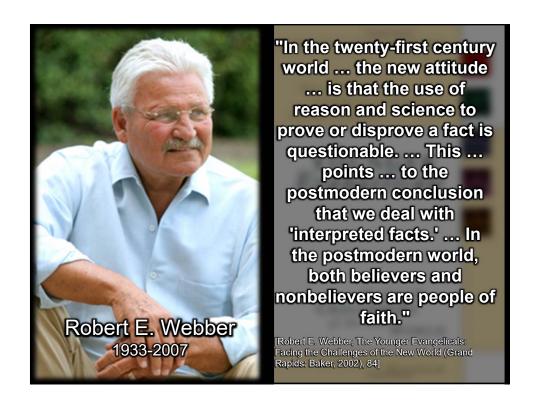


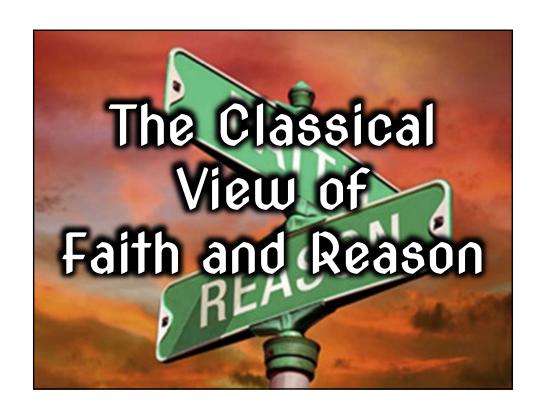




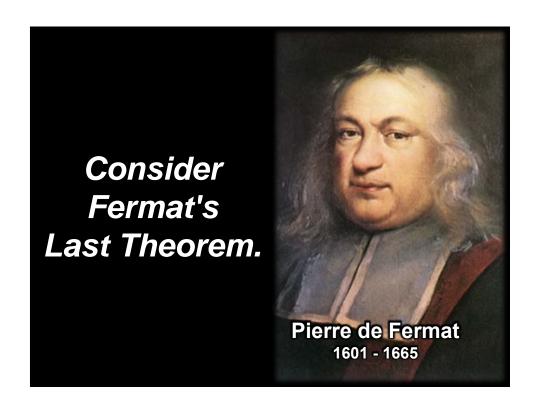


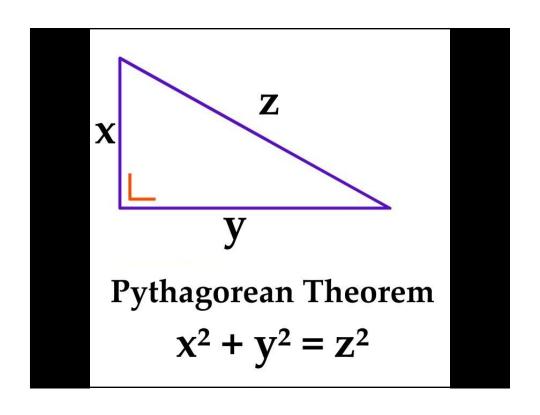


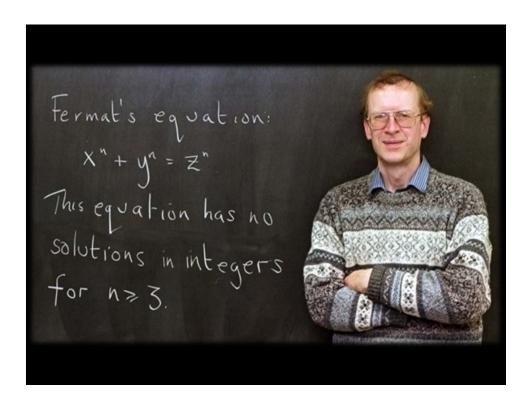












Annals of Mathematics, 142 (1995), 443–551

Modular elliptic curves and Fermat's Last Theorem

By Andrew Wiles*

For Nada, Clare, Kate and Olivia

Cubum autem in duos cubos, aut quadratoquadratum in duos quadratoquadratos, et generaliter nullam in infinitum ultra quadratum potestatem in duos ciusdem nominis fas est diudere: cupus rei demonstrationem mirobilem sane detexi. Hanc marginis exiguitas non caperet.

Pierre de Fermat

Introduction

An elliptic curve over ${\bf Q}$ is said to be modular if it has a finite covering by a hordular curve of the form $X_0(N)$. Any such elliptic curve has the property that its Hasse-Weil zeta function has an analytic continuation and satisfies a functional equation of the standard type. If an elliptic curve over ${\bf Q}$ with a given j-invariant is modular then it is easy to see that all elliptic curves with the same j-invariant are modular (in which case we say that the j-invariant is modular). A well-known conjecture which grew out of the work of Shimura and Taniyama in the 1950's and 1960's asserts that every elliptic curve over ${\bf Q}$ is modular. However, it only became widely known through its publication in a paper of Weil in 1967 [We] (as an exercise for the interested reader), in which, moreover, Weil gave conceptual evidence for the conjecture. Although it had been numerically verified in many cases, prior to the results described in this paper it had only been known that finitely many j-invariants were modular.

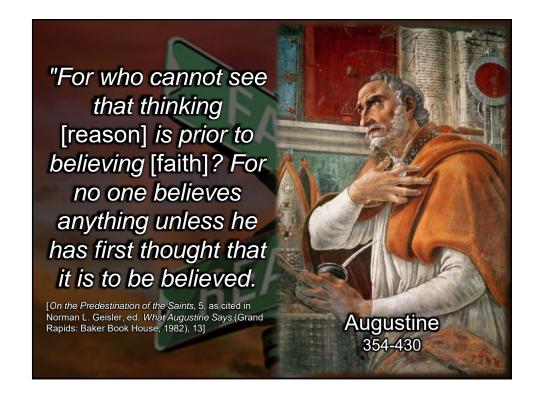
paper it nad only ocen known that mintely many j-invariants were modular.

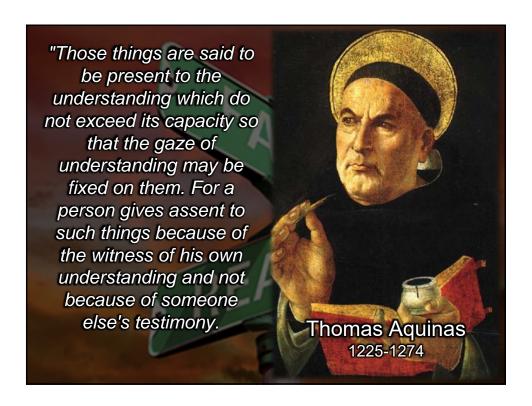
In 1985 Frey made the remarkable observation that this conjecture should imply Fermat's Last Theorem. The precise mechanism relating the two was formulated by Serre as the s-conjecture and this was then proved by Ribet in the summer of 1986. Ribet's result only requires one to prove the conjecture for semistable elliptic curves in order to deduce Fermat's Last Theorem.

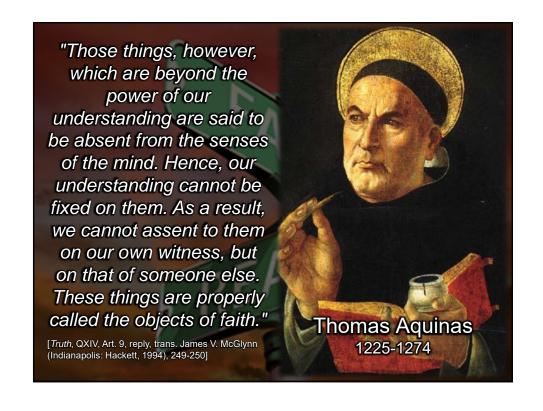


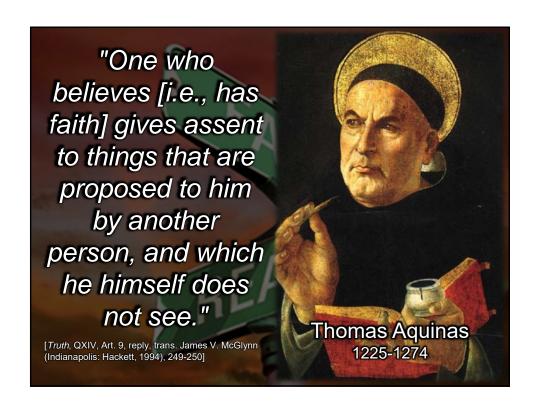
^{*}The work on this paper was supported by an NSF grant

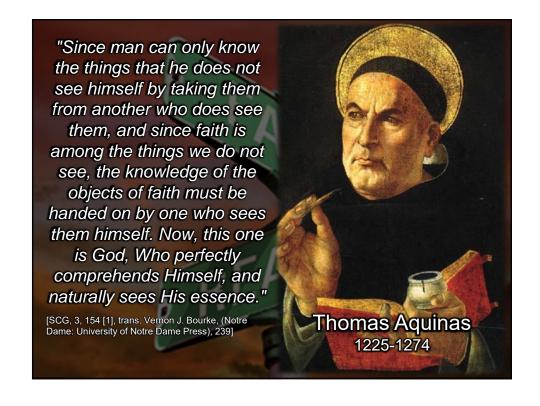


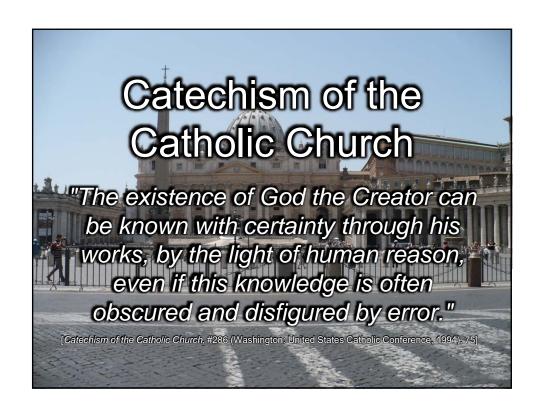


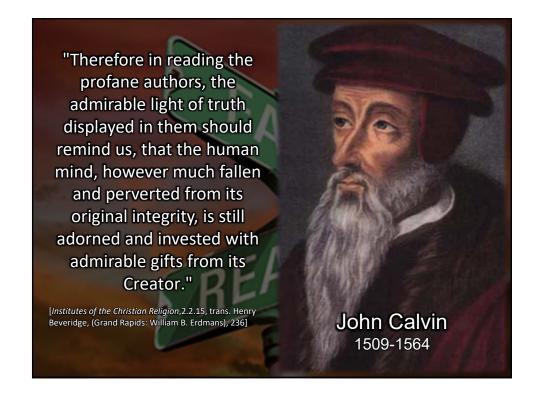


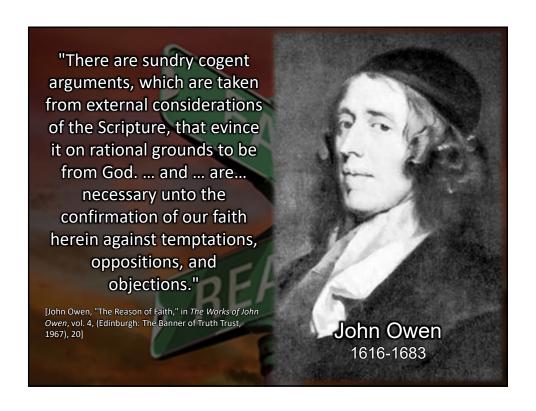


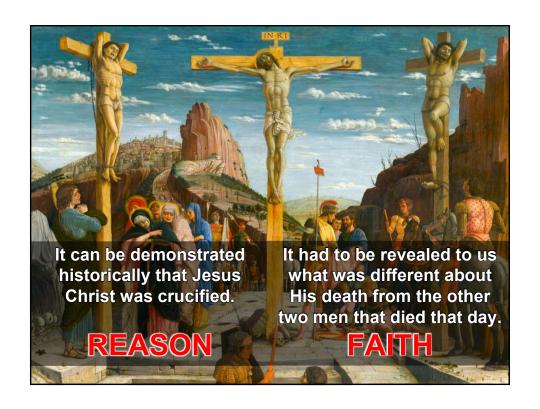


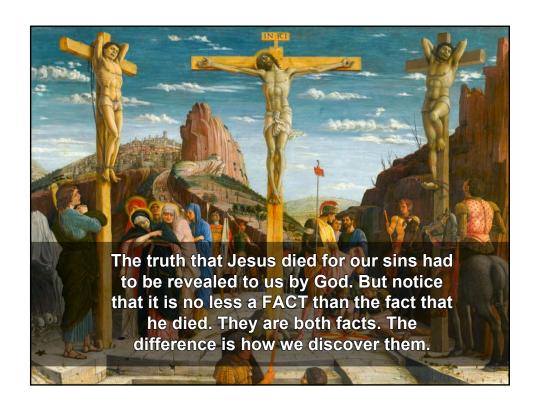






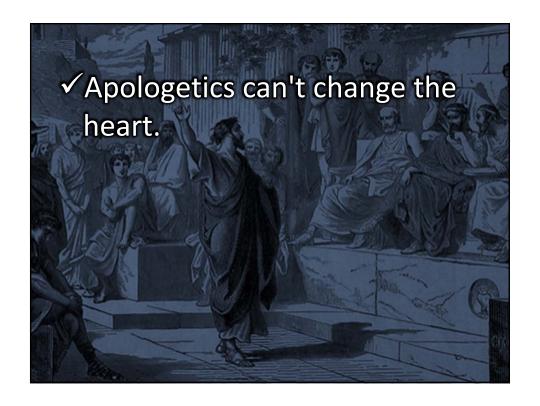


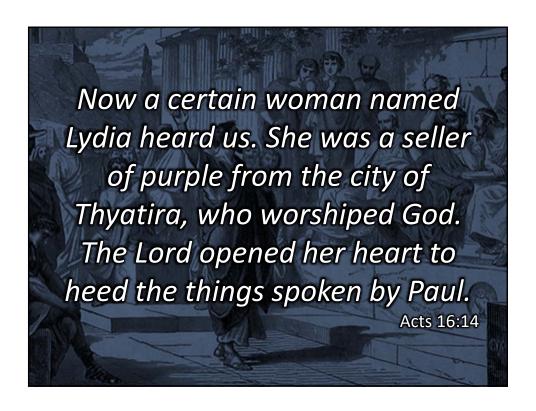




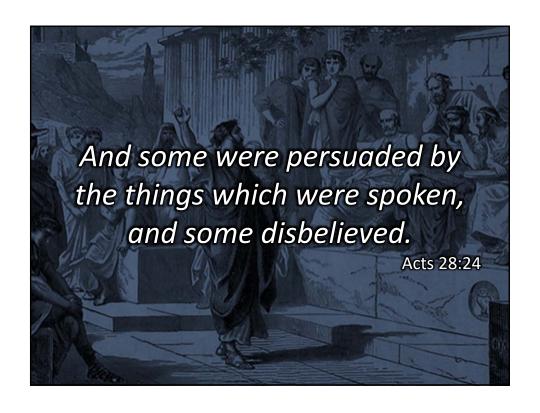












And he went into the synagogue and spoke boldly for three months, reasoning and persuading concerning the things of the kingdom of God. But when some were hardened and did not believe, but spoke evil of the Way before the multitude, he departed from them and withdrew the disciples, reasoning daily in the school of Tyrannus.

Acts 19:8-9

