18 For the wrath of God is revealed from heaven against all ungodliness and unrighteousness of men, who hold the truth in unrighteousness;

19 Because that which may be known of God is manifest in them; for God hath shewed it unto them. 20 For the invisible things of him from the creation of the world are clearly seen, being understood by the things that are made, even his eternal power and Godhead; so that they are without excuse: 21 Because that, when they knew God, they glorified him not as God, neither were thankful; but became vain in their imaginations, and their foolish heart was darkened.

Psalm 14:1 14 The fool hath said in his heart, There is no God. They are corrupt, they have done

abominable works, there is none that doeth good.

How could we read as we did in Romans 1 that everyone knows that God exists yet believe the unbeliever when they say they don't how can we read in Colossians 2 that all the treasures of wisdom and knowledge are hidden in Christ or in proverbs 1 verse 7 that the fear of the Lord is the beginning of knowledge and then reason with the unbeliever as though they can know anything without God

Natural Revelation

Natural revelation is the revelation of God in nature. Rom. 1:20 says, "For since the creation of the world His invisible attributes, His eternal power and divine nature, have been clearly seen, being understood through what has been made, so that they are without excuse." Nature can tell us certain things about God. Since nature is ordered, we can conclude that God is ordered as well. Since the universe is well-balanced we can see that God is wise. Furthermore, we can see reflections of the Trinity in creation. For example, time is past, present, and future. Space is height, width, and depth. Matter is solid, liquid, and gas. So, we can see a trinity of trinities, and it is reasonable to conclude that the created order reflects the Creator himself who is a Trinity.

The role of Epistemology

Which apologetic method should a Christian defend the faith with, one of the two advocated in this debate, neither, or both? Which method is Biblical, one of these two, neither or both? Are these two methods equal in what they can account for? I hope we will be able to answer these and many more throughout this debate.

To sort differences between them, presuppositionalism is an epistemological method which is primarily philosophical in nature, and concerned with theological/philosophical justification. Evidentialism is an epistemology which assumes the basic reliability of natural sense perception, and is concerned with justification by physical evidences. These may be presented as scientific, archaeological or historical, and usually learned from secondary sources such as books or videos. An epistemological issue for evidentialists is the philosophy of a fact, or the necessary interpretation involved with facts and the necessary philosophy to interpret reality through the natural senses.

For the sake of clarity, I am not defending a generic presuppositionalism, nor a generic epistemology, nor a neutral epistemology, I am defending what is called "Revelational Epistemology", a Scriptural grounds and means for justification of knowing facts in an objective sense, while still maintaining our dependency on God in our interpretation of the God created facts. To be clear, it is my position our knowledge includes both objective and subjective elements. The difference is *justification* for knowing *anything* objectively apart from the Christ of Scripture.

Biblical Presuppositionalism

I am a Christian, but more specifically, I affirm the Reformed faith, therefore my defense of the faith should be consistent with my faith. I am not a generic "presuppositionalist", I presuppose the Reformed faith from the start to the end. Reformed believers hold to the doctrine of "Sola Scriptura", which relates to the source for knowing, the self-attesting Christ of Scripture. The Scriptures are the justification for all true knowledge of the God created facts. In Scripture we read: in Christ "are hidden all the treasures of wisdom and knowledge" <u>Colossians 2:3</u> Christ as the supreme authority of knowledge is our justification for knowledge (in an objective sense) concerning the God created facts (objectively speaking).

The role of Worldviews

Throughout the history of apologetics, it is not uncommon for a classical or evidentialist apologist to assume for the sake of the argument a common or neutral ground as a starting point to debate or argue with the non-Christian. I strongly disagree with this approach especially on a formal level for a number of reasons. To assume neutrality is to lose contact with the Christian faith and therefore justification for knowing the facts objectively, it is to assume a position of pure subjectivism, which denies the facts are created by God. One cannot rise to objectivism from pure subjectivism.

Even when/if the classical or evidentialist apologist begins with a Christian worldview, both approaches, even combined end up falling victim to the deserved title of "god of the gaps" arguments. Let's suppose that a Christian provides a convincing argument for the existence of God, such that the debate opponent surrenders. The question that follows is "which God?" From here we cannot really get to Jesus Christ, because this involves proving the Scriptures according to Christianity are from God, before we could ever get to arguments for the resurrection of Christ. Try as we might to avoid it, proving the Scriptures are revelation from God, involves circular reasoning.

We might point to qualities about the Scriptures which demonstrate: popularity, survival, uniqueness, unity-diversity, explanatory power of origins, the central uniformity of primary emphasis, and so on, and while they compose a supportive collaboration of evidences, there is still a logical leap involved from establishing human origin to divine origin.

Unfortunately, so many seem to have almost subconsciously bought into the notion that the non-Christian can be brought to faith in Christ through human reasoning and the five senses (alone). All Reformed believers should recognize the necessity for God to intervene through the supernatural act of (monergistic) regeneration, for the non-Christian to be "born again" or "born from above" *before* the non-Christian *will* assent or respond positively to the reasons and facts from a faith *made alive by* God. I hope this past statement is considered as evidence that I am not opposed to the God centered facts or God centered reason.

So it is my contention that the Romanist Christian worldview, the Romanist methodologies of defending the faith are not sufficient to defend the faith, and never have been. It is also my contention that only a Reformed presuppositionalism is sufficient to defend the faith in a Biblical, God honoring way.

As a final note, I have purposely left out several important distinctives of the Reformed apologetic from this opening statement to make this brief. These include the Creator-creation distinction, the role of self-deception in apologetics, the impossibility of the contrary, the role of antithesis in apologetics, and the transcendental argument for the existence of God (TAG). I left these out because I expect to get into these as the debate continues.

Definitions

Apologetics (short and detailed definition)

Apologetics (detailed definition)

Methodology

Presuppositional Apologetics (short definition)

<u>Presuppositional Apologetics</u> (detailed definition)

Presuppose

Epistemology (short definition)

Objective (Dictionary.com [6])

Objectivity (Wikipedia)

Objectivity (Internet Encyclopedia of Philosophy)

Subjective (Dictionary.com)

Subjectivity (Wikipedia)

Justification (Dictionary.com [1])

Further Reading

The Old New Reformed Epistemology (Revelational Epistemology) by Dr. Oliphint

Presuppositionalism and Frame's Epistemology by Dr. Anderson

Science, Subjectivity, and Scripture by Dr. Bahnsen

The Theistic Preconditions of Knowledge by Dr. Anderson

<u>Van Til and the Trinity: The Centrality of the Christian View of God in the Apologetics of Cornelius Van</u> Til by Colin D. Smith

<u>Van Til Frequently Encountered Misconceptions</u> by Dr. Anderson

Redeeming Science: A God Centered Approach (book) by Dr. Poythress

Circular Reasoning and Axioms

In my opening statement I stated; "Try as we might to avoid it, proving the Scriptures are revelation from God, involves circular reasoning." This should be no cause for alarm, because there is a difference between circular reasoning and a circular argument. Further nobody can interpret reality without basic presuppositions about reality, and the answer to philosophical question "does God exist?", however it is answered, will be central and circular to reasoning and connected to other assumptions about reality and impact other big questions of philosophy. To use Clark terminology, the Christian Scriptures are the central axiom to Christianity. To use Plantinga terminology, the Scriptures are properly basic to warranted Christian belief. To use Bahsen terminology, the Christian worldview must be presupposed to justify the necessary preconditions of intelligibility, these include conceptual realities behind: intelligible language, laws of logic, math, and as they apply to the scientific method

Axioms and Science

So it is my contention that the epistemological defense of the faith begins with presupposing the self-attesting Christ of Scripture as the final authority and the basis, the foundation, as an apologetical framework for all other apologetic methods from reason, facts, experience, and faith. The facts are not just the facts; the facts do not interpret themselves. In the Scriptures we learn that man was created in the image of God, but this does not mean

he was created for independence from God, but rather man was created to be dependent upon God for everything, including knowledge concerning the God created facts. The empirical facts are neither neutral nor independent of the knowledge of their Creator. One way to demonstrate man's dependency is to consider the Scientific Method. What does the Scientific Method presuppose other than the general reliability of sense perception? The laws of thought or logic are necessary to the processes of observation, measurement, experimentation, formulation, testing, and modification of hypotheses. The Scientific Method also presupposes a normal ("natural") order within the universe necessary to predictability of a hypothesis. So the laws of thought or logic are necessary preconditions governing all scientific thought and procedures.

Axioms and Epistemology

The word "invention" invokes other related words like "new" and "original". Now consider the omniscience of God, and ask yourself; "has man ever had an original thought?" Has man ever achieved a one up on God in the marketplace of ideas? I should hope not! Taking into account the Creator – creation distinction and man created in the image of God, it is important to consider differences between the knowledge of God and the knowledge of man. The language Dr. Van Til used to describe the relationship of man's knowledge to the knowledge of God, is analogical. One could probably write a small book noting differences between the knowledge of God and the knowledge of man, the primary message would be that the extent to which man can know is not identical, nor the scope, therefore not exact. For what we can and do know that is true, is because man was created in the image of God, and because it is so, the knowledge of man is analogical to his Creator. To put it another way, man's knowledge is analogical to the original

Calvinism

Source:[4]

- Jesus is Lord over all of creation. Jesus' Lordship extends through every area and aspect of life – it is not restricted to the sphere of church or of personal piety.
- The idea that all of life is to be redeemed. The work of Jesus on the cross extends over all of life – no area is exempt from its impact. All knowledge is affected by the true knowledge of God through redemption in Christ.
- <u>Cultural Mandate</u>. Genesis 1:26–28 has been described as a cultural mandate. It is the mandate to cultivate and develop the creation. There is a historical development and cultural unfolding. Some Neo-Calvinists hold that the Cultural Mandate is as important as the <u>Great Commission</u>.
- Creation, fall and redemption. God's good creation has been disrupted by the <u>fall</u>.
 Redemption is a restoration of creation. [8]
- Sphere sovereignty (Soevereiniteit in eigen kring). Each sphere (or sector) of life has its own distinct responsibilities and authority as designed by God for instance, communities dedicated to worship, civil justice, agriculture, family, etc. and no one area of life is sovereign over another. Hence, neither faith-institutions nor an institution of civil justice (that is, the state) should seek totalitarian control or any regulation of human activity outside their limited competence. [9]
- A rejection of dualism. Dualisms are (purportedly false) bifurcations, dichotomies, contrasts, or oppositions, such as the dualism between nature and grace that [allegedly] dominated much of <u>Scholasticism</u>. In the Neo-Calvinist view, nature is the

God-created and sustained cosmic order, not a "non-supernatural" category, and grace is God's means of renewing the cosmic order, it is not something "non-creational" added onto nature (albeit eschatological in consummated glorification of bodily resurrection to eternal life and cosmic transformation of the new heavens and earth).

- Structure and direction. Structure denotes created laws and norms for (other) created things. Direction denotes relative deviation or conformity to norms; primarily regarding the central orientation of the human heart toward or away from God in Christ.[10]
- Common grace. God providentially sustains the created order, restraining of possible evils and giving non-salvific good gifts to all humanity despite their <u>fall into sin</u>, God's curse, and his eventual condemnation of the unredeemed.[11]
- <u>Presuppositional apologetics</u>. The only framework in which any fact about the world
 is intelligible is the Christian worldview in general, and the <u>theologically Reformed</u>
 worldview in particular. The principles of logic and the use of reason assume the
 existence of God. Presuppositionalism is a <u>reductio ad absurdum</u> approach to
 <u>Christian apologetics</u>, in that it successfully demonstrates that all non-Christian
 worldviews are internally inconsistent.
- The antithesis. There is a struggle in history and within every person between submission to and rebellion against God; between the kingdom of light and the kingdom of darkness; between the age to come (already inaugurated in Christ) and this present evil age (of sin).[12]
- World views. Neo-Calvinists reject the notion that theoretical thought can be religiously neutral. All thinking and practice is shaped by world views and religious ground motives. For the Neo-Calvinist, life in all its aspects can be shaped by a distinctively Christian world view.^[13]
- The role of law. For Neo-Calvinists, "Law" is more than the <u>Mosaic Decalogue</u>, or even the entire abiding moral will of God. Law is, rather, the order for creation (or creation ordinances) established by God and includes a variety of types of cultural norms including physiological, psychological, logical, historical, linguistic, social, economic, aesthetic, juridical, and faith norms.

Main Points of Calvinism

Total Depravity: Sin has affected all parts of man. The heart, emotions, will, mind, and body are all affected by sin. We are completely sinful. We are not as sinful as we could be, but we are completely affected by sin. The doctrine of Total Depravity is derived from scriptures that reveal human character: Man's heart is evil (Mark 7:21-23) and sick (Jer. 17:9). Man is a slave of sin (Rom. 6:14-20). He does not seek for God (Rom. 3:11). He cannot understand spiritual things (1 Cor. 2:14). He is at enmity with God (Eph. 2:15). And, is by nature a child of wrath (Eph. 2:3). The Calvinist asks the question, "In light of the scriptures that declare man's true nature as being utterly lost and incapable, how is it possible for anyone to choose or desire God?" The answer is, "He cannot. Therefore God must predestine." Calvinism also maintains that because of our fallen nature, we are born again not by our own will but God's will (John 1:12-13); God grants that we believe (Phil. 1:29); faith is the work of God (John 6:28-29); God ordains people to eternal life (Acts 13:48); and God predestines (Eph. 1:1-11; Rom. 8:29; Rom. 9:9-23).

Unconditional Election: God does not base His election on anything He sees in the individual. He chooses the elect according to the kind intention of His will (<u>Eph. 1:4-8</u>; <u>Rom. 9:9-11</u>) without any

consideration of merit or quality within the individual. Nor does God look into the future to see who would pick Him (lest God learn and react to man's choices). Also, as some are elected into salvation, others are not (Rom. 9:15,21).

Limited Atonement: Jesus died only for the elect. Though Jesus' sacrifice was sufficient for all, it was not efficacious for all. Jesus only bore the sins of the elect. Support for this position is drawn from such scriptures as Matt. 26:28 where Jesus died for 'many'; John 10:11, 15 which say that Jesus died for the sheep (not the goats, per Matt. 25:32-33); John 17:9 where Jesus in prayer interceded for the ones given Him - not those of the entire world; Acts 20:28 and Eph. 5:25-27 which state that the Church was purchased by Christ - not all people; and Isaiah 53:12 which is a prophecy of Jesus' crucifixion where he would bear the sins of many (not all).

Irresistible Grace: When God calls his elect into salvation, they cannot resist. God offers to all people the gospel message. This is called the external call. But to the elect, God extends an internal call, and it cannot be resisted. This call is by the Holy Spirit who works in the hearts and minds of the elect to bring them to repentance and regeneration whereby they willingly and freely come to God. Some of the verses used in support of this teaching are Rom. 9:16 where it says that "it is not of him who wills nor of him who runs, but of God who has mercy"; Phil. 2:12-13 where God is said to be the one working salvation in the individual; John 6:28-29 where faith is declared to be the work of God; Acts 13:48 where God appoints people to eternal life; and John 1:12-13 where being born again is not by man's will but by God's.

Perseverance of the Saints: You cannot lose your salvation. Because the Father has elected, the Son has redeemed, and the Holy Spirit has applied salvation, those thus saved are eternally secure. They are eternally secure in Christ. Some of the verses for this position are <u>John 10:27-28</u> where Jesus said His sheep will never perish; <u>John 6:47</u> where salvation is described as everlasting life; <u>Romans 8:1</u> where it is said we have passed out of judgment; <u>1 Cor. 10:13</u> where God promises to never let us be tempted beyond what we can handle; and <u>Phil. 1:6</u> where God is the one being faithful to perfect us until the day of Jesus' return.

- 1. God is the necessary precondition for knowledge
- 2. People know things
- 3. Therefore god exists

The Bible is God's Word, because it makes the following predictions that have been fulfilled https://www.blueletterbible.org/fag/don_stewart/don_stewart_1349.cfm,

https://carm.org/dialogue-transcendental-argument-god

The Christian Worldview, the Atheist Worldview, and Logic

The transcendental argument for the existence of God

https://carm.org/answering-transcendental-argument-nonexistence-god

If logic is a part of God's nature, then it is necessarily existent because it is based on God's existence. In other words, it necessarily must exist because God exists.

- 1. Either we have knowledge or we do not
- 2. The only way to gain knowledge is to be omnipotent or to be told something from one that is omnipotent

- 3. We cannot not have knowledge
- 4. We have knowledge
- C) We gained that knowledge from something omnipotent
 - 1. Truth is not something that is solely physical
 - 2. The only way to have access to something that is not solely physical is to have access to someone that transcends that physical world.
 - 3. We have access to truth
 - C) We have access to someone that transcends the physical world
 - 1. In Order to know something universal, immaterial and unchanging we must have access to something that is universal, immaterial and unchanging.
 - 2. Logic is universal immaterial and unchanging
 - 3. We have access to Logic
- C) We have access to someone that is immaterial, universal and unchanging

My presupposition is that the Christian God has revealed himself in time and space ultimately through Jesus Christ because God has revealed that his revelation does not fail to achieve its purpose

What is your principal criterion of atheism? if there was rational justification for God would you believe in him?

God by definition would be let's say in the Christian God is an immaterial mind who has the power to initiate and bring into existence everything that exists and sustain it so by that definition God would be the absolute right

An arbitrary principle or a consistent one? Is it true?

by definition the Christian God has ordained and sovereignly given us our most foundational beliefs about reality and they're therefore by definition not axiomatic or assumptions

if you don't have a defeater that falsifies the Christian God then your stipulation that our most foundational beliefs are axiomatic or just assumptions is not necessarily true

Is it circular?
epistemological circularity or non epistemological circularity
Epistemological circularity has to do with your ultimate authority

It's a requirement of the physical world for the physical world to be here according to the laws of logic

The Atheist rejects God, so in doing so reject absolute truth, human value, universal logic etc.. there is no standard for anything once you reject the ultimate standard in God. So then they decide what is okay, but everything is relative at that point, everyone decides what is okay in morality, there is no ultimate authority. An Atheist has said " there is no absolute truth" at that point you ask is that true that there is no absolute truth? They just have made a self refuting statement, therefore when they give up absolute truth they give up knowledge, that is the Atheist perspective, they give up truth before even speaking.

Evolution

- 1. Present-day organisms are descendants (with modifications) from organisms that lived earlier.
- 2. Explanatory mechanisms that supposedly account for the specified complexity found in biological organisms.

3. The reconstruction of the evolutionary tree of life that show all branches going back to one ancestor in the past.

Law of Biogenesis

This law states that in nature, life comes only from life and that of its own kind.

Correspondence theory of truth

The uniformity of nature is the principle that the course of nature continues uniformly the same, e.g. if X is the cause Y, then Y will necessarily exist whenever X exists.

Irreducible complexity

Involves the idea that certain biological systems cannot evolve by successive small modifications to pre-existing functional systems through natural selection. For instance our circulatory system. Which evolved first and how do we know? This circulatory system is also interdependent on the muscular system which is dependent on the skeletal system"

Knowledge = justified truth belief

Presupposition = something that is necessarily unjustified

Logic and reason are not necessarily unjustified if you have an absolute ultimate authority therefore your claim that logic and reason always have to be axiomatic assumptions is false. If your ultimate authority is the basic reliability of your sense perception and if it depends on your brain states it then follows that you are presupposing causality which from an atheistic worldview is necessarily unjustified

The Laws of logic exist regardless of our senses

ARGUMENT

- 1. Logical absolutes are truth statements such as: Truth is not self-contradictory. Laws of logic
- 2. If the Logical Absolutes are not absolute, then no rational discourse can occur.
- 3. Logical Absolutes are transcendent. Logical Absolutes are not dependent on time.
- 4. Logical Absolutes are not dependent on the material world. Logical Absolutes cannot be photographed, frozen, weighed, or measured.
- 5. Logical Absolutes are conceptual by nature.
- 6. Logic is a process of the mind. Logical absolutes provide the framework for logical thought processes. Therefore, it seems proper to say that Logical Absolutes are conceptual by nature since Logical Absolutes are truth statements about Logical things.
- 7. Thoughts reflect the mind. A person's thoughts are the product of that person's mind.
- 8. It seems fair to say that an absolutely perfect mind would produce perfect thoughts.
- 9. Since the Logical Absolutes are transcendent, absolute, are perfectly consistent, and are independent of the universe, then it seems proper to say that they reflect a transcendent, absolute, perfect, and independent mind.

10. Only two options

- a. If we have only two possible options by which we can explain something and one of those options is removed, by default the other option is verified since it is impossible to negate both of the only two existing options.
- b. God either exists or does not exist. There is no third option.
- c. If the no-god position, atheism, clearly fails to account for Logical Absolutes from its perspective, then it is negated, and the other option is verified.
- d. Atheism cannot account for the necessary preconditions for intelligibility, namely, the existence of logical absolutes. Therefore, it is invalidated as a viable option for accounting for them and the only other option, God exists, is validated.

If the laws of logic are grounded in the nature of the theistic God, then anytime atheists offer an argument against God or for atheism, they are actually presupposing God exists

Moreover, when atheists complain about evil, they presuppose that God exists by stealing a moral standard from God. They also misunderstand the God of the Bible because they fail to STOP and consider the context of the text.

- 2. The Argument from Cosmic Fine-Tuning—the Teleological Argument (Chapter 1): The universe not only exploded into being out of nothing, it did so with extreme precision. And it remains fine-tuned today. Fine-tuning is evident in three areas: the initial conditions of the universe, the laws of nature, and the constants of physics.
- 3. The Argument from Reason (Chapter 2): The fixed immaterial laws of logic, and our ability to use reason to discover truths about reality, are best explained by a transcendent Mind. Certainly no material explanation could account for such immaterial realities.
- 4. The Argument from Information (Chapter 3): The living world is filled with complex biological information billions of letters long, sequenced according to specific genetic codes. Our repeated and uniform experience shows us that codes and even the simplest forms of information are caused by minds, not natural forces.
- 5. The Argument from Intentionality (Chapter 3): As a person, you have the ability to make free will decisions—to intend to do things. This cannot be explained by mere materials but by the existence of a Mind in whose image our minds are made.
- 6. The Argument from Final Causality (Chapter 3): The entire natural world experiences goal directedness: from the laws of nature to unconscious living things. This points to a sustaining Intellect holding the universe together and directing unconscious processes and subjects toward their ends. (This is what Aguinas called his "Fifth Way" of arguing for God.)
- 7. The Argument from Objective Moral Values (Chapter 4): If objective moral values exist, then God exists. It is certainly more obvious that torturing babies for fun is objectively wrong and that love is objectively right than any argument one could offer for atheism.
- 8. The Argument from Evil (Chapter 5): If evil exists, then God exists. Not because God is doing evil, but because evil is a privation in Good, and Good can only exist if God exists.
- 9. The Argument from Science (Chapter 6): This argument is dependent on many of the arguments that precede it. We have the ability to do science because of reason, information, intentionality, final causality, etc., which are only possible because God exists.

What can we learn from these nine arguments? If we reason from effect to cause, we can see that the cause must be

Spaceless, timeless, and immaterial because space-time and matter were created. Therefore, the cause must transcend space-time and matter (i.e. must be beyond nature, or be supernatural). Self-existent and fully actualized (infinite) because a timeless being has no beginning and was not caused by another. Simple in essence because an infinite being can't have parts (a being with parts would be limited and require assembly by another). Personal in order to choose to create (since an impersonal force has no capacity to choose to create anything). Powerful in order to create the universe out of nothing. Intelligent in order to: design and sustain the universe and its processes with such extreme goal-directed precision. author highly complex information. provide His creatures with the ability to reason. Morally perfect as the ground of objective moral values.

Let's add up the attributes of this Being. We have a spaceless, timeless, immaterial, self-existent, infinite, simple, personal, powerful, intelligent, morally perfect, purposeful Creator who sustains His creation continually. These are the attributes of the God of the Bible discovered without reference to the Bible.

By comparing the thousands of handwritten Greek manuscripts and quotations from the ancient world, scholars can reconstruct the text of the New Testament documents with more than 99 percent accuracy

- 1. Early Testimony
- 2. Eyewitness Testimony
- 3. Elaborate Testimony
- 4. Embarrassing Testimony
- 5. Excruciating Testimony
- 6. Expected Testimony
- 7. Extra Biblical Testimony

CREATIONISM

Arno Penzias (Nobel Prize in physics): "Astronomy leads us to a unique event, a universe which was created out of nothing, one with the very delicate balance needed to provide exactly the conditions required to permit life, and one which has an underlying, one might say, 'supernatural' plan."

Charles Townes (Nobel Prize winner, physicist): "Intelligent design, as one sees it from a scientific point of view, seems to be quite real. This is a very special universe - it's remarkable that it came out just this way. If the laws of physics weren't just the way they are, we couldn't be here at all. The sun couldn't be there, the laws of gravity and nuclear laws and magnetic theory, quantum mechanics, and so on, have to be just the way they are for us to be here."

Magnetic field around the earth The inverse square law