Not Entirely New for 2008:

The **Completely-Recycling Theory** (of the Entire Known Universe)

Derived and Extracted from The **Comedy-Recycling Theory**

International Readers: This is the ***Completely-Recycling Theory*** of the Entire Known Universe. Now available On Line as a PDF—Is now on-line as-of September, 2008.

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Claims

The Completely-Recycling Theory (of the Entire Known Universe):

Claims from the C-R theory, a sneak preview of new material first posted starting in 2006. All Black-Holes $^{C\text{-}R}$ (C-R theory obeying "brand-name" black holes) always have an exactly critical center inside, and gravity is always minimum (0 contribution from the mass) at the center.

A Black-Hole $^{C\text{-}R}$ does not collapse into a singularity. There is a volume just inside the Black-Hole $^{C\text{-}R}$ at the outermost edges (the Schwarzschild radius) where the gravitational curvature-escape velocity equals or exceeds the speed-of-light, which the C-R theory calls the Neutral Zone $^{C\text{-}R}$.

The exactly critical volume at the center of every Black-Hole $^{C\text{-}R}$ is termed the Active Zone $^{C\text{-}R}$ by the C-R theory.

A Black-Hole $^{C\text{-}R}$ can exist within an Active Zone $^{C\text{-}R}$ of another Black-Hole $^{C\text{-}R}$. However, another Black-Hole $^{C\text{-}R}$ is unlikely to exist or to be found inside another Neutral Zone $^{C\text{-}R}$.

Because curvature (not gravitational radiation) causes the "effect" of gravity, gravity exists outside the Black-Hole $^{C\text{-}R}$ at the same strength as before the collapse (into a Black-Hole $^{C\text{-}R}$, not into a singularity).

Gravity exists because curvature causes energy within matter to be "squeezed-out" as kinetic energy or heat. The matter then subsequently spends less real-time in a slightly slower-running timeframe.

The energy "gained as speed" as matter falls corresponds exactly to the amount of energy "lost" by matter (the amount of loss {time-wise} over time) with the formula $E=mc^2$.

Once gravity has 100% de-activated matter time-wise (at the"entrance"

of the IB^3 Schwarzschild radius), [this is] where the curvature producing the escape velocity has reached or exceeded the speed of light, “c”, no further energy can be extracted from matter or trapped photons.

Matter which enters this “absolute zero” [time-wise] state enters what the C-R theory terms the Neutral Zone [C-R]. The escape velocity in the Neutral Zone [C-R] can exceed the speed of light. Matter and trapped energy are not affected any further by any increase in gravitational curvature - if the escape velocity exceeds the speed-of-light. Photons exist, time-trapped, but they also cannot interact.

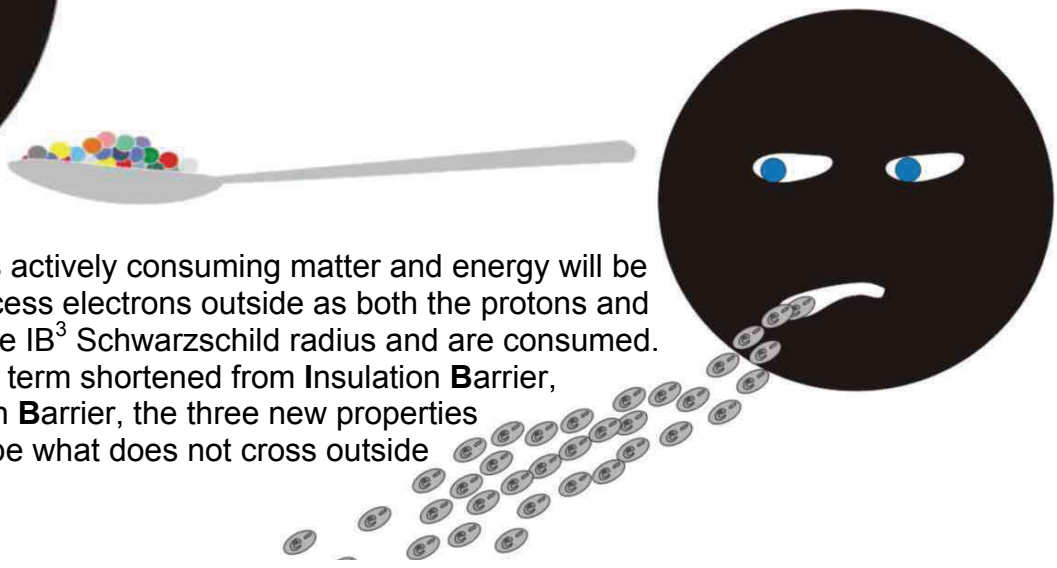
Matter and energy trapped in this Neutral Zone [C-R] behave as if they were electrically neutral. No real time interactions can occur there. No radiation, no absorption, no collision, no interaction, no radioactive decay, and no quantum tunnelling can occur between any matter and energy while they are in the Neutral Zone [C-R].

Outside of every Black-Hole [C-R], there exists an Active Zone [C-R]. The properties of the inside Active Zone [C-R] and the outside Active Zone [C-R] are very similar. All real time interactions are permitted between matter and energy in the Active Zone [C-R].

Obviously, the second law of thermodynamics cannot apply to matter and energy trapped within the Neutral Zone [C-R]. Technically, for anything within the Neutral Zone [C-R], time cannot be measured or detected, i.e. time there does not exist. Theoreticians Note: From the (unobservable) viewpoint of any matter within the Neutral Zone [C-R], ALL matter elsewhere travels faster than the speed of light.

SIDENOTE: Once this “Faster-than-light” travel CAN happen anywhere in the universe, nature is much more likely to allow that same principle to re-occur elsewhere, too. That should give theoreticians something nice to consider.

When Black-Holes [C-R] swallow matter, they preferentially consume the protons and proton-neutron combinations, while rarely consuming electrons. They preferentially swallow the heavier sub-atomic particles. Any photons swallowed are unaffected, but they are “time-trapped” and turned-off and cannot interact with matter in any possible way.



Every Black-Hole [C-R] which is actively consuming matter and energy will be releasing a steady stream of excess electrons outside as both the protons and the neutrons disappear inside the IB^3 Schwarzschild radius and are consumed. (NOTE: IB3 is a new C-R theory term shortened from **I**nsulation **B**arrier, **I**nformation **B**arrier, and **I**solation **B**arrier, the three new properties the C-R theory says also describe what does not cross outside The Schwarzschild radius.

Important New outrageous claim about OUR SUN:
Putting the claim from the previous page to use, our sun is probably NOT powered by thermonuclear fusion. Instead, there is a (C-R theory) Black-Hole [C-R] at the center of our sun, and it provides most of the energy we measure. (Some fusion energy may be occurring, but only as a secondary reaction.)

Outrageous Proof (to match the outrageous claim): Hidden in plain sight for many years, almost 100% of all the light emitted by our sun's photosphere comes from hydrogen ions (single proton atoms with **excess** *electrons*), each single hydrogen atom with TWO electrons (double negative-ionized charges).

Notice: Normally, in the lab, when one heats-up a neutral gas to about 6000^{o}C, the gas glows and emits energy, and also **loses** it's electrons. {Think of a glowing Neon sign}

Fusion does NOT provide a good mechanism to account-for or explain the origin of the extra electrons, and neither does conventional physics. This observation SHOULD have raised a giant RED FLAG somewhere in conventional understanding, but the excess electrons were simply accepted as a NORMAL part of the fusion process.

ONLY the **C-R theory** predicts that a Black-Hole [C-R] actively consuming matter will produce an EXCESS of electrons. Whereas conventional theory DOES not need or want excess electrons, the C-R theory MUST HAVE THEM to be considered valid. That almost 100% of the hydrogen atoms in the sun's photosphere (emitting the yellow light we see) also have EXCESS electrons, in abundance, is NATURE'S answer to the question: Is our sun powered by thermonuclear fusion? The answer is a BIG **NO!!!**

Our sun IS powered by a Black-Hole [C-R] at it's center. Since our sun's Black-Hole [C-R] DOES not start out as a small singularity at it's center, it will be somewhat larger than the 2 cm diameter black hole predicted in 1974 by the two scientists, _____ and _____ . (Remember that there always will be an Active Zone [C-R] at the center of every C-R theory Black-Hole [C-R].)

The longer a Black-Hole [C-R] is in existence, the more it will have eaten, the larger and more unstable it's Neutral Zone [C-R] can become.

As the Neutral Zone [C-R] swallows more matter and energy, its contents are more susceptible to perturbation from any close encounters with massive objects.

Notice: The anti-Black-Hole [C-R] event provides a very simple, convenient source of all the observed, high-energy positive charges (cosmic rays).

From the above, a Black-Hole [C-R] stores-up in its Neutral Zone [C-R] the ONLY KNOWN force which can overcome gravity in the real world, large-scale events.

Sometime after the Black-Hole [C-R] has been eating, its Neutral Zone [C-R] will become primed. Anytime after this point has been reached, a sufficient external (or internal) disturbance could shift the envelope of curvature around the Neutral Zone [C-R] sufficiently to allow some or all of the contents in the Neutral Zone [C-R] to re-activate.

If some or all of the contents of the Neutral Zone [C-R] are liberated, increasing in size, a nova, supernova, hypernova, Seyfert Galaxy, active galaxy, quasar, or gamma ray burst (GRB), (although probably not a big bang), could be the result, as the magnitude of the freed-contents increases.

Obviously, the initial burst of released self-repelling-protons (and neutrons) liberated from the event would supply a natural high-energy source for various energies of positive cosmic rays. In addition, a detectable pulse or surge of neutrinos should also be freed-up at the same time. With the extra neutrons released, neutron enriched (radioactive, too) elements will also be found in abundance.

The properties of an Active Zone [C-R] (inside) would always be, maximum redshift (time slow-down) at the outermost edges, with lesser time-slowdowns until reaching the center. Note: From anywhere else but the center, objects closer in towards the center will always appear to be blueshifted (more time active).
Hint: Does this blueshifting not suspiciously sound like the Great Attractor?

Naming irony: In reality, the Great Attractor is not attracting anything.

Because of the massive electrical charge-imbalances created by Black-Holes [C-R] and by ex-Black-Holes [C-R], tremendous currents should be apparent in every direction, everywhere in space. One web site claimed that a current of at least 10^{19} amps was in evidence from the amount of polarized light observed around one nebula.

An additional side-effect from the large imbalances in electrical currents in space, the C-R theory favors many complex chemical interactions, allowing interstellar compounds and ions to be abundant. Ionized radicals would also be present in unexpectedly-huge numbers. Multiple positive ionizations up to Fe^{+23} have been found in Seyfert galaxies or supernovae remnants.

Our universe is the inside (Active Zone [C-R]) of a giant Black-Hole [C-R]. It also was the C-R theory's "laboratory model" Black-Hole [C-R]-inside available for study. Hint: All the C-R theory's claims for the behavior of an inside Active Zone [C-R] are based on observations of our universe, as-is.

The Neutral Zone [C-R] of the Black-Hole [C-R] infinitely isolates all of the electrical charges it stores inside from each other and from all matter outside as well.

Since gravity is based-on curvature, a spinning mass inside the Black-Hole [C-R] will not couple out it's spin. There is no "frame dragging" from a spinning mass inside when using curvature. Hint: You can visualize this by lightly pressing a dull pencil down into a loosely-filled water balloon. Spin the pencil, and note the (non-existent) change to the curvature.

By the C-R theory, and contrary to our normal, Newtonian type thinking: Objects falling in a gravitational field will only "fall" until they reach the maximum curvature. They will not fall to where the curvature becomes zero (or minimum curvature).

(unnoticed sub-claim): Gravity on earth DOES NOT decrease as one falls-down or drops-in closer towards the center of the earth. Rather, the gravity INCREASES until one reaches approximately 2886 km below the earth's surface. From the Core-Mantle boundary inward {downward?}, gravity (gravitational curvature) finally decreases to Zero at the center of the earth.

This only occurs BECAUSE the density of matter on earth MORE than quadruples with depth, going down from the surface. This UNNOTICED fact has obscured the TRUE (curvature-based) behavior of gravity, hidden in plain-sight all these many years.

Outrageous prediction:

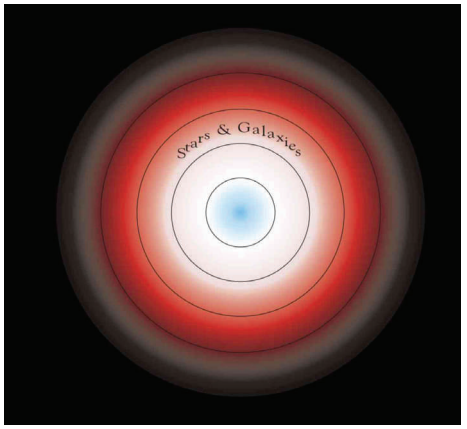
If we could dig a tunnel through earth's center, then drop a ball down the shaft, the ball would only drop down the shaft then come to rest at the maximum curvature, the Core-Mantle boundary. The ball WOULD NOT continue to accelerate, or even to fall to the center of the earth.

Outrageous prediction part II: If the ball was released inside the shaft, down below the maximum curvature, it would "fall" (or "float?") "up" to the maximum curvature {at the Core-Mantle boundary}, not drop-down further in, towards the center!! I know of NO OTHER gravitational theory which HAS THE CONFIDENCE to make that SPECIFIC prediction!!!

One of the most interesting conclusions from the C-R theory is that matter at the outer edges of the universe is ***already*** at a lower potential energy (gravitationally) than matter here on earth, or matter closer in to the center of the universe. Ironically, the outermost matter in this universe would have to GAIN energy to collapse inward!!! This very much goes against the "Newtonian thinking" (built in bias) of almost every other conventional gravity theory.

Extrapolating from the above claim, since the C-R theory claims objects in the universe nearer the outer edges are slower, measurements of Cepheid variables or type Ia supernovae {***ASSUMED*** to be the

STANDARD CANDLES of brightness ***EVERYWHERE***} would have to take into account the reduced brightness due to the **SLOWED** timeframe out there. If the **assumption** was made that the timeframe there was identical to ours here on earth, one might "*mistakenly*" conclude {as MORE THAN ONE mistakenly ALREADY has concluded} that the universe was expanding at an expanding rate. (because of the increased dimness and increased redshift observed in objects out there)



Our universe is a "laboratory model" of the inside of a Black-Hole [C-R], on the largest possible scale we can observe. (There could well be another Active Zone [C-R] outside of our universe, but we have no present way of telling.)

READERS: Use the inside of our universe as your key to understanding the inside Active Zones [C-R] in smaller Black-Holes [C-R].

To matter trapped inside the Neutral Zone [C-R], any motion at all by any matter outside the Neutral Zone [C-R] would be in excess of the measured speed-of-light. (Although, technically, matter inside the Neutral Zone [C-R] could not make the observations.) This should give some theorists something interesting to ponder upon. (If anything occurs in nature, there is a much better chance of something similar occurring again. This implies that "faster-than-light-speed phenomenon" might well be possible in the real world, too.)

From the de-activation of matter in the Neutral Zone [C-R], the C-R theory concludes that one Black-Hole [C-R] should not be able to attract or consume another Black-Hole [C-R]. (Famous fudge factor: technically, the matter in the inside Active Zone [C-R], or matter outside any Active Zone [C-R] might be fair game for dining-upon.) Note: In 2005, new observations say there may be at least 10,000 smaller Black-Holes [C-R] near the central 3 light-years in our galaxy. Conventional theories would have great difficulty explaining or accepting this large number of "un-consumed" (conventional) black holes.

The C-R theory "spin" is that, a Black-Hole [C-R] cannot eat or attract another Black-Hole [C-R]. This is because the matter inside each Black-Hole [C-R] is **already** at the MINIMUM possible energy allowable. Gravity cannot lower this matter's energy any lower (than ZERO), to "pull" the Black-Hole's [C-R] matter in towards it.

Note: In a practical manner, these 10,000 smaller Black-Holes [C-R] may act something like 10,000 hungry people would between you and the food you ordered in a restaurant. They effectively prevent the central "supermassive" Black-Hole [C-R] at our galaxy's center from consuming any matter then emitting electrons or energy. This may actually help to practically stabilize the structure and integrity of the galaxy, and keep the "living conditions" in this galaxy suitable for "living beings" such as humanity!!

In most instances, gravitational "radiation" does not exist. The C-R theory has not decided whether energy is radiated and released when periodic changes in the strength of "curvature" occur over time.

If matter is spinning inside the Neutral Zone [C-R], the curvature outside the Black-Hole [C-R] is not changed with time. Therefore: there is no "frame dragging" that couples-out from geometric curvature.

No new forces need to be created or called-upon to use the C-R theory. Only "reasonable" modifications are needed to known phenomenon.

The simple addition of the Neutral Zone [C-R] to the Black-Hole [C-R], with its properties of a totally neutral shut-down of electromagnetic activity, the "time-frozen" volume inside is the main "radical" change needed, after the complete elimination of the possibility of forming a singularity.

The C-R theory concludes that our universe was intelligently designed, with Black-Holes [C-R] functioning as nature's "tools", playing a critical part in helping to recycle both matter and energy. The universe is a self-contained, perfectly-recycling system. Such a system is very unlikely to have "just happened" randomly or accidentally. Instead, it was pre-planned, executed, created and maintained by a Creator.

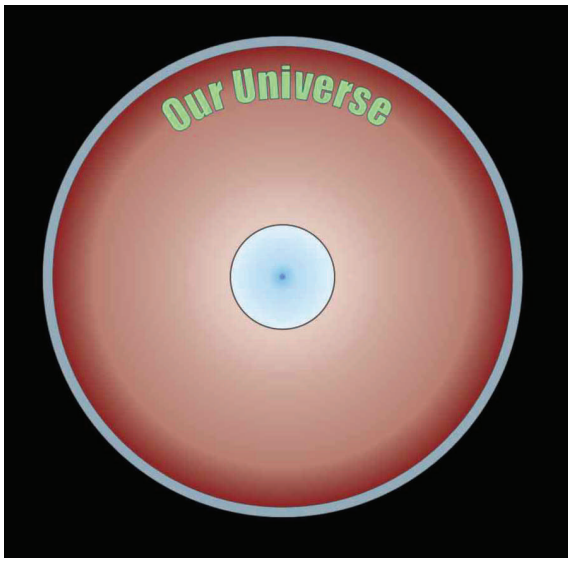
All of the matter and energy in the universe has always existed, and always will exist. There was never a time when it did not exist, and never will be a time when it all fades-away or just disappears. The matter and energy "content" of the universe is enabled to recycle, again and again and..., you get the picture.

The C-R theory universe becomes a humanly understandable, enclosed, perfectly recycling system. There is a recognizable plan, using logical, common-sense, well known parts. From lowly, sub-atomic particles, like protons, neutrons, and electrons, up to Black-Holes [C-R], to massive gamma ray bursts (GRB's), everything has a logical cause, a use, a place and a pre-planned purpose. Nothing is ever "wasted".

The observations of all that we see going-on in the universe will now make sense, and fit predicted reality. Observations made over the last many years which seemed random or nonsensical phenomenon {as understood by conventional theories} (the C-R theory's competition) now have a useful purpose. Even the simple structure of sub-atomic matter, protons, neutrons, and electrons plays a big, significant part. This inter-connectedness and inter-linking has been totally unexpected and un-anticipated by other theories.

The C-R theory needs no colliding "branes", no hyperinflation, no singularities or no infinitely dense points, no "something-emerging-from-nothing", especially no "15 billion light-year diameter, matter and energy-filled universe emerging from a mere speck, starting-out from less than a Planck's width".

Although not explaining why very little antimatter exists, the C-R theory certainly benefits from existing in a "mostly matter" type-of universe. The C-R theory would also work very well in an anti-universe, composed almost exclusively of antimatter.



The universe does have a preferred reference frame, with a minimum curvature at the center of the universe, the "Great Attractor". From there, curvature increases until we reach earth's vicinity. If we continue travelling, we will reach a maximum curvature at the outer edges of the universe. Time slowdown is 0 at the center, more on earth, and proceeds to a full stop at the outer Schwarzschild radius.

Objects at the outer edges of the universe are time-slowed-down as compared to earth. Objects closer to the center of the universe are blue-shifted (speeded-up) as compared to earth. They are not rushing towards us (or us to them, as in "The great attractor").

Any Black-Hole [C-R] consuming matter will be releasing a cloud of excess electrons as it consumes the heaver protons and the proton-neutron combinations. Any energy gained by the electrons is "paid-for-in-full" by energy lost by protons as they (temporarily) enter the Neutral Zone [C-R].

Black-Holes [C-R] are nature's plan for recycling matter and energy. Matter and energy entering the Neutral Zone [C-R] can only **increase** in organization and concentration. The Neutral Zone [C-R] **therefore** does not and can not obey the second law of thermodynamics. (Either the second law is not valid everywhere, or each Neutral Zone [C-R] is "exempt" from the law!!)

The C-R theory finds a fundamentally important new use for the basic properties of sub-atomic matter. For matter trapped in the Neutral Zone [C-R], theoretically, everything in the inside and outside Active Zone's [C-R] will be travelling "faster than the speed of light". (But the matter in the Neutral Zone [C-R] cannot measure or detect this apparent dilemma, because all electromagnetic interaction there is forbidden.)

New, added starting in 2006; a 1 Kg mass on earth is not energy-equivalent to the same 1 Kg mass transported to the outer edges of the universe. The energy difference is equivalent to the gain (or loss) of energy surrendered to gravitational energy liberated as the mass was transported to the time-slowed-down region away from earth. Conversely, the same 1 Kg mass at the "Great Attractor" will have more

energy than the same mass on earth. Energy would have to be ADDED to transport the 1 Kg on earth to the center of the universe.

Space can no longer be said to be isotropic, or the same in all directions. Gravitational curvature necessarily superimposes a preferred reference frame upon every "closed" universe. Q.E.D., relativity must therefore be wrong, at least on this point.

Also new for 2006: The C-R theory universe may be closer to the originally-proposed steady state universe, but with the difference that it has not been interpreted as expanding. Instead, the mass nearer the outer edges is just being slowed-down. If so, the age of the universe must be considerably more "infinite" than the "young" 13-18 billion year old age often quoted or supposed.

Ironically, a C-R theory universe cannot possibly collapse gravitationally! The matter at the outer edges is already at a lower potential (real-time-rate) energy, gravitationally, than matter further inward. One would have to ADD energy to the matter there to allow it to collapse inward. (This concept is so foreign to our Newtonian way of thinking that the author supposes virtually no-one will accept the idea on first reading. You, "the discerning readers" are EXPECTED to dismiss the idea for many years after your first reading the idea.)

Another C-R theory conclusion is that the universe was deliberately designed to recycle matter and energy. The universe is infinitely old, and will continue indefinitely into the future.

New for 2008, the C-R theory now claims that as a Black-Hole [C-R] in our sun devours the heavier helium and heavier elements, our sun might actually grow purer in it's hydrogen content as it ages. That is the EXACT opposite of what happens as a star ages by thermonuclear fusion, by standard theories.

If you are intrigued by the C-R theory claims above, please continue reading the rest of the Completely Recycling Theory (of the Entire Known Universe).

Jerry A. Reynard this section last revised: September. 3, 2008

Need Help with new terms? Click here to link-to the Extended Definitions Section.
Exclusive to the C-R theory, covers new ideas not found in other theories.

Semi-New for 2008:

The **Completely-Recycling Theory**
(of the Entire Known Universe)

Dedication

This Book/Theory is dedicated to all those professionals who have been too educated in their current beliefs to ever be able to accept this theory.

The Author notes that the C-R theory will probably never be endorsed, much less embraced by the establishment until the current generation of astronomers and cosmologists has retired or died-off. They are so well-grounded and educated in the current belief system, they cannot replace their mind-set to shift to a C-R theory point-of-view. I originally used to share their mind-set, so I can both sympathize and empathize with their views.

The C-R theory's competitors will no doubt regard this as Science Fiction. In reality, some of the C-R theory is not science. Science consists of the study of repeatable experiments, measured in a laboratory setting. The creation of the universe is unlikely to be repeated in our lifetime or in our laboratories. The events occurring at far off distances, calculated to be of billions of light years away will not yield easily to any local attempts at measurement with any degree of certainty. The tools available here on earth used to understand these remote areas are as inadequate for that task as using only a few "fluffy" cotton-balls to try-to exactly measure the maximum circumference of the Earth.

The C-R theory attempts to totally re-evaluate and straighten out observations which have been interpreted with ideas from regular theories. Are the contents of the "edge" of the universe really rushing away at nearly the speed of light, or are they simply gravitationally red-shifted, existing at a slower "life-pace"? If so, this completely changes one's outlook on what is going on out in space, and how one looks at what is seen.

Do not look for confirmation of these NEW C-R theory ideas and outlooks in conventional books or magazine articles, yet. These C-R ideas are too new, too different from the mainstream to receive any consideration or coverage, yet. Any academic use of opinions or ideas from the C-R theory may be hazardous to your academic career.

Do rely on the C-R theory to provide a new and better, different opinion, based upon simple ideas. The C-R theory is so new it is not yet espoused by or covered by any mainstream science source.

One benefit of the 2008 semi-new C-R theory is that the entire universe suddenly becomes much more humanly understandable. ***You*** might discover that the universe, as *you* see it, is organized as a complete package, functioning as a self-recycling ecological system. ***You*** (the reader) should gain an entirely new level of insight, a new way of understanding inter-related phenomenon, with a degree of completeness not available anywhere else. Indeed, anyone (including "stay-at-home" amateurs) reading this theory may start-to understand what is happening in the universe before even those dedicated professionals who are *doing* the discovering. Their "old-mode" thinking patterns are too firmly set, and those ingrained patterns will probably prevent them from ever believing or grasping the full simplicity of the C-R theory.

International Readers: This is the ***Completely-Recycling Theory*** of the Entire Known Universe. Now available for FREE on-line—Starting in May 2008.

If you think that a ball dropped down a hollow shaft through the earth would fall to the center of the earth, you do not understand gravity at all. Just as the ball cannot "fall" from a lower energy (higher curvature) to a higher energy (lower curvature) position, i.e., from the surface of the earth to the top of Mt. Everest, so also is the ball unable to fall from a lower energy (higher curvature) surface of the earth to the MUCH HIGHER energy (MUCH LOWER [*zero*] curvature) position at the center of the earth!!

The above expectation has been missed by virtually everyone on Earth (due to their built-in-from-birth "Newtonian-bias" or thinking). Only the C-R theory claims that "falling all the way to the earth's center" WILL NOT be the case.

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Author's Warning :

Author's WARNING: To Professionals, Students and Academics: Any use of, or belief-in the ideas or conclusions from the C-R theory could be FATAL or HAZARDOUS to your academic career, until or unless these ideas become part-of the mainstream. Use these ideas publicly at your own peril, even if they are simpler, more straightforward, more believable and understandable (to YOU) than current (conventional theory) ideas.

Note: Most puns, humor, and intentional word misuse remaining in this version of the theory were removed. I do realize that many who have studied cosmology (the theories of the origins of the universe) all of their lives will probably not take this theory seriously. It is likely too late in their career to "re-indoctrinate" these older scientists. Therefore, I originally used a pun-filled method of scientific writing in the original Comedy-Recycling theory, from which this Completely-Recycling theory is derived. This was deliberately designed (by me) to increase the probability that someone might read the theory.

At the suggestion of an international reader, I have finally created this version, better suited for international readers, when the English language is not their first language.

I knew that with the assumptions I would have to make and use, and with the re-interpretation of old, long-accepted "facts", using fresh new ideas, I could not write this theory in a **serious** manner, so that it would be **believed**. Therefore, I wrote the original C-R theory funny, in order to be read. Many jokes, puns, deliberate word-misuses have been pulled from this version. I can only hope that a newer, younger generation of budding astronomers and "cosmologists-to-be" will consider the merits of these ideas presented here, because they have not yet learned "you cannot do science this way".

Please let these new ideas stand or fail on their own merit. Do not <u>arbitrarily</u> just **dismiss** them without testing or trying them, only because of their degree of differences with currently accepted theories. Realize that the C-R theory ideas do not primarily "re-parrot" (repeat the same conventional ideas, by rote, without thinking about them) the same "old" ideas used (unchallenged) in almost every conventional theory, and arrive at similarly non-plausible results.

I would encourage **all** who read this theory to re-evaluate what ***YOU*** think YOU know about the universe. Wherever possible, please put these C-R theory ideas to the test.

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Introduction

The Author's explanation of the evolution of the C-R Theory

The Completely-Recycling (C-R) theory grew from my personal quest to explain a simple dilemma. How could gravity emanate from a black hole? If theoretical particles called gravitons were involved, serious problems would be encountered. If tunnelling provided the answer, external gravity should be less than 100% once a central mass collapsed into a black hole. If the matter within the black hole collapsed into a singularity, gravitons shooting a huge gap (by a sub-atomic particle's measuring standards) should have terrible difficulty in emerging at all.

I never started-out to write a comprehensive theory of the universe. I only attempted to satisfy my own limited knowledge of the phenomenon of black holes. I was aware that the case concerning black holes had already baffled many of the world's best and brightest minds, and I did not expect to be able to help-out.

In my initial quest to envision how black holes worked, I had assumed that someone else, in some other place; vastly more intelligent and educated than I, would discover or propose an impossibly complicated, but somewhat-understandable (to me) solution. How do black holes really function? Do they fit into the working-plan of the universe, or are they the inevitable end of everything?

While mulling over the problem in my mind, I "stumbled" over a few basic ideas, so common-sensible, so straightforward, and so compelling as to be exciting. These revolutionary yet simple ideas required revising my thinking on black holes. The differences were so important and fundamental that this virtually "required" the use of a *special new term* to stand apart from conventional black holes.

The C-R theory will therefore use only (C-R theory brand-name) Black-Holes $^{C\text{-}R}$. The newly recognized properties exclusive to Black-Holes $^{C\text{-}R}$ meshed well with phenomenon in the universe I had read about, encompassing many different scales, over many different orders of magnitude. EVERY newly discovered phenomenon, unknown and unsuspected when the C-R theory came into being, seems, so far, to be conformed to the basic "C-R theory mold".

The foremost assumption used to derive the C-R theory is conservation of energy. Whatever else must go, conservation of energy must reign supreme. Based on everyday observations, and on intuitive common sense, the C-R theory modified some assumptions popular in current theories. In other areas, the C-R

theory looks at long-known-about phenomenon in a fresh, new and challenging way.

Based on revolutionary new ideas, I believe Black-Holes $^{C\text{-}R}$ (the C-R theory term for **ALL** real black holes), are required to behave differently than conventional black holes. The C-R theory will attempt to explain these differences by using new insights exclusive to the C-R theory. Why this is so will become obvious later in the theory, when the overall plan is presented in-full. Black-Holes $^{C\text{-}R}$ behave much differently than any other competing theory suggests. The C-R theory will use simple "(after-)thought" experiments to later explain and justify many of the conclusions that were already reached. The (after-)thought experiments are collected in the appendix near the end of the C-R theory.

[A small confession. In reality, the C-R theory actually reached its conclusions first, then provided the AFTER-thought experiments to try to explain and justify the conclusions to YOU, the reader. After writing the first versions of the theory, I later realized that I had (un?)intentionally misstated the process. I am not honestly certain that I did not have the thought experiments and their results in mind when I reached the original conclusions for the theory, but I now believe some original–insight led to the conclusions first, then the after-thought experiments were created later to explain and justify the "logic path used" to the average reader. Thus, these thought experiments can be safely placed at the end of the theory, in the appendix. They are NOT essential to the basic understanding of the theory.]

Some C-R theory ideas about Black-Holes $^{C\text{-}R}$ result from simple "If...then…" logical statements. If one assumes the opposite of what one believes to be true, and then proves that the idea violates conservation of energy, one can judge the desired assumption invalidated.

Most current Big Bang based theories of the universe appear to have many serious shortcomings. A recent book, from the 1990's which covers the problem areas very well is *The Big Bang Never Happened* by *Eric Lerner*. I disagree with some parts of his theory, and he lacks a good "causative mechanism", but the listing of difficulties with basic areas of the popular Big Bang theories makes this book worthwhile reading for anyone seriously wishing to understand many of the shortcomings of present Big Bang theories.

Understanding the C-R theory will require YOU, the reader to consider changing some of your long-held beliefs. I believe the simplicity, the overall "system" concept, and the superb flexibility of the C-R theory to cover every imaginable area of the universe will give it the power to ultimately prevail (even if YOU initially reject it).

I am sure that most of the C-R theory ideas will never be accepted by some of those people who have already been taught differently for all of their lives. On the other hand, these ideas presented in this book are so simple, so logical, so common sense, they almost "beg" to be believed. I personally believe that ***some*** of these C-R theory differences might be demonstrated to be true, by experiment, within my lifetime.

In the years since the origin of the C-R theory (sometime in February, 1979), there have been no observations, experiments, or discoveries which would require junking or extensively modifying the theory. (There have been discoveries which, in principle, agree with the C-R theory but did require me to revise my original thinking in a more positive way.) Lately, I am pleased to find new magazine articles almost every month which would identify new observations which sound completely compatible-with, if not downright supportive-of, the C-R theory.

There are some scientists who create new theories strictly to be refuted. This theory is not one of those. (Plus, technically, by profession, I am not a scientist!)

This theory is predominantly non-mathematical. There are plenty of scientists and mathematicians who have tried to come up with the equations *first*, then they assume their new understanding will *follow*. As an alternative, the C-R theory has been derived from a new understanding, based-on known situations, with some new thoughts about how the processes in the universe really work. This is a "scenario-based" theory, with the new understanding using primarily, gravitational curvature. The insight was achieved before the exact equations describing all-of the situations were known. I believe, in this unique case, substantial progress was made in understanding the process of : how the universe, as a whole, functions.

I have tried to keep most of the C-R theory "simple-enough" to appeal to the advanced younger readers in junior high school, and high school thru college levels. It is a theory of pathways, possibilities, and *recycled* (rejected, reconsidered, then re-used) "old" answers. The C-R theory is based on all current observations of the universe. (And it is **NOT** primarily based on understanding multiple pages of complex math equations.)

Wherever possible, I have included new, revised thinking on my part, explaining how events as described by the C-R theory are too good and too inter-related to be accidental or randomly evolved. The ultimate C-R theory conclusion is: our universe is a deliberately designed, finely-crafted system, continuously-recycling, over an infinite lifetime.

The story, from a C-R theory point-of-view, of "Why ***YOU*** can eventually come to believe this theory."; and "Did the universe as we know it ONLY come into being at the Big Bang?"; is presented for the first time to the world's general public. (in this new, non-funny version).

I DO NOT expect many readers to believe this theory from their first reading. I expect **YOU** (the reader) to initially reject it. What I do want to do is: Challenge what YOU **think** YOU know about this universe. If YOU **seriously** accept the challenge, upon reflection, I believe some of YOU will come to a new, improved "understanding" of our universe as a fully functional, recycling system. All of the parts and processes will make sense to ***YOU***.

The current Big Bang based, competing theories of the universe have presented Mankind with a murky beginning and a very bleak ultimate future. This pessimism has poisoned our species "long-term" outlook for at least the last 70 years. (The years starting after 1929-1930) This C-R theory approach single-handedly presents an optimistic ***new*** view of our universe. The result is a radically improved **HOPE** for the far-future : Our universe's long term future, measured well beyond **billions** of years, is not "certainly, hopelessly doomed", but allows our progeny to have abundant energy, plentiful and steady far into the future!!!

Indeed, in 15 billion years, our universe will look almost exactly as it does today!! Only some of the individual objects seen will have changed (aged) and moved, but newer objects will have taken their place. In 15 billion years, our universe will still be the same size, and have exactly the same amount of energy, and the same mass and number of particles as we have today. The 2.7K background radiation will still measure 2.7K (from earth). The "Great Attractor" will still be blue-shifted by the same amount, and the red-shifted quasars will still be red-shifted by the same amounts as today. Please, read more inside!!

Jerry A. Reynard
This section last revised, corrected, and updated on August 21, 2008.

The C-R theory says: "Our universe is just too nice to use only once, and then, simply throw it all away!!"

Semi-New for 2008:

The **Completely-Recycling Theory**

(of the Entire Known Universe)

Need Help with new terms? Click here to link-to the Extended Definitions Section.
Exclusive to the C-R theory, covers new ideas not found in other theories.

Chapter 1

Gravity and the C-R Theory

Considering Curvature as the "True Cause" of Gravity. What to look for, and how to tell the differences.

The *Newly-Realized* Nature of the true "Cause" of Gravity

The C-R theory has theorized a new nature of the "cause" of gravity. This nature of gravity is based on (after-)thought experiments which will be included and discussed further in the appendix. The C-R theory has concluded that gravity behaves in an easily predictable manner, even at the edge of the universe and inside of a Black-Hole [C-R 1]. This includes the new understanding of both how and why gravitational curvature exists both outside and inside the vicinity of a Black-Hole [C-R], and how that curvature "creates" the effect of gravity, enabling "gravity" to move and accelerate (influence) matter.

The C-R theory has postulated that the true nature of gravity is caused by a significantly different mechanism than that which is currently accepted by conventional theories as their best explanation of gravity. Most current theories believe that hypothetical gravitational particles, usually called gravitons, will be interchanged, in a situation very similar to the way photons of light are used as the carriers of electromagnetic energy. This graviton inter-change is also believed to be comparable to the exchange of the W particle (the Vector Boson), which is believed to intermediate both the strong and the weak nuclear forces.

The C-R theory will attempt to demonstrate that (speed-of-light limited) gravitons are not the cause of gravity. The C-R theory will show how a (geo)metric curvature actually reduces the "energy-carrying capacity" of matter by the EXACT amount of the kinetic energy released when that same matter falls. This change in the rate of real-space-time (slightly changing the "running-time" of existence) is what causes the "effect" of gravity.

Energy is "squeezed-out of" matter whenever a real "slow-down" of time for a mass of particles occurs. Thus, gravity occurs as an "effect" from the increased curvature, somewhat like orange juice is squeezed out from an orange . Only 100% of the "available" (or surrenderable) real-time-energy can be extracted, just as only 100% of the available orange juice can be squeezed from an orange. Squeezing any harder, or exerting more effort will not yield more orange juice. The effect of gravity will CEASE after one lands at (then proceeds inside) the Schwarzschild radius. NOTE: Once the squeezing is done, or stops increasing, no more energy is released. (to link to a good graphic, click here)

This energy, which "comes-out-of" any mass which is being warped or bent in a space-time continuum, becomes the source for the same kinetic energy to produce the falling and the acceleration which we think of as "gravity". This amount of the acceleration is independent of either the mass or it's density. It results strictly from forcing the matter to exist in slightly slowed-down (or extra-dimensional length-elongated) time-frame. The amount of energy freed-up from matter by increasing the gravitational curvature is directly proportional to the small slowdown of time experienced by the matter when it is more highly curved (bent, warped, or stretched). (One could alternately imagine increasing the effective "path-length" traveled by the same amount of "resonance waves of energy-matter" by the warping of space-time, effectively diluting it (stretching it out or slowing it down). It would appear to an external viewer (YOU) as a small slow-down in real-time, and/or as an energy red-shift.)

Rejection of Gravitons

The C-R theory has chosen to reject the idea of hypothetical particles of gravity (or of gravitational radiation), called gravitons. Here is the conclusion, based on the results from several (after-) thought experiments, which will be covered more fully in the appendix.

C-R theory Assumption A

The effect of gravity must be felt outside of a new Black-Hole [C-R], at the same intensity as before the collapse [3]. If gravity decreases to any lesser amount, when the central mass of the Black-Hole [C-R] remains constant, conservation of energy MUST be violated [4].

From Einstein's Theory of Relativity

Einstein, in his theory of Relativity, predicted the slow-down of time near a large massive body. The C-R theory "discovery" is that, gravity does not "cause" the slow-down of time near a massive body. Rather, it is the slowing-down of time, caused by the increase in curvature (or bending or stretching of the fabric of space-time), which actually creates the "effect" of gravity.

Current theories have run into difficulties because they have misunderstood the real nature of gravity. An analogy to the current conventional view of gravity would be: Imagine a light bulb, with an initial surge of electricity rushing through its filaments, turning it on. Then claim that this "process" ***causes*** the light switch on a wall to be flipped to the on position. In the simplest possible terms, the conventional theories "understand" the process of "how gravity works" — backwards. (That is why their results are much less logical.)

Squeezing energy out of Matter See Illustration

Consider the analogy of an orange in a juice squeezer. As the orange is warped, or bent, or squeezed, the juice comes flowing out. As long as there is fluid left in the orange, extra squeezing will produce more juice. What could this possibly have to do with gravity?

Imagine a singular hydrogen atom, with the electron at it's lowest allowable energy level, the "s" orbital, i.e., at the temperature of absolute zero. By quantum mechanics, the energy level of the electron in it's orbital of this hydrogen atom cannot be decreased further by radiating away any additional energy, or any other means.

Let us now imagine that we will place the hydrogen atom (still at absolute zero) in a time squeezer, and we will warp it's space-time-fabric in a gravitational curvature (field).

Since the hydrogen atom is at it's lowest possible temperature-energy state, it cannot radiate away any photons of energy. In this case, the hydrogen atom can however, pick up some speed (by acceleration, from the "release" of kinetic energy) in the direction of the time-warping, and the atom will slow-down {measurably?} in "real-time".

Notice that, until the hydrogen atom impacts something else, or speeds through the area of maximum warping with enough energy and momentum to re-emerge elsewhere, the total energy content of the hydrogen-atom-system remains constant. (In other words, all of the energy gained when the atom fell came from the energy of (or "in") the matter itself; the energy was not externally *produced* or *supplied* by gravity.) {Create animated gif}

Notice that the hydrogen atom "seeks-out" the location with the highest curvature, which is also the slowest (time-wise), and the lowest potential energy area. This location also corresponds to the area with the slowest "real-time" clock, i.e., caused as a result from the movement of the atom towards the local maximum of space-time warping or bending.

The C-R theory speculates that the shape of space-time can be *bent* or *warped* or *twisted* or *squeezed* (do you get the picture?), to decrease "real-time". This suggests that there might well be a right-angle, or phase relationship between real-time and "imaginary-time".

Notice that the hydrogen atom still exists. Other than a real-time energy (potential energy) loss, and the increase in kinetic energy, it has remained essentially unchanged, throughout it's ordeal.

For our more technical readers, click anywhere on this text to hyperlink to the appendix, where the electronic circuit/phase analogy has been moved. The inclusion is not essential to lesser-technical readers, so for this version, the section was moved near the end

An electronic circuit analogy applied to real-time!
Recycling an old idea (i.e., the solution to the "Ultraviolet Catastrophe").
(Where Maxwell's equations predicted that every moving electrical charge, hence, every "orbiting electron", should continue to radiate-away ***all*** of it's energy until it collapsed into the proton.)

Let us use an electronic circuit analogy as a reference, and we can imagine what would occur at the 90 degree-like space-time phase angle. We would have a total Imaginary-time existence. Any combination of matter-energy will be resonating (with respect to itself) but, to ALL external viewers like us (although we would not actually be able to see any light from it), the matter-energy would seem to be undetectable, "time-trapped" in a minimum energy state, incapable of interaction with any electromagnetic energy like light.

The situation: At the outermost edge of any Black-Hole [C-R]. Known conventionally by science as the Schwarzschild radius. Here, the gravitational curvature is 100% maximum, and the escape velocity is exactly the speed of light.

The C-R theory will suggest that once any mass (or energy, too) goes inside the Black-Hole [C-R] , the situation represents a "parallel" gravitational analog to the quantum mechanical situation of the resonating-electron (orbiting) in it's minimum energy state. Gravitationally time-collapsed matter-energy (at ZERO real time) may also behave (i.e., not interact) in a very similar manner to the hydrogen atom's electron at absolute zero.

At absolute zero (temperature), the hydrogen atom has it's electron at the lowest possible energy level, the "s" orbital. The electron still has a minimum (pre-defined) amount of energy, but cannot lose, surrender, or radiate-away any more of this energy once it occupies this orbital.

For the electron to collapse inward in its orbit, closer to the hydrogen nucleus, it would have to gain energy, which IT DOES NOT HAVE. For the electron to jump into a "larger" more energetic orbital, it would also have to acquire more energy, which it also does not have. In either case, if it could (or did) gain energy, the electron could no longer be classed as remaining at absolute zero or being at a minimum energy state.

The quantum mechanical theory explained (and rescued) the existence of matter, and suggested why the electron did not collapse instantaneously (within 1/5 of a second), into the proton, even at absolute zero. Quantum mechanics triumphed because it eliminated the singularity predicted by Maxwell's equations of classical mechanics. Scientists back then grudgingly grasped that the world around them had a built-in, and rather sensible safety limit. That limit prevented all of the electrons in all matter from fully collapsing into non-existence (or it prevented all electrons in the universe from collapsing into their protons, to become neutrons).

"***Recycling***" the above Idea to Prevent another type-of Singularity, again!

In the case of a predicted gravitational collapse into a singularity, is there a theory, using a parallel analogy, which will provide a similarly satisfying solution? Can simple logic demonstrate how to completely eliminate the problems faced by matter from the conventional prediction of the total gravitational collapse into a singular point? If the total collapse of the electron into the proton was not allowed by nature, even though classical physics (Maxwell's equations) demanded it, can it be that gravity also has a very sensible and similar type-of limit? HINT: It is the same Designer using the same type-of matter.

If gravity behaves as predicted from the C-R theory thought experiments, the slowdown of time produced by increasing the gravitational curvature is what actually "causes" gravity.

The IB^3 Schwarzschild radius begins the Black-Hole's $^{C\text{-}R}$ external boundary. It starts the volume of space where the local time STOPS. The "speed-of-light" in this "special reference-frame for time" is slowed-down to a complete stop. Time, at the Schwarzschild radius (and internally), is "warped-down" (or minimized) to absolute zero-time to mandate electromagnetic non-interaction.

HINT: Think of a racing Greyhound obsessively chasing his tail, roundabout in a circle, when he is supposed to be running a race from start to finish. His "speed" is the same, but he goes nowhere-fast. That is something like what the photon does in the Neutral Zone $^{C\text{-}R}$.

Measured from anywhere outside: in terms of any external (real-time) reference frame, ALL electromagnetic activity, interactions, and processes inside are stopped and turned-off!!

There's No Time to Allow A Collapse

The C-R theory (after-) thought experiments seem to demonstrate that: If gravity is caused by hypothetical particles called gravitons, the random nature of the resulting variations in the external level of gravity should cause violations of Conservation of Energy. Energy level violations become MANDATORY outside the conventional black hole and even angular momentum of orbiting planets would become unsuitably random at the outside edge of the conventional black hole, or the Schwarzschild radius.

The thought experiments (included in the appendix), seem to demonstrate that: if

gravity is caused by the emission of hypothetical particles called gravitons, then any changes to the total number-of gravitons or their strength emitted would cause serious violations of Conservation of Energy.

More technical readers may wish to click here to hyperlink to the appendix to view these thought experiments now. Less technical readers, ignore this box.

C-R theory Assumption B:
(as in a Completely-Recycling "brand-name") Black-Hole $^{C\text{-}R}$:

Once a mass is contained just inside the IB^3 Schwarzschild radius of the Black-Hole $^{C\text{-}R}$, it cannot collapse inward or be pulled-in any further (as in: collapse into a singularity). Any mass-energy trapped inside the IB^3 Schwarzschild radius is already at it's lowest attainable energy level, because all real time activity and interaction is stopped or turned-off.

Further collapse inward (back again into active, real-time) becomes impossible, *without* adding additional energy. This is because gravity is actually an "effect", caused by the partial release of some energy from matter itself, as that matter is forced, squeezed, or warped into a slower "real-time" existence. $(\Delta t \cdot mc^2 = \Delta E)$ The change in time, multiplied by mc^2 equals the exact change in the gravitational potential energy.

Once reduced to *Zero*, real-time cannot go any *lower than zero*. That means, no ***more*** energy can be released regardless of further increases in the gravitational curvature, even when the curvature increases well above "c".

(This idea of a practical ***limit*** to gravity is a unique insight gained only from the "C-R theory-type understanding" as to how gravity works, and why gravity is **not** ever able to collapse real matter completely into a singularity.)

By the C-R theory, at and inside the Black-Hole's $^{C\text{-}R}$ IB^3 Schwarzschild radius (boundary), no further collapse (inward) is possible! This occurs because of the reduction of real time for all mass inside this IB^3 Schwarzschild radius to (minimum energy) absolute zero. Inside this boundary, the matter-energy combination is already at the lowest possible gravitational energy state, with respect to real time.

Inside the Schwarzschild radius, real-time has already been reduced to zero, or the lowest-possible energy state, (no-time), "gravity" cannot collapse or "pull" matter or energy any further. ALL of the "real-time" has been taken away from the matter and energy after they are trapped inside the Black-Hole $^{C\text{-}R}$, and therefore, eliminates the ability of matter to interact-with, communicate, decay, absorb, or emit energy.

The curvature of space-time cannot squeeze (or curve or decouple) any additional local time out of existence. It cannot transform (exchange) or extract any more of the "real-time" energy from the mass into more kinetic energy, because no more real-time remains.

Using our electrical analogy, we could imagine that at the Black-Hole $^{C\text{-}R}$ boundary, 100% of the real time energy has been transformed, warped, bent or rotated into an imaginary (i.e., 90^{O-}like phase shift) reality of existence. All matter trapped inside this zone has

surrendered as much of its detectable "real-time" existence (or properties) as is available.

Inside the IB^3 Schwarzschild radius, there is nothing time-wise left to lose or to give up. Even with a more intense curvature, with a greater (faster-than-the-speed-of-light required to escape) gravitational escape velocity, there is no additional energy or "real*er*-time" left to squeeze-out. {If the escape velocity ≥ c, no electromagnetic interaction occurring only ***at*** c is possible.}

Whatever matter-energy that is trapped in this zone must still exist, and must still possess most of it's basic properties intact. Mass, electrical charge, momentum, angular momentum and rotation still exist within this zone. These NEVER disappear. What is LOST is OUR ability to sense and measure or detect these properties (electromagnetically) from the outside. (See chapter 4)

In this situation, without the ability to impart or input active energy directly into the gravitationally collapsed matter, whatever mass is trapped in this zone cannot now expand (outwards) out of, or contract further inwards, into the Black-Hole $^{C\text{-}R}$. (unless or until the curvature inside again decreases below "c")

What to name this Zone? Click to See an Illustration

Because the real-time occurrences are forbidden at (and presumably- inside) the IB^3 Schwarzschild radius, and because no further gravitational collapse is possible, the contents of this "real-time-inactivated" volume of space-time ***must*** behave as if they were neutral.

The denizens in this zone are neutral to all speed-of-light (electromagnetic) interactions, to each other, and to the passage of "external" time. The C-R theory has therefore named this "place" (region or volume): the Neutral Zone $^{C\text{-}R}$.

The matter-energy trapped within this Neutral-Zone $^{C\text{-}R}$ still exists, and it still warps space-time sufficiently to maintain the gravitational curvature exactly at the same level, (held-constant) outside of the IB^3 Schwarzschild radius. More information about the properties of the contents inside of the Black-Hole $^{C\text{-}R}$ will be covered further in several later chapters. (Hint, there may await a "special surprise" in the center of every Black-Hole $^{C\text{-}R}$.)

This simple discovery: that the "effect" of gravity cannot collapse matter beyond the 0% "real-time" curvature stage, totally and effectively ***eliminates*** the problem of the singularity from consideration when discussing (C-R brand) Black-Holes $^{C\text{-}R}$.

When the C-R theory combines this first 'discovery' with the further conclusions, predictions and assumptions that are covered in the next sections, the resultant theory is: not only very simple, but totally elegant. (and humanly comprehensible, too)

The C-R theory-type universe will take on a marvelous simplicity and elegance, with ingeniously interrelated components. The C-R theory conclusions will strongly suggest a pre-planned, non-random overall design to the universe.

The C-R theory uses new terms, IB^3 Schwarzschild radius is the boundary to a Black-Hole $^{C\text{-}R}$. It is the total and complete surface area where the gravitational escape velocity of any electromagnetic particle/wave, is equal to the speed of light. This non-escapable [2] gravitational trap is caused by the intense and complete curvature of the space-time fabric.

The end of Tunnelling as the "cause" of gravity

Current theories which involve gravitons require that, in order to allow any gravitational force to be felt outside of the conventional black hole boundary, some mechanism must exist to allow the tunnelling of these hypothetical gravitational particles. If this tunnelling of

gravitons in this case is anything less than 100% efficient, the gravitational attraction felt outside the black hole must decrease by a random, and possibly fluctuating amount. This random amount would be proportional to the efficiency of the tunnelling mechanism (or process) across macroscopic distances.

There is only one other alternative, still using gravitons, which would allow conservation of energy to be true. That would require that these gravitons must tunnel out from the collapsed singularity at the exact center of the conventional black hole. In order to uphold Conservation of Energy after the collapse, these gravitons must still be emitted outside the conventional black hole at precisely the same rate and intensity (or frequency and energy) with which they were emitted before the gravitational collapse.

Like salmon, fighting to swim upstream, these gravitons would be required to "fight" their way against their own gravity, all through the inside of the conventional black hole. In this volume of the space-time fabric, the escape velocity is at least equal-to, if not much-greater-than the speed of light. These hypothesized real particles must tunnel through macroscopic distances, with an efficiency ***exactly*** EQUAL to 100%. Even if the gravitons were generated at 500% of the required amount, and the coupling-efficiency equalled 20%, how would the ***internal*** workings of the black hole (at the singularity) know how many gravitons launched from the singularity were successfully emitted ***externally***, or how many of those emitted gravitons were intercepted by the matter outside, and then interacted-with?

Tunnelling, in the real world

Tunnelling of electrons from a "forbidden {classical} zone" is recognized as a valid quantum-phenomenon over atomic-length distances. Sub-atomic particles like electrons are allowed by the quantum mechanical theory to tunnel (i.e., sneak through) from a low energy region (a well), pass-through a high energy "forbidden" region, back into a lower energy region. This phenomenon always takes place in the real-world with ***much-less-than*** 100% efficiency.

It Is OK to tunnel from an atom, on the atomic-scale of distances

In the case of the electron escaping from an atom, it could be said that this type of tunnelling is allowed due to the probability that at some statistically predictable, but inexact point in time, the electron will acquire enough random energy to pass through the "forbidden" energy barrier. Alternately, it could be said that there is a finite probability, measured over a finite time, that the position of the electron will be found outside the barrier. (NOTE: This probability is predicted or addressed by the Schrödinger equation.) This means that given a sufficiently long time, the electron "probably" will tunnel through almost any barrier.

In this real-world example, the ease of tunnelling is facilitated when the "forbidden-barrier" is only composed of a few real atoms. Tunnelling from a totally collapsed center of a conventional black hole, the "sufficient-time" option also seems to lose any true validity. The practical notion of measurable-time is undefined when using relativistic logic on an infinitely dense singularity, or where the "escape velocity" is greater than light speed for anything travelling AT light speed!!.

Since neither of these two possibilities involving tunnelling seems likely, C-R theory has concluded that gravity has some other underlying mechanism as a cause. Tunnelling cannot provide an adequate explanation allowing gravity to exist at <u>exactly</u> the original-strength, and same interaction-level outside of a conventional black hole.

From Gravitational Curvature: A "NEW" Understanding of Gravity

I expect that the C-R theory ideas listed above, on the cause and behavior of gravity will be the most difficult to believe, and it will be one of the most controversial areas within the C-R theory. The clues to the behavior of gravity have been around for quite a while, but the original Newtonian description of gravity by classical physics has blinded current scientists to the intriguing possibility that gravity is an EFFECT, entirely caused by the action of gravitational curvature on matter. Once 100% of the possible energy is surrendered, gravity can produce NO FURTHER effect upon matter!! Only the C-R theory recognizes and explains this very convenient safeguard against a total collapse!!!

After I realized that curvature causes gravity (and not the other way around), years later I noticed that this prevents our universe from collapsing by gravity. This means that any chance of our universe starting or beginning from a singularity {or even something much larger, but still collapsed} was impossible, too. This means that our universe's size is completely stable and has ALWAYS been FIXED in size. The universe appears to be increasingly more red-shifted closer-to the outer edges, because it is more slowed-down there!! All the matter and energy in our universe did not simply emerge, starting from: nothing, or a singularity, or even from something lesser-sized.

Our universe's size fixed, and ROCK SOLID STABLE, now, and FOREVER into the future, unless WE mess with it!!!!! It IS NOT Expanding, and it is NOT expanding at an expanding rate, either.

The Red-shift we see is GRAVITATIONALLY produced, and not a Doppler shift. The Blue-shift seen in "The Great ATTRACTOR" gives us this answer!!!

Semi-New for 2008:

The **Completely-Recycling Theory**
(of the Entire Known Universe)

Need Help with new terms? Click here to link-to the Extended Definitions Section.
Exclusive to the C-R theory, covers new ideas not found in other theories.

Chapter 2

The Electrical Nature of Black-Holes $^{C-R}$

Challenging Conventional Assumptions about the Electrical Nature of every Black-Hole $^{C-R}$

If you can remember the conclusions reached way back in Chapter 1 on the nature of gravity, the C-R theory concluded that gravity is caused by a slowdown in time. The resulting increased curvature frees-up or squeezes-out energy from matter. In chapter 2, a further set of thought experiments will be used to challenge and test the present-day assumptions about the electrical nature of the Black Hole $^{C-R}$.

With results obtained from some simple thought experiments, (to be discussed later in the appendix), the C-R theory has made another incredibly simple, and simply incredible assumption, with enormous implications to be featured shortly.

C-R theory Assumption C

A Black-Hole $^{C-R}$ does not allow either any internal or external knowledge of it's internal electrical charge. While the contents (both matter and energy) are inside the Neutral Zone $^{C-R}$, (which is a new C-R theory term for the volume between both the inside and outside IB^3 Schwarzschild radius), they are infinitely insulated and electrically isolated from each other, and from the external "real world". ALL of the electromagnetic properties (like the charge) are “turned-off” or frozen and stopped , for all practical purposes, but they still continue to exist.

Isolating and Insulating the Charges

From the C-R theory assumption "C" above, the C-R theory has concluded that once a Black-Hole $^{C-R}$ "swallows" an electrical charge, that electrical charge will remain effectively insulated inside the IB^3 Schwarzschild radius. Any electrical knowledge of the swallowed charge will be covered-up by the nature of the Black-Hole $^{C-R}$. Essentially, the charges will be "invisible" and non-detectable from the outside of the IB^3 Schwarzschild radius.

This C-R theory conclusion follows from the limited nature of the quantum mechanical tunnelling process. The C-R theory has concluded that there is no possible way in which knowledge-of the imbalance in the electrical charge could be ***communicated*** or "coupled-through" from the inside of any Black-Hole [C-R] to the outside. This is because ALL of the necessary "speed-of-light-dependent" electromagnetic interactions are forbidden in the volume of space where the escape velocity is equal to, or in excess of the speed of light. An additional reason to discount the possible influence of tunnelling: the distances which need to be covered from the inside of the Black-Hole [C-R] are macroscopic barriers, many orders-of-magnitude greater than the 1 or 2 atomic-width-barrier distances encountered in working electronic devices (with LOW percentage working efficiency) like the tunnelling diode.

Does Our Universe Gain any Advantage from using only Regular Matter (and not a 50-50 mix with an equal amount of anti-matter)?

One of the most unusual observations which any potential theory of the universe encounters is the overwhelming preponderance of regular matter. Any theory should either **A**: attempt to explain why this occurs, or **B**: show what significance or advantage this gives the overall scheme of things in the universe.

Most standard theories cannot adequately explain why imbalance in the matter-antimatter mix occurs, especially if matter was created starting out from nothing. The C-R theory also cannot explain why imbalance with almost 100% matter occurs, however, the C-R theory claims that our universe has ALWAYS been like this, and always will be like this. Conventional theories regard the overwhelming abundance of matter (over anti-matter) as an embarrassment or an inconvenience. {Spontaneous creation of "new" matter should NOT have been totally unbalanced, electrical charge-wise.}

Starting in 2006, the C-R theory added the claim that the universe has continually existed from forever ago, and did not begin starting from nothing. Recycling in this "C-R type" universe also works with the best efficiency if this overabundance of regular matter is indeed always the case. The C-R theory almost seems to require the universe to be composed exclusively (with a few [anti-] particles as an exception) of one type of matter only [1]. This "one type of matter only" Universe then allows for a very reasonable system with practical recycling of both matter and energy to continually occur.

On the Nature of Matter: Use the Protons, Neutrons, Electrons we already have.

All of the everyday matter with which we are familiar is mostly constructed only from protons, neutrons, and electrons. Some smaller amounts of other sub-atomic particles have been detected, but they appear to make up only a minute fraction of the total mass in the detectable and observable universe.

When ordinary, everyday matter is considered, some physicists contend that the size, mass, and charge of the electron, proton and neutron are temporary properties, which were possibly (mysteriously?) determined-by or are now related-to the present state and size of the universe.

Dirac's hypothesis would be a prime example. P. A. M. Dirac postulated that the properties of the electron mass, the size and age of the universe were linked. He speculated that, as the universe expanded, the force of gravity (by the gravitational constant g), the strength of the electrical charge, and other parameters might change (fade-out or weaken) with time.

The C-R theory predicts THERE IS ABSOLUTELY NO change in the value of the basic particles properties or parameters in the universe over time!!

HINT: The C-R theory will show that some properties believed to be *fixed*, ARE actually *variable* depending upon one's location in the universe. This will show-up shortly.

Regular matter will always retain the same basic atomic properties it now has. There will NEVER be an "end" to the universe. The reason for this confidence is that all the matter within the Active Zone $^{C\text{-}R}$ of a Black-Hole $^{C\text{-}R}$ will remain unchanged over time. Since the C-R type of universe cannot collapse, there never could have been a start from a singularity. Therefore, there never could have been a Big Bang. Surprisingly, it is only due to the unique nature of the subatomic properties of this Universe's regular matter that the C-R theory can predict that Universe is always able to recycle and sustain itself forever.

The C-R Theory says "Subatomic Particle Properties fit Recycling (perfectly)", just like assembling the pieces of a universe-sized Puzzle.

When considering a Black-Hole $^{C\text{-}R}$, one must contend with it's nature. The Black-Hole's $^{C\text{-}R}$ properties go far beyond the experience of current physics theories. With one possible **BIG** exception (our universe), every Black-Hole $^{C\text{-}R}$ also resides outside the possibility of exploring it's nature by simulation while inside a laboratory setting. What the C-R theory is about to postulate is based on the simple, previous C-R theory assumptions, "A","B","C", and those conclusions about the nature of the Black-Hole $^{C\text{-}R}$.

Scenario:

Imagine a hypothetical, single hydrogen atom, very near the IB^3 Schwarzschild radius of a Black-Hole $^{C\text{-}R}$. Try to imagine what happens when the Black-Hole $^{C\text{-}R}$ will attempt to swallow this hydrogen atom.

Author's Note: The reason for the oversimplified view of the hydrogen atom and it's behavior near the Black-Hole $^{C\text{-}R}$ is to allow YOU, the reader to comprehend, in English, how the simple C-R theory view permits these events to occur. This is not intended to be an absolute and complete mathematical and theoretical description of the event. It is just a simple explanation for what one sees in this universe. (J.R.)

Consider the singular hydrogen atom. One proton, one electron. The electron will "orbit" around the proton, or the electron-wave will resonate around the proton, depending on whether one wishes to consider the case of matter {as particles} only, or matter-energy {particle-waves, at resonance} in combination. Either view can make good sense.

Imagine that a typical Black-Hole $^{C\text{-}R}$ is about to swallow this singular hydrogen atom. Many other atoms, ions, and molecules are probably nearby. They will likely be quite hot, quite excited, and quite energetic. Emitted energy is abundant in this vicinity.

There should be many energetic and violent collisions between our atom and other atoms, with additional collisions involving singular protons and/or electrons.

Our hydrogen atom undergoes many collisions. These collisions will input energy primarily into the electron orbiting around the hydrogen atom. The energy from many collisions will likely provide the electron sufficient energy to at least climb-up to a higher energy level orbital, if not to be knocked completely loose. This should give the electron the energy to escape from the proton altogether. Whichever the case may be, either the energetically-excited electron, or the totally-escaped electron should have a much higher ratio of kinetic energy to mass when compared to the heavier proton.

Next, consider the (C-R theory brand name) Black-Hole [C-R]. Here is a physical entity, which will preferentially attract, then swallow a heavy sub-atomic particle by its MASS. (Imagine that!! What a co-incidence?? By Mass??)

When YOU consider the kinetic energy attained by the electron, compared to its gravitational mass; the electron should have very nearly a 100% chance to acquire or possess the energy to escape from the "pull" of gravity ***after*** the proton is completely swallowed. Once the proton or proton-neutron combination was swallowed, YOU could also consider that in this instance the electron has a very high probability to have the means to "tunnel" away from the Black-Hole [C-R 2].

At the IB^3 Schwarzschild radius, the last ½ atomic-orbital-width of the electron's orbital-resonance remains real-time active, right after the proton or proton-neutron has fully entered the Neutral Zone [C-R]. The electron will have a powerful incentive to retain and re-gain it's full freedom. See a diagram to illustrate this.

Is it not reasonable to assume that a Black-Hole [C-R] will preferentially swallow our hydrogen atom's (now ionized) proton, since the proton has a mass to charge ratio exceeding 1800 times that of the electron? With the mass to charge ratio greater than 3600 [3] for the proton-neutron combinations, the C-R theory would predict that these "mass-heavy snacks" would be "devoured" even more preferentially.

In the case of higher numbered elements, the mass of a typical atomic nucleus will usually consist of both some number of protons with even more neutrons, with the electrons "clouding" around the outer periphery, initially along for the ride. With the average number of atoms losing energy surrounding the average Black-Hole [C-R], most Black-Holes [C-R] have a very high external collision-energy potential right outside. This may result in many, if not all of the electrons being stripped-away from the larger atom's nucleus. The liberated electrons will be separated from the influence of the nucleus and all-of its positive electric charges after the protons and neutrons totally enter (pass-through) the IB^3 Schwarzschild radius. (So we should see multiple positive ionizations.)

C-R theory Assumption D (The Reynard Diode Effect)

Every (matter-consuming) Black-Hole [C-R] will act somewhat like a diode. Positive charges (protons), with their heavier masses, and neutrons too, will be swallowed, then trapped inside. The lighter-massed electrons will be left-behind with large amounts of kinetic energy outside of the Black-Hole [C-R]. The Black-Hole [C-R] will act similar-to a mass and charge rectifier [5].

NOTE: Any Black-Hole [C-R] consuming matter WILL be releasing "clouds" of EXCESS ELECTRONS. Only C-R theory name-brand Black-Holes [C-R] will have this property!!!

The C-R theory will proceed with the unique C-R theory assumption "C", that electrical charge, once trapped inside the Black-Hole [C-R], becomes "invisible" to the outside universe, (without any violation of conservation of energy). For all practical purposes, we can expect that every active, matter-consuming Black-Hole [C-R] will be surrounded by a cloud of EXCESS Electrons outside, slowly dissipating and dispersing with time.

NOTE: Since these electrons will all be self-repelling, this will cause the consumption-rate (inflow) of any mass-swallowing to thin-out and be self throttling.

C-R theory Assumption E

In plain English: Excess Electrons are not "Eaten" by Black-Holes [C-R] as the Black-Hole [C-R] swallows the more massive protons and neutrons in the nucleus. Instead, the Electrons Escape and Exit (go free), remaining External (outside of the Black-Hole [C-R]).

NOTE: A hallmark to detect the presence of any "C-R theory brand" Black-Hole [C-R] that is consuming matter is the Excess Electrons Escaping from the vicinity outside.

The Benefits of Packing (Storing) Positive Charges inside the Black-Hole [C-R]

If the previous assumptions are true, several things immediately become apparent.

First: Any active (matter-swallowing) Black-Hole [C-R] will be consuming and storing-up excessive positive charges on the inside, and freeing excess electrons around the outside of the IB^3 Schwarzschild radius.

Second: The positive charges stored up inside the Black-Hole [C-R] will be time-inactivated. No electromagnetic action, interaction, or reaction at light speed can proceed. This is because the curvature of the space-time fabric will create an escape velocity equal to that of the speed-of-light. The simplest explanation would be: this example is similar to matter at the temperature absolute zero. Matter at absolute zero-real-time inside a Black-Hole [C-R] exists [6]. This trapped-confined matter is at its absolute minimum (lowest possible) gravitational/time existence energy level. In the same way, the total electrical charges from all of the protons swallowed also exist, but the charges are "frozen"; unable to communicate, unfelt, unaffected and stored inside the most perfect "insulator" in the universe.

Third: As long as the Black-Hole [C-R] remains active, it will try to swallow as much matter-energy as it can obtain. By the C-R theory, the only properties which can be determined from the outside of the Black-Hole [C-R] are, the total mass of the Black-Hole [C-R], and the momentum it possesses [7]. The charge is hidden and un-expressed, as is any rotation.

This property isolation-insulation includes rotating masses inside Black-Holes [C-R]. Obviously, the geometric-like warping/curvature caused by a rotating mass of a Black-Hole [C-R] would be nearly identical to that of a stationary mass [8]. As long as there is no net change in the shape of the inner mass with time, the gravitational warping external to the Black-Hole [C-R] will not leave any external clues to tell whether the mass inside is rotating or not [9]. Notice: The external shape of the curvature DOES NOT TWIST, OR CHANGE WITH TIME, even if the mass inside spins or rotates. Since NO gravitons are being emitted with angular spin, THERE IS NO MECHANISM TO CAUSE EXTERNAL FRAME DRAGGING.

(This is one area in which the C-R theory concept differs substantially in its conclusions, compared to almost all of the current gravitational theories.)

SCREWY C-R THEORY IMPLICATION:

For any rotating mass inside a Black-Hole [C-R], as measured with respect to it's own (frozen) local time reference frame, any speed at all (it's speed) would seem infinite, or at least, greater than the speed of light. In this particular instance, the theoretical implications of that are enormous. If the speed of light (measured by a local timeframe - even though it

is time frozen) can be exceeded in this one instance, does that not very strongly imply that the speed of light might also be exceeded by other "technical tricks" too? This should give theoreticians something new and exciting to ponder over.

Fourth: Even though the Black-Hole $^{C\text{-}R}$ appears to have the upper hand, and can swallow and accumulate anything and everything, seemingly without limit: by it's very nature, it sows the seeds to it's eventual demise.

Fifth: Since any active, matter swallowing Black-Hole $^{C\text{-}R}$ accumulates a tremendous amount of inactivated positive charges and inactivated-matter-energy, it accumulates THE ONLY KNOWN force capable of overcoming gravity at a reasonable (macroscopic) distance.

Sixth: Once a sufficient amount of positively charged matter is swallowed or accumulated, the Black-Hole $^{C\text{-}R}$ is primed for a possible release and escape of some or all of its contents.

Scenario: A Primed Black-Hole $^{C\text{-}R}$ as an Example
or: How a Black-Hole $^{C\text{-}R}$ can eventually become an ex-Black-Hole $^{C\text{-}R}$

The scenario would proceed like this: Even though the Black-Hole $^{C\text{-}R}$ traps, and time-inactivates everything (in what the C-R theory terms the Neutral Zone $^{C\text{-}R}$) inside the IB^3 Schwarzschild radius, there would still be other matter, or other Black-Holes $^{C\text{-}R}$ located outside. Eventually, there will be an encounter that will cause either a sufficient gravitational perturbation or attraction to take place to spring open the Neutral Zone's $^{C\text{-}R}$ "trap". If not from another Black-Hole $^{C\text{-}R}$, possibly the mass from a co-orbiting body or satellite could be enough. The IB^3 Schwarzschild radius will be tidal-shifted just enough that some portion of the "matter-energy-proton-soup" contents of the Neutral Zone $^{C\text{-}R}$ within the Black-Hole $^{C\text{-}R}$ (with immense accumulation of positive charge primed to spring into self repulsion) will be re-activated. Hint: think of a full saucer below a full teacup, sloshed carelessly enough to spill it all.

Once any of the matter stored in the Neutral Zone $^{C\text{-}R}$ is placed back into a region where real-time is now active (because the escape velocity is again BELOW the speed-of-light), the positive charges will again feel their mutual repellence. They push-away all other re-activated positive charges, and this decreases the density of the local mass. This decrease in density will allow the even more of the stored up positive charges, spiked with a liberal dose of co-released, purely energetic photons, to be freed. As this process continues, the rest of the matter-energy "soup" will be allowed to undergo the same reaction.

In a very short period of real time, there will be a noticeable release of extremely high energy and self-repelling positive charges. Quickly, many of the positive charges will push their way outward, someday to be belatedly re-united with freed electrons (their long-lost negatively charged companions). The Black-Hole $^{C\text{-}R}$ will release some or all of its captivated contents, and the universe will proceed merrily along its way with a renewed supply of fresh, concentrated matter and energy.

Electrical charges come in two complimentary varieties, positive and negative.

IMPORTANT: Notice that, due to the attractive/repulsive nature of electrons and protons, even if the positive electrical charge "disappears" into an "insulated" Black-Hole $^{C\text{-}R}$, conservation of energy is not necessarily violated. This occurs because any energy gained by either the positive or negative charges is provided courtesy of the gravitational rest-mass energy released by those particles falling into the insulated Black-Hole $^{C\text{-}R}$. Since the positive and negative charges can eventually re-attract their opposites, only a temporary re-arranging or shuffling of potential and kinetic energy needs to be explained away over

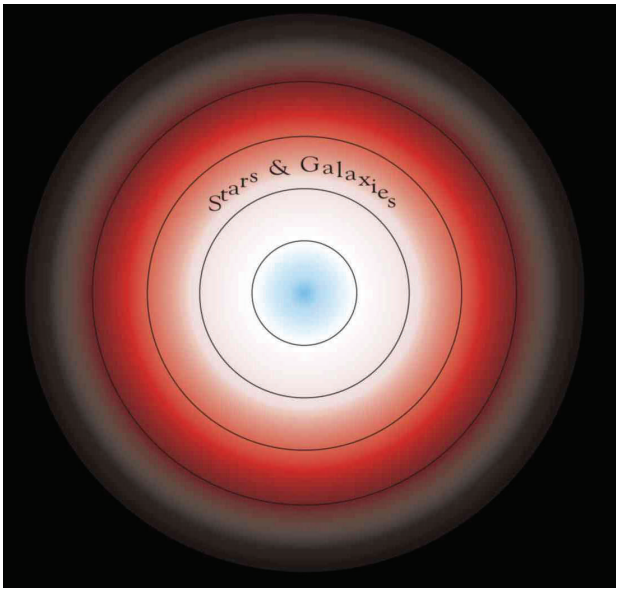
time. There is never a "real" gain or loss of energy which will permanently (or even temporarily) violate conservation of energy. While the particles are trapped in the Neutral Zone [C-R] inside the Black-Hole [C-R] there may well be some stored-energy "temporarily unavailable" for use, but that energy will never disappear or vanish.

The results achieved if only one type-of electrical charge "disappears" temporarily are exactly the opposite from the brief "disappearance" of gravity outside a Black-Hole [C-R]. Again, the C-R theory predictions and expectations turn out to be the opposite of most present-day theories. When questioning: Why to believe the C-R theory?, let us proceed on to chapter 3.

A (C-R theory brand) Black-Hole [C-R] cannot collapse into a singularity!

This is a side view of our closed universe, cut-in-half. The inner circle represents earth's position. The next circles represent the 25% of full red-shift, 50% red-shift, and 75% red-shift positions.

Everything inside earth's position appears blue-shifted to us. At the center is the Great Attractor.



Need Help with new terms? Click here to link-to the Extended Definitions Section.
Exclusive to the C-R theory, covers new ideas not found in other theories.

Semi-New for 2008:

The **Completely-Recycling Theory**
(of the Entire Known Universe)

Chapter 3

All Black-Holes $^{C-R}$ obey the C-R theory scenarios

or: The C-R Theory, a phenomenal response.

Some Possible Scenarios:

If Black-Holes $^{C-R}$ do behave in the ways described in the previous chapters, we would expect to observe certain key phenomenon throughout the universe.

What about our sun?

Consider this possibility: Imagine that there is an active (Completely-Recycling theory obeying) Black-Hole $^{C-R}$ at the center of our sun. If this were the case, what would we expect?

First, one would expect that the sun should be producing very few, if any, neutrinos. Conventional theories would predict the generation of many neutrinos as the by-product of the expected rate of the hydrogen fusion reaction proceeding somewhere inside the sun.

The C-R theory does not demand that no fusion occurs at all, and no neutrinos are ever being created somewhere inside the sun. It merely suggests that whatever amount of fusion, if any, does occur, it is secondary to, and driven by the primary energy source, a Black-Hole $^{C-R}$.

Second, here is what one would expect if a Black-Hole $^{C-R}$ did exist at the center of our sun. Billions of ionized electrons should be streaming away from an area comprising the outer surface area of the IB^3 Schwarzschild radius of the Black-Hole $^{C-R}$, which would be very near the center of the sun. The quantity of stray electrons generated at this depth should produce much more intense magnetic effects compared to the number of electrons which would be excited-away and released strictly due to a fusion powered event. The few freed-up electrons generated by a fusion powered reaction should not accumulate or be effective much beyond the inner layers of the gas-liquid-plasma near the center of the sun.

The outward flow of these self-repelling, negatively charged particles should generate measurably large electrical currents. These excess electrons might have the tendency, although mutually repulsive, to couple and combine their collective magnetic fields together, and bunch together, to expedite their journey up towards the surface, to the photosphere.

This would collectively reinforce the ability of each individual electron to escape through thousands of kilometers of hot liquid solar hydrogen-plasma gas.

By collimating, or bunching together into magnetic-field-bundles, these electrons should mutually speed their individual exit from the center of the sun. This bunching of electrons might have the tendency to create huge, explosively energetic, magnetic storms once they emerge from the outer surface of the sun. Dynamic, active loops, arcs, and whorls of intense magnetic energy might well be the result from all of these moving charges.

[Author's Hint: From this description, this possible scenario was written to sound suspiciously like sunspots.]

Fourth, one would expect those electron-currents to be somewhat affected by the gravitational influences of the planets orbiting the sun. One could probably detect a very weak seasonal and directional "sunspot modulation" effect from orbital sums from some of the planets on the direction, strength, and frequency of the sunspot activity.

One would predict that this effect would be caused by the gravitational and tidal influences of the planets sloshing the sun's dense internal hydrogen-helium gas cloud or liquid ocean around the more massive and inertially damped Black-Hole [C-R]. As this solar cloud/ocean would be tidally shifted or sloshed around the central Black-Hole [C-R], the overall area of the maximum consumption of protons and neutrons could be shifted or directionally concentrated around the IB^3 Schwarzschild radius at the central region.

This sunspot-modulation effect is what one would expect if the orbits of the nearer planets and more massive planets could slightly influence (slosh around) the sun's charge swallowing activity. There should be some small effect on both the frequency of the sunspots and their intensity when plotted in conjunction with the planetary orbits [1].

Fifth, the matter inflow into the Black-Hole [C-R] would be self-throttling. For every proton the Black-Hole [C-R] swallowed, there would be an electron freed. The kinetic energy of the accumulated excess "cloud" of like-repulsing, negative charges (electrons) would spread-out and thin-out matter nearing the Black-Hole's [C-R] gullet. There could be no thermal runaway of the Black-Hole's [C-R] rate of reaction. In the same way, there could be no rapid, total collapse of the sun's internal-concentrated gas cloud/liquid-ocean, since the heat-energy generated in the Black-Hole [C-R] and the mutually repelling negative charges produced would tend to throttle back, or thin-out and push away the infalling hydrogen and helium fodder.

Sixth, because of the excess negative charges being constantly produced and released, there should be a noticeable solar wind coming from the sun.

The solar wind is normally thought to be composed of a stream of positively charged alpha particles (protons). This is due to the fact that the high energy, massive protons are easy to detect. From foil sheets left in space, the impact craters from the positive charges are also easily measured.

Nonetheless, the Completely-Recycling theory predicts, if not demands, that the solar wind be predominantly composed of or comprised by excess negative charges (electrons). Although these excess negative charges have not yet been specifically detected in the solar wind, to the best of my current knowledge, they have not been intentionally looked-for, either (hunted with the assumption that excess negative charges are already present).

NEW NOTE added starting in 2008: It now occurs to me, if you are not looking for excessive negative charges in the solar wind, and do not know they exist, when you measure to detect the charges, it is kind-of like making a population survey while you play

"keep-away-tag", and while the YOU, the surveyor, are tagged "IT". (And ALL the other particles know it, too.) The excess electrons are repelled by you, the measurer's excess electrons. This MAY help to explain WHY the excess negative charges have not been found.

No, No, it cannot be so: Double negative Ionization (of the sun's hydrogen atoms)

Remarkably, newly found in 2006, I ran into an article describing a known phenomenon (known to science, but not to me at that time). In the Microsoft Encarta Encyclopedia, there was an article on the sun. Remarkably, it casually mentioned that virtually ALL of the hydrogen atoms (actually, ions) in the sun's photosphere are DOUBLE NEGATIVELY IONIZED.

What this means is that on the sun, the situation at the photosphere is very unlike here on earth. In the lab, when one heats-up a gas to around 6000K (almost 10,000° F), the gas LOSES ITS ELECTRONS, positively ionizes, and glows with a characteristic spectrum unique to that element or compound, and ionization state. (Like a NEON sign, glowing)

(INTENTIONAL emphasis added below for effect, to make sure the readers (YOU) notice.)

On our sun, when the hydrogen (gas) is heated to around 6000K, ***EVERY*** HYDROGEN ATOM in the hot plasma ***GAINS*** AN **EXTRA** ELECTRON, BECOMES **DOUBLE-NEGATIVELY IONIZED**, and **IS SATURATED** WITH ALL THE **ELECTRONS** IT CAN ACCEPT, and emits it's spectrum accordingly. In other words, THIS situation at the sun IS A ***GIANT ANOMALY*** compared-to our lab-based "conventional" understanding and expectations.

******Consider moving this below to another section *******

Increasing the Magnitude of an ex-Black-Hole C-R event.

Let us consider a constantly increasing magnitude of phenomenon, and try to relate these to the process of overcoming the Black-Hole C-R. One could tentatively term these: White-Hole C-R phenomenon.

White-Hole C-R phenomenon would be defined as the equivalent of releasing the stored energy-mass contents from the Neutral Zone C-R of a Black-Hole C-R over an extremely brief period of time. In a fraction of a second, a White-Hole C-R type event could release energy accumulated for thousands, millions, or billions of years by the parent Black-Hole C-R.

Releasing the trapped contents of a Black-Hole C-R.

On a stellar scale, the anti-Black-Hole C-R phenomenon could be described quite appropriately by the nova.

For a somewhat more massive star, a supernova would be the result.

Next comes the Active Galactic Nucleus, or AGN. With a galaxy centered and galaxy sized Black-Hole C-R, the quasar becomes a very viable candidate. This quasar may also be the predecessor equivalent and the initial source of a younger proto-galaxy viewed several million years earlier.

On a yet increasing scale, the gamma ray burst (GRB) occurs very close to the outer edges of this universe. Several per day, from random directions, come from every location in the sky.

Note: My original thinking was: If a Black-Hole C-R confined and stored away the energy contents from the entire universe, the ***cause*** of the initial Big Bang would be an event easily explained by the C-R theory. (I no longer consider this scenario viable, but it is because the C-R theory will **NOT ALLOW** the contents of the universe to collapse at all.)

All of these possible "White-Hole" events described represent the same type of occurrence. Each event has an increasing proportion of mass and energy released. Also, notice what happens as each magnitude of these events increased. The associated time-frame would appear to be shifted towards the outer edges of the universe. This is so even though, further out there, these type-of events are still occurring. Also, notice that the reference frame for the larger and slower events can be viewed as if the events occurred closer to the outer edges of the universe.

All White-Hole $^{C\text{-}R}$ events detected should have a characteristic, noticeably sharp-peaked, initial high-energy positive charged particle burst. The energy for the acceleration of the positive charges released in the "White-Hole $^{C\text{-}R}$" type of events comes courtesy of the gravitational potential energy stored up inside the "parent" Black-Hole $^{C\text{-}R}$, over a much longer period of time.

An important C-R theory discovery concerns the time and the timing of the energy release. At the outer areas in our universe, time is slowed-down as one nears the outer edges. For a quasar nearer-to the outer edge, with a 90% red-shift with respect to earth: An event taking one second measured locally in that quasar's local timeframe would be seen as slowed down (red-shifted), taking 10 seconds as measured in our local timeframe on earth. For that quasar's location, everything observed which is closer-in to the center of the universe will be blue-shifted and speeded-up accordingly. That quasar will see earth as 1000% blue shifted with respect to it's time-frame. (If the universe was expanding uniformly, both earth, and the quasar would mutually each see each other as equally red-shifted and equally slowed-down.)

HINT: The Great Attractor is nature's gift to us, the **KEY** to unlock the puzzle of: Is the redshift gravitational, or is it driven by the expansion of our universe, and mutually recession based? That we see "The Great Attractor" BLUE-shifted gives the answer away!! Redshift in all directions, and limited BLUE-shift occurring in only one direction CAN ONLY BE caused gravitationally, where WE are NOT located at the exact center. Mutual expansion occurring everywhere in all directions IS COMPLETELY RULED OUT!!!!!!! (If that was the case, we would only see red-shifts, increasing with distance, and maybe a rare random, motion related blue shift.)

The slowed-down nature of time at the outer reaches of the universe implies that some newly-refreshed areas may not only look younger to us, but they still are ageing slower than us. Some of these objects may not just represent the far-past history of the universe as it happened billions of years ago, but literally, some of those same areas in our universe, today, are still undergoing the exact-same type events which we just now see on earth, but today's events (way-out there) we will not see here until billions of years to come.

(My original thinking was this: The C-R theory could explain the cause of the Big Bang)

This would-have implied that some objects in the "early" universe could be today (by both earth time, and their time there, too) younger than earth. The more massive objects might even contribute further to their individual timeframe-slowdown. Objects we see at the edge of the universe today, which we thought had occurred and ceased billions of years ago, may even today still be the "YOUNGER" siblings of our own nearby galaxies.

My thinking has revised, now, that we live in an infinitely old, but continually refreshed, universe. Evidence of this ongoing recycling (the real source of the 2.7K radiation seen equally from ALL directions), has been mistaken for a red-shifted remnant from the initial Big Bang!! If we have the patience to wait for 1.3 billion years, and repeat the

measurement, when it does not cool-down further with time, we will then KNOW that the C-R theory was right.

The Aurora-Borealis: Exciting Evidence of at least 1 Million Amperes (@ 6.02 x 10^{23} electrical charges per second per Ampere) of Electrons

Since the C-R theory predicts that Black-Holes [C-R] and White Holes [C-R] will be producing and freeing exceedingly intense and unexpected quantities of both negative and positive charges, any nova or supernova, as well as a solar flare, may produce measurably-ionic events which will assist in confirming the C-R theory predictions.

Certainly, the Aurora-Borealis (in the northern hemisphere) provides ample visual evidence that electrical ions are active and at times extraordinarily plentiful in the upper atmosphere. The presence of the Aurora confirms the abundance of charged electrons (from the side of the earth FACING THE SUN?) interacting on a grand scale, as near as our own Earth's upper ionosphere. One web site claims that measured currents, in two flattened, folded-over "sheets" consist of at least 1 million amps. The presence of that many free electrons per second in the Aurora could be real strong **evidence** supporting the theoretical assumptions and predictions of excess charges made ONLY by the C-R theory.

Compounds in Space: Is that Really a Problem, or just a Neutral Reaction?

One recent discovery in the frigid cold and near-vacuum of deep space has been the abundance of chemical compounds, ionized radicals, and complex molecules. Until recent times, outer space had been thought of as possessing a very low energy potential, with very limited possibilities of chemical reactions and interactions. Scientists had expected to find limited amounts of simple molecules, and primarily, electrically neutral matter, weakly interacting in a low-energy, basic elemental state.

A reasonable question to ask would be: Why are so many compounds, ionized molecules, and complex organic molecules the rule, and not just the occasional exception?

The C-R theory has a convenient explanation to this conundrum. The C-R theory has predicted a high probability of electrical activities due to the supposition that both Black-Holes [C-R] and White-Holes [C-R] cause phenomenon involving the production of copious amounts of charged particles.

One should be little surprised that these ionic charges, zipping around in space energetically, would catalyze complex chemical reactions upon frequent collisions with compounds. Even with the given, low energy, low density conditions which had been expected in space, as the given temperature of deep space is listed at 2.7K, the chemical reaction-interaction rate at that temperature and pressure should have been expected to be lethargic, at best.

While the abundance of complex compounds does not prove the C-R theory, I do regard the issue as another positive piece of circumstantial evidence in it's favor.

The Volcanoes on Io

The discovery of the volcanic activity on Jupiter's moon Io must represent the biggest shock from the data recorded by the Voyager satellites. Could this volcanism, with its tremendous release of energy, be caused or at least, aided-by the internal shorting together (inside Io) of electrically charged (+) ions and (-) electrons trapped by the massive magnetic field from Jupiter?

What if the most massive planet in the solar system was magnetically sweeping up large

currents of excessive electrons from the sun, as well as collecting energetic quantities of interstellar, positively ionized hydrogen and helium atoms from space, in the form of cosmic rays? The inner atmosphere of the planet, or the innermost full sized moon could feel the brunt of the resulting energy released from the de-ionization. Any moon unlucky enough to have a solid metal core would represent a short-circuit to arc welding-quantity currents.

This "short" scenario above might well be plausible enough to compete with the current favorite explanation. NASA scientists feel that Io's volcanism is powered mostly by heat generated by the tidal drag and tug-of-war from Jupiter's massive gravitational pull.

In 2008, an updated NASA web-page link now claims that they have measured a voltage of 400,000 volts across the face of Io, and they have detected a "flux-tube" of electrical current with up to 5,000,000 Amperes of current (with 6.02×10^{23} electrons per second for each Ampere). Simple math formula P=IE suggests that the power could be at least 2,000,000,000,000 watts (2 trillion watts) shorted through Io's core.

NOTE: ADD the link to the NASA web site page here, to make the claim!! *****
Better yet, add the link to the end of the C-R theory, there is no hurry to lead readers away.

If the C-R theory is correct, Io should have an interesting magnetic field. If the energy to power the volcanism is provided by the numerous electrical charges trapped, then the magnetic field should be responsive to the currents flowing through Io. Does the volcanism also ebb and flow with the change in currents during increased Sunspot activity? Look for a possible modulation-link between ions near Jupiter and the solar wind matching activity levels on Io's volcanoes.

Catching more charges (Catching some "Rays")

Additionally, because Jupiter is already the most massive planet in the solar system, it would catch and add even more mass in the form of both ionic hydrogen and helium. Energy would be released when these swept-up ions from space were re-combined with any handy, nearby excess electrons from the sun, to become neutral atoms once again. Jupiter might well be radiating more energy due to that re-combining activity, at that spectral wavelength, than it received from the sun.

This would also imply that the biggest planet, by it's size, was continually acquiring a lion's share of the available mass. Given a suitably long time, this continuing mass addition could eventually turn Jupiter into a proto-star.

To a lesser extent, the same ion-catch, electrical-discharge phenomenon may be occurring on Titan, one of the moons of Saturn, and the outer planets Uranus and Neptune's moon Triton, with it's nitrogen-spouting geysers too.

Spouting off some (nitrogen) Steam, or **Use Cold Reasoning**

(Author's note: Since originally writing the above I have learned that even more intense volcanism appears to be ongoing at the surface of Triton, the largest moon of Neptune. The volcanism has been announced to consist of at least 5 active, nitrogen-steam-spouting volcanoes.)

Where are all the solar neutrinos?

Briefly mentioned earlier, if thermonuclear fusion is the sole source of energy powering the sun, where are the predicted neutrinos produced in the fusion reaction? Some experiments have shown that at the most, there are only 1/3 as many neutrinos being detected as whizzing-out from the sun as we would expect.

Can this deficit of neutrinos result from the supposition that most of the sun's energy is produced by a hydrogen liquid or gas cloud undergoing gravitational collapse into a Black-Hole [C-R] at the center of the sun? Notice that, if the Black-Hole [C-R] were the central engine driving the sun, the high-energy conditions near the IB[3] Schwarzschild radius, the outer boundary of the Black-Hole [C-R], may make enough energy-heat to power some secondary nuclear fusion to a lesser extent [2].

Is there an Olbers' Paradox for Neutrinos, too?

Similar in scope to the original Olbers' paradox, if fusion has powered all of the stars visible in the sky for all of the (non-expanding) universe for all of these billions of years, then, where are all of those neutrinos? One must consider these possibilities: Either these neutrinos which were expected do not exist; they had to be taken out of the way, somewhere, or; they must be here, and we can not detect them. (NOTE: This is especially true if our universe is NOT EXPANDING, as the C-R theory predicts. If neutrinos were being produced by the expected amount of ongoing fusion in all of the visible stars at a normal rate, this C-R type universe should be saturated with them.)

The most reasonable explanation is, even if some neutrinos are being produced by fusion, they are also consumed and held in storage inside any Black-Hole [C-R] which happens to reside in their path. The C-R theory predicts that neutrinos will also remain trapped, inactivated, inside of a Black-Hole [C-R], as determined by the same type of logic which was used in our other thought experiments. NOTE: There HAS BEEN a burst of neutrinos detected shortly after the indication of a "nearby" new supernova. A difference would be that in the C-R theory scenario, most of the neutrinos would only be freed from internal storage/confinement (not be newly created by fusion or fission). From conventional supernova theories, most of the neutrinos would have been created from the reactions ongoing during the fusion portion driving or powering the supernova.

Abundant, Massive Currents in Space

The C-R theory predicts that there should be unexpectedly abundant currents traversing constantly through space [3]. Excess electrons will be displaced around every active Black-Hole [C-R], and excess protons will be released during any of the various White-Hole [C-R] phenomenon which we have discussed in the paragraphs above. Everywhere out there, preposterous electrical current levels should be detected, compared to the levels expected by modern competing conventional theories.

The C-R theory predicts that these massive currents will be commonplace throughout the universe, not just an occasional local exception. In addition, an abundance of highly active ions should be noteworthy in space, which had been considered a cold, low-energy vacuum just a few years ago. I believe that the C-R theory also helps explain why complex organic compounds, molecules, and their ions are common in space, and not just the exception.

In Alaska, Rust in the Alaska Pipeline.

Engineers were surprised, a few years back, to find the Alaska pipeline corroding much faster than they had expected. They concluded that the same currents which caused the Aurora Borealis were causing the premature galvanic corrosion of the pipeline.

The Alaska pipeline currents would be another phenomenon which the C-R theory could straightforwardly help to explain. If currents from the aurora are bombarding our earth continuously, what could be more natural than for our planet's magnetic field to corral and concentrate the currents near the magnetic poles? The action of the currents traversing the grounded metal sections of the pipeline could well stimulate premature galvanic ageing.

Need Help with new terms? Click here to link-to the Extended Definitions Section.
Exclusive to the C-R theory, covers new ideas not found in other theories.

Semi-New for 2008:

The **Completely-Recycling Theory**

(of the Entire Known Universe)

Chapter 4

Inside the (C-R type of) Black-Hole $^{C-R}$

The C-R theory explanation: It is About Time

Let us consider an example of a particle, a simple hydrogen atom. The time-slowdown of this hydrogen atom near the Black-Hole $^{C-R}$ is caused by the curvature (the warping or bending) of space-time. As the hydrogen atom approaches the Black-Hole $^{C-R}$, the curvature of space-time increases which causes the acceleration of gravity to get stronger.

When compared by an interested outside observer, the real-time experienced by the hydrogen atom near this Black-Hole $^{C-R}$ would decrease, relative to an identical hydrogen atom sitting in a lesser gravitational field. In addition, as the curvature increases, the gravitational escape velocity approaches closer and closer to it's ultimate limit, the speed of light. The locally-measured rate-of-time experienced closer-to that Black-Hole's $^{C-R}$ Schwarzschild radius boundary will be slower and slower, when compared to some far-away point possessing a more negligible gravitational curvature.

A Couple of Points to Consider

Imagine that one was able to choose either a point at the exact center of the universe, or else, a point entirely outside the universe, as far away as possible from every known gravitational mass. Then, try a comparison to the intensely curved point near the Black-Hole $^{C-R}$. One would notice, in the absence of any detectable gravitational field, the real-time clock-rate at either of the un-curved points would run faster, or be less-slowed-down, (and maybe more real?) than at any other point within this universe.

The hydrogen atom would appear to gain kinetic energy as it approached the Black-Hole $^{C-R}$, but it would also appear to lose potential energy. The hydrogen atom would appear to be slowed down, if one could observe it without disturbing either it's energy or momentum. The amount of slowdown would be given by the equation:

The change in gravitational energy = (**the change in time**) x (**the mass**) x ($\mathbf{c^2}$) {the speed-of-light squared}

One can see that the kinetic energy gained (or lost) by the mass is determined by the curvature of space-time, changing the amount of time slow-down. NOTE: The resulting acceleration is independent of the mass or the density.

As stated in Chapter 1, the warping, or bending of the spacetime fabric will "squeeze-out" kinetic energy from a mass, very similar to a juicer squeezing orange juice from an orange. In the case of the hydrogen atom, we have imagined that part-of the resonant energy of the atom is bent, or squeezed into "imaginary-time" in a somewhat similar manner to the complex-phase relationship in an impedance-reactance circuit.

To further describe the situation, we could imagine a two dimensional diagram of a hydrogen atom drawn on a sheet of clear plastic. Shine a light on the sheet to project the image. Now imagine the diagram projected on a sheet of white paper. As the clear sheet would be turned at an angle to the projector, the "real" projected image would appear to shrink. The projected image would represent the "real world" interaction of the hydrogen atom. The diagram on the clear sheet itself would represent the fuller picture, since the image drawn on the sheet itself would never change. Our perception of the projected image would be different from our direct view of the plastic sheet's image. Use that difference between the images to "think" how the atom's energy is changed or affected by gravity.

Using the clear plastic sheet imagined in the description, let us now rotate the clear rubber sheet by 90^0. The projected image will disappear or become a straight line. Notice that both the sheet and the diagram would be safe, and that both would still exist. Viewing the paper "screen", however, one could never detect that the diagram was still in existence.

The clear sheet diagram experiment somewhat describes the gravitational bending events as they are imagined using the C-R theory. The bending, or curvature of time is simulated by rotating the diagram so that it will appear to be more nearly parallel to the path of the projector's light.

Bending the sheet will cause the object in the diagram to appear shorter. If one were to compare this diagram to electromagnetic energy (at resonance, as in a particle of matter), the shortening of the image would correspond to a red-shift, or to a time slowdown in the real object. Similar to the situation where the diagram was bent or curved at the 90^O angle, this behavior of the diagram simulated the observed changes to a real particle trapped inside the Black-Hole $^{C\text{-}R}$.

Notice that the diagram itself, and our analogous particle still exist, but they cannot be perceived or located by any real means. Of course, if the source of the 90^O bending were removed, the diagram would appear entirely normal again. In the same way, if the source of the complete gravitational curvature (the Black-Hole $^{C\text{-}R}$) was removed, the particle would again appear and behave normally.

Inside the Black-Hole $^{C\text{-}R}$ Story, Part II

In a marked difference with other theories, the C-R theory demands that, within every Black-Hole $^{C\text{-}R}$, there is an Active Zone $^{C\text{-}R}$. This Active Zone $^{C\text{-}R}$ comprises the entire volume located on the inside of the inner IB^3 Schwarzschild radius.

Technically: The Active Zone $^{C\text{-}R}$ inside is WHAT CREATES the Black-Hole $^{C\text{-}R}$ in the first place, or brings it into being.

Again, because of the conclusions reached earlier in this paper, the C-R theory stated that matter inside the inner IB^3 Schwarzschild radius of the Black-Hole $^{C\text{-}R}$ is not able to collapse into a singularity. The C-R theory predicts that inside every Black-Hole $^{C\text{-}R}$ there will always be an Active Zone $^{C\text{-}R}$.

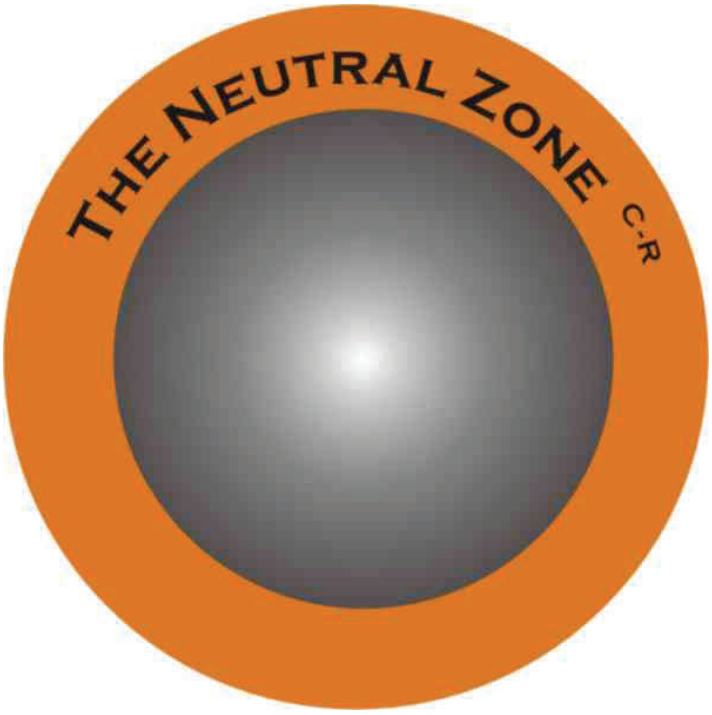
This Active Zone $^{C\text{-}R}$ MUST have exactly enough matter at a density sufficient to create an inner IB^3 Schwarzschild radius. Once inside this radius, the gravitational curvature, and the

time slowdown will decrease to 0%, or minumum, at the exact center of the Black-Hole [C-R]. Every type-of interaction permitted outside the Black-Hole [C-R], (occurring in real time), will also be permitted inside every Active Zone [C-R].

The Neutral Zone [C-R]

Because the matter-energy combination swallowed-by, or trapped inside of the Black-Hole [C-R] is fully time-frozen, the combination behaves as if it were neutral to every possible interaction, including action by it's stored-up electrical charges. We have termed this zone inside the Black-Hole [C-R] the Neutral Zone [C-R], for that very reason. The matter in the Neutral Zone [C-R] is invisible to, and undetectable by the time-active matter located in any inner Active Zone [C-R].

Diagram of the Neutral Zone [C-R] as a part of a Black-Hole [C-R]. The inner (gray) area is the inside Active Zone [C-R].



The Neutral Zone [C-R] (shown in orange) is the outermost part of any Black-Hole [C-R]. All of the Neutral Zone [C-R] is in a volume of space where the escape velocity is greater than the speed-of-light.

Hint: The diagram is NOT drawn to scale. The Neutral Zone's [C-R] size is greatly exaggerated.

From the outside of the Black-Hole [C-R], the only attributes from the Neutral Zone [C-R 1] which could be detected would be the total mass, and total momentum of the entire Black-Hole [C-R]. Only the gravitational curvature could be felt outside the IB[3] Schwarzschild radius. All other electrical properties would be insulated from any outside influence. There is no mechanism [2] which would allow electrical charge, angular momentum, or any form of electromagnetic energy to couple or tunnel across the immense "forbidden-zone" which the conventional black hole would represent.

The C-R theory postulates that gravity works by inactivating the time "felt" by particles of matter [3]. Once that time has been reduced to zero, no further gravitational interaction (like a collapse) is possible. There will be no more "time" left to inactivate. There is no more potential energy which can be extracted by gravity from the matter-energy trapped or confined in the Neutral Zone [C-R]. Therefore, the matter-energy combination in the Neutral

Zone $^{C\text{-}R}$ is at gravitational state comparable to the heat energy (kinetic energy) of a hydrogen atom at absolute zero.

When you "turn-off" all electromagnetic energy (heat, light, electrical charge), no further (real) interaction is possible.

Hint: Also imagine decoupling the "force" from the object. Try to apply the force 1 meter above, below, to the right or to the left of the object. (Out of phase or non-contact)

There is no further possibility that gravity can move the inactivated matter in the Neutral Zone $^{C\text{-}R}$, to collapse it inward towards the center of mass. Essentially, the action of gravity is "*turned-off*" once the escape velocity is "equal-to or greater-than the speed-of-light". The confined, trapped, inactivated matter would have to gain energy (which it DOES NOT HAVE) to cross through (or back inside) the inner IB^3 Schwarzschild radius. If the matter could cross this barrier [i.e., to "collapse" (only if it HAD the energy which it does not have)], it would become time activated once again.

Restored real-time activation implies: Inside the inner Active Zone $^{C\text{-}R}$, matter can never physically be collapsed into a singularity. This is because matter inside the inner IB^3 Schwarzschild radius is still time active, and still has potential energy from gravity.

A revised view of the cause of gravity

Amazingly, there is no inward gravitational pressure (or pull) inward on the Active Zone $^{C\text{-}R}$ from any of the matter located in the Neutral Zone $^{C\text{-}R}$, because that time-neutral matter is already at its lowest potential energy state. Further gravitational "attraction" inward is missing because time-inactivated matter cannot be further inactivated (by gravitational curvature) below "absolute zero real-time" (or 100% full, de-activation).

Inside every Black-Hole $^{C\text{-}R}$ there is an Active Zone $^{C\text{-}R}$. (See the diagram on the previous page, the inner gray area.) This Active Zone $^{C\text{-}R}$ is a benefit provided courtesy of the "limited" nature of gravity which only the C-R theory has postulated. Once matter has collapsed into timelessness (inside the IB^3 Schwarzschild radius), to the point where it has been de-activated, it no longer experiences what one would have to call "real-time". This matter is in its lowest possible (ever) energy state. There is now no further pull by gravity which can cause the matter in the Neutral Zone $^{C\text{-}R}$ to "fall" inward.

New Thought: Imagine also that the matter composing the Inner Active Zone $^{C\text{-}R}$ is a "placeholder", kind-of analogous to the "service" a number zero does for the decimal number system. (Think of the difficulties faced by Roman numerals, with no concept of zero.)

Imagine a smooth-toothless gear trying to engage a chain drive. There is constant slippage, or nothing for the gear to grab onto. Another analogy might be: try to stir a can of paint using only an "imaginary paint-stirrer". Try as you might, no amount of thought-effort or thought-exertion will have any effect on stirring the paint. These analogies give you some idea of the frustration gravity must feel trying to further collapse matter which is already completely "real-time inactivated".

A Quantum Leap: A Classical Mechanics Success Story

Many years ago, scientists had a dilemma. Classical Mechanics could not explain theoretically why any matter existed in the universe. Maxwell's equations in Classical physics predicted that any moving electrical charges should continually radiate away their energy. Given any atomic configuration, the existing theory said that every moving electron

should spiral down into the nucleus and eventually collide with the proton. This predicted phenomenon was termed "*the Ultraviolet Catastrophe*". Experimentally, those scientists were forced to concede that the real world had a lifetime exceeding the fractions of a second which their theories predicted, in spite of Maxwell's equations.

Quantum mechanics provided the answer. It prohibited the electron from losing (or radiating) energy except in discreet packets of energy, now called **quanta**. These energy-level transitions became the salvation of the Universe. Theoretically, at least, the universe was now permitted to exist. (Scientists were afterward relieved that the universe could then **theoretically** exist as it already WAS **known** to be!!)

The invention of Quantum Mechanics solved one of the biggest dilemmas posed by classical physics. That was the predicted collapse of every electron into the proton, leaving only neutrons in the universe. HINT: Quantum mechanics succeeded because it eliminated the problem of the collapse of an electron into the proton of the atom, turning into a neutron. (Similar to collapse into a singularity.)

While the solution was opposed bitterly by those "educated scholars" of the time, the Quantum theory explained events so successfully that it eventually became the dominant theory. The (C-R) theory will face similar opposition; even though the C-R theory intends to rid theoretical physics of it's current nemesis, the gravitational collapse of matter into a singularity.

(Authors Jibe: Have we not just heard about some other obsolete theory {Classical Mechanics} which also predicted a "non-realized" collapse of matter (just like the collapse into a singularity) like this in a paragraph above?)

Gravity is (kind-of) like Seniority: No Time equals No Pull

The C-R theory speculates that nature prevents "time-depleted or inactivated" matter from "falling" (being attracted) further inward. This situation is very similar to the electron that still has energy, and yet does not collapse into the hydrogen atom's nucleus even at absolute zero.

Gravitationally collapsed matter-energy remains imprisoned in the timeless zone, which C-R has termed the Neutral Zone $^{C\text{-}R}$. This Neutral Zone $^{C\text{-}R}$ is contained inside the Black-Hole's $^{C\text{-}R}$ IB^3 Schwarzschild radius. Any matter or energy which is in the Neutral Zone $^{C\text{-}R}$ always exists at it's lowest possible "time-energy" level.

Any matter-energy in the Neutral Zone $^{C\text{-}R}$ could only become real-time-active again by acquiring more energy. Adding energy would be necessary to allow the trapped contents to collapse (move back in towards the time-active center) further inward. This inactivated matter-energy would have to obtain (gain) more energy from somewhere else, before it would experience real-time once again.

Before the Neutral Zone's $^{C\text{-}R}$ contents could expand back outward any further, outside the outer IB^3 Schwarzschild radius, there would also have to be an energy input or gain. Extra energy must be added to the contents of the Neutral Zone $^{C\text{-}R}$ before the Neutral Zone's $^{C\text{-}R}$ contents can experience "real-time" again. {or the curvature reduced below "c"}

Active Participation of Matter in the Active Zone $^{C\text{-}R}$

There will always be an Active Zone $^{C\text{-}R}$ at the center of every Black-Hole $^{C\text{-}R}$. The nature of matter is such that a singularity cannot ever occur. Every Active Zone $^{C\text{-}R}$ located inside the inner IB^3 Schwarzschild radius of a Black-Hole $^{C\text{-}R}$ is essentially, a closed, self-contained

universe. Every inside Active Zone [C-R] ALREADY has an exactly-sufficient quantity of matter at a sufficient density to produce enough of an amount of curvature to equal the speed of light at it's outer boundary. (This is "by definition", and a requirement is for the inside to have exactly enough density and mass to create this FULL curvature in the first place.)

Theoreticians: Take note of the "real-world fit" by the C-R theory.

Hypothetically, what if our Universe just so happened to reside inside the active-portion of the inside of a large Black-Hole [C-R]? One would expect, if not demand that nearer the outer edges, the space-time curvature should be greater. As a result, time nearer-to the edge of the universe should run more slowly. (Hint: Making items there more red-shifted.)

One would also expect that again, when approaching the outer edges of this "Universe existing inside a Black-Hole [C-R]", objects would appear to be both dimmer and ageing-slower. This might be because objects farther-out in this universe would be ageing slower and slowed-down in time. Note: Matter near the outer portion of this hypothetical universe would not necessarily be required to travel away from us at speeds close to light-speed to appear red-shifted. The net accumulation of increasingly intense gravitational curvature will suffice, by itself, to slow down this region's local time-rate.

One would expect this hypothetical, imaginary universe to look SUSPICIOUSLY, sneakily close to what we observe in our own universe. For a predictable or discernable difference between the two alternative universes, check for the appearance of both red-shifts and blue-shifts.

Is our Universe Open or Shut? : Case Closed

(REVISE) Some scientists have remarked about the possible coincidence that the universe just seems to contain almost enough detectable mass to close the universe [4]. Of course, by the C-R theory, the numbers would be related. If the size of the universe shrank, the total amount of more-dense matter needed to maintain curvature would be less, and more matter would find it's way into the Neutral Zone [C-R]. The C-R theory states that any (inner) Active Zone [C-R] must always remain exactly critical.

Our hypothetical universe discussed above appeared identical to "a gravitationally self contained Active Zone [C-R] ", situated inside a Black-Hole [C-R]. The simplest possible explanation is: this is not just a coincidence, but both of the hypothetical and real universes appear identical because the C-R theory model happens to be correct.

There may be many smaller Black-Holes [C-R] allowed inside a large "Universe-sized" Black-Hole [C-R]

The C-R theory certainly allows the possibility that the entire known (observed) universe is entirely contained within a Black-Hole [C-R]. Indeed, the C-R theory allows many smaller Black-Holes [C-R] to exist within the contents of the larger Black-Hole [C-R].

The inside (Active Zone [C-R]?) portion of our universe might well serve as the only readily observable example of a theoretical model of the inside-of a Black-Hole [C-R]. Our universe may be considered to be the easiest and closest available "laboratory example" from which to gain our understanding about the inside of an active Black-Hole [C-R].

Jerry: Should you move this part below to the appendix?
This Time: A Twisted explanation
or: The C-R theory: A New Twist

Here is another additional analogy to the Black-Hole [C-R] vs. time vs. gravitational

attraction model presented above. Consider the real-time vs. imaginary current flow in a resistance-impedance circuit. One could choose our analogy with either capacitance or inductance alone in the circuit with resistance.

Inductive Reasoning

Let us perform a thought experiment in an electrical circuit consisting only of resistance and inductance. If one applied a constant frequency alternating current, there would be a phase angle to express the relationship between the voltage present across the components. During any real-time alternating current or voltage flow, the current is 90° out of phase across the inductor and the resistor. If one further considered a circuit where the inductance was effectively infinite compared to the resistance, one would have almost a total imaginary power-flow. There would be almost NO heat produced, and almost no energy wasted. Even if one were to double the size of the inductance, the 90° phase angle would not appreciably change.

The above analogy would appropriately consider either the voltage across or the current through that nearly infinite inductance. Comparatively, the poor resistance would experience no real power. This experiment characterizes some aspects similar to that of the real-time vs. imaginary-time relationship one believe exists in the Neutral Zone [C-R].

NOTE: with respect to the resistance, the R-L circuit could "pretend" that the resistance was not present, or non-existent.

In these experiments above, we are dealing with real-world phenomenon. Comparatively, for the next few decades, at least, the Black-Hole [C-R] will be impractical to simulate or evaluate in the lab. Since that is the case, theory remains the only practical alternative to laboratory experimentation.

Analogy

Imagine a flat clock, viewed head on, then rotated at increasing angles, up to 90°. Notice that when the clock is viewed at a right angle, no activity will appear to the viewer. Any change of visible activity on the clock over time is "hidden" from the viewer's direct sight, but not gone.

On to the Next Phase, a New Angle to Consider

The C-R theory feels justified in assuming that real-time will behave in a similar fashion to the "real-power" in the R-L circuit discussed above. One should be able to talk intelligently about the 90° phase-angle between real-time and imaginary-time, as measured in gravitationally curved space-time.

There's No Time Like the Right Time *or*: **There's No Time Left**

Theoretically, we could claim that in the Neutral Zone [C-R] located inside of a Black-Hole [C-R], time would have to be measured in totally imaginary units [5]. As far as measuring or detecting real-time in the Neutral Zone [C-R] inside the Black-Hole [C-R], the total duration of real time would be absolutely zero. One would suppose that, if we could "multi-dimensionally" view the time-trapped wavicle (particle-wave resonance-packet at the quantum mechanical level), it would behave-like and appear-as-if its time axis was shifted by 90 degrees from all 3 of our normal axes, i.e., height, width, depth. One might speak of this shifted (perpendicular) perception as the Right (angle) time, or as time Left.

As a packet of matter-energy, our particle trapped within the Neutral Zone [C-R] of the

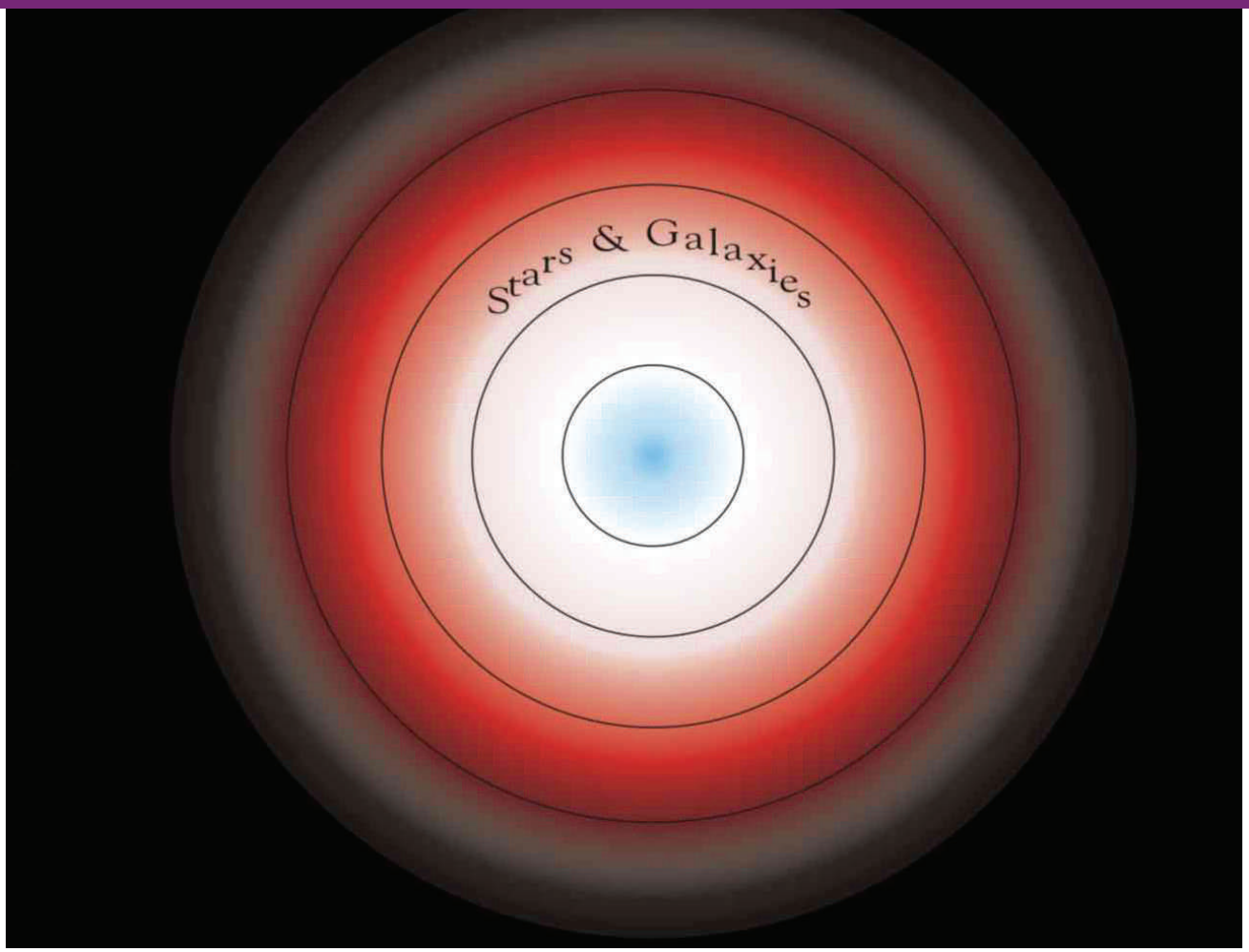
Black-Hole $^{C-R}$ would still possess every property that makes it a particle. Our "zebra" cannot change his stripes. The time-frozen particle "exists" in every real sense of the word. What the particle is forbidden from doing is behaving as it's normal, real-world self. It cannot interact individually with any other particle, whether that particle is active in time or is also time-frozen.

We Need a Prince Charming to Happily End This Fairy-Tale, with the Right Angle.

For all practical purposes, the time-frozen particle exists in mass and momentum only. In every other aspect of its "self" as a particle, the time-trapped particle behaves as if it were a "Sleeping Beauty", oblivious to all which occurs around it.

Nevertheless, the "slumbering" particle still exists, poised to resume it's existence in real-time should the opportunity present itself. If this happens, our happily mindless particle will resume it's real-time existence as if it's bad "Black-Hole $^{C-R}$ dream" never happened.

A view of "half" of our universe



The innermost circle is earth's position. The blue center inside is the "great Attractor". The circles outside earth's location represent 25%, 50%, and 75% of total red-shift.

Need Help with new terms? Click here to link-to the Extended Definitions Section.
Exclusive to the C-R theory, covers new ideas not found in other theories.

Semi-New for 2008:

The **Completely-Recycling Theory**
(of the Entire Known Universe)

Chapter 5

The Big Bang Theory - C-R's Competition:
Old and New Theories of the Universe

The Big Bang— the C-R theory's only real competition

There are several major problems with the Big Bang theory. One of the first is the simple problem of the cause. There currently is no good candidate for the actual cause. Some of the attempts strive to fix the problem by assigning the energy for the start with collisions in "Parallel Universes" undetectable with any present technology. Other ideas range from the energy rebound after a complete collapse, to "borrowing" the energy from the empty vacuum (or zero-point) energy in space.

None of those ideas seen testable in the scientific sense. How can you falsify the idea, to see whether or so it is measurable? None of those ideas has any good way to test it, or a prediction which can be verified today, without our travelling backwards in time to observe the start.

(include other ideas here. J.R.)

The next problem is even greater. From an infinitely dense, but incredibly small singularity, everything we see in the universe today must emerge, as is seen. The standard idea is that there must be a "new type" of energy (dark energy), something like a cosmological constant, to provide the source.

Let me be honest. I will suggest a test for you, the C-R theory reader. How many of you believe you are at-least, reasonably intelligent, and moderately well educated? If you do not say yes to both, please skip the next part. Now, how many of you believe you, personally, could fit an aircraft carrier into the head of a pin? I will even provide 50% of the required materials (the un-hollowed pin, you provide the aircraft carrier). If you honestly said yes, I have some closets I would like you to work on. Most of you readers said no, a very reasonable answer.

If you readers, who are both reasonably intelligent, and reasonably educated, cannot personally fit an aircraft carrier into the head of a pin today, how could you possibly believe that nature could have done so, and much more, simply by reversing time?

Another problem is that, a singularity requires the "violation" of relativity, or at least

the exceeding of known conditions. Once the escape-velocity of the speed-of-light is exceeded, all Relativity-based physics and science does not work!! This requires solutions beyond conditions where standard-equations work, and human experience, or laboratory "testability" fall short.

The next problem is how to get this singularity to ***start*** to expand. There is again no known force, or energy, which can be applied "externally" or even internally act on this singularity, to force it to begin to expand.

Very slightly after this start, the next problem becomes one known as "hyperinflation". The hyperinflation hypothesis requires the big bang based universe to expand at a rate beyond that physically possible, in order to maintain smoothness in the observed results, to prevent clumpiness or lumpiness which should otherwise be present in the background radiation. Again, one runs into the "slight" problem that there is no known cause which can accomplish this. Somehow, matter-energy must "know" or "learn" how to expand faster than light, for a little while, then drag the newly expanded matter-energy horizon with it, until the entire universe becomes quite a bit larger and smoother.

After the universe reaches the 300,000 year-old stage, science believes it understands the results thereafter almost fully. This is where energy-density has finally diluted or cooled low-enough that matter could "condense-out", and the protons, neutrons and electrons we are now familiar-with finally predominated the universe's mix of matter.

From this point forward, events were considered routine, until we reach today. One small problem standard theories do not explain well is why the outer 1/5 of our universe consists of ionized hydrogen (plasma) matter. This is not well understood.
NOTE: Current theories speculate that, after de-ionizing sometime after the first 300,000 years of the big bang era, the outermost matter again "mysteriously" re-ionizes, as we now detect it, by a process not well understood.

The final problem or difficulty, for the present, is why the universe appears to be not only expanding, but expanding at an expanding rate?

Unmentioned future problems (although, not apparent now) concern the ultimate fate of the universe, at least 100 billion years into the future. Will the universe expand into faded-out nothingness, or will the universe cease expanding, run-out-of energy, then finally start to collapse or "crunch", and perhaps, begin the same-type-of cycle all over again?

Other problem areas from the Big Bang concern observations within this universe. There is the horizon problem. There is also the Flatness (or Omega) problem.

There is also a timing problem. In the "earliest" views of our universe (as perceived by the observers today), galaxies are smaller, but perfectly formed, and already collapsed from a primitive hydrogen-gas cloud. No un-collapsed clouds of primitive hydrogen have been detected, at least in the level of abundance that "should-have-been-there" at that time.

The Horizon problem is this: if our universe is expanding everywhere and in every direction equally, why is one part of the background radiation we measure virtually identical from every other direction, from 1^{o}-180^{o} away? If those areas have been "out of communication with each other" for billions of years while rapidly expanding, they should not be nearly so similar in every direction. The small random initial differences in the observable distribution of matter should have "modulated" the background radiation patterns. Instead, in spite of the walls and voids, the distribution of mass concentrations in the matter-wall or galaxy-groupings for 13 billion years of "accumulated influences"., the background is smooth, not lumpy. This mass-modulation effect is "CLEARLY" not seen.

The flatness problem, or the omega problem is this: Why does a universe that has been

expanding for 13-18 billion years, starting from almost NOTHING, appear to almost have enough visible mass, {within an order-or-two of magnitude}, to almost close-up the universe? Is the universe "filling-up" with mass-energy, as it expands in size? Where does the energy and this "new" mass come from?

One observant C-R theory reader commented that not only is energy required to create this mass, but even more maddening, from the "Conservation-of-Energy" standpoint, the matter that already exists is supposed to be accelerating rapidly, too, again INCREASING it's RELATIVISTIC mass as it accelerates, requiring EVEN MORE ENERGY. (To come out-of-NOWHERE?) This is "a double **slap-in-the-face**" assault against Conservation of Energy.

After the above "problems" are taken-care-of, or "discounted", so that in the future, simple answers will be found, the Big Bang theory (and it's successors) feel that they fit the universe closely, and understand the things seen in the universe about as well as current science will allow.

There is some attempt to use new theories like superstrings, or colliding "m-branes", p-branes, or "theories-of-everything" to understand how to answer all of the above problems.

Scientists and theoreticians want to use just one, complete, simple theory. It must incorporate an understanding of everything at every scale, from the smallest sub-atomic particles, some with incredibly short lifetimes, and incredibly unstable states, up to and through the largest structures seen in the complete universe, including quasars, galaxy structure, and gamma ray bursts. It should explain ALL the features of ALL these items "*as observed"*. Why are there "walls" and "voids" in the structure of matter in the cosmos? How did these structures evolve so quickly and so early-on? Complex structure is OBVIOUS in the "earliest-youngest" matter seen.

The C-R Theory's Alternative: There ***WAS*** No Big Bang

The C-R theory can sum up the difficulties faced by the Big Bang theory very simply. Since there WAS NO Big Bang, almost all of the problems and contradictions disappear.

Matter and energy HAVE always existed in this universe. There NEVER was a time they did not exist, and there will never be a time when they cease to exist. (That agrees extraordinarily well with Conservation of Energy.)

Most C-R theory readers will now say (or think), OK, if that is so, why is the universe so energetic? Why is the universe not run-down, faded out, diluted, expended, and cold? That is a reasonable question, and the C-R theory has a very simple, reasonable answer. This universe WAS DESIGNED to recycle (and refresh, renew, and recover) both matter and energy. Hint: Black-Holes [C-R] play a major part. The simple explanation is to follow. (***You*** may need to go to an individual section for a fuller explanation of the ideas in this section.)

A brief review of some of the unique C-R theory ideas about Black-Holes [C-R].

1. A Black-Hole [C-R] cannot ever collapse into a singularity at it's center.
2. There is ALWAYS an Active Zone [C-R] at the center of each Black-Hole [C-R]. (This inner placeholder also helps to prevent and eliminate the possibility of a collapse.)
3. Matter and energy consumed by a Black-Hole [C-R] are stored in a Neutral Zone [C-R]. In this volume of space, the escape velocity is "*above the speed-of-light*". All electromagnetic interaction and activity within this zone is "turned-off, suspended, or prevented".
4. The Black-Hole [C-R] "selects and consumes" positive charges (protons) BY ***MASS*** and inactivates them, storing them safely and securely in a "timeless" manner.
5. Inside the Neutral Zone [C-R], no *real-time activity,* interactions or events can occur.

6. The Neutral Zone [C-R] cannot obey the second law of thermodynamics. Matter and energy do accumulate, but they can only **RE-CONCENTRATE**, with 100% efficiency.

7. There will be some encounter, (external to the Black-Hole [C-R]), that eventually triggers the release of some or all of the confined matter.

8. A nova, supernova, Seyfert Galaxy, AGN (active galactic nucleus), quasar, up to a GRB (gamma ray burst) will be the result. These events release the matter and energy which had been concentrated and renewed by the Black-Holes [C-R], with an efficiency equal to 100%.

Notice, no random or mysterious "starting cause" is needed to make our universe work!! Conservation of Energy and Matter is ***Never,*** never violated. We NEVER get something from nothing, nor do we EVER ***NEED*** to do so. We also NEVER lose anything. It may appear that we temporarily lose-track-of matter and energy inside the Black-Hole [C-R], but we in fact SAVE IT (either, for a "rainy-day", or from a fate much worse, fadeout or dilution).

Our entire universe is confined INSIDE a giant Black-Hole [C-R]. Therefore, neither energy nor matter can ever escape (under normal operating circumstances), and our universe can never expand or shrink (on it's own, anyway). See the speculation in Section ___.

NOTICE: Our universe ALWAYS *appears* to be "almost 100% full", or "almost-closed", because it ***is*** ALWAYS 100% fully closed-off. This is not accidental or coincidental. It just IS that way now, and always has been that way, and will always be that way.

There is no problem as to why one portion of the sky closely matches the properties of any and every other part of the sky. Our universe is not collapsing nor expanding. It is fully allowed to dynamically interact, yet it is remarkably stable over an infinite time. All sections of our universe have always BEEN at FULL thermal equilibrium, between ALL far-off regions, from forever-ago. The universe NEVER has the opportunity to inequalize any individual section, either.

Our universe does have red-shifts which appear to ***us*** in all directions, further "outside" earth's location, measured from the center. Everything closer-in to the center is blue-shifted. Everything closer-in to the center is running faster (technically, is just less-slowed-down). The center, known ironically as "The Great Attractor", is the least-slowed-down location in the entire universe. In simple terms, ***there*** is the most "*uphill*" place in the universe. (Not downhill, as in "Pulling us towards there"!!)

If we could change our location in the universe, the "not-time-shifted circle" of "equal-distances from the center" area would move with us. Everything inside of us would still be blue-shifted, and everything outside of us would be red-shifted. The portions and intensity of each "shift" would change, and the appearance of matter everywhere would change to us as we moved. (See Illustration: Voyage through the Universe in PDF format.)

NOTE: The matter in the universe does NOT change as ***we*** move, but the way it APPEARS to us DOES change. ***We*** would see it differently, based upon our "changing" time-frame, when we measured and observed everyone else from some other location.

NOTE: All of these formerly complex problems from the Big Bang have very SIMPLE solutions using the C-R theory. Whether YOU ever believe that "C-R theory solution" or NOT is entirely up to YOU.

Need Help with new terms? Click here to link-to the Extended Definitions Section.
Exclusive to the C-R theory, covers new ideas not found in other theories.

Semi-New for 2008:

The **Completely-Recycling Theory**

(of the Entire Known Universe)

Chapter 6

Some conclusions derived using the C-R Theory

Conclusions:

Given New Assumptions, Extreme Simplicity

Using only a few, slightly modified assumptions, the C-R theory explains some very astounding events, with very simple arguments.

No Anti-matter to Consider

For many years, scientists have noticed the fact that matter in this universe seems to be made almost entirely of regular (not anti-) matter. Normal scientific procedure assumes that any theory of the universe which can give the best, simple reason for this to be so, is more likely to be true. The C-R theory does make use of the unique properties and abundance of regular matter to explain some events in eternity. The C-R theory has a greater chance of being correct than other theories which must take this fact then treat it as an embarrassment and/or aberration.

Using the principle of Occam's Razor: Trimming Our Assumptions

The principle of Occam's Razor is this: the **simplest** theory, with the **fewest** necessary assumptions, is more likely to be found correct.

No "new" forces are needed to explain virtually everything seen in this universe!!

The C-R theory needs NO new (i.e., fifth or sixth) hitherto undiscovered or unknown basic forces. No need for irrational or unreasonable starting hypotheses. C-R does use some new revised hypotheses. All assumptions used were based almost entirely on a compatibility with the law of conservation of energy. C-R assumed that, any event which seemed to violate this law was impossible, and not likely to be successful. C-R further assumed that any event which seemed to be permissible by conservation of energy would be more likely to be correct, more likely to be real, and more probably useful to a new theory.

A New use is found to "Exploit" the Properties of Protons, Neutrons, and Electrons

One additional novelty of the C-R theory is that it has now uncovered an amazing new use, hitherto unexpected, for the basic building blocks of our universe. The C-R theory

presents a very logical, highly self-organized, new use for the all abundant, already existing particles of regular matter: the everyday electrons, protons, and neutrons. That the ongoing recycling in our universe could be caused exclusively by re-using these sub-atomic particles in combination with Black-Holes [C-R] should add some credence to the theory. It may yet be found to be wrong; or the assumptions could turn out to be wrong. Why then does the C-R theory seem to provide such a practical, common-sense, straightforward explanation to some of the mysteries of the universe? Most scientists had suspected that the universe would be very difficult, if not entirely impossible for humans to understand.

(Note: J. B. S. Haldane has often been quoted as stating that the universe is not only queerer than we imagine, but that it is queerer than we CAN imagine. Can the simple C-R theory finally prove that statement wrong?)

Recycling of Matter-Energy: How Nature Accomplishes Real "Conservation of Energy".

Here is the most delightful and satisfying aspect of the C-R theory. For the first time, a possibly real, very practical method and pathway have been detected and discovered by which the universe could continuously recycle matter and energy.

By the C-R theory, conservation of energy virtually prohibits ANY significant amount of real-world tunnelling from the inside of a Black-Hole [C-R]. We must conclude that the Black-Hole [C-R] can only STORE energy while it remains in it's collapsed phase. The Black-Hole [C-R] also sorts, consumes and then stores excess positive charges, by mass. The Black-Hole [C-R] chooses to "dine-upon" the more massive protons, and proton-neutron combinations.

During the gravitational collapse, and inside the Black-Hole's [C-R] Neutral Zone [C-R], all real-time interactions between the stored positive electrical charges are technically forbidden, and probably impossible. The positive charges still exist in every real sense. They must be stored in this state: frozen in real-time. They are, for all practical purposes: inactivated, unresponsive, oblivious to each other, and to all the matter-energy around them. The only property that this "matter-energy trapped inside the Black-Hole [C-R] " is still able or permitted to do is curve space-time, i.e., simply make gravity.

The Conventional Big Bang Theory: It's Logic Collapses

One of the C-R theory conclusions, derived directly from the Law of Conservation of Energy is: The gravitational curvature produced outside the IB^3 Schwarzschild radius of the Black-Hole [C-R], which is caused by the mass trapped inside of the Black-Hole [C-R], cannot decrease by ANY amount. If the gravitational curvature did decrease by even the smallest amount, then, a body orbiting around the center of mass of the Black Hole [C-R] would gain a random amount of energy [1].

Hence: the gravitational curvature outside the Black-Hole [C-R] is forbidden to decrease. If gravity were caused by allowing hypothetical gravitational "particles" to tunnel out from the conventional black hole, gravity should decrease unless the efficiency was exactly 100%. (How would the inside of the conventional black hole KNOW how many gravitons to produce in order to keep the level or intensity of gravity constant OUTSIDE the black hole?)

Sorry, but there are NO Wormholes (see Chapter 13 for much more info.)

If the conventional black hole was permitted to "wormhole" some of it's mass to anywhere else in any universe, the external gravity surrounding the conventional black hole would decrease, unless some very complicated energy-accounting shenanigans can be performed exactly to the nearest $\hbar/2$ (Planck's uncertainty constant h-bar over 2). (This

would be the maximum upper limit to the allowable energy-uncertainty to be "borrowed" from nothing, by the Heisenberg Uncertainty Principle.)

Could gravity-producing amounts of matter be zipped {tunnelled or wormholed} at faster-than-light speeds to anywhere else in the universe (or beyond), and allow the wholesale preservation of Conservation of Energy to remain valid? This would be unlikely, unless matter possessed an intuitive knowledge of gravitational disruptions to energy, momentum, and angular momentum, and then this same matter decided to *correct* ALL of these imbalances *exactly* whenever tunnelling took place.

Therefore, the C-R theory concludes that: The Law of Conservation of Energy does not allow such things like a re-distribution of mass, energy, momentum, and angular momentum by wormholes as long as there is "mindless-matter" in the universe. This conclusion rules out the likelihood-of, if not any possibility-of ANY type of higher-dimensional wormhole/tunnel. The energy (and momentum) imbalances which would be created by "wormholing" matter randomly around the universe would demand a malevolent disregard of the most sacred physical laws on the part of nature.

From the consideration of the above principles, the C-R theory comes to another interesting, and I have no doubt: "You can not possibly be serious- or right!" conclusion.

Do You Wonder: What is in Store?

From the (after-) thought experiments which are performed in the appendix, and the observations made in the section immediately above; we must conclude the following. Having demonstrated that a Black-Hole [C-R] cannot "tunnel" its internal mass-energy away into nothingness, and that it cannot otherwise radiate any matter-energy whatsoever from it's stored inner contents, one is lead into this next, inescapable conclusion.

Thermodynamics simplified: Putting our Universe's Entropy back in Order

The Second Law of Thermodynamics states that: In every observed system, everywhere, energy content declines. All systems proceed from a higher energy state into a lower energy state. Events progress from a more organized state (order), to a less organized state, (disorder). There may be brief local exceptions to this, but only because of an external energy input from somewhere else into the local area. By the standard second law: the net energy content of everything in the universe must always decreasing.

Thermodynamics: the C-R Theory's "Second Opinion"
Here is another conclusion on the nature of the Black-Hole [C-R], based on the C-R theory:

C-R theory Conclusion E:

Neutral Zones [C-R] inside Black-Holes [C-R] Experience no increase in Entropy

The Black-Hole [C-R], while it is in it's energy acquiring phase, CANNOT obey the Second Law of Thermodynamics. In simpler language, the Second Law of Thermodynamics DOES NOT APPLY, and CANNOT APPLY, to ANY Black-Hole [C-R]. [HINT: Maybe it is NOT really a **Law**, then, is it?] If a starting condition of 100% pure nothing (emptiness) can violate entropy by becoming a highly energetic something (our universe), then the competition to the C-R theory already concedes IN THEIR THEORY -(IES) that entropy can be violated.

Notice, the C-R theory still accepts that in every non-Black-Hole [C-R] area (the Active Zone

[C-R]) matter does obey the "Law". The C-R conclusion must be that, for consistency, and ruled-over by a more supreme law; i.e., the Law of Conservation of Energy, the Second "Law" of Thermodynamics does not cover, or apply-to the Neutral Zone [C-R] volume inside Black-Holes [C-R]. It never did, it never can, it never will.

Black-Holes [C-R] Cannot *Break* the Second Law of Thermodynamics, that Law just DOES NOT *Apply* in this case.

Yes, I (the author) realize that the standard textbooks all say that the Second Law of Thermodynamics ALWAYS applies to EVERYTHING. Yes, I realize that all good Physicists and Scientists are supposed to accept and believe what they have been told in textbooks, or taught in school for all of their life. Yes, I realize that many people will never come around to accept or believe the conclusion on entropy as presented above, even if I could absolutely prove it to them.

Even so, if I believe that the C-R theory Conclusion "E" is true, then it should be stated. Whether some rule is "believed" or not, in the absolute sense, never affects its truth. Our perception of the truth may be skewered, but ultimately science must give in to a demonstrated fact, however hesitant the older generation seems to embrace the new idea.

The Second Law of Thermodynamics states that in every system, there is a tendency for entropy to increase. When entropy increases, reactions proceed from more energetic, to less energetic events. Randomness, overall, is supposed to increase with time. Objects and events proceed from order into disorder; higher energy to lower energy states.

On earth, there are small areas where matter or energy seems to become locally more-organized, but only at the cost requiring an external energy input taken from somewhere else. Never before has there been any seriously proposed candidate of a real event which appears to allow the Second Law of Thermodynamics to be overruled, technically-circumvented, or dismissed.

Considered among all of the energy-handling phenomenon in the universe, the Black-Hole [C-R] is so far, in a class all by itself.

Note: The author does allow that, once the contents from a Neutral Zone [C-R] inside of a Black-Hole [C-R] become liberated, they are allowed to release the pent-up (concentrated) energy and mass in a White-Hole [C-R] phenomenon, the second law of thermodynamics does again immediately start-to re-apply.

HINT: Think of a "Jack-in-the-Box" springing free, releasing it's trapped or confined Jack. Now: Imagine the trapped (insulated) protons and neutrons re-emerging, and recovering their ability to mutually repel each other, after their imposed "hibernation" is ended.

Many smaller Black-Holes [C-R] can easily exist within the Active Zone [C-R] of a larger Black-Hole [C-R]

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Semi-New for 2008:

The **Completely-Recycling Theory**
(of the Entire Known Universe)

Chapter 7

The C-R Theory and Real Recycling

How the universe recycles matter and energy.

The Recycling Concept:

Borrowing (or "*recycling*") the idea from the Hydrological cycle, right here on earth.

One of the most beautiful, simple, and elegant processes yet found in all of nature is the concept of the hydrological cycle. Because of this, almost all of the water in existence today on earth is thought to be the same water which was present at, or arriving shortly after the creation of the earth. Some chemical reactions and hydrolysis of water have occurred, so not 100% of all water molecules are the exact ones which were here at the founding of this planet, but overall, the same water has been here, in use, since the beginning. Remarkably, water can undergo seemingly infinite cycles of accumulation, evaporation, condensation, precipitation, flow, accumulation... over a very long, prolonged period of time, without an apparent limit!!

One of the other amazing things in the area of scientific theories is the way that some events or explanations of phenomenon in one area can closely parallel happenings in seemingly unrelated fields. Even so, the simplest and most straightforward explanations are often the best, and nature seems to be addicted to the "multiple re-uses" of good ideas.

Parallels with Nature, Consider this.

From the C-R theory, the universe recycles matter and energy, somewhat in parallel to the way water recycles here on earth. Of course, the C-R theory has the Black-Holes $^{C\text{-}R}$ playing a major part in this recycling. While the existence of the hydrological cycle on earth does not **prove** the same "type-of" path exists for universe, the C-R theory suggests it does provide a suitable natural framework or pattern to compare or guide a similar system.

Using conservation of energy as a guide, the C-R theory has proposed that the nature of the C-R "brand-name" type-of Black-Hole $^{C\text{-}R}$ plays a crucial part in this recycling. It was necessary for the C-R theory to assume that the true nature of the Black-Hole $^{C\text{-}R}$ is fundamentally much different than current theories about conventional black holes suggest.

Due to the energy-consuming nature of the Black-Hole [C-R], the IB^3 Schwarzschild-radius "trap" defines the outer limit of the Black-Hole [C-R]. The Black-Hole [C-R] can only *consume* matter and energy. This implies it can only CONCENTRATE matter and energy. This invalidates the second law of thermodynamics, which states that energy concentrations, over-time, can only decrease. However, this only invalidates the second law for the Neutral-Zone [C-R] portion of the Black-Hole [C-R], the second law still applies to every other region of the universe. This indicates that all individual events occurring inside the Active Zones [C-R], i.e., non-Black-Hole [C-R] areas, do still obey the Second law of thermodynamics.

HINT: Think of a Jack-in-the-Box as a kind-of analogy. Continually pack the matter-energy (the Jack) into a container. Wait a while. Turn the handle to trigger the Event (when the tune gets to "Pop" goes the Weasel), the release portion of the event begins.

Is Black-Hole [C-R] Behavior Random? : ... Not a Chance!

The C-R theory also suggests that the Black-Hole [C-R] fortuitously takes advantage of the (probably not accidental or random) difference in mass between an atomic nucleus and it's associated electrons. The Black-Hole [C-R] preferentially swallows, and de-activates positive charges and neutrons too; while letting "some, most, or all" of the negative charges escape unswallowed. This mass-*selectiveness* of the Black-Hole [C-R] allows all of the newly-freed electrons to repulse or repel each other away from the vicinity of the active Black-Hole [C-R].

This utilization of the "newly-discovered" properties of a Black-Hole [C-R] is unique to the C-R Theory. This method has the advantage that while storing up mass and energy, it re-concentrates them into a very similar-state to what conventional science says should have occurred sometime shortly after the presumed original Big-Bang. Thus, the Black-Hole [C-R] naturally stores up, in abundance, the only known force (at large-scale distances) which is *KNOWN* to easily overcome gravity. This C-R theory exclusive concept is so simple, so refined, and so unique, it almost ***has*** to be true. (Think of the principle of Occam's Razor!)

Even if one imagines that the above conclusions are ***all*** wrong, one then still has to demonstrate that the logical progression of events which follows from the above scenario either is not happening, or is unlikely to happen.

Many Sources of "Unbalanced" Electrical Charges, Everywhere in the Universe.

A most surprising discovery from the C-R theory is the extent to which unbalanced electrical charges should be **active** in the universe. An article in the November 2006 *Scientific American* states that a *MAJORITY* of matter in the universe is in the IONIZED state!!! Unless Black-Holes [C-R] (or some mystery batteries?) are continuously creating local imbalances of electrical charge, the laws of conventional physics favor a quick and ongoing return to local electrical neutrality. Even such ongoing energetic stellar reactions as the presumed nuclear fusion and nuclear fission (see later on) should not ***favor*** the production and re-distribution of ionized electrical charges on the scale at which they are actually encountered everywhere within the universe!!!

Present day theories about (non C-R) black holes are even less promising to provide simple "source" solutions to the abundance of solitary ionized and energetically charged particles. These theories claim that, by tunneling-out from inside the conventional black hole, the black hole (non-C-R type) equalizes whatever excess charge is trapped inside with those charges present on the outside. While this does not necessarily hurt our search for other possible "ionic producers", the conventional black hole which does not produce and separate charges does not help matters any when looking for stray charge sources.

NEW starting in 2007: I was forced to revise my thinking. From the high-energy events occurring in every direction, averaged-out over time, it is reasonable that this indicates that the recycling process is real, and that SOME matter and energy are continuously recycling. The average of this ONGOING recycling IS the true source of the 2.7K radiation measured as coming equally from ALL directions. This 2.7K radiation has never been warmer, as measured from earth, and will never be cooler, even 15 billion years into the future, when measured from earth. (It will measure different values from other measuring locations.)

The 2.7K radiation as has been measured is thus not connected-with, or ***EVIDENCE-OF*** a non-existent Big Bang. The 2.7K radiation is "time slowed-down", but it is not Doppler shifted. There is NO expansion, and no expanding-expansion, either.

I now consider the 2.7K "black-body radiation" an ONGOING phenomenon. The 2.7K from all directions in this universe corresponds *roughly* to the roar of a nearby waterfall (like Niagara Falls). It never "fades out" and is continuous. It will not "cool-off" or reduce in temperature (change) over time. This is a RADICAL difference in interpretation of the true source of the 2.7K when compared to almost all conventional "big bang" theories.

(Other theories I have looked-at now also claim that the 2.7K is not evidence of the Big Bang, but is a simple accumulation of matter-energy interactions, re-radiating at a distance. However, those theories DID NOT have a good explanation for WHY the 2.7K is exactly the SAME from ALL directions.)

The C-R theory wants to tell you:

"Why a Gravitational Collapse for all matter in this Universe is not Possible."

Finally, I start MY OWN thinking in a non-Newtonian manner. Some of these ideas only occurred to me recently, after reflecting on the true nature of the C-R theory universe. Even Einstein missed some of the *true* significance of curvature because HIS own thinking was "too Newtonian"!!

The C-R theory uses the concept that gravity is actually more of an *effect*, or the *result* of the action of curvature upon matter. What this means is that the effect of gravity is caused by the action of curvature upon matter, NOT the other way around!! One of the most interesting consequences of this is that, once ALL real-time energy is removed from matter, gravity loses the further ability to attract matter, and to collapse it inwards. This makes a singularity ***impossible***!!!

Another surprising thing about this concept is that the universe becomes perfectly stable, **without** *needing* a cosmological constant!! This occurs because the matter at the outer edges of this universe IS ALREADY worth "lower-energy" than matter closer-in to the center. What this really means is that, IN ORDER TO BE ABLE TO COLLAPSE further inward, matter at the outer edges would have to ACQUIRE more energy (which it does not have, there, and cannot get, while it resides there).

Add a graphic or a link to one HERE!!

An experiment to test this requires that if one digs a shaft through the center of the earth, and drops a ball down the shaft, the ball will only **fall** to the MAXIMUM curvature, approximately 2886 km below the surface of the earth, at the mantle-core boundary. Further down the shaft, the ball would have to GAIN energy to fall closer to the center.

NOTE: The ball may acquire enough extra kinetic energy to temporarily fall-past the

"maximum-kinetic-energy" point, but even if so, cannot possibly pass a point further inward (closer-in to the center), where the potential {"real-time"} energy again equals that same energy originally possessed by the ball when it started falling from the surface. The ball will return-back to the MAXIMUM curvature location, which is also the minimum energy location. ***ADD NEW DIAGRAM HERE****

It should be noted that "acceleration" does not CONTINUE after the maximum curvature is reached!! Although, conventional theory would still describe the force of gravity measured in "lesser acceleration", energy must be ADDED to allow anything to "fall" further inwards (downward). Even if the falling object has excess kinetic energy, that energy gets traded back for "potential" energy, as the real-time rate of matter increases. Even falling from the surface of the earth, the object DOES NOT gain enough energy from falling to continue to drop clear towards the center of the earth!! The object will only have enough energy to "drop" to an area where the curvature (below the maximum curvature zone) equals the spot where the object started-from (at the surface of the earth) {an exception would be a rare case where the object was free-falling from above the earth's surface and continued falling down into a shaft from the surface}. Once the area of "equal curvature" is reached, that is where the object will again proceed to fall-up, to return to the area of maximum curvature, and re-surrender the potential energy again.

NOTE: The "acceleration" an object will experience falling when starting from the surface of the earth would be almost linear, down towards the area of maximum curvature. It will be far less extreme than the "standard-gravitational" inverse-square acceleration formulas would expect.

Remember that from the C-R theory, the "source" driving the acceleration is only the "increase" in gravitational curvature, not the Newtonian acceleration expected from the formula (based on observations of objects falling from an "empty" sky towards the earth's surface). If objects could be measured accelerating in a vacuum below the surface of the earth, the difference in the rate of acceleration-increase should be obvious. As far as I know, no such systemic measurements have been attempted over large distances underground, when the "falling" starts from below the earth's surface. Certainly if the acceleration rates could be measured for at least a kilometer or two straight-down under the surface, the apparent deviation from standard expectations should start-to become significant. Only the C-R theory would expect and predict this difference in acceleration.

Nature uses two different inverse square forces, gravity and electricity (electromagnetic energy) because using only one force would not work. The difference is with the behavior of the forces across and outside of the IB^3 Schwarzschild radius.

Whereas gravity (as curvature) does couple-out across the barrier, electrical information, like electrical charge, heat, light, and "inside information", does not couple-out across the gap.

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Exclusive to the C-R theory, covers new ideas not found in other theories.

Semi-New for 2008:

The **Completely-Recycling Theory**
(of the Entire Known Universe)

Chapter 8

Observing our universe - C-R Theory conclusions

(But:) Will they change YOUR perspective on the nature of our universe?

***YOUR* Conclusions: Will *YOU* now give the C-R theory *YOUR* Active Consideration?**

Here is another conclusion: a direct consequence of the nature of a Black-Hole $^{C\text{-}R}$ as described by the C-R theory. Using the C-R theory assumption B, we concluded that the Black-Hole $^{C\text{-}R}$ could not ever collapse into a singularity. This is due to the nature of gravity, which is an effect caused by curvature of the space-time fabric of the universe.

What happens inside the edge of the IB^3 Schwarzschild radius, (the **green** line) the boundary where the escape velocity equals or exceeds the speed of light? Because the time has been curved-down or reduced to zero in this zone, no further gravitational acceleration or potential energy decrease is possible.

There are two Schwarzschild radii drawn in this graphic. The light green (outer) radius is at the outside of the blue shaded area, the yellow (inner) radius is between the Neutral Zone $^{C\text{-}R}$ (blue shaded area) and the inside Active Zone $^{C\text{-}R}$.

There is no force, no interaction, and no "measurable" movement which can be realized or experienced by any real particles or energy. Therefore, we have concluded that this volume is a Neutral Zone [C-R]. All particle-to-particle interactions and particle-energy interactions will be impossible within this Neutral Zone [C-R]. No "speed-of-light" communication of any kind would be possible inside the Neutral Zone [C-R]. (see the blue area on the previous page)

Once matter and energy have been collapsed into this Neutral Zone [C-R], even the gravity which drove those particles forcibly into the Neutral Zone [C-R] can have no further effect. Since the energy is the minimum possible in this state of "existence", no further collapse is possible, either. This implies that there must exist an inner IB^3 Schwarzschild radius further inside, too.

See the Yellow line in the diagram on the previous page.

Because this matter-energy in the Neutral Zone [C-R] is already at it's minimum possible energy state, there is no "inward-force, crush or push" generated by **any** of the contents of the Neutral Zone [C-R]. Therefore, an inner IB^3 Schwarzschild radius must also exist. This inner IB^3 Schwarzschild radius must have been created at the time of the original collapse* of matter into a Black-Hole [C-R]. (*NOTE: The collapse to form the Black-Hole [C-R] itself, not to form a singularity.)

There must be an area of time-active matter and energy further inside every Black-Hole [C-R]. Additionally, there must be exactly enough matter inside, at a sufficient density to exactly close-up the Black-Hole [C-R], starting at the inner IB^3 Schwarzschild radius. This is NOT a coincidence!! Once the inner Active Zone [C-R] reaches ***exactly*** enough mass-energy to fully close-up, it will not acquire any additional mass from outside. All the EXTRA mass consumed now lodges and accumulates exclusively in the Neutral Zone [C-R].

The Neutral Zone [C-R], by itself, can therefore have any (and ALL) amount of extra mass, over the minimum-starting amount required to form the Active Zone [C-R]. In the very special case when a brand-new Black-Hole [C-R] has just formed, if there is no "extra" mass remaining inactive after the Active Zone [C-R] is closed-up (formed), then there is only one IB^3 Schwarzschild radius, and there is no Neutral Zone [C-R]. The inside of the Black-Hole [C-R] would be still be unable to contact the outside of the Black-Hole [C-R], and vice-versa.

Once any excess inactivated mass is trapped in the Neutral Zone [C-R], there will necessarily be both an inner and an outer IB^3 Schwarzschild radius.

Measured from the outside of the outer IB^3 Schwarzschild radius, measuring both the total volume and the total mass would yield the overall density of the *total* Black-Hole [C-R]. This information alone would never be sufficient to tell us what percentage of the mass was in the Active Zone [C-R] and how much of the total mass was trapped respectively in the Neutral Zone [C-R].

Therefore, the C-R theory has "modeled" (guessed?):

Inside Information:

The **C-R theory says: Every Black-Hole [C-R] has an *exactly critical* Active Zone [C-R] inside. The C-R theory has taken this clue directly from the appearance of ALL the visible portions of Our Universe.**

This inner-Active Zone [C-R] is always ***exactly*** critical. (This is not a coincidence.) The time will be fully slowed-down to zero as one reaches the outer boundaries of this inner-

Active Zone [C-R]. Events and objects nearer to the outer edge of this universe will appear to be interacting more slowly, dimmer, and slowed-down (red-shifted).

This also shows that at the exact center of every Black-Hole [C-R] (which is also the center of the encircling Active Zone [C-R], too), the total gravitational curvature must be at a minimum (zero with respect to the full contents of the Black-Hole [C-R]). If an external gravitational field also exists, one "adds-on" that extra gravitational curvature from outside the Black-Hole [C-R], to that curvature which starts from the center.)

Therefore, at the center of every Black-Hole [C-R] is always an Active Zone [C-R]. In this Active Zone [C-R], matter and energy are active, and can interact fully. The contents are not collapsed into a singularity, nor are they stopped in time [2]. The matter-energy contained inside the inner-Active Zone [C-R] normally remains unchanged by outside events, even if the matter in the Neutral Zone [C-R] or the outside-Active Zone [C-R] undergoes complete activation.

What if our entire universe exists inside a "universe-sized" Active Zone [C-R] of a Black-Hole [C-R]?

One should notice that, approaching the edges of the universe, objects would appear fainter and slower. There are three possible causes which can contribute to this appearance.

First: This could possibly occur because the speed-of-light limit might make the light from the events at that great of a distance take that long to reach the observer.

Second: This could also be due to the C-R theory's postulated properties of our universe that while nearing the edge of the universe, the objects would be in a greater "time-slowed-down" reference frame. This would give those objects the appearance of being dimmer and further away than they really were. Some of these objects would also appear to be ageing slower because they would exist in a much slower time-reference frame.

The objects at the outer edge of the universe would also appear to be substantially red-shifted. (Notice that some-of this red-shifted appearance could be partially due to the object receding at massive speeds.) There is a strong likelihood that ***ALL-of*** this red-shifting comes solely from the mass of the universe *warping time* to a "slowed-down" rate.

Third: Since conventional theories predict that the universe is expanding, and the outer-most objects are receding, the theory of relativity predicts that the objects will have their local time-frame slowed down by a fraction of v/c [3]. Because of this, conventional theories attribute the measured red-shift almost exclusively to the Doppler shift created-by the recessional velocity from the "supposed" expansion of the universe.

The measurable red-shift effect observed from possibilities two and three would be identical over a short period of time. Over many years or centuries, there should be detectable differences. If the red-shift is attributable only to a gravitational time-slow-down, there should be no variation (i.e., increase) in the red shift over time. If the red-shift is due exclusively to the accelerating expansion of the universe, and the tremendous recessional velocities encountered, then as the objects recede further, over billions of years, the rate of speed, and the amount of the Doppler-produced red shift should increase even more.

(This idea is now obsolete, due to a change in my thinking:) Since the fainter objects near the edge of the universe would also be ageing-slower, we could use them to demonstrate and display a view of the phases of progress of the universe from it's creation. The lesser White-Hole [C-R] phenomenon would appear in progression from quasars, Seyfert galaxies, galaxies, and normal clusters of stars. False: The universe has always existed,

and will always exist. It undergoes CONTINUOUS recycling, NOT a linear progression from a beginning, then moving in time from young to older.

If the red-shifting observed in distant objects is due to the local time-slowdown in those regions, and not to rapid motion away from us, there should be almost no difference in the background radiation levels from different directions. This would be due to the homogenous and symmetrical nature of the gravitational time slowdown. Any light observed should verify the fact that the red-shifted light from all different directions was produced from the same time-inactivating method from inside a CLOSED system.

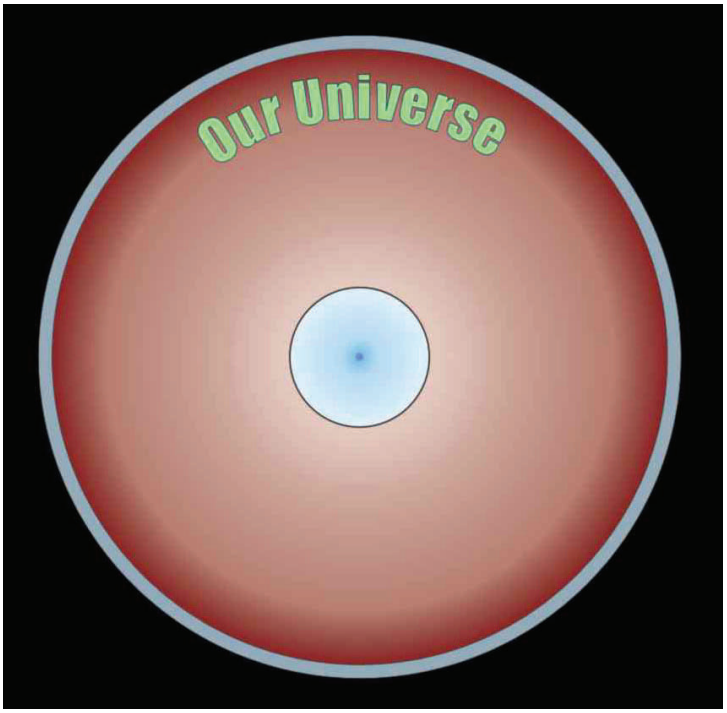
The C-R theory would predict that the light energy from these regions near the edge of the Universe would not be further frequency-shifted by the travel through the gravitational field. Rather, the local gravitational field would establish it's own reference frame as far as activation of matter-energy was concerned. By measuring this reference frame and comparing it to the spectral frequency produced in the far-off time-shifted regions, all far away regions having the same time slow-down there would produce the same frequency shifted spectra when observed here, on earth.

How to tell whether the universe is expanding or time-slowed-down.*
***(Only the C-R theory knows how to tell the difference, and what to look-for.)**

There is a simple test one can use to check whether the red-shift in the universe is caused by expansion, or by gravitational red-shift. If the red-shift is caused by expansion, everything should be red-shifted uniformly with increasing distance.

Only if the red-shift is caused by time slow-down, then there will be red-shifts (at a distance) equally in all directions outward from the center of the universe, but there will be blue-shifts for all objects located closer-in to the center. (The only exception is for an observer at that location, the exact center of the universe. In that case, both options would show only red-shifts. NOTE: We definitely DO NOT live in this last type-of situation.)

In earth's case, nature's answer is in plain sight. We observe both red-shifts increasing in all directions and we observe blue-shifts locally increasing in one direction. You can safely conclude, WITH CONFIDENCE, that we here on earth live in a NON-EXPANDING universe with GRAVITATIONALLY caused red-shifts and blue-shifts!!! (see diagram)



A New Light on an Old Question: Olbers' Paradox

Olbers' paradox resulted from asking a deceptively simple question asking: Why is the sky dark at night? The question was asked on the assumption: If the universe is infinitely old, and if there are infinitely many stars in the sky, the entire sky should be equally bright with light in every direction one looked.

Sunlight, and the continual progression of day and night tell us that the sky is less bright at night than during the day. Only the sun seems bright, and the billions and billions and billions of other stars cannot out-shine our one sun. Since the brightness at

night does not equal the brightness of day, some questions were raised about the nature of the universe.

At least one of three basic assumptions in the premise must be false, suggested by the simple fact that the sky is dark at night. Olbers himself speculated that the answer lay in the fact that there was obscuring dust in the universe, and that dust absorbed light. This was the reason he thought that the sky was dark at night.

Scientists soon realized: if there was dust absorbing light, or heat-and-energy from distant stars, this dust in turn would get hot, and then it would soon start to re-radiate the intercepted energy within a short time. Because the re-radiation only postponed the time before the universe became as bright as the sun in all directions, scientists concluded Olbers first guess was not the correct answer to his original question.

Scientists then concluded that the reason the sky is dark at night is that the universe is expanding. This answers Olbers question, somewhat. (And, is that answer really correct?)

The C-R theory has a different opinion on the standard (conventional theory) answer which could also be interpreted as correct.

First, C-R argues there are Black-Holes [C-R] in the universe. In fact, the universe itself may reside inside (and thus, be the inside of) a very large Black-Hole [C-R]. Some of these Black-Holes [C-R], if they are not surrounded by clouds of matter, may also be consuming or absorbing visible energy, as well as swallowing matter.

Next, from the C-R theory, the universe is more slowed-down, or time de-activated as one approaches the outer edges of the universe. The objects located closer to the edge of the universe should appear slower and dimmer, due to the time slow-down. This causes objects and events near the edge of the universe to appear to be red-shifted and dimmer than expected if they "clocked" at the same rate as here on earth. They will appear to be less energetic because they spend less of their existence in what we (on Earth) would call real time. The objects there may also be receding from Earth by an appreciable velocity [4].

By the C-R theory, using standard theory, we would have no quick way of knowing which of the two options (time slow-down or rapidly receding acceleration) caused the red-shift, or how much each part contributed to the total effect. We could suggest that we could devise a much simpler explanation by allowing the universe to exist inside of a completely closed, (C-R type-of) Black-Hole [C-R] than to attempt to describe our existence inside of a (non C-R) black hole singularity. If this is the case, there probably is 0 (zero, no, nothing, nada) recessional velocity, and 100% red-shift. {See the previous page, C-R does know*}

C-R theory Conclusion "B.B.B."

The Basic Properties of the Building Blocks of this Universe were not arbitrarily changed at any Beginning Big Bang Belch or Burp. (Hint: There was no Big Bang beginning to change the Basic Blocks)

No End: Insight

If an inner-Active Zone [C-R] exists, this implies that some portion of matter in this universe will always exist **in it's present configuration and state.** This matter will not be subjected to the universe-rending reactions or conditions thought to occur in the conventional Big Bang type of scenario. Importantly, this implies that the underlying laws

of physics of the universe cannot, and do not change arbitrarily with every Black-Hole [C-R] to Big Bang type event. This also implies that the (approximate) quantities and sub-atomic properties of the protons, neutrons, and electrons which exist now have ALWAYS existed. There never was a time when they did not exist, and there never will be a time when they do not exist. The C-R theory says there was NO type of Big Bang, thus: no mechanism, power or method left which will suffice to change any of the basic nature of protons, neutrons, electrons, neutrinos, or to change any of the laws of physics, conservation, momentum, ...etc, at each recycling.

OBSOLETE PORTIONS below

It is possible that the basic building blocks of matter-energy can sometimes undergo very violent changes, and some particles can be changed into other particles or into their mass-equivalent amount of energy in intense nuclear reactions. For the most part, our universe's matter which exists now has an infinite recycling lifetime. This matter may have changed states, it may have been recycled through some Black-Hole [C-R] events, and it may occasionally be reworked from time to time in high energy particle collisions.

Matters To Come

From the law of Conservation of Matter-Energy:

Our universe, as it exists now, did not have a specific beginning. Instead, the matter-energy which makes up our universe now has always existed. It never was created from nothing. It never will disappear, dilute or dissipate into nothing. Over time, portions of it will recycle. Some of the mass-particles may be changed to their energy-equivalent counterparts, and some energy will be reconvered back into particles. Literally, the contents of our universe must trace back from the everlasting past and they will remain substantially the same clear into the everlasting future; (not numerically expressible).

C-R also speculates that the ability of the universe to recycle itself is in no way random. There must be an intelligent Creator behind the design and the execution of recycling.

If the Universe was merely a random collection of miscellaneous (used or left-over?) parts then there would be an extremely small probability that the universe could organize itself into an infinitely recycling entity. There would be infinitely greater possibilities that even if the universe "accidentally" came together once, it would dissipate itself in a one shot deal, and dilute it's content of matter and energy into far-off infinity. Such a universe might well be hopelessly lost (for usefulness to us) forever, after one "brief" failed go-around.

The coincidence that we (as self-interested and somewhat knowledgeable observers) would be around during that "once in an infinity" event is asking too much of random probability.

Rather, there must be an intelligent Creator, designing and guiding the operations and events of this universe. This Creator must be as infinite and old (i.e., everlasting) as the matter-energy which comprises the universe.

Now I consider the following (red text) to be a WRONG IDEA: This Creator may be the direct cause of the accomplishment of the Big Bang. The Big Bang would represent the formal start of this "go-round" of the cycle of the Universe.

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Chapter 9

The C-R Theory: *Experiment* with it

A Different Kind-of Tunnelling: Through the Earth To China

Author's Note: This type of tunneling will be allowed by almost any current theory, but it probably cannot be done (affordably or technically well) in reality!!

Earlier in this web-site, the C-R theory predicted how gravity should behave differently than current theories would expect, and with a set-limit not predicted-by current theories. The C-R theory stated it is the curvature of space-time, and the subsequent "slowing-down" of the local real time that actually "provides" the energy-source to drive the force of gravity.

The energy derived is directly related to the energy difference in local time experienced by matter as compared to that same mass existing in free space, or non-curved space-time. The acceleration force experienced is therefore totally independent of the mass of the object, and is also independent of the density of the object.

The difference in time "lost" (on earth, normally an extremely small amount) multiplied by ($m\ c^2$) will give the exact value of the kinetic energy gained by the gravitational fall. In the same way, if the climb out of a gravitational field takes **X** amount of energy, the time gained could be figured out from the same formula.

Due to the nature of gravity which C-R has postulated, there should be an easily detectable difference in the behavior of the curvature-based gravitational field as predicted by the C-R theory vs. standard scientific theories.

This difference should be detectable on earth given special circumstances. Alternately, an experiment could or should easily be performed in outer space. The experiment would require a reasonably massive body: an asteroid, a moon, or some other object with a measurable gravity. The body must be solid, with a non-molten, non-crumbling interior. The only other requirement is that the density not quadruple (or more) with increasing depth from the surface. If it does, the experiment needs to start at or below the density increases. (If the density increases at a lesser rate than quadrupling, that would be OK.)

The complete experiment, with a tunnel drilled-through the center of the earth would never be performable on earth, due to the expected nature (high temperature and crushing pressure) of the earth's crust, mantle and core. The difficulty with drilling downward and maintaining a hollow shaft may never be suitably overcome on earth, since the great

pressure with the depth may cause the magma or mantle to "ooze" into any hollow shaft.

Consider the difficulty currently faced in exploring the ocean depths at "only" a few kilometers (or miles) down. (And, the ocean is composed of water, one of the lightest, least dense materials on earth.) Compare that situation to one which would be faced by a hollow shaft inside dense molten "rock", several hundred km or miles down, with temperatures there probably already over the melting point of almost any metal used in normal electronic test equipment. The pressures at a depth may become too great to allow the instruments to be placed in a probe, so that a gravitational measurement could be made, since the metal portion of the equipment would already be crushed or melted before the experiment could begin. Additionally, even with a near-perfect vacuum at earth's surface, the air pressure inside a hollow tunnel would increase to alarming levels as one went down even a few tens of km.

Will YOU fall for it?

Goal of the Experiment: Demonstrate that, even if given the ability and opportunity to free-fall, an object will only ***fall*** to the depth at which the gravitational curvature is the greatest. (on earth, about 2886 km below the surface, at the core-mantle boundary)

EXPLANATION: Since the earth's crust is much lighter in its density per volume than are the materials composing the core and mantle, the gravitational curvature of the earth from the surface down does actually increase slightly with depth [1], down to 2886 km below earth's surface. Remember that the density of the material of the mantle and the core is MORE THAN QUADRUPLE the density starting from the crust at the earth's surface.

Once the mantle-core boundary is reached, the density still increases from about 12 g/cm^3 to a little over 16 g/cm^3, but does not continue to quadruple with depth. Once this happens, even though the density increases, the gravitational curvature should decrease to ZERO at the center of the earth. There could possibly be at least two local maximum zones of curvature, one at the crust-mantle boundary, and another at the mantle-core boundary.

Once those boundaries have been crossed, the curvature should decrease until, at the center of the earth, the net-curvature would be minimum (zero from the combination of all earth's mass). At the exact center of the earth, the net curvature should be similar-to or nearly the same as the curvature at a point in space at the opposite end of earth's orbit, far away from the earth's gravitational influence. Only the remaining gravitational curvature contributions from the sun, the moon, other planets, and nearby stars will then be measured at the exact center of the earth.

The C-R theory predicts that a free-falling object should seek the place of maximum gravitational curvature, which would also be the location where it's mass possessed it's minimum potential energy from time (i.e., where it has the SLOWEST real-time-frame).

In the case of a tunnel through the earth (if one could really be built), the object would fall only to the point of maximum curvature. Conventional theory, using Newtonian-based reasoning, predicts that, because of the gravitons generated by matter, or because of the gravitational attraction, matter should continue to accelerate and fall all the way down the shaft, to the center of the earth, if a clear path existed.

The first local minimum energy point would be 2886 km below earth's surface. NOTICE: By the C-R theory only, the energy-worth of a mass at the earth's center is GREATER THAN the energy-worth of that same mass when it is at the surface of the earth!!! Therefore, no mass can fall past the minimum energy (maximum curvature) location. No other known

gravitational theory makes this prediction, that a dropped mass WILL NOT DROP ALL THE WAY DOWN from the surface, at the top of the shaft, to the center of the earth.

C-R's Tunnelling Experiment: Can Scientists or Readers Dig It?

Due to the expected difficulties in creating a clear, hollow tunnel through the earth, the experiment will have to be performed on a solid, non-dusty, non-crumbling, yet tunnel-able body such as an asteroid or a small moon. Our moon would suffice nicely. A small fairly solid asteroid might also be ideal, but the gravity there would be exceedingly small. Electrostatic attraction might well triumph over the meager gravity from a small, near-earth asteroid.

It may be possible to do this experiment from the surface of the moon, with an un-manned lunar-lander. It would be more noteworthy if humans performed the experiment, when or if humans again return to the moon. There is some question as to whether the moon has a small (75 km.) iron core at it's middle, or just denser rocks than at the surface. Due to the looseness and porosity (non-compacted) nature of the surface dust-soil on the moon, it may be necessary to start the experiment after clearing an area of the top 20-30 cm of soil. After that, the lunar soil should have a density approximately 1.5 g/cm^3. The moon's average density is about 3.4 g/cm^3. If there is no iron core at the moon's center, starting from about 150-50 km above the center, a "dropped" ball should not fall below the top of the hollow shaft. It should hug-the-wall of the shaft, and stay right there, at the top. If the C-R experiment passes the test there, there will be no need to dig a much more expensive, deeper shaft.

Although the experiment could dig through a smaller asteroid, the low mass of the asteroid may not sufficiently attract or hold even the heaviest* drilling equipment tightly enough to provide the torque to drill through asteroid materials. (An asteroid-girdling strap or belt might be required to press the drill down with enough contact-force.) Additionally, some asteroids are very loosely packed, and may have large, porous or hollow spaces.

Space payloads are notoriously stingy on allotted mass (heaviness). A kevlar-type strap wrapped-around the complete circumference of the small asteroid might have a lighter shipping-weight than a massive-weighted drilling platform. Additionally, only a few kg of downward drilling-pressure might exceed the escape velocity required to "launch" the drilling platform from a very small asteroid. This would greatly make drilling down WITH any-type-of PRESSURE difficult! A net-like belt might provide enough stability to allow a drilling-down, applying enough downward force without needing massive weights to provide the sufficient downward pressure to "counter" the drilling torque.

•

What's "UP", Doc [2]?

One of the most interesting predictions from the C-R theory would be the case in which a ball could be released in a hollow, vertical tunnel or shaft at some point below maximum gravitational curvature, and yet, still above the absolute center of the astronomical body. In this case, the C-R theory predicts that the ball would fall UPWARDS [3], towards the point of maximum gravitational curvature!

The C-R theory predicts that on our moon, unlike earth, the maximum curvature will be AT THE SURFACE. That means that, for a tunnel bored-down into and through the moon, a ball should NOT drop down, but hover-at or cling-to the side of the shaft at the surface, WHERE CURVATURE IS MAXIMUM. Since Earth science is not looking for, or expecting this type-of phenomenon, when it is found to be the case, scientists (except for those that READ and then actually BELIEVED the C-R theory) will be confounded and shocked!!!

ANECDOTAL EVIDENCE: I do not remember where I heard this, but I do recall one of the Apollo astronauts describing the trouble with moon-dust getting into everything. In retrospect (after NOT catching the significance at that time), I now realize that, Oh!, of course, because the static cling of the moon-dust will not have to contend with gravity, too. Since the gravitational attraction is already at a maximum at the moon's surface, unlike here on earth, the moon-dust there will not be dislodged as fully or as easily as we brush-off dust here on earth. REMEMBER: Here on earth, gravity STILL increases as one goes down into the earth from the surface. On the Moon, THAT will definitely NOT be the case!!!

In any other conventional theory of gravity, the Newtonian prediction would be that the ball dropped down a hollow shaft would fall towards the center of the body, until a place of no gravitational attraction existed. (Actually, the object might possess enough kinetic energy to oscillate about this location, until viscous damping from air took place or friction from hitting the tunnel walls stopped the motion.)

The C-R theory would state: The lower point in the shaft, under the MAXIMUM curvature spot, which is closer to the center of the astronomical body, represents a higher energy state. With the center possessing the least degree of gravitational curvature, the ball could not fall DOWNWARD, towards the center of the mass. This is because it's real-time energy (or time-frame) would be faster there, which is WHY the object would have to be WORTH more real-time energy there.

Conventional theories based on the Theory of Relativity maintain that there is no preferred reference frame, and therefore the same mass would always possess identical energy, no matter how much energy is added to lift that matter, wherever the energy went. If that was the case, the energy-accounting would be somehow left-up to the force of gravity to always supply or "make-up-for" the energy, and to account for the energy to "Conservation of Energy".

The C-R theory would predict that any mass will FALL towards a region of maximum gravitational curvature, even if that position is UPWARDS from the exact gravitational center of an object. This is because the C-R theory's explanation of the *nature* of gravity implies that it is the "curvature of the space-time fabric" of the universe, which slows down the locally felt "real-time", and then, this curvature is what actually ***causes*** the ***effect*** we know and sense as gravity.

In this particular case, imagine a spider web, sticky on both sides. It would keep the object "stuck" locally, and keep it from climbing up or dropping down. This would be similar to curvature "attracting" a mass only to the maximum curvature, minimum energy location.

This is the implication the C-R theory predicts if such a tunnel thru earth could actually be built: When attempting to approach the center of the earth, after passing the "maximum curvature spot" in the tunnel, one would need to start-to expend energy to "CLIMB" downwards, one would not just DROP. To climb further down would entail expending more energy, just as if the climb were uphill, as we now experience when we climb above the surface of the earth. The situation will be the same when "climbing" from greater curvature (at the surface) into lesser curvature (say, up to a mountain-top), as it would to "climb" from the greatest curvature (at the core-mantle boundary) to anywhere below this boundary, where the curvature is also lesser (or decreasing). This definitely differs from the standard type of Newtonian expectation.

There may be other, more practical ways in which to prove or disprove the Curvature Hypothesis on earth, but at the present time, the China Tunnel method seems to be the

only complete, true test. Unfortunately, the tendency of a real tunnel to collapse inward and/or deform or elasticly-ooze (from the heat and pressure) would preclude our performing a full magnitude test like this anywhere on earth within the foreseeable future. A suitable test in outer space could well take another score (20 years) or more before the budget, technology, and desire to affirm or refute the C-R theory are sufficient motivation to perform this test. Conventional theory would just dismiss the C-R theory idea as plain wrong, and "unworthy" of such an expensive and difficult test, and a waste-of the astronaut's limited time on a lunar surface.

Making Light of Differences in the expected spectra of C-R vs. Conventional Ideas

One possible area for further research would be the potential analysis of the spectrum released by novas, supernovas, and quasars. The C-R theory predicts that these events are ALL powered and accelerated by the push of all those ***excess positive charges*** repelling each other after they were released by the ex-Black-Hole [C-R]. Will there be a ***measurable-detectable*** difference from that type-of spectrum? There should also be a high level of multiple positive ionizations in the local spectrum generated by these events, especially when compared to the mostly-non-ionized spectrum predicted if the events were powered entirely by fusion, fission-aftermath or thermonuclear power.

If newly–fused radioactive elements then decayed into a more-complex array of longer half-life elements, then what quantity and proportion of highly unstable, short-lived radioactive elements (releasing heat and energy), rapidly decreasing in quantity from the time of the event, would we expect to see? Conventional theory expects some of the heat from the decay of these brief-life radioactive elements to be the sole source for powering the expansion and acceleration. NOTE: This fission-heated expansion should cool-off very quickly and cease accelerating as soon as the ionized-gas-matter expands, and not to continue expanding for thousands of years.

Two areas of concern for future testing would be the expected cooling rate, and the continuing acceleration rate. The continuing acceleration-expansion rate should be ***much*** higher for a C-R type "positive-ion repulsion-driven" expansion, as predicted by the C-R theory, than would be expected when any expansion was driven only by the left-over aftermath of high-temperature ejecta heated by the original supernova's release of fusion-radioactive fission energy. The fusion-powered expansion should rapidly cool-off as soon as the gasses expand and ions neutralize. The ions should also neutralize and dissipate quickly, as soon as the initial heating wears off.

In the "C-R type" release, this long and steady increasing expansion results from the positive charges continually pushing each other outward repulsively until **all**-of the positive ions can encounter enough electrons to be neutralized by becoming de-ionized. This neutralization might take hundreds, thousands, even millions of years, if one considers the head-start given to the self-repelling electrons, disbursed when the original matter was consumed by the Black-Holes [C-R].

A Deep Subject: All is Well

The C-R theory predicts a different nature of gravity. Consider how the earth's gravity behaves compared to the depth from the surface. Very few professional geologists or physicists APPRECIATE the significance of this FACT: The density of the earth MORE THAN QUADRUPLES with depth when compared to the density at the surface!!! At about the mantle-core boundary, approximately 2886 km below the surface, the earth's curvature is at it's maximum. Even though the density still increases moderately all the way down to the center of the earth, after the curvature peaks at the core-mantle boundary the density

increase no longer quadruples with depth.

When one considers the minimum-"gravitational energy" of any object, this should always be when and where the object is at MAXIMUM curvature. NOTE: On earth, the maximum curvature occurs at approximately the mantle-core boundary. From there, the earth's gravitational curvature then decreases (not quite linearly) to minimum (ZERO to anyone in "free-fall" at the center of the earth). NOTICE: AT THE EARTH'S CENTER, the gravitational curvature is minimum (ZERO contribution from all of earth's mass). WHAT THAT MEANS is that the potential energy of a mass at the center of the earth, measured by the real-time clock-rate, is even GREATER than the energy level of that exact-same mass when it is located AT THE EARTH'S SURFACE!

WHAT HAS BEEN MISSED, and what has been hidden in (almost) plain sight is that if a ball was to be dropped down a hollow shaft bored through the earth, IT WOULD ONLY FALL TO THE POINT OF ***MAXIMUM*** CURVATURE!! That place is approximately 2886 km below earth's surface.

If the dropped ball has enough kinetic energy, it may well sail past that maximum point, but it will immediately start-to lose some of that kinetic energy, slow down, DECELERATE, (and DEFINITELY NOT continue to accelerate) until it reverses its direction, and eventually return to that maximum point.

If you believe the ball will continue falling downward, and accelerate more until it reaches the center of the earth, YOUR thinking is TOO NEWTONIAN. The center of the earth is at an even higher energy level (real-time wise, it is more UPHILL) than the real-time energy level measured on the earth's surface.

Skeptics who do not believe ME are invited to check-out the table in the C.R.C. manual. There is a table in there showing the gravitational strength vs depth. (Of course, the table does not predict that the ball will only fall to maximum curvature. To the best of my knowledge, ***ONLY*** the C-R theory has noticed this, and made that *TESTABLE* claim, posted publicly, on-line, on the internet, with MY NAME attached to it.)

(Jerry Include web link to chart on pg 13 of a certain on-line pdf document)

s & p wave discontinuity at the core-mantle boundary

The seismic wave measurements have accurately shown that there are two boundary-layers on earth where both the s & p (shear and pressure were the original names) waves, generated by subterranean earthquakes, experience a maximum discontinuity. Are these seismic discontinuities influenced by the gravitational discontinuity, too? Of course, the propagation behavior of the seismic waves was used to estimate the position of, and the relative density around and at these discontinuities in the first place.

Is there any advantage to considering both the gravitational discontinuity and the seismic disturbance from the different densities? Certainly, conventional geology DID NOT anticipate or even consider a ***gravitational*** discontinuity originates at this junction also. In their Newtonian-way-of-thinking, no such gravitational discontinuity occurs there.

Both the s waves and the p waves may be helpful in analyzing the differences (if any), using the C-R theory logic. The s waves do not couple through liquid, and they do not travel through the upper core region. The p waves do couple through liquid.

(Will it fall?)

Here is another prediction which only the C-R theory will make. Any mass, after falling to the ground, i.e., the surface boundary of a solid object (planet, moon, or asteroid) with a uniform density, any piece of matter will be at it's lowest energy state on that surface, as

long as the density below that surface does not at least QUADRUPLE with depth.

If matter is indeed at it's lowest energy state, dropping a weight at the surface into a well, tunnel, or shaft dug or carved through the center of any solid object would not allow the weight to fall any further. This would be due to the fact that the gravitational curvature decreases or falls-off (value-wise) towards that center. The minimum energy, preferred location for the weight should be at the top of the shaft, resting on a side wall at the inside.

In fact, any mass (object) placed in ANY position and released mid-way in the tunnel or shaft of a planet, moon, or asteroid should be inclined to "fall" upwards from the center, back towards the surface. On earth, in our experience, this does not ever happen, but ONLY BECAUSE we have never gone deep enough, i.e., BELOW region with the maximum curvature. Our Newtonian-type thinking HAS BEEN FOOLED by the special nature of gravity here on earth (where the density MORE THAN QUADRUPLES with depth below the surface).

It may be possible to actually perform such an experiment in space sometime within the next few decades (still within MY lifetime?). The moon or a small asteroid with a large-enough, detectable gravitational field may be the most likely place in which to practically test this hypothesis.

Currently, almost ALL textbooks already state that gravity DOES (not just should) attract all matter to the exact center of the mass. Once it arrived at the exact center, any mass residing there would discover that all the matter uniformly surrounding itself was undetectable. Any mass at the center of such a body could not tell the difference, by ANY experiment, whether no additional mass was present, or if all of the mass in the universe was located symmetrically around that center.

However, the C-R theory maintains that, at the center of the earth, the mass there would actually have, and be worth more energy than the exact same mass possessed when it was at the surface of the earth. This "real-world accounting" for the energy-difference IS the reason that a mass cannot simply "fall to the center" of the earth, but MUST fall only to the place of MAXIMUM gravitational curvature. That location happens to be the mantle-core junction, or boundary, here on earth.

NOTE: Only the C-R theory bases it's real understanding of "How gravity works" on curvature of space-time. Therefore, only the C-R theory expects to detect a real difference.

Newtonian-based theories expect "Gravity" itself to supply this energy difference, based on summing-up the total effects of gravity by increasing the mass, and increasing the sum. While this "accounting trick" does work for a mass falling from above the surface of a larger mass, the results will fail badly when tried starting below the surface of the planet, moon, or asteroid.

The value of "g", the Gravitational "Constant?"

A very new idea (starting in 2008)

Interestingly, because the earth's density more-than-quadruples with depth, this also means that our calculation for the value of **g**, the gravitational "constant", is most certainly wrong, too. That is because the lesser density nearer the upper crust gives us the *FALSE* impression that we measure the *FULL* ACTUAL strength of the gravitational attraction here at earth's surface, based on the earth's TOTAL mass. Since we only experience a "diluted" gravitational attraction from the earth's full mass at the surface, the "real" value should be at least 30% higher.

If we would grind-up the planet earth, through a giant type-of sausage-grinder, until the entire earth was of a homogenous density, approximately 5.5 g/cm^3 everywhere throughout, we would then be able to measure the "**true**" value of **g** right from the surface.

My newest thinking (as of 2008) is that **g** as we know it, is actually a measure of the effectiveness, or the amount-of slow-down accomplished by curvature. It actually "kind-of measures" the "efficiency" of gravitational curvature in warping space-time. This efficiency amount WILL vary by location, in the universe, with **g** being greatest at the universe's center, at "The Great Attractor", than here on earth. The value will proportionally decrease as one travels further and further towards any outer edge. The "value" of **g** all the way out at the outer Schwarzschild radius WILL BE **ZERO,** with no further increase in slow-down measurable from that location!!! (The escape velocity at the Schwarzschild radius WILL ALREADY be the speed-of-light, so any increase WILL have no additional effect in increasing the time-slowdown, after real-time is ALREADY STOPPED to zero.)

LHC Experiments, the C-R view (new ideas) PASTE-in HERE.

Need Help with new terms? Click here to link-to the Extended Definitions Section.
Exclusive to the C-R theory, covers new ideas not found in other theories.

Semi-New for 2008:

The **Completely-Recycling Theory**
(of the Entire Known Universe)

Chapter 10
(Predictions from the C-R theory Ideas)

Predictions based from Ideas Suggested by the C-R Theory
(Move in predictions from other areas, Update regularly)
Helium compounds in space. Multiple ions. Helium ions, too. What to EXPECT!!

Jerry NUMBER the Predictions, PRIORITIZE, Most to Least, All Differences Expected!!

Main Predictions: Excess electrons from the vicinity of the sun. (found) If a Black-Hole $^{C-R}$ is operating at the center of our sun, there should be very few solar neutrinos from fusion. The main energy output from the sun would come from the consumption of mostly-hydrogen (matter) falling into the Black-Hole $^{C-R}$. There should be a left-over remnant of excess electrons not swallowed by the Black-Hole $^{C-R}$.

Second main prediction, behavior of objects in decreasing gravitational curvature. An object should only fall from an area of less intense curvature to more intense curvature, never the other way around. If the second way can be verified, it will also sound the death knell for the C-R theory.

In an anti-matter universe, the Black Hole $^{C-R}$ swallows the massive (—) negative charges of the nucleus (anti-protons and anti-neutrons) and spits out the positrons.

S & P, but not quite 500. Would the predicted behavior of the seismic propagation of the "s" and "p" waves from earthquakes be affected differently if the C-R theory's gravitational curvatures were accounted-for. Although geologists know of a discontinuity in the s & p waves (the Gutenberg discontinuity, named for Beno Gutenberg), earth scientists do not suspect that there might be a gravitational discontinuity there, at the core-mantle boundary, too. Conventional theory does not suspect that gravity will change characteristics there, with maximum curvature at this particular boundary.

With the conductivity of the earth's molten metal core, how would that affect the atmosphere electrically during a volcanic eruption? Could any of that earthquake-energy and thunderstorm activity be due to the C-R theory's penchant for ionic phenomenon? NOTE: I have considered, but rejected, so far, the idea that even at our earth's center, and it's tremendous heat-output, might also be due to a mini-Black-Hole $^{C-R}$. (Hint: That WOULD also account for the abundance of Earth's excess negative charges.)

A Gravitational field for a stationary object does not need to emit any electromagnetic-type energy to maintain a gravitational field. If this were not the case, then over a very long time, a single, lone, lump-of mass in the universe would eventually radiate away 100% of all of its "gravitational particle" source material. This would cause the

gravitational field strength to decrease in all directions with time. Since this is unlikely to happen, it is more reasonable to assume that a static gravitational field arises solely due to the static curvature of the space-time fabric. No new energy ever needs to be emitted or generated to cause this field to exist. Once at a certain strength, the gravitational energy will be at equilibrium, without any continuous energy input or output.

Lesser predictions: Stroboscopically chopped speed of light from distant and dim red-shifted sources, done in a good vacuum of space, might be able to measure less than 'c'. (Post-thought: too dim, with only occasional single photons only, not continuous sine waves**) See the WIRDARD principle in the appendix for the reasons why. Drawback, the dimmest quasars and galaxies, with the greatest red-shift might only be available with a few occasional photons, and not a steady stream of continuously measurable light waves. This presents a much more challenging speed measurement than I had been thinking of at the time I considered the WIRDARD principle. There are still many available quasars not red-shifted to the maximum which might be able to supply enough photons to "chop-up". Once done, compare the speed of these photons, still in the vacuum of space, with photons from nearby objects.
Problem— Way too dim for quasars, not continuous sine wave, but occasional photon packet. Testing this way may be more difficult. I was thinking more of continuous sine waves, not packets. This does not change the "speed-of-light in-a-vacuum" idea, just makes it even less practical to measure far-off brightness by chopping the photons.

Is this True, Can I measure it? May be best to leave it out for now, re-discover it later!!

Consider the heat output from the sun vs. human body, based on the energy output per unit of volume. Surprisingly, a mere HUMAN puts-out a MILLION times the energy output per volume than does the fusion-wimpy energy output from our sun. If the C-R type of Black-Hole $^{C-R}$ is what powers our sun, it's energy efficiency is around 80 times as efficient extracting energy from the potential energy possessed by mass.

Also, our sun may have a much more allowable dynamic range of energy-variation in it's output levels if a C-R type Black-Hole $^{C-R}$ powers our sun, rather than a fusion-powered central mass of glowing, compressed hydrogen inside our sun. If the sun's output power is actually changing over time, this greatly affects the assumption of only human-produced greenhouse gasses contributing their influence to the earth's warming.

Since our sun may be producing a huge excess of electrons, and outer space may have a greater flow of positive charges (from cosmic rays), can humanity harness and capture this electrical energy by exploiting the electrical-potential difference? Launch then set-up a large grid, divided into inter-connectable segments above and around the circumference of the earth, and intercept these currents. Specifically, the day night boundaries might produce considerable electrical potential difference, which could be coupled-down to earth. Rotate the sections at least 10-12 times per day-night, but keeping the junction at the day-night boundary as the earth rotates below.

Hint: The C-R theory says that it might just be the enormous currents from such an event, already captured by the giant planet Jupiter's magnetic field, which heats-up the moon Io so effectively. Of course, humanity might want to intercept these currents, and use them as a pollution free way to power industrial processes and appliances here on earth, and not just shunt them through our planet's metal core.

A NASA web-site claims they measured 400,000 volts across Io, from one side to the other, and they also measured a flux-tube with 5,000,000 Amps (at 6.02 10^{23} electrical charges per second for each Ampere of current) between Io and Jupiter.

Note: Maybe our earth's magnetic field already shunts some of this enormous energy through the poles, to both keep our planet's core molten, and to help energize the earth's magnetic field.

Warning: If we (humanity) are too successful harnessing this energy, could it cool-off our planet's molten core, and KILL our magnetic field, or strongly decrease it? Just one more thing to worry about a long time ahead from now.

Aurora measurements: A comment

NOTE: A web site (LINK TO-IT) announces that measurements suggest the Aurora Borealis consists of two sheets of electrical currents. From the day-side of the earth, through the poles, exiting on the night side of the earth, currents have been measured at over 1,000,000 amps (NOTE: each amp of current is 6.02 10^{23} electrons per second). These electrons must have enough excess energy to break through the earth's magnetosphere.

In 2008, Univ. of Utah astronomers announced that some high energy cosmic rays were traced to a specific supermassive Black-Hole [C-R] at location _____?

Ironically, a new C-R theory thought is that, as our sun's Black-Hole C-R consumes the heavier, more massive particles, our sun might well grow purer in it's hydrogen content, with lesser amounts of heavier impurities as our sun ages. This is 100% the opposite from conventional theories, where our sun should accumulate heavier helium (and later on, carbon, oxygen, nitrogen, and up…) as it's lifetime increases. **Duplicate**

A Shuttle Glow (moved towards the back, not the most important) The space shuttle has been found to glow somewhat from the exposure to the ions at the cruising altitude. May be due to excess electrical ions at this altitude. (Not just due to impact with stationary air molecules while the shuttle cruises by at 18,000 mph or _____ kph.

In July 2008, scientists announced that "earlier" galaxies were much more magnetic than conventional theory had imagined.

MORE???

LHC, what they will not find (any concrete evidence of particles that will clear-up the mysteries of the universe, as they now perceive it. The experimenters there will not achieve anything like the insights they expect. They might gain a few new exotic sub-atomic particles, at a billion or so per particle.

IS THIS a PHENOMENON or a PREDICTION? (Should I move it's chapter location?)

Io, a "Shorting" Story

Although NASA attributes the volcanic heat from Io to the continual gravitational tugs and bends from Jupiter, the C-R theory attributes at least some of this heat to a literal short-circuit. One NASA web site has attributed an accumulated electrical charge on Io at up to 400,000 volts across the front and back of the moon. They have also claimed to have

detected a current, as high as 3 million to 5 million amps, flowing between Jupiter and Io.

For anyone not remembering their high-school math formula, electrical power, in watts, is calculated by P=IE, or power equals the current multiplied by the amps.
400,000 x 5,000,000 = 2,000,000,000,000, or two trillion watts. This could tend to warm-up a small, conductive moon pretty nicely!!

New thought:
Electrical cosmos web site ideas are that some of the observed smaller stars may be too cool, and not nearly massive enough to utilize fusion energy. Although their bias was towards plasma-z-pinch, electrical-current driven energy as a stellar-energy source, the C-R theory type Black-Hole [C-R] driven energy source is also very effective at exploiting a useable energy output from star masses far too small to initiate fusion. Harvest their ideas for C-R theory reasoning. May provide a better "real-world" fit with all the known facts.
***From the Electric Universe theories or Plasma Cosmology web-sites

New idea:

Galaxy densities may not be very linear. Much more massive and dense at the center, with lighter densities out towards the outer arms. Until we can actually "detect and measure" these outer arms swirling around in real-time, we cannot know how fast they actually move.
NOTE: Just August, 2008, a new article about galaxy arm thickness related to Black-Hole [C-R] size appeared.

With a core supermassive Black-Hole [C-R] then 10,000 or more lesser-Black-Holes [C-R] circling in the central 3 light-years, then 100,000,000 some-stars, this provides considerable dynamic interactive possibilities just within each galaxy. The 10,000 lesser Black-Holes [C-R] may also act as a "feeding-filter" and "fueling-filter" preventing the central, supermassive Black-Hole [C-R] from feeding at all. This may account for the strange quiescence (silence, and absence of activity) that conventional theories cannot expect from a monster (conventional) black hole.
NOTE: The supermassive Black-Hole [C-R] should not be able to "eat" the 10,000 lesser Black-Holes [C-R] for much the same reason that an ice-cube already at absolute zero cannot "cool-down" another ice-cube also at absolute zero.

Look-for: Even the "Earliest" galaxies, by conventional "Big Bang based" reasoning seem to already have a relative mix of hydrogen and helium, with lighter elements, very similar to that of near-by stars, which are theoretically much more recent, or "older" in the evolutionary process.

Newly realized (2008) IRONY: The C-R theory suspects that our sun might actually grow purer in hydrogen-content over time, as the heavier, more massive elements, and helium are selected "BY MASS" for our sun's dining menu!!!

There are at least 4 known stars which DO NOT follow the H-R diagram, and have changed star-types noticeably within a human lifetime. One star, observed since 1895, has gone through virtually the full H-R diagram sequence chart, changing colors, temperatures, and magnitudes visibly in far less time than the H-R chart says is possible.
*** Jerry Please list those stars, and link to web-sites –as info sources.***
Those stars may belong to Wolf-Rayet type classification schemes.

In 2008, scientists measuring the vicinity of a nova were surprised that the dust-level expected in the nova aftermath was much smaller (almost un-measurable or non-existent) than they had expected.

If you can find the article, place it here.

Need Help with new terms? Click here to link-to the Extended Definitions Section.
Exclusive to the C-R theory, covers new ideas not found in other theories.

Semi-New for 2008:

The **Completely-Recycling Theory**
(of the Entire Known Universe)

Chapter 11
Wild Speculations from the C-R Theory

Lose this entire chapter? Is it still necessary? Move it to the very end? Speculations: Best Un-informed Guesses

What is the basis for this Speculation? The C-R theory Spin!!

Include my wildest ideas here, go out on a limb, literally.

If the C-R theory is correct, and highly energetic ions are constantly whizzing around in the confines of outer space, there should be some measurable events and compounds. While it would not necessarily invalidate the C-R theory if this prediction is not fulfilled, I would predict that helium compounds should be detectably abundant. I would base this conclusion on several observations:

First, next to hydrogen, helium is the next most abundant element in the universe.

Second, there is an incredible quantity-amount of ionizing energy available, meaning helium should be found in the ionized condition nearly as often as hydrogen.

Third, once the helium ion-atom has chemically bonded, general conditions in space will remain suitably near-vacuum and low temperature enough that some amounts of helium compounds should be able to accumulate.

Fourth, every so often, the helium should be displaced by almost any element or ion which is more electronegative. (Any ionized, non-inert element should do.)

Fifth, when this event occurs, there should be a spectroscopic emission detectable from this de-heliazation of a molecule.

Admittedly, helium compounds could occur even if the C-R theory is totally full of gas. I would regard the detection of abundant amounts of helium compounds as an offshoot from the C-R theory.

C-R Theory: The Next Generation— or: Mass Cooking to Feed the World **Probably an older idea, is it still valid? NO!!**

There has been speculation from conventional theories that the elements comprising our sun, as well as our beloved home planet, the earth, may be the result from the elementary particles left over from one or two generations of earlier novas or supernovas. If so then all of the heavier elements composing our solar system are here because of our sun being a

2nd or 3rd generation star. The C-R theory would allow this.

The reason for the speculation has been that, a first generation sun, after the Big-Bang, powered by the fusion of hydrogen into helium, would not have possessed the sufficient compliment of heavy elements to allow the earth to exist. Current theories suggest that a minimum of one nova/supernova from an earlier generation star, if not two, would be required to allow the nuclear material composing our sun to have achieved or accumulated sufficient elements heavier than helium to create a workable earth.

Leftovers, Again!?? (OBSOLETE), may extract and revise in some way to modernize.

The C-R theory certainly does not deny that this new generation requirement could have been the case. Here is an alternate, possibly less unlikely scenario. Consider the matter left over from the Active Zone [C-R] inside of the Black-Hole [C-R] which underwent the Big Bang. This undeterminably old, leftover matter would already be sufficiently enriched with heavy elements, that the planet earth could have already existed at the creation. (I point this out because it allows a scientific possibility that this could have been the case. Interestingly, the Bible claims that indeed, the earth did exist at the beginning of creation, and that the sun was created somewhat later. If anyone should KNOW the correct explanation, I would suspect that the Creator should [1].) **Should I move this to Ch 12? **

Broke Tomorrow

If the rest of the C-R theory has seemed improbable to you, here are two possibilities for what should well be the wildest possible speculations ever in print!

The C-R theory has concluded from observation, that our Universe exists entirely within an Active Zone [C-R] inside of a very large Black-Hole [C-R]. Let us raise this question; are we forever destined to remain trapped inside this infinitely recycling "inside of a Black-Hole [C-R]"? Will there come a time in the very distant future where our descendants will face the ultimate temptation to actively try to avoid or supersede this fate?

If This Universe Is Not Big Enough For All Of Us, Escape!!

Imagine our future progeny desiring to escape from the (up to 13-18 billion light years in diameter) confines of our "cramped" universe. At some far-distant time in their future, our species of humans may possess the knowledge, the ability, the foresight, and the desire to modify the basic nature of this universe.

Within a few 10-billions of years, our species may well be able to deliberately control and direct the motion of many solar and galactic masses outward in the universe. This would decrease the internal density of our Active Zone [C-R], and allow the outer boundary (the inner IB^3 Schwarzschild radius) of the universe to expand outward. If this technique could be done, there are two distinct possibilities:

A Cosmic Blunder: Scrambling the Cosmic Egg or **Do not Just Cry "Fowl"** and **[If We are not too Chicken to Try] Possibly Fouling Our Cage**

The first possibility is that our perfectly-recycling-universe could be deliberately and irreversibly expanded beyond a point of practical recoverability.

Could our species ultimate fate or destiny be: to forever ruin our universe's infinitely engineered lifetime? (No lifetime original warranty paperwork left to consult, either.)

Would our rulers, our dreamers, and our scientists of the far future be responsible enough,

capable of exercising due-caution, or wise enough about the foreseeable consequences of errors to gamble with the possibility of really and permanently messing-up everybody's forever.

From the C-R theory, most likely, the scenario above would suffice to trigger the release of some or all of the contents of our universe's Neutral Zone [C-R] inward. All of this pent-up energy, on a scale far beyond our imagining, might well sterilize the outermost portions of our universe, and could even wipe-out all lifeforms in earth's location (including us), or at least, make life uncomfortable for a few billion years.

Springing the Trap: Opening Our "Cage" Door

Creation or Evolution: Where's The Missing Link?
or: **Unlinking the "chain (of life)" until it's missing**

The second possibility is nearly as thought provoking. Could a natural reason for our species existence, whether from creation or evolution (or simultaneously both) be: Our species is the intended "tool" of the universe or nature or our Creator to allow the inside of our universe to be expanded-out-of {"HATCH?"} the Active Zone [C-R] Black-Hole [C-R] phase. This would allow humanity and civilization to progress further distance-wise, than could ever be the case while we were still "confined" in our 13-18 billion light-years wide "cage". We would no longer remain prisoners, trapped forever inside a closed universe caused by a Black-Hole [C-R]. BAD THOUGHT: Imagine young, ignorant children, leaving the intentional safe, protective environment established lovingly by their parents, and deliberately venturing forth into the wild unknown and facing un-anticipated dangers, without SUPERVISION or Oversight.

Is humanity the (un?)intentional and next-critical (missing) link in the chain of evolution for the progress of the universe?

Human-biological meddling with the universe's physics from the inside of our home Black-Hole [C-R] is a viable and simple alternative to the need for our universe to acquire or create some mysterious new cosmological forces. Compared to the need for the creation of a not-yet-existent fourth or fifth basic force, human interference with the natural working of any perfect, ecologically balanced system which humanity can gain access to is a known fact.

Could this option hint at a deliberate or guided plan to use humans to overcome a basic design (safety?) limit inherent in the present universe?

Could our children's children's.....children be the Creator's or the universe's own tool to escape the Black-Hole [C-R] trap (or play-pen?) in which we now seem to reside?

Express Your Opinion, Vote Now

In either of the above two cases, will humanity, or the leaders at that future time, possess the wisdom to select the proper choice? It is frightening to realize that: if it ***can*** be thought of, it may someday be able to be done [2]. All of these inventions speak of the modern ability to grant the wildest wishes and dreams of peoples in earlier times. Fortunately, neither choice is of imminent concern to humanity right now.

Observation: Starting Conditions
or**: Should We Just Start All Over? Not a Chance.**

Most conventional Big Bang theories suffer from an alarming condition: their predictions of the current basic properties of the universe are based almost exclusively on random

fluctuations or "chances" in the original starting conditions. If the original starting conditions are not exactly right, the predicted conditions we experience now are not very safe. Any small deviation in original starting density, temperature, cooling, compactness, or expansion tendencies could possibly drastically alter the current make-up of the universe.

The properties of the basic particles themselves are held hostage to those starting conditions emerging from the singularity at the Big Bang. Any small change at the start is predicted to alter any one or more of a number of factors.

Keep basic properties fixed. A constant universe

If the initial conditions of the big bang changed, would any of the above properties of matter return unchanged, i.e., be allowed to remain constant? Which properties would change at the whim of a small change in the matter/energy, density, angular spin, charge ratio or a random change invested into the starting conditions?

One of the most remarkable of all the predictions from the C-R theory is that the success of the C-R theory now IS NOT AT ALL DEPENDENT ON the starting conditions of the universe. The density, the amount of starting matter vs energy, the number of particles, and other 'conditions' do not affect the basic physics of the C-R theory. The explanation follows.

Basic Properties: To Stay Fixed is The Best Investment (OBSOLETE)

The biggest reason that the C-R theory does not care about the universe's initial starting conditions is that all of the basic parameters are fixed. All of the starting materials were established forever ago (and they always were that way.) None of the matter in this universe ORIGINATED at a Big Bang!!!

OLD IDEA At the Big Bang, the basic properties of the main particles never need to change, and have no easy (if any) way to change. Since some of these basic particles remain in their current [unchanging] state by residing-in the main Active Zone [C-R] throughout the Big Bang process, they retain ALL OF their current, fixed properties. In addition, any matter/energy trapped in a Neutral Zone [C-R], because it is already time-inactivated, does not undergo sufficient stress to change any of the subatomic properties there. The properties of the mass in the Neutral Zone [C-R] are already turned-off from ALL OF the standard energy and momentum changes common to all particle interactions in the real-world.

Revised Thinking: Because of these conditions, the C-R theory has no need for, and no way to change any of the basic properties of the universe. Even more significant, I now realize that gravitationally, the universe cannot collapse anyway. Matter at the outer edges of this universe IS ALREADY at it's lowest energy state. That matter there would HAVE TO GAIN ENERGY, which it DOES NOT HAVE, in order to collapse inward to here. This new concept is so "foreign" to our way-of thinking, to our "Newtonian-based reasoning", the concept *WILL* initially be rejected by almost all who read about it. At the present time, the concept is not easily testable from earth.

Another NEW idea is: Our universe IS designed to continuously recycle some matter and energy. The properties of the C-R theory type (brand name) Black-Holes [C-R] fit perfectly into our universe, exactly as would be needed. As the C-R theory now supposes, the effective lifetime of the particles in this universe is infinite. Even if some few zillions could be

annihilated and transferred into pure energy, some few zillion new others will be re-created when recycling the left-over energy. In this universe, the overall grand balance of ongoing cycles will remain constant.

That's Odd(s)

By the C-R theory, ALL of the entire contents of the universe do eventually recycle, just not simultaneously ALL AT ONCE. Each sub-cycle will be remarkably similar in appearance to a miniature Big Bang, even if some ongoing changes or trends do occur without ever needing a whole-initial Big Bang. There is no reason to expect the sub-cycle recycle #2 to be vastly different from #100 or from # googolplex (even if the # googolplex sub-cycle recycle took place long-long-long ago.)

The Matter of Choice

Because the C-R theory predicts that our universe reuses the basic matter in the universe to recycle over and over, both the matter and the universe have a vested interest in remaining the same. While the C-R theory may not be as esoterically stimulating and interesting as a dilemma of how the conventional theories state that all matter spontaneously occurs while starting from nothing at this one initial Big Bang, there is a comforting and intellectually profound simplicity to the prediction that the matter/energy which occupies this universe now has always occupied this universe, and always will occupy this universe. (Some matter may change from matter into energy, and some energy might be changed-back into matter, over time.)

Intellectuals may debate until (their perceived) doomsday whether it is more unreasonable to assume that all of the matter/energy which surrounds us happened "just this once by random chance", or whether this matter/energy in our universe has always been and will always be. Assessing the probabilities over an infinity of time, by the C-R theory way, the probability of a "forever-continuing-existence" is ALWAYS "one over one", which divides exactly into the ratio of 1 over 1. With the conventional theory, the probability over an infinity of time for any temporary, one-shot, singular Big Bang could be as low as a minimum of 1 over infinity. (But if We were here now, our existence, this once, would still seem to be 100% certain for us for right now.)

Possibly, with a favorable element of chance, the non C-R Big Bang method could have it's probability as high as infinity over infinity, but strictly in a betting sense, these statistical odds favor "the C-R theory-type existence" by a longshot.

A GUTS FEELING

Current theories depend on the assumption that this universe started from a singularity smaller than approx. 10^{-35} meters in width. Since all of the basic properties of the universe are held hostage by the "necessity" to emerge from this "minuscule-size-of-a-dimension", any potential theory is placed into a relativistically impossible straightjacket (by C-R theory's standards).

The C-R theory would predict, regardless how correct the conventional theory is in describing current reality, that the Big Bang theory must fall apart whenever the "wrong starting conditions" are imposed onto the unknown and unknowable past. By requiring our competing theories (The Big Bang) to account for creating starting conditions which the C-R theory never encounters, the comparative result of those limits placed-on the competition must be impossibly skewed in the C-R theory's favor.

A Shoehorn's No Help When Your "Shoes" are 10^{+47} Sizes Too Small **OBSOLETE NOW (This represented my ORIGINAL thinking, when I first came-up-with the C-R theory. I now regard the idea as obsolete. I did START-OUT thinking this way):**

As a realistic guess, the C-R theory originally supposed that the universe started out at no-less-than the size of 10^{+8} meters. This would be a minimum comfortable size for all of the matter in the universe to "snuggle-down" into quark-to-neutron sizes, with a full Active Zone $^{C\text{-}R}$ existing in the middle. Even at this "large" starting size, the inner Active Zone $^{C\text{-}R}$ may not be content to exist this small. A much larger Inner Active Zone $^{C\text{-}R}$ is a distinct possibility, although the actual size of the Inner Active Zone $^{C\text{-}R}$ will make very little change in the conditions encountered in the universe today.

Since the C-R theory is predominantly based on the discovery of the "recycling-process" pathway, there is little, if any fine tuning of fudge factors needed to make the process work. Just as a waterfall only needs water, height, and gravity, so the C-R theory only needs a Black-Hole $^{C\text{-}R}$ with some of the contents of the universe inactivated, a rather well-stocked Neutral Zone $^{C\text{-}R}$, an Active Zone $^{C\text{-}R}$ at the center, (which is mandatory for any and every C-R type Black-Hole $^{C\text{-}R}$, anyway), and any external triggering source.

With the above listed combination of ingredients, and a chain of events almost as simple as lighting the fuse to a stick of dynamite, the process is self-regulating. The triggering mechanism would be the hardest concept to iron out, but any external, orbiting gravitational body could qualify. (The bigger, the better)

A Recycling System: a very short Outline

The basic premises of the C-R theory would be that Black-Holes $^{C\text{-}R}$ exist. Matter can fall into Black-Holes $^{C\text{-}R}$. Black-Holes $^{C\text{-}R}$ can sort matter by mass; which also HINT, HINT, by default also sorts by electrical charge. Black-Holes $^{C\text{-}R}$ can inactivate the matter stored within, time frozen, in a Neutral Zone $^{C\text{-}R}$. What goes into the Black-Hole $^{C\text{-}R}$ can, and always eventually does come out, given the proper circumstances and plenty of time.

A Hydrological Cycle Model

While the overall package-of the C-R theory may be hard to believe, each of the individual steps seems somewhat realistic, with only slight expansions of known behavior! None are even fractionally as weird as some events and behaviors suggested or "needed" by competing theories. When viewed as a completely-packaged, recycling system, the C-R theory is only slightly more absurd than the "known-and-proven" hydrological cycle.

Let us suppose that the earth is 3 to 5 billion years old. Reason would suggest the hydrological cycle on earth could, on average, recycle most water molecules at a minimum of once a year for the entire suspected life of the planet. Current guesswork would suppose our planet's water molecules have survived through at least 2-4 billion years-of "water-recycling-reuses" using this scenario. (If it took a billion years to capture, free, or chemically make the majority of our planet's water.)

Theoretically, the likelihood of a simple molecular compound (i.e., water) arranging itself successfully for billions of recyclings must be seen as equally improbable when compared to a larger, older system where the contents of the entire universe have either "come-up-with", or been "designed-into" a similar type-of recycling system.

The fact that the first example's probability for water-molecule reuse, over billions of years is allowed to be near 100% should not obscure the fact that the second alternative example should be no more improbable.

Physically, we would be hard pressed to permit a "water-recycling process" to occur billions of times successfully in a sub-system, and then forbid matter/energy recycling from occurring in the full-universe system.

Our use of the hydrological cycle example does not imply that recycling ***must*** occur. We would be hard pressed to exclude total recycling as a possibility.

C-R: Not Constrained by *ANY* Starting Conditions of a Big Bang:

The C-R theory demonstrates why some of the initial conditions of the universe are independent from the basic properties of matter and energy. The C-R theory is no longer constrained by any of the starting conditions which might have begun at the beginning of the Big Bang. The C-R theory only needs to be consistent with the conditions which we now observe and ***know*** to ***exist*** today.

The embarrassing necessity to create a full-fledged universe from absolutely, or nearly nothing, is also eliminated. At least 90% of the current extrapolations which physicists, astronomers, and cosmologists spend 99+% of their time worrying about will be found to be useless. Like an engineer over-calculating pi to 60 decimal places to create a new mold for a rubber ball; the majority of current "high-density/high-temperature/early-time" research may be similarly "overcalculated" and underproductive.

If the matter in this universe ***never*** was subjected to conditions even remotely approaching the conditions in a beginning singularity, as speculated upon in current research; then almost the entire process and progress in that "Big Bang based research" represents a **complete** fabrication.

Our Competition is Whipped

Like the best laid-out plans for expansion/factory modernization of the turn of the last century buggy-whip manufacturers, almost all of the entire academic output of this generation of astronomers and cosmologists may have been wasted. The billions of dollars and thousands of man-hours invested in projects like the older SSC and now the newer LHC (large hadron collider) and other high-energy physics research, designed in part to give "insight" into the creation of the universe, may only produce a few new esoteric, sub-atomic particle names, which none of the general public will ever use, much less, remember. Given the limited-magnitude energy-increase of the range expansion of energy which these super-colliders can produce, over and above the current generation of colliders, is the expenditure worth, say, a billion dollars per new sub-atomic particle-type? (Note: This section written before my newest item: "A Bad Day at the LHC")

The C-R theory strongly hints that much of the current theoretical work in astronomy may be based on false assumptions, false impressions, and/or false guesses. Let us only hope that some of the current research will still be found useful, if the C-R theory does prove to be true.

Floating to the Maximum

It may be possible for over-stuffed Neutral Zones $^{C\text{-}R}$ of very old Black Holes $^{C\text{-}R}$ to "float", in a strange new use for that concept, to the outer edge, or the outer IB^3 Schwarzschild radius, and SPLAT, burst the Neutral Zone $^{C\text{-}R}$ contents. This could help explain why we see novas, supernovas, hypernovas, Seyfert galaxies, quasars, and GRB's (gamma ray bursts) from every direction.

The outer 1/5 of our universe is supposed to be mostly positively-ionized hydrogen. The net result would appear to be something similar-to my old screen-saver from the DOS

based PC Tools program called FoodFight!!

An expended Black-Hole [C-R] may literally "float" to this lowest energy region almost like a helium filled balloon (on earth) would float high up into the sky, then burst there.

Literally, this process where the Neutral Zones [C-R] contents go: "splat" against the outer Schwarzschild radius may contribute some portion of the overall 2.7K black-body radiation coming equally from all directions. All the same phenomenon occurring closer-in towards the center will also contribute some percentage. I do not know if we (humanity) will ever be able to distinguish and/or measure the relative contributions between the two choices, until we can send observers to many of the locations there, and allow the observers sufficient time to return their observations back to earth.

2.7K reasons to be thinking

In my new understanding, the 2.7K radiation that is measured as coming from everywhere in the universe may actually be more similar to the roar of a giant waterfall similar to Niagara Falls, than to the conventional explanation as the Doppler-shifted, red-shifted start of the big bang. The C-R theory will predict, with time, the 2.7K will not red-shift as observed from earth. Just wait 15 billion years, and the 2.7K that we measure now will still measure 2.7K then.

However, when observed from a quasar with a 90% complete red-shift, on earth, the 2.7K we measure here, will measure 27K at that quasar. From a quasar with a 95% complete red-shift, on earth our 2.7K here, to an observer there would measure the background radiation as 54K. The 95% of a complete red-shifted observer should see earth as 20 times blue-shifted.

Add any other speculations here, especially any outrageous ones.

Need Help with new terms? Click here to link-to the Extended Definitions Section.
Exclusive to the C-R theory, covers new ideas not found in other theories.

Semi-New for 2008:

The **Completely-Recycling Theory**
(of the Entire Known Universe)

Chapter 12

Biblical and Creationist possibilities

Interesting Links to Biblical References

One of the more interesting aspects of the C-R theory is that in some areas it allows the possibility of a scientifically accurate agreement with, and reconciliation between at least some Biblical accounts and verses concerning creation.

In Genesis the Bible states that in the beginning all was dark and formless (Genesis 1: 1+2). This concept would agree nicely with a state of energy inside any Neutral Zone [C-R] inside a Black-Hole [C-R]. At the next event (Genesis 1: 3-5), God said "Let there be light", and there was light. Considering the level and intensity of electromagnetic energy which might have been released at any of the events like a Nova, Supernova, Hypernova, Seyfert Galaxy, Quasar or GRB (Gamma ray burst) the simple statement, "Let there be light", would certainly represent a grand understatement.

A new thought added starting in 2006 is that our entire universe has always existed. What is new is the idea that since some "lesser" portions of the universe are always undergoing recycling. The beginning referred to in Genesis represents one of those cycles, where, at some time in the past, the sub-section of our universe containing the matter and energy that is NOW the sun, earth and moon is what was described as "beginning" in Genesis, but ***not*** everything in the entire universe.

Interestingly enough, the Bible has the waters and the sky created and separated on the second day, with land masses created separated from the waters, and appearing on the third day. The Bible waits until the fourth day until stars in the sky, as well as the Sun and Moon were created.

While the C-R theory itself does not have any data to make a scientific judgment as to whether the waters and the earth preceded the formation of the stars and our sun, it does have this one interesting bit of trivia (below) to add:

About The Time of Day

Based on the gravitationally slowed down time frame existing at various points in the universe, there would be an infinite number of places where any (earth-measured) length of time at the creation could be measured as taking exactly one day. Choosing the proper

time-frame in the universe would let us fine-tune the rate of time we see on our clock to whatever reference standard we wished; any multi-day event on Earth could be determined to be EXACTLY one day, or 24.0000000...000 hours, measured as precisely by an atomic clock, or a cesium maser, or any other advanced device. In this event, scientifically, the Bible and a modern scientific theory could be allowed to be mutually correct [1].

An Omnipresent Being, who could choose simultaneously from an infinite number of locations in this Universe to make His claims, observations or statements, could correctly state that ANY (prolonged) event in all of creation took exactly one earth-day, and the C-R theory would back up that statement scientifically.

(An aside, as I now perceive or understand it, to God, all events are simultaneous and "currently-ongoing". Although we have free will to choose, God already knows our choice, and it's results and consequences and "how-it-links" to every other event throughout history, before we make our "spontaneous" decision to start that course of action.)

On a Roll(up)

Another Biblical reference which appears to be allowably accurate would be Hebrews 1: 10-12. The verse states that the heavens and the Earth will wear out, and that God will "roll them up", and they will be changed. Allowing for modest improvement in our more technical language and mathematical understanding over the last 2000 years, the fold-up or roll-up of the universe would nicely match a pre-mathematical description of the consumption of "earth and vicinity" into a Black-Hole [C-R] then recycling and renewing the lot. There was no mention of the possible amount of "earth-time" needed to complete the cycle.

Also see Psalms 102:25-26

The Equal Time "Amendment"

There are several other verses, Psalm 90:4 being one of them, which state that (to God) 1000 years are like yesterday when it passes by, or like a watch in the night (a lesser period of time than one day..J.R.). Again, for an omnipresent Being who can reside in every (or many) location(s), all with different ongoing rates of real-time activity, this statement would be 100% scientifically correct.

God: From Everlasting to Everlasting

Again, there is another verse, the second half of Psalm 90:2 which states that "Even from everlasting to everlasting, Thou art God." The Lord exists from everlasting to everlasting; with no beginning and no end. This is about as complete a description of, and understanding-of, infinite time as would exist in ancient literature.

Do I wish to add anything (more) about the "Creator-aspect" of the universe's planning? Or move-in or duplicate ideas from other chapters? J.R.

Credit the version used with footnotes or bottom of page notes.

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Exclusive to the C-R theory, covers new ideas not found in other theories.

Semi-New for 2008:

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Chapter 13

Unlucky for Wormholes in the universe

Wormholes: No Explanation or

Wormholes, No!!

Definition of a wormhole (only as imagined by competing theories):

Some conventional theories maintain that a wormhole in space might represent a "tunnel" or a "bridge" from one part of this universe to some other part of this or some other universe. The wormhole is speculated to be in the path-of (or caused by) the collapse of matter into a singularity inside a (non C-R) black hole.

If the fabric of space-time could be stretched like taffy, or alternately like a small sub-section of a larger soap bubble, (roll-up a section of a sheet of soapy film into a tube), the tunnel or the tube-like structure created will attempt to reconnect to some other available surface-area. The analogy would specify a structure related to the same class of geometric structures something like a handle on a teacup. The handle technically is part of the teacup, but it would not be part of the main globe-like structure. (Still all speculation, too.)

Science fiction writers have used these "wormholes" (theorized to exist) as a convenient "short-cut [1]" across space and time. Presumably, what goes in at one end, into a black hole (non C-R), comes out of a linked (corresponding) "white-hole" type fountain at (some) the other end [2].

Some of the present theories of the Universe have suggested that wormholes present a possible solution to the contribution or participation of (non C-R) black holes in the order of things. For a wormhole to exist, one of the first things which must occur is that a singularity (or something very similar to one) must exist as the center of a conventional black hole. The C-R theory has already eliminated this from consideration, but other competing theories still declare the singularity as a viable alternative.

A Wormhole-causing Singularity is Strictly Imaginary

This singularity as a center of a collapsed (non C-R) black hole which has been postulated by other theories is purely imaginary. None exist for studying, no known laws apply to it, and imagination holds the key.

These competing theories claim that the "lawless [3]" singularities may create wormholes which possess the ability to pinch-off, stretch-out, or tunnel "down" into or through space-

time. This "pinching" or "stretching" would be similar to these analogies: a dull pencil-point stretching the surface of a balloon, blowing air through a straw onto a small sub-section of a large sheet of soapy-film, creating a partial soap-bubble, or like a sub-string or loop of taffy pulled out alongside-of a larger, main taffy pull.

From Theories Proposed By Grown, Educated Men:

In theory (not the C-R theory, however), this stretching or pulling of space-time into another dimension (not available for lab-study, either) might allow events, matter and energy, and whole areas of space-time to be reconnected both "elsewhere" and/or "elsewhen" (in another actual time?). There could be time-bridges or tunnels which would act as shortcuts [4] across vast distances in this universe, or even bridging across vast(er) regions in other universes.

Alternate universes: If you cannot explain ours, invent one/some you can explain

Science fiction writers and some physicists have been free to speculate that "parallel realities" or spinoffs abound. Each additional universe imagined could be either reassuring or frightening. Some may be made of matter, some of anti-matter. Some may be imagined to obey totally different rules of physics, and some could be imagined to hold alternate probabilities. Those alternate probabilities would be the: If only X, Y, and Z ... had happened, then ... would be the result. Unfortunately, there is vaguely a hint of testable reality in any wormhole, multiple universe, space-time shortcut type of scenario.

No Wormholes are Needed or Allowed

Fortunately, we need "stretch" your imagination no longer. The C-R theory suggests the much simpler answer: Wormholes in space do not exist. They never could exist, they never will exist, they never have existed.

A singularity, created during a gravitational collapse of matter, cannot occur either. Therefore, the wormholes, tunnels, and short-cuts [5] caused by the stretching of the laws of physics, are not necessary. (Sorry Sci-Fi writers.) This greatly simplifies the existence and the full understanding of our very own universe.

Burying the Idea of Wormholes Forever

In addition, the C-R theory claims that if wormholes did exist, they would cause serious imbalances at both the sending end, and the receiving end. These imbalances would create violations of conservation of energy, momentum, and probably every other conservation law which is still valid. If a massive singularity did pinch-off spacetime and magically transfer it's contents to somewhere and/or somewhen else, many localized violations of "conservation of energy-type events" would occur.

One probable violation would occur like this. Any objects left orbiting around the center of the mass of the (non C-R) black hole {resulting from a collapse of matter} would likely possess elliptical orbits. After the wormhole "tunneled-away" the entire contents, these masses would find their central-guiding gravitational fields gone [6] or substantially decreased.

Once the gravity decreased or disappeared, any orbiting masses would each be left with momentum in some random direction, and their angular momentum would be randomly re-established, or re-distributed, as well. In addition, some random amount of gravitational potential energy which the orbiting masses had exchanged for kinetic energy (orbital speed), would also vary randomly with respect only to the point in the orbit during which the collapse occurred and the central mass disappeared (or just lessened).

Notice that, because of the nature of gravity, the disappearance (or even the translocation or migration) of part of the mass which is the main source of a gravitational field would impart tremendous gravitational imbalances into any physical universe's system. Either any event which can cause these imbalances must be forbidden, or the laws of conservation of energy and momentum (which modern physics so patiently and proudly built-upon as their solid foundation) must give way to some random chaos as the ultimate force in nature.

A Singularity as a Multiple Headache for Conservation Laws

Additionally, as if the resulting violation of the law of conservation of matter-energy stated above were not enough, the collapsed matter-energy of the singularity would still remain as a problem-area to be dealt with. If this conventional black hole "collapsed matter and energy" were to be regurgitated-out of a white hole (and de-collapsed, from the collapsed-state too?), somewhere else in either our universe, or in some remote corner of some other universe, further random gravitational-energy-imbalances would be created locally there, also. If that is not enough, random gains or losses of angular momentum would also be experienced at both the receiving location, as well as the sending location.

Any matter residing in the vicinity of the wormhole's "matter-dump-off" exit-point would find itself suddenly residing in a greater gravitational curvature. The matter in the vicinity might be whipped-around (torqued) by angular momentum created from the seemingly random infusion of foreign matter into the universe.

To introduce additional difficulties, if wormholes really exist; would the "wormhole-ejected matter" slingshot-out or spew-violently out from the anti-wormhole/white hole, or would the regurgitated conventional black hole's matter gently float or ooze-out, dutifully mimicking whatever manner the original consumption of the incoming-source of the ejecta may have originally entered the conventional black hole at the swallowing-end?

Conceivably, if the universe was actively intelligent enough to exactly and perfectly balance-out all transfers of "matter-energy-momentum" and time-slowdown so that the exact rotational inertia, momentum and gravitational potential energy always could be accounted-for or exactly recreated, then this wormhole scenario or tunnelling example might stand up to scrutiny. If this was not the case, then either the entire scenario describing wormhole and "mega-distance trans-universe tunnelling" must be thrown out, or ***all*** of the most sacred conservation laws of physics must be thrown-away or rendered near-useless and non-dependable.

One can see that any viable alternative to the need for the creation-of or use-of the wormhole-singularity has many benefits for scientific society. The "order" can be restored back to the universe, and scientists can sleep better at night from not worrying about such ill-advised, random-outcome, "what-if?" scenarios.

While wormholes represent a very innovative and imaginative solution on the part of those who dreamed them up, there is not a possibility that this can occur unless conservation of energy, momentum, and rotational inertia can take "vacations" from their law-abiding natures. In the light of these conservation requirements, the C-R theory virtually ***demands*** that wormholes cannot occur.

Inhospitable "Travel" Conditions

Even if wormholes did occur, the perils resulting from them would present themselves as terribly insurmountable obstacles to the traveller. This would be unless you might enjoy

subjecting your entire anatomy into a situation roughly akin to combining the "personal pleasures" of a blast furnace, a garbage disposal, a diamond anvil (high pressure squeeze), a meat grinder, a pasta-press, and a particle disintegrator. If you personally enjoyed undergoing "spaghettification", or wished for your entire anatomy to be drawn-out thinner than a human hair while sacrificing your personal "travel comfort", then this potential travel-style might have it's appeal for you.

If the universe was infinitely more "non-Euclidian" than we have suspected, and any wormholes and/or tunnel-paths did exist between portions of the universe: would travellers not-likely take a longer and more certainly-known path through safe and dependable space and time rather than to be the very FIRST to gamble with their lives, betting that it was certain to be only a conventionally existing path, free from any of the possible wormhole perils. Furthermore, unless the universe was infinitely more nonsensical than the C-R theory has understood to date, wormholes will remain only as a figment of the imagination.

The C-R theory Alternative to using Wormholes: What GOOD are Black-Holes [C-R]?

Now that the C-R theory has fairly trashed the wormhole scenario, it should be fair to contrast the C-R theory view of matter swallowed into the Black-Hole [C-R].

First—only the protons and neutrons will be swallowed, most electrons will escape.

Second, the matter swallowed will reside in a Neutral Zone [C-R].

Third, external to the Black-Hole [C-R], the curvature will not be affected in any way, and gravity (outside the Black-Hole [C-R]) will be maintained with no "decrease in intensity".

Fourth, no indication will be felt outside the Black-Hole [C-R] of the electrical charges swallowed. This behavior of charged matter is 100% different from that of gravity.

Fifth, the Black-Hole [C-R] may be stable for years, eons, millions, or billions of years. There is rarely a quick recovery of the matter-energy swallowed. A timely (human-lifetime) result, is improbable, although it is not impossible if there is a sufficiently large external disturbance.

Sixth, eventually, the Neutral Zone [C-R] will become unstable enough that some external gravitational encounter or disturbance will liberate some, most, or all of the contents. Depending on the size, a nova or a supernova is possible. For a larger super-massive Black-Hole [C-R] of a "million-plus"-sun-mass size, it could ultimately become a source of an active galaxy, a Seyfert galaxy, a quasar, or a gamma ray burst.

ANY MORE ITEMS???

Place Chart here, For and Against Wormholes.

Include a Chart of Comparative Ridiculousness. Wormhole Edition.

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Chapter 14

The Obstacles and Objections faced by the C-R Theory before it is accepted into Scientific Theoryhood. (Not that YOU, the reader, will need this guide to help you find even more objections to the C-R Theory.) A Skeptic's Guide

First admission. The C-R theory is very dependent on the difference in the nature of gravity. If gravity does not behave substantially like the C-R theory predicted, the theory will totally collapse. Gravity must be the end result, or an "effect" from the action of Gravitational curvature, causing a de-activation of time. If gravity has any other cause, especially gravitons, then most of the benefits derived from the C-R theory way of understanding gravity will also collapse.

Second: If a singularity forms at the center of any (conventional) black hole, and no C-R type Black-Holes [C-R] exist, the C-R theory also becomes useless. The C-R theory demands that no Black-Holes [C-R] can form with a singularity inside. Every Black-Hole [C-R] must have an Active Zone [C-R] (like a place-holder) in the middle (just like a tootsie-pop has to have a tootsie-roll center to qualify). If any exception, anywhere, occurs, that will potentially result in the downfall of the C-R theory.

Third: If quantum-mechanical tunnelling of either particles or charges (or information about them) occurs from deep inside the conventional black hole, and is a major cause of electrical charge equalization between the inside [1] and the outside of a black hole, then the C-R theory will also fail. Electrical charges must be kept infinitely insulated inside a Black-Hole [C-R], or there are no potential long term benefits to the paths suggested by the C-R theory.

Fourth: The matter inside of the Neutral Zone [C-R] in a Black-Hole [C-R] must accumulate only in a time-inactivated mode while the Black-Hole [C-R] stores-up matter, energy, and excess positive charges. If this step does not occur, again, there would be no benefit to anyone using the C-R theory.

Fifth: Black-Holes [C-R] must obey the law of conservation of energy-mass. If this law is

allowed to be violated, the C-R theory may again possibly collapse, with the very pillar knocked out from under it's supporting column.

Sixth: The Neutral Zone [C-R] areas inside of Black-Holes [C-R] cannot obey the second "law?" of thermodynamics while they are acquiring and storing energy. In short, every Black-Hole's [C-R] Neutral Zone [C-R] MUST disobey (if not outright "violate"?) the second law [2] of thermodynamics when they are acquiring and consuming energy-mass.

Seventh: Once the entire Neutral Zone [C-R] inside a Black-Hole [C-R], or any part thereof is restored back into the real-time world, those contents freed from the Neutral Zone [C-R] must then again start to re-obey the second law of thermodynamics.

Eighth: By hypothesis, all of the contents of the Neutral Zone [C-R] in the Black-Hole [C-R] must eventually be restorable, or re-activatable, as the C-R theory predicts. {Not all of the contents need to be freed at each restoration event, each time.) All of the conservation of energy and momentum experiments and conclusions rest on the assumption that for a "before collapse" and "after collapse" scenario, each mass is equivalent to the other mass, and the before and after energies are equal in all external properties. Even so, there is no known or suggested pathway to make this so.
NOTE: This full-restorability of the consumed contents is what makes the C-R theory's "Brand-Name" Black-Hole's [C-R] so useful.

Ninth: There must be some external (or internally generated) influence sufficient to start-to trigger the contents from the Black-Hole's [C-R] Neutral Zone [C-R] into re-activation. This trigger will only be valid after ALL of the above conditions have happened, in the approximate order they were presented.

Tenth: Some present theories will undoubtedly disagree, and deny any or every one of the previous conditions. Some will state that the C-R theory is too tenuous. There are too many pillars it rests upon for the C-R theory to have any chance of success. Like Samson in the temple, push out any one pillar, and the entire structure will collapse. Only if all ten pillars remain standing, can the C-R theory fully succeed.

Eleventh (added 2008): If the Neutral Zone [C-R] of any Black-Hole [C-R] radiates radiation at ANY temperature whatsoever, the full, 100% thermodynamic efficiency of the Black-Hole [C-R] would be suspect. That type of Black-Hole [C-R] would probably not be suited for recycling use through all eternity.

Success over the competition

As the originator of the C-R theory, I have a suspicion that the C-R theory will succeed. When it comes to straightforward and rational explanations of the universe, and ease of agreement with the actual observations, I believe that the C-R theory easily outperforms all standard theories. As a human-being, I find the C-R theory to be much more "humanly understandable" than the competition, within very reasonable limits, and without needing many "improbable" coincidences.

The C-R theory has made some assumptions, all of which can be mentally compared with existing, known systems and natural processes. Nowhere does the C-R theory require the violating of conservation of energy, or does it ever require any condition depending on the behavior of incalculable infinities.

The C-R theory has a "real-world-fit" which agrees well with all known and observed phenomenon. As of this time, there are no events in the universe which I suspect would cause the invalidation of the theory. There are no events I need to cover-over, obscure, or

divert your (the C-R theory's reader's) attention from. There may be many events which neither help nor hurt the C-R theory, but there are no known events or phenomenon which flat-out contradict any C-R theory prediction or expectation.

Jerry Reynard
This section last modified on Aug 4, 2008

Need Help with new terms? Click here to link-to the Extended Definitions Section.
Exclusive to the C-R theory, covers new ideas not found in other theories.

Semi-New for 2008:

The **Completely-Recycling Theory**

(of the Entire Known Universe)

Appendix

(After-) Thought experiment file

First (after-)Thought Experiment:

If a Black-Hole $^{C\text{-}R}$ forms from a collapse of matter, gravity outside cannot just disappear.

Method: Imagine an outcome contrary to a prediction made by the C-R theory, and see if we can catch conservation of energy being violated.

Experiment: Imagine that gravity disappears when a Black-Hole $^{C\text{-}R}$ forms.

Goal: To demonstrate that Conservation of energy would be violated if the external gravity decreased, even slightly, when a Black-Hole $^{C\text{-}R}$ occurred.

For the purpose of this thought experiment, we will assume that a large mass, M, exists. It is similar to our sun, and ready for our use. All non essential planets, asteroids, dust and debris have been removed to a far away location, and they will play no part in this experiment.

We will assume that only a comet, C, orbits this mass. The comet will follow an asymmetrical elliptical orbit between points P (perihelion), nearest the sun-mass, and point A (aphelion), furthest from the sun-mass.

The gravitational attraction between these masses causes each to possess identical but opposite momentum, with respect to the center of mass of the system.

The speed of the comet C will vary from maximum to minimum, between point P to point A, as was pointed out in Newton's third law. As Johannes Keppler stated, the area swept out by the comet orbiting the mass will be constant with time. This will cause the comet to have greater speed nearer the mass, but spend lesser time there, and be physically much closer to the mass. When it recedes, the comet will travel slower, spend a longer time in that part of the orbit, and be much further from the mass. The speed of the comet and its distance from the mass will be cyclical, but could take on any value between the maximum and the minimum for a randomly chosen instant of time.

For most practical purposes, if M>>C, that is if mass M is much greater than mass C, M could be considered the center of mass for the system.

As a condition of the thought experiment, we will require that, at some random time, all of mass M collapses under it's own weight, and forms a Black-Hole $^{C\text{-}R}$. To simplify the experiment further, assume that any heat or other energy/mass involved in the gravitational collapse remains trapped inside the Black-Hole $^{C\text{-}R}$.

(How this is accomplished is of no particular concern for this thought experiment. We simply "imagine" that it is possible.)

The density of mass M will become so great at the collapse that the gravitational escape velocity from the mass M will exceed the speed of light. No known particles with mass can travel at this speed, and no known electromagnetic energy can exceed this speed. Because this is the case, as stated above in our original conditions for this thought experiment, let us suppose that external gravity disappears. If it does occur, will conservation of energy be violated?

After the collapse, and the subsequent disappearance of gravity, notice that the velocity of comet C will be random with time. This also will be the case with the comet's kinetic energy. We obtained these results since we specified that we would choose any random time in the orbital cycle of the comet, C, to start the collapse. The comet will now be free to travel in a straight line until or unless some other gravitational influence is once again felt.

After an unspecified, random amount of time after the gravitational collapse, let us restore the Black-Hole $^{C\text{-}R}$ system back to it's original state. We will do so using conservation of energy. We specified in our starting conditions that all of the original energy and mass was to be conserved inside the Black-Hole $^{C\text{-}R}$. (Again, how the Black-Hole $^{C\text{-}R}$ is to be restored is irrelevant to the experiment, we just require that it be restored).

Conservation of energy does not necessarily imply how, or even that we could restore the mass to it's previous state. There is nothing which would forbid it, either.

Once restored, we would find that the comet in our system had gained gravitational potential energy randomly, with time. If some other massive object had been in the vicinity, and caused the comet, C, to move in closer to the neighborhood of the Black-Hole $^{C\text{-}R}$, before we had restored the Black-Hole $^{C\text{-}R}$, our system could also have randomly lost gravitational potential energy.

Therefore, our conclusion must be: External gravity cannot disappear (or decrease) when a mass collapses to form a Black-Hole $^{C\text{-}R}$, without violating conservation of energy.

Implication: For the same reasons that gravity could not disappear, external gravity cannot decrease even slightly when a Black-Hole $^{C\text{-}R}$ forms. If it did, conservation of energy, and conservation of momentum would necessarily be violated at each instance.

(Another thought experiment to follow will also address this question, if gravity can

diminish partially when a Black-Hole [C-R] forms)

QUESTION: How does gravity emanate from a Black-Hole [C-R]?

Hint: This was my original question, and the original thought, that led-up to my deriving the complete C-R theory.

Consider these Possibilities:

1. GRAVITONS ARE IMMUNE TO GRAVITY!

If this is the case, then gravitons, the hypothetical particles of gravitational interaction, must carry or cause the gravitational force. These "particles" must be immune to the force of gravity, since they must not be affected in the least by a collapse into a conventional black hole.

If the gravitons were particle-wave combinations, or components of gravity waves, they could not red-shift at all in any gravitational fields. Otherwise, the strength of the resulting gravitational interaction would be decreased as the gravitons were increasingly red-shifted.

In order to escape from the conventional black hole's gravity undiminished, the gravitons would almost certainly have to be massless and momentumless. They would have to follow straight lines, and they could not bend due to exposure to a gravitational field, as would light (electromagnetic energy). {Given all of these pre-conditions, it is hard to see how gravitons that could still interact and be capable of causing gravity could exist at all.}

2. (Some) GRAVITONS TRAVEL FASTER THAN THE SPEED OF LIGHT (and thus some percentage of them would be free to escape from the conventional black hole).

Another possibility is that some gravitons could travel faster than the speed of light, and so are not slowed down by the escape velocity's speed-limit of the speed of light. If this was actually the case, consider this implication. For a sufficient density of mass inside the conventional black hole, especially a point-like singularity, a suitable accumulation of mass might still occur to force the escape velocity required to exit from a more-massive black hole to rise above some multiples of the speed-of-light. This "faster-than-the-speed-of-light" escape velocity should rise above the speed of at least some of the gravitons as the black hole's mass increased. This would mean that the strength of gravity outside the conventional black hole would decrease, and again, conservation of energy would still be partially violated. (but not as much as if gravity completely disappeared)

This case would also seem to violate the theory of relativity. How could these graviton "particles" travel faster than the speed of light, but yet still interact normally and effectively with regular matter? Note: Conventional photons can be collided at any angle, as often as possible, with no apparent interaction. This is true even if the same light beam, fully phase compatible, is used upon itself.

3. GRAVITONS COULD USE A METHOD OF "TUNNELLING"

Gravitons could tunnel-out from the singularity, across the "forbidden" area, that wide gap between the singularity and the Schwarzschild radius. Current theories would probably select this alternative. There are still many potential violations of conservation of energy which would occur, and I will be glad to touch on them briefly.

Assume that gravitons were permitted to tunnel directly out from the singularity. Because they would emerge sporadically at different random distances outside of the Schwarzschild radius, the gravitons would necessarily have different (lesser) energies than

they would have possessed without encountering that forbidden zone. Some large percentage of the swarm of gravitons would definitely fail to couple-out, and be unable to travel through this "forbidden area" across macroscopic distances. Some gravity might emerge from this type of a conventional black hole, but anything less than a 100% full tunnelling efficiency would still seem to violate conservation of energy.

An alternate assumption on tunnelling is even more potentially ridiculous. This would require that the gravitons would be spontaneously created in equal and opposite pairs, somewhere outside the Schwarzschild radius, in a method similar to Hawking radiation. Within the time, energy, and momentum limits established by the Heisenberg uncertainty principle, this pair of gravitons would still need to be created from absolutely nothing. To avoid diminishing the gravitational field around the black hole, exactly the right number of gravitons would need to be created. From this "exact-matching" amount of gravitons, exactly the right amount must then randomly tunnel back into the conventional black hole to annihilate their matching partners inside the black hole, and vanish back into nothingness [1]. The remaining graviton from that pair would appear to have been selected to "emerge" from the conventional black hole in undiminished numbers.

Even if this "tunnelling" scenario is the correct answer, there is a question whether the gravitons "mass-energies" or "properties" would continue to red-shift as they emerged from the vicinity of the black hole. If the gravitons could tunnel, and did tunnel through, emerging outside at a random height above the Schwarzschild radius, would this allow conservation of energy to be upheld? Or would the random height emergence area introduce "Uncertainties" into the gravitational strength again.

The C-R theory would make the following suggestion, which should simplify matters greatly:

4. GRAVITONS ARE NON-EXISTENT
(Conclusion (in this case only): The C-R theory MUST BE true!)

If gravitons are non-existent, then the ***effect*** of gravity would be a result solely from the (geo)metric-like influence of the gravitational curvature upon matter-energy "carrying-capacity" of matter-energy at resonance by "warping" of space-time. (Hint: Think of increasing the size of the path the same energy resonates at, effectively slowing down the local time measured by the mass if observed by an external observer.)

Gravity would not depend at all upon the interchange of particles, as would an actual force. This implies that the curvature of space-time "supersedes" or overcomes the speed-of-light-limited escape-velocity established at the IB^3 Schwarzschild radius. As a property derived-from warped space-time, gravity would require neither mass nor momentum interchanges to make itself felt. There would be no "continuous expenditure" of electromagnetic energy necessary to continually make the presence of gravity felt outside the Black-Hole $^{C\text{-}R}$. (Think: The SHAPE stays the same without needing more energy.)

Gravity itself would not curve under the influence of a mass, whether passing through the mass, or passing near it. The external gravitational curvature of space-time would be identical at a larger distance for both a collapsed mass, and for an uncollapsed mass. This would hold true even if we took a central mass, and measured the gravitational curvature at a distance, both before and after we forced the mass to collapse. From any distance outside the Schwarzschild radius of the Black-Hole $^{C\text{-}R}$, there would be no detectable difference in the shape of the curvature, if this is indeed the case.

Notice the simplifications inherent from using the C-R theory:

External Gravity does not decrease at all when a Black-Hole [C-R] forms.

- No new forces need to await discovery.
- Conservation of energy still reigns supreme.
- A singularity, -a physicists nightmare-, is not needed.
- Tunnelling, with it's dependence on provident probability is not needed.
- All of the incongruities, improbabilities, and inefficiencies of tunnelling are also done away with.
- A Black-Hole [C-R] becomes "Humanly understandable" (Nature did not have to be so nice to us humans.)
- Gravity becomes the "end-effect" observed, not the underlying cause, of planetary motion and everyday falling down. (The curvature IS the CAUSE!!!)
- Multi-Universe, wormhole-bridges caused by (conventional) black hole singularities are not possible, and are not needed. (WHEW!)
- Almost all of the Red-shifting we observe in the universe has an alternate, gravitationally-based explanation.
- Time-inactivation of electrical charges, and mass-sifting by Black-Holes [C-R] become real, viable concepts.

IMPORTANT IMPLICATION:

Since the C-R theory has hypothesized that gravitational curvature can emanate from a Black-Hole [C-R] to influence masses outside (and therefore, CAUSE the EFFECT of gravity) the IB^3 Schwarzschild radius, this implies that masses outside the IB^3 Schwarzschild radius can create conditions of "tidal shifting" to influence the inactivated masses while they are still inside the Black-Hole [C-R]. If the curvature inside any portion of the Neutral Zone [C-R] locally can go below "c" again, this can start-to lead to re-activation of the mass and energy trapped within the IB^3 Schwarzschild radius, in the volume in space that the C-R theory would call the Neutral Zone [C-R].

Lesser Implication:

If our universe is entirely within the inside region [the Inner Active Zone [C-R]] of a Black-Hole [C-R], the gravitational influence from the matter in this universe will be felt outside the boundaries (Schwarzschild radius) of this universe.

Just in case the above examples of our thought-experiments were not enough to convince you that gravitational particles, or gravitons, do not exist, let us consider this next question.

QUESTION: Could gravity be caused by gravitons?

Assume again that gravity is caused by the interchange of hypothetical particles called gravitons.

OBJECTIVE: Demonstrate that this interchange of gravitational particles again will seem to result in violations of conservation of energy. We will do this by demonstrating that, if matter is indeed influenced by gravitational particles, then, even under normal orbital conditions, gravity should decrease, due to a gravitational shadowing effect. This shadowing effect would violate conservation of energy.

Thought Experiment: IMAGINE THAT GRAVITONS BEHAVE LIKE PHOTONS (and are limited to speed-of-light ONLY interactions)

(for descriptive purposes only)

To better visualize how this partial gravitational influence might be encountered, let us describe gravity and gravitational interaction in terms of light, so that:

Brilliance of light = gravitational attraction = (emission of gravitons)
Decreasing Transparency = Increasing Density and Mass

In this thought experiment, we will specify one sun, one earth and one moon. Each will be partially luminous, to simulate their "output" of gravitons, and each will also be partially opaque, to indicate their "capturing-of" or their "reception-of" gravitons. We would then have the following description of the system.

In this imaginary system, the moon orbits the earth, and the earth-moon pair orbits the sun. Since glow will simulate gravity emitted, we could describe this sun as glowing brighter than this earth, and this earth as glowing brighter than the moon.

In addition, the moon would be more transparent than the earth, and the earth would be more transparent than the sun. This would simulate the increasing "interception" of gravity, with an increase of both the density and mass from the moon, to the earth then to the sun in our imaginary example.

In this example, the light (gravitational brightness) from the sun would "attract" the earth and the moon (simulating the pull of gravity). The earth would glow less brilliantly than the sun, but still brighter than the moon. The moon would be attracted to both the earth and the sun, but would orbit the earth. The earth-moon pair would then orbit the sun together.

In this example, the moon would spend more time in the earth's shadow, and the earth's shadow would be comparatively darker than the moon's shadow. Since the moon would be attracted to the sun only by the light from the sun, and the light emitted by the earth with the sun shining through the less transparent earth would be less than the light emitted by the sun directly, the moon should gain some small amount of orbital distance from the sun every time the moon "hid" in the earth's shadow.

This gain of gravitational energy, simulated in this example with light and transparency, {for visual purposes only}, would violate conservation of energy. If gravitons exist, they must self-contradictingly pass through nearer masses unaffected, so as not to decrease gravity for masses at a further distance, while still interacting with those closer masses at the same time.

Otherwise, we are left with the choice that masses at a distance will randomly gain some gravitational potential energy depending on whether randomly distributed nearer masses create a gravitational "shadow" effect. We are once again led to the conclusion that gravitons, if they exist, must create smaller violations of conservation of energy. This is hardly a reliable theoretical endorsement of gravitons, when conservation of energy must fall by the wayside in order to allow gravitons to exist. A much more logical conclusion is again, gravitons do not exist, and cannot exist. Some other method of explaining gravitational interactions must be needed.

(How convenient of the C-R theory to come along and do just that for us.) See C-R theory assumption A, in chapter 1.

Another Thought Experiment on the Nature of Gravity

Assume that all of the mass in the entire universe is concentrated in one bundle.

Leave this bundle of mass to sit by itself for a very long time.

Imagine the differences which would occur when gravity was caused by gravitons, and when gravity was caused entirely by the curvature of space-time.

If the force of gravity was caused by gravitons, then we would have this entire mass of the universe (our given starting condition for this thought experiment) emitting gravitons, and receiving-back none or very few in return. If this is to be the case, then at some point, we would eventually expect the number of gravitons emitted by the mass over-time to decrease to some level to less than half of the original starting graviton output.

If we were to arrange for a smaller mass to be brought into the universe at this time (How we could do this would not be of great concern, just imagine that this was possible.), we would notice that the gravitational output from the main mass would be less than we would expect.

We would notice that the newly introduced mass would attract the older, gravitoned-out mass with more intensity than the depleted-mass attracted the freshly-introduced (graviton rich) mass. If this was the case, then both conservation of energy and conservation of momentum would be violated.

On the other hand, if all of the mass in the entire universe were packed into a singular mass, and that mass obeyed the C-R theory, this contradiction would never arise. Since the gravitational field would be created strictly by the shape-of the curvature of space-time, and this steady curvature would require no constant replenishment of energy, the gravitational field would retain it's intensity clear to infinity, with no apparent contradiction.

Just in case there would be those who would claim that spontaneous creation of virtual particles, especially gravitons would solve this dilemma, let us consider this.

The creation of spontaneous particles (supposedly allowed within the time-energy or momentum-position limits set by the Heisenberg Uncertainty Principle, would possibly create gravitons. If the virtual particles were created, then we would expect the most spontaneous creation to occur near the highest energy, or highest curvature parts of the universe. Since only the gravitons created outside of the singular mass would aid in reducing the overall deficit in graviton emission, we would expect some gravitons to be created, in pairs, near the outer edges. Even though some of the gravitons could find their way back into the singular mass, to ease it's chronic deficit of gravitons, there would then be extra gravitons left outside of the mass, chasing after other emitted gravitons. The allowable uncertainty in the time/energy parameters is unlikely to allow any virtual pairs of gravitons emitted-temporarily to help ease the overall situation.

From an external point of view, we would find that the number of gravitons emitted by the central mass was greater than the number of gravitons received-back, and something would have to come from nothing on a consistent (regular) basis for this to occur. If this was the case, then we would expect conservation of energy to be violated again.

Therefore, we have concluded that the creation of additional “virtual” graviton particles outside the mass would not aid the overall situation. There might be more gravitons apparently emitted which would be detectable at a point far away, but the imbalance between gravitons emitted and gravitons received between the small-graviton rich mass and the large-depleted mass could be substantial over the length of time this experiment could run.

(Consider an experiment with all the mass in the universe concentrated into two lumps. One lump would be a billion times as massive as the second lump. Separate these lumps by

the diameter of the universe, one at each edge. Leave the masses alone for billions of years. Eventually, bring the small mass near the larger mass at a rapid speed. The larger mass should be proportionally more "gravitoned-out" or "gravitonally-depleted" as compared to the smaller mass.) The gravitons emitted by the smaller mass should be more plentiful or energetic than those emitted by the larger mass. If so, at least for a while, conservation of energy should be violated. At least, the mutual symmetry of gravity would be highly suspect.

Gravity kind-of works like seniority, no time, no pull.

(Moved in to the Appendix from Ch 1.)

The Space-time Curvature-to R-C or R-L Circuit analogy

If we could view space-time from an external frame of reference, we might notice a similarity to the description of a Real(-time) current vs. Imaginary current in an electrical circuit composed of a pure resistance and a pure impedance, either inductance or capacitance.

Using inductance in this example.

Let us imagine a situation using the above mentioned electrical circuit, with an inductance. Consider a diagram plotting the instantaneous phase angle of either the electrical field potential or of the current flow, once a voltage is applied.

Conventional wisdom requires that, to understand this type of a circuit, an "imaginary" voltage and an "imaginary" current must be used to keep track of the phase angle in the inductive portion of the circuit. These "imaginary" currents really exist, but they are out of phase with the "true" (RMS) voltage and current which appear across the resistance. In mathematics, the contribution to the voltage and current flow is tracked using the letter "I" (or sometimes, "j"), as a symbol representing the phase by the value of the square root of -1.

If the inductance, measured in ohms, vastly exceeded the resistance, also measured in ohms, the phase angle of the current and voltage flowing in the circuit would approach 90^{o}. The "power" flowing through the circuit would be largely "imaginary", as the real power and current flow through the resistor would be minuscule, as compared to the total current flowing in the circuit.

Using *(*the square*) root* [-1]

In a similar way, we now can imagine a space-time vs. gravitational curvature plot drawn as a phase-angle diagram between Real-time and Imaginary-time. At normal, everyday gravitational levels, the phase angle of the curvature would be so small as to be immeasurable by any practical means. As the gravitational field intensified, the phase angle of the diagram would start to become noticeable on our chart.

One could easily and instantly see that, the plot of the amount of the curvature of space-time at the IB^3 Schwarzschild radius would arrive at a 90 degree phase angle as the escape

velocity equaled the speed-of-light. The real-time would equal zero (0), and all "time" in this situation would be imaginary for matter stuck in this region (The Neutral Zone [C-R]).

Example, imagine a photon-wave of light bent around-over into a confined-circle, perpendicular to every direction we could measure or know. In this case, even though the photon (to itself) was "travelling-or-resonating" at the speed of light, the photon, to us, on the outside, not only does not actually travel anywhere, but we cannot even see it's light or it's energy. It essentially "self-resonates" in "an-orbit-to-nowhere". It cannot travel from any point A to any point B (by our external observer's method of measuring elapsed time, using light-speed and distance travelled.)

Consider adding in the new thought experiment about gravity at earth's maximum curvature spot, and how to perform the thought experiment to disprove standard thinking.

Are there other experiments needed, but not wanted in the main text body. Should more of the distracting things from Ch 1 be moved here, too?

Do I want to calculate the approximate number of electrons released by the sun's Black-Hole [C-R]?

Endnotes from Book text.

Entirely New for 2008:
The **Completely-Recycling Theory**

Derived and Extracted from
The **Comedy-Recycling Theory**

International Readers: This is the ***Completely-Recycling Theory*** of the Entire Known Universe. Now available on-line—Is now on-line, May 2008.

Written by - ***Jerry A. Reynard***

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"Theory-hood". Can YOU believe it?

Appendix: (After-)Thought Experiment File
List:

Web-Links: Useful, helpful, or sources of some info I used.
For or Against the C-R ideas, or reader-helpful diagrams, explanations
Click below to hyperlink to the original
Extended Definitions: Extended, and Expanded Definitions providing the conventional (standard, generally accepted ideas) on the topic and then comparing those answers to unique ideas from, and new terms used within the Completely-Recycling Theory. (Advocating the C-R theory 'point-of-view', providing our "spin", and stating the differences with emphasis on why the C-R theory answer is better, MORE logical and more rational.)
NOTE: Make a hyperlinked INDEX at the beginning, to ***quickly*** advance the reader to the specific idea, term, or section

Diagram list, artwork,

External web-sites referenced for charts or tables. NOTE: Do not be TOO helpful to lead readers AWAY from the C-R theory. Make this nearly the last item in the theory.
NASA Io-Jupiter links
Hubble Pix
Electric Universe
Cosmology
Ions in space
Index, topic page guide

C-R list Assumptions, Conclusions

Should I add a number for the sub-sections of each chapter, and of the appendix, in outline-type numbering-lettering? And include the page # each idea is on. Page numbers are still subject to change as I add or delete and move ideas from section to section.

C-R theory Assumption A

The effect of gravity must be felt outside of a new Black-Hole [C-R], at the same intensity as before the collapse [3]. If gravity decreases to any lesser amount, when the central mass of the Black-Hole [C-R] remains constant, conservation of energy MUST be violated [4].

C-R theory Assumption B:
(as in a Completely-Recycling "brand-name") Black-Hole [C-R]):

Once a mass is contained just inside the IB^3 Schwarzschild radius of the Black-Hole [C-R], it cannot collapse inward or be pulled-in any further (as in: into a singularity). Any mass-energy trapped inside the IB^3 Schwarzschild radius is already at it's lowest attainable energy level, because all real time activity and interaction is stopped or turned-off.

Further collapse inward (back into active, real-time) becomes impossible, *without* adding additional energy. This is because gravity is actually an "effect", caused by the release of energy from matter itself, as that matter is forced, squeezed, or warped into a slower "real-time" existence.

Once reduced to *Zero*, real-time cannot go any *lower*. That means, no more energy can be released regardless of further increases in the gravitational curvature, even if above "c". (This idea of a practical ***limit*** to gravity is a unique insight gained only from the "C-R theory-type understanding" as to how gravity works, and what it is not able to do: to collapse matter completely into a singularity.)

C-R theory Assumption C

A Black-Hole [C-R] does not allow either any internal or external knowledge of it's internal electrical charge. While the contents (both matter and energy) are inside the Neutral Zone [C-R], (which is a new C-R theory term for the volume between both the inside and outside IB^3 Schwarzschild radius), they are infinitely insulated and electrically isolated from each other, and from the external "real world". ALL of the electromagnetic properties (like the charge) are "turned-off" or frozen and stopped , for all practical purposes, but they still continue to exist.

C-R theory Assumption D (The Reynard Diode Effect)

Every (matter-consuming) Black-Hole [C-R] will act somewhat like a diode. Positive charges (protons), with their heavier masses, and neutrons too, will be swallowed, then trapped inside. The lighter-massed electrons will be left-behind with large amounts of kinetic energy outside of the Black-Hole [C-R]. The Black-Hole [C-R] will act similar-to a mass and charge rectifier [5].

NOTE: Any Black-Hole [C-R] consuming matter WILL be releasing "clouds" of EXCESS ELECTRONS. Only C-R theory Black-Holes [C-R] have this property!!!

C-R theory Assumption E

In plain English: Excess Electrons are not "eaten" by Black-Holes $^{C-R}$ as the Black-Hole $^{C-R}$ swallows the more massive protons and neutrons. Instead, the Electrons Escape and Exit (go free), remaining External (outside of the Black-Hole $^{C-R}$).

NOTE: A hallmark to detect the presence of any C-R theory Black-Hole $^{C-R}$ consuming matter is the Excess Electrons Escaping from the vicinity.

C-R theory Conclusion E:

Neutral Zones $^{C-R}$ inside Black-Holes $^{C-R}$ Experience no increase in Entropy

C-R theory Conclusion "B.B.B."

The Basic Properties of the Building Blocks of this Universe are not arbitrarily changed at every Beginning Big Bang Belch or Burp. (Hint: There was no Big Bang beginning to change the Basic Blocks)

Nature uses two different inverse square forces, gravity and electricity (electromagnetic energy) because using only one force would not work. The difference is in the behavior of the forces across the IB^3 Schwarzschild radius.

Whereas gravity (as curvature) does "couple-out" across the barrier, electrical information, like electrical charge, heat, light, and inside information, does not "couple-out" across the gap.

Web Page Resources and Links and Credits.
Readers—Please use these sparingly. I did not provide these to move you off of the C-R theory, but as a resource base, and to utilize other peoples ideas, diagrams, and claims.
This is the main reason that this is one of the last pages in the C-R theory web-site.
My intent is not to lead you away, but to supplement what you receive here.
In some cases, the web sites have provided data or ideas or information which you readers may find useful.