Division At Every Level of Human Society — Is it Solvable?

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As of October 2018 we have witnessed the worst attack on a Jewish synagogue in US history.[1] A mass shooting in Florida.[2] Death threats sent to two Republican Senators.[3] Thirteen pipe bombs mailed to Democratic lightning-rods.[4] All of these events have happened over the space of three weeks. This is an unmistakable sign of just how deep the divisions run throughout the United States. A label that is becoming more oxymoronic by the year. “United” in what way? It is next to impossible to reasonably conclude that ‘division is a problem we don’t have to solve’ unless someone is willing to seriously argue these events are a non-issue.

This is *the key problem* we face as a country and is the source of almost all of our problems as a species. A world where we can’t agree on anything is a world that’s constantly in a state of conflict; and a world constantly at war with itself is a world that knows no peace, no prosperity, and has no future. Competition is fine; even to be encouraged. However, Aristotle defined the “golden mean”[5] in the Nicomachean Ethics as the perfect balance between excess and deficiency. A person who runs away from every conflict, for example, is a coward or deficient, while someone who fears nothing is rash or excessive. Thus the virtue "bravery" then depends upon a "mean" between the two extremes. The human enterprise is rapidly oscillating

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[1] Binkley 2018

[2] Lasin, Etters 2018

[3] Fink 2018

[4] Rashbaum, Haag 2018

[5] Aristotle 2004

between a state of extreme excess and extreme deficiency. The question becomes, “Are there solutions to establish some sort of balance or `mean` to resolve the visceral disgust and anger we hold towards one another; to `bring balance to the force`[6] so to speak?” Is there a framework that would allow us to somehow work together even when we disagree without having to burn the whole world down each time we don’t see eye to eye?

In this paper I argue, yes, there are methods, but it is not as simple as just tolerating other people’s viewpoints. Antagonistic ideas that are fundamentally opposed to each other in almost every way possible rarely resolve peaceably until either it becomes so obvious one approach is correct and the other wrong, or someone finds a way to unify the two ideas so they no longer contradict each other. In the absence of progress towards resolution it becomes more likely one group will eventually impose their will on the opposition to get their way. So how do we reconcile our inability to know *what is correct* and what *is* wrong with what we *feel* is right and wrong? This is a problem of competing ideas and our method for assessing how we know what we know and moreover being honest with ourselves about the extent of what we *think* we know.

The Knowledge & Certainty Problem

A good example of this problem of not knowing what we don’t know, basically the Dunning-Kruger effect on a global scale, is the UFO debate. As someone who used to debunk UFO stories in the distant past I understand the skeptical mindset towards the subject better than most. However after reading numerous skeptical takes like the NY Times "*Ideas Online, Yes, but Some Not So Presidential*"[7] I feel it important to comment on scientific conservatism and the

[6] Yankovic 2009 — http://youtu.be/hEcjgJSqSRU?t=181
[7] Hansell 2009

seemingly incongruous idea that something like "dark matter" is accepted as a legitimate scientific placeholder[8] while the concept "UFO" not. Granted this is a matter of definition, mine being somewhat unique, but I'll get to that in a moment.

First, addressing scientific conservatism …

There is a phrase that has gained some currency that I find deeply unscientific. It is Sagan's razor, "extraordinary claims require extraordinary proof". The fact is that what is extraordinary is a value judgment and has nothing to do with science. A hypothesis is testable. It works as long as it handles data; as soon as it ceases to do so, it requires modification. That's all.

Certainly, we should be cautious of too readily accepting new information into our collective knowledge. However this isn't to say we should rule out fringe subjects as not being worth further investigation and open-minded analysis, especially when it comes to subjects like UFOs which possibly represent an area with serious repercussions for humanity.

With every pro we should consider the con. Likewise with every newly claimed discovery we should put it through peer-review to ensure it holds water. However to falsely maintain that something hasn't passed a bar to uphold a personal belief, counter to well established fact, is insidious and in opposition to the scientific method.

Second, on the concept of "UFO" being no different a placeholder than "dark matter" ...

Note when I say UFO I don't imply Dr. Hartman's definition (the stimulus for a report made by one or more individuals of something seen in the sky ... which the observer could not identify as having an ordinary natural origin, and which seemed to him sufficiently puzzling that

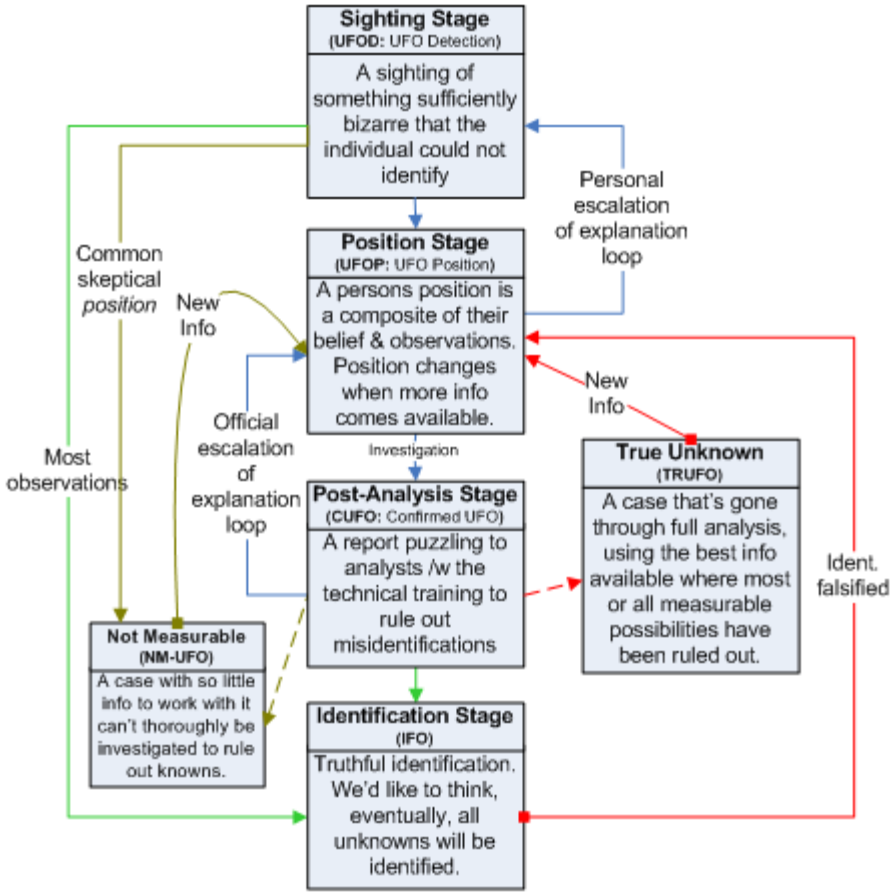
[8] Shermer 2006

he undertook to make a report of it), nor Dr. Hynek's definition (a UFO is a report the contents of which are puzzling not only to the observer but to others who have the technical training the observer may lack), nor do I imply the ET hypothesis or alien spacecrafts. Rather when I say UFO I define it to mean "a process to identify an unidentified aerial sighting."

More specifically I see 'UFO' as a series of steps starting first with the observation, followed by the post-analysis or the confirmation of the sighting (with the potential for it to reach a "true" unknown status), the hypothesis, and the eventual identification of the unknown. When I use the word 'UFO' I attempt to qualify it with a descriptor to explain which of the stages it is I'm describing.

To graphically illustrate this see *Fig. 1* below. If you look at the diagram you'll notice something I termed the "official escalation of explanation loop." The problem in the here-and-now is there are very few bodies that are willing to do "official" evaluations to complete the "official escalation of explanation" loop.

It is interesting to note that the US government was confronted by many scientists who agreed average people were reporting a "true unknown" phenomenon throughout the '40s and '60s (Drs. Mirarchi, La Paz, Hynek, Thayer, Shough, J. E. McDonald, S. Friedman, Leo Sprinkle



[9]

Figure 1. Flowcharted UFO Stages

[9] Darcy 2009

Garry C. Henderson, Roger N. Shepard, Robert Hall, James Harder, Robert M. L. Baker, Frank Salisbury, Seymour Hess, Charles B. Moore, Al Cameron, Robert M. Wood, Eugene Epstein, Gordon MacDonald, Robert Wilson, etc). In response to this the USAF & AFSAB started Project Twinkle and escalated to Project Sign, Grudge, Blue Book and finally the Condon Committee.

Unfortunately Dr. Edward Condon's report was authoritative enough to render all opposing viewpoints moot despite 30% of the reviewed cases remaining unknown after spending $500,000 of taxpayers money. Even scientists with an anti-UFO position, like Dr. Thornton Page, considered the report rubbish because the "Conclusions and Recommendations" and "Summary of the Study" didn't accurately reflect the contents of the study. (Thornton 1969)

In part due to this, as well as the implied conservatism at the heart of the report, I believe history will ultimately view Dr. Condon in an unfavorable light. As humans we know that we don't understand all of reality and thus we accept the following Venn diagram as true.

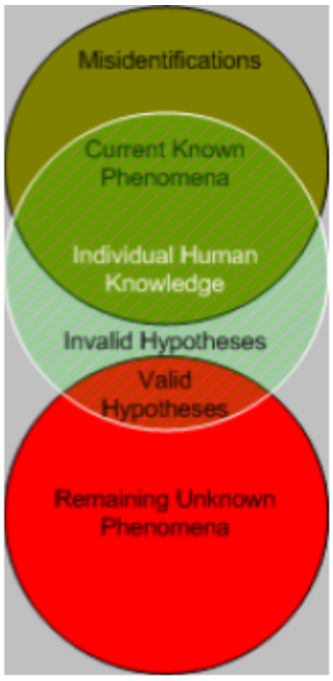


Fig. 2 - Human Knowledge

By shouting down the study of UFOs Condon was stating that there was nothing new in our skies that is "truly unknown" that could be learned through the anecdotal testimony of the average person. In Dr. Condon's words,

"As indicated by its title, the emphasis of this study has been on attempting to learn from UFO reports anything that could be considered as adding to scientific knowledge. Our general conclusion is that nothing has come from the study of UFOs in the

past 21 years that has added to scientific knowledge. Careful consideration of the record as it is available to us leads us to conclude that further extensive study of UFOs probably cannot be justified in the expectation that science will be advanced thereby.[10a]"

With the help of hindsight we can prove Dr. Condon wrong.

Sprites, large-scale electrical discharges that occur high above thunderstorm clouds, were documented with anecdotal reports since 1885. (Toynbee 1886, Everett 1903) It wasn't till 1989 that scientists photographed the phenomenon. Colin Price, a geophysicist at Tel Aviv U., believes Sprites are the cause of many UFO reports. (Price 2009)

Some have argued that Condon was using a different definition of UFO (i.e. alien craft). I'll quote the Condon Report's definition verbatim,

"An unidentified flying object (UFO, pronounced OOFO) is here defined as the stimulus for a report made by one or more individuals of something seen in the sky (or an object thought to be capable of flight but seen when landed on the earth) which the observer could not identify as having an ordinary natural origin, and which seemed to him sufficiently puzzling that he undertook to make a report of it to police, to government officials, to the press, or perhaps to a representative of a private organization devoted to the study of such objects."[10b]

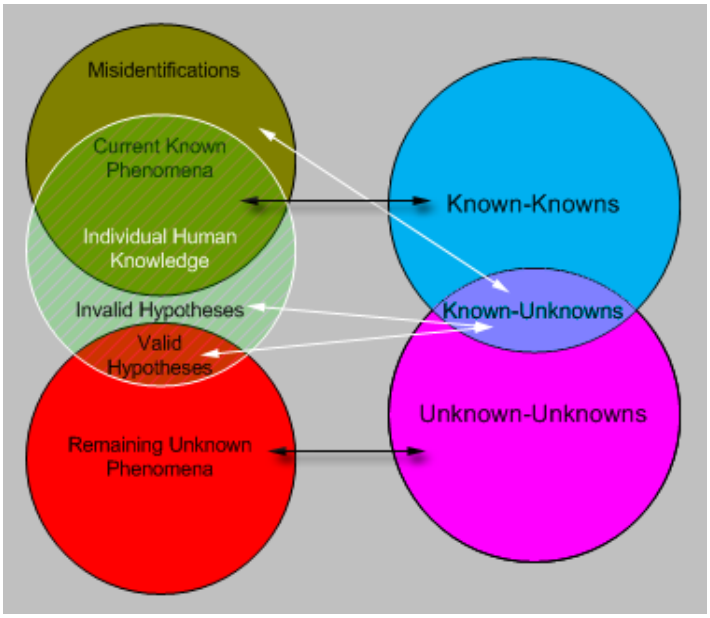
Since we have an example where Condon was incorrect does that not also suggest other "true unknowns" could account for yet other sightings? Obviously it doesn't take a full treatment of the principle of strong mathematical induction to accept this notion.

[10a] Condon & Gillmor 1969, p.1; [10b] ibid, p.9

Thus, the concept of true UFOs, as just that, unidentified objects, represents a placeholder for something waiting to be identified. This concept is a useful tool for science as is evidenced with dark matter. It allows us to create a bucket of things that represent genuine unknowns, that deserve serious study, which may be unknowable now, but perhaps in 20 or 50 years may become answerable if only because the question was on the table and asked in a manner that encouraged real scientific analysis.

So what are the implications of this for resolving division and conflict?

What we think is bogus or real is dependent on our intuitions. Our intuitions can be wrong. It doesn't matter our creed or how good our academic credentials are. We all have blind-spots. The blind-spot problem is well known to the military[11] and has been incorporated into intelligence gathering techniques to categorize information as 'knowns', 'known-unknowns', and 'unknown-unknowns'.



[11] NSA 6577932

There are methods we can employ based on the processes outlined in Fig. 1 to better understand the world around us and help resolve ambiguity at every level of understanding from social issues to assessing any topic known or unknown. UFO studies or Unidentified Transient Objects (UTOs) could be better organized under the subheading of "Science and Intelligence Gathering in Pursuit of the Search for New Objects and Information."

All usable human knowledge up to this point has basically been gained through scientific study of "semi-permanent" phenomena. If we want to know more about subatomic particles? Slam them together in a particle collider. Want to know more about frogs? Collect a bunch and gut 'em. Want to know more about "Transient Luminous Events" (TLEs)? Well... good luck! [12]

Theoretical physicist Lawrence Krauss has repeatedly made the point that if modern humans had come into existence four billion years from now we would not be able to prove the truth of the expansion of the universe because all lights from other galaxies would be so far away that the deep view of the sky would be almost completely black. Meaning we could never perform the tests that confirmed the big bang.[13] This suggests there is a horizon for information. After a certain point if we don't collect the data we need. It's gone forever. Following that, using the best science available, we would be doomed to know at best 1900-level cosmology. And we'd be wrong about how the universe works. Sad as it may be, this is not the fault of the scientific method, but rather of our incomplete information.

This highlights the importance of transient information and it can be seen in every important area of science today. Look at climate science and the desperation right now to try and

[12] Darcy 2012
[13] Krauss & Dawkins AAI 2009

collect *transient* core samples from quickly diminishing ice caps[14]; or the push in astronomy to try to crowdsource observing the sky[15] to help locate astronomical objects[16] and to isolate and locate possible ETI signals.[17]

Things come and go. If we don't have a network in place to record all transients as they happen, the human species may irrevocably lose important information that we'll never have access to again. What I propose is the shift of science from studying "semi-permanent" phenomena to studying "transient" phenomena because over a long enough time-frame all phenomena are transient in nature. The sooner we have an application to utilize all people as nodes in a grid. The sooner we can begin to pick up what's out of the ordinary[18] (like SCP 06F6, Hanny's Voorwerp, and Atmospheric Ghost Lights).[19]

A platform like this would be akin to building an optimal scientist capable of taking all the hypotheses and data collected to stack it up to find out which theory is the best and most likely fit. Having a system like this could allow us to objectively study anything and would go a long way to resolving arguments and conflicts based on things we don't know we don't know.

What of subjects we can't materially study?

In the introduction we covered that, "Antagonistic ideas that are fundamentally opposed to each other in every way imaginable rarely resolve peaceably until either it becomes so obvious one approach is correct and the other wrong; or someone finds a way to unify the two ideas so

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[14] Gillis 2012
[15] Herman 2015
[16] NASA "Citizen Scientists"; Catty 2012
[17] Wakefield 2012
[18] Darcy 2011
[19] Diaz 2013; Galaxy Zoo 2008; Wikimedia Ghost Lights 2018

they no longer contradict each other." The *Knowledge & Certainty Problem* section above addresses the first part. This section addresses the latter half on unifying opposites.

When people take up the debate of, "Does a God exist?" The arguments more often than not devolves to how many angels can dance on the head of a pin. In other words, how can we earnestly talk about something we know nothing about? Moreover, why spend time and effort discussing the possible philosophical implications of something that is entirely speculation?

The question is important if for nothing else because according to Pew Research about roughly 88% of the entire population of planet Earth believes a God or gods exist as of the year 2014.[20] Or more relevant to the discussion at hand, almost 7% of all of the wars waged throughout history have been religious wars.[21] How can we hope to resolve "division at every level of human society" with a topic where there is no material way to study the subject matter? To start we need some way to even define such a thing.

The most general quality that can be ascribed to the concept of a god is incredible if not complete power over a specific domain of reality. If we were Greek we would point to the pantheon and quake with fear at the awesomeness of Zeus and his all too human sense of right and wrong. If we were Christian mystics our monotheistic tendencies would lead us to envision an all-powerful, all-knowing, ever-present, and wholly beneficent creator. The last definition having the making of a general conception of an all-powerful deity. The concept of a god that is omnipotent, omnipresent, and omniscient—an entity that could overcome all cardinal, ordinal, and dualistic limitations of reality. Though a person who is a deist is more than likely to believe

[20] Pew 2015
[21] Phillips & Axelrod 2004

this god isn't necessarily omni-benevolent, but would likely concede the first three qualities are a requirement for the individualized 'god' to become a 'God.'

Many who identify as agnostic or atheistic not only view spiritual ideas as a form of superstition, but see the practice as dangerous because religious beliefs often bleed into laws and regulations that affect the rest of the population. Atheists like Richard Dawkins go a step further and openly express hostility towards religions, calling them anti-science, since any question that leads to a deeper understanding of the world that challenges religious doctrine is often decreed as false out of hand by senior clergy (ie. Galileo vs. the Catholic church, for instance). This is held up as evidence that religions aren't interested in the pursuit of truth, but in controlling people. Christopher Hitchens referred to the Christian God and the afterlife as a "celestial North Korea."

The conflict between atheists and theists is on par with the fight between Nazi Germans and Jews. There is little love and the war between theism and atheism doesn't seem to have any resolution in sight. Or does it?

In 2009 a paper was published called "The Scarcity Hypothesis".[22] The paper argued the fundamental mover of all things in the universe is absence. Trying to reduce the whole paper to a few words would be impossible. Simply put though the paper argued there can be a time in the universe where there objectively is no god, but through technological development something like a god can come into existence. One reader commented, "As an atheist, you have convinced me of the potential for god - not that I believe in one with any divinity, but your argument is strong and sound."[23]

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[22] Darcy 2009 — http://smarturl.it/scarcity
[23] Jokei 2009

How did the paper convince an atheist of the possibility of god? As hard as it might be to believe, the paper showed atheism and theism are not at odds with each other. To copy the last paragraph (spoiler alert) for those who don't have the time to read the whole treatise,

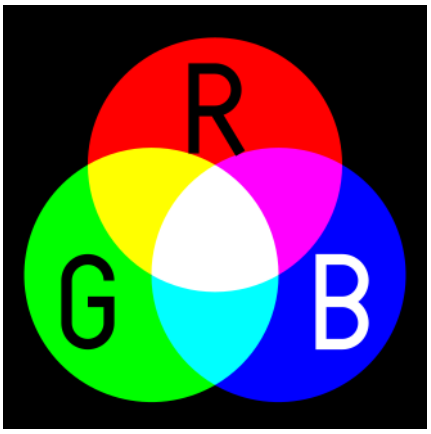
> *"This is so important because this entire graph expresses a potential new view of our origins and where we're going. It suggests we can look at the universe as a probability machine creating all possibilities. It suggests no religion is wrong. It hints actually that omni-theism is a more worldly view in the sense that both atheism and theism can both be correct without creating a paradox. Which is to say if this whole system is right we may in fact be the first creation to come from nothing, but if we don't kill ourselves we will inevitably become the Gods we've dreamt up. So the question is, "Are we the first or simply another iteration of this process?"*

The essay effectively states God isn't a thing so much as it is a process. Building on this idea it goes a step further by arguing if all things can be overcome a god is an inevitability and then proceeds to describe a process that shows how that could happen. The resolution to the conflict between atheism and theism then is God is effectively a continuum. The paper unified the concept of atheism with theism so they no longer were at odds with each other.

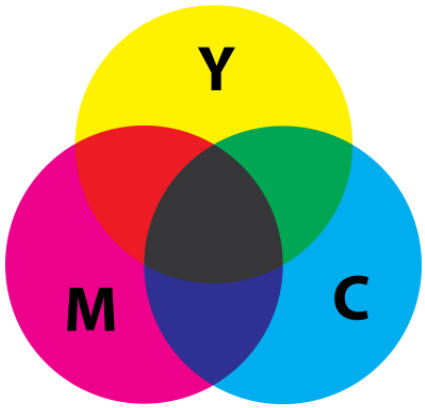
The continuum approach is a direct extension of Engel's three laws of the dialectic, "quantity changes to quality, opposites interpenetrate, and the negation of the negation." Put another way, things that appear to be opposites like white and black are in fact part of a unified hidden underlying structure. Continuing with the color example, imagine the RGB (Red-Green-Black) black tuple [0,0,0] and think of all the shades of gray as we increment

towards white [255, 255, 255]. Now answer for yourself, “Is white the lightest type of black? Or is black the darkest type of white?” The problem with this is we are looking for a discrete perspective when instead we should view it as a continuum (the same as in the example of God versus atheism). White and black are extremes. The only actual difference is we have two ways to approach the values. One is additive (RGB) and the other subtractive (CMYK—Cyan Magenta Yellow Black).

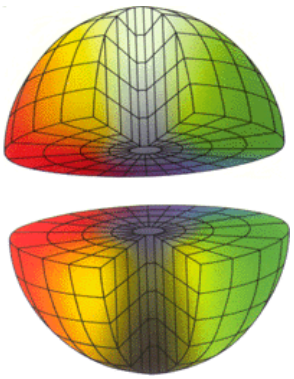
RGB



CMYK

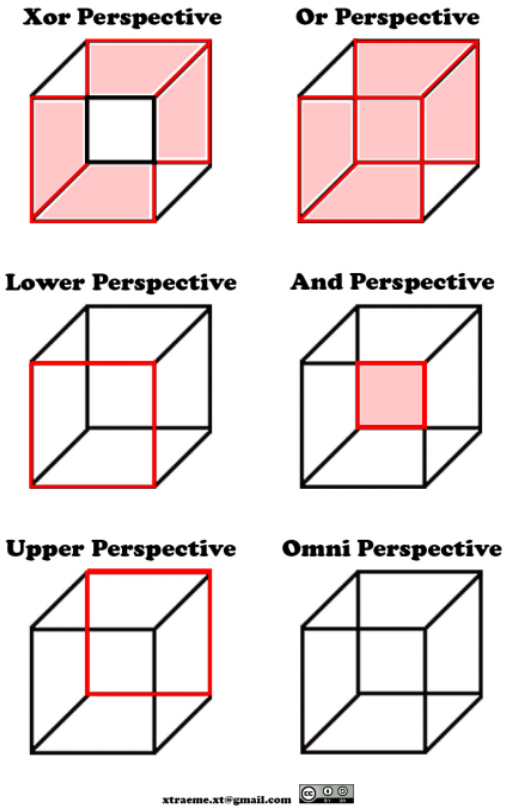


They each create the other through a Venn diagram-esque union operation because they are co-substantial.[24] So it’s better to view these two schemes holistically as a volume.



[24] Darcy 2013 — http://archive.fo/uTtLT#pid17347870

This gives us a general way to approach any topic of opposites. We can then ask hard questions like "what is the nature of the relationship between reality and reality theory"? A leading physicist at MIT believes that math is not only the language of the universe, but what the universe actually *is*. Mathematical physicist Max Tegmark published his paper *The Mathematical Universe* posing the question, "Out of all of the diverse fields that science depends on what subject has the greatest number of dependencies?" He concluded the answer was math.[25] So if the universe is made of math how is it the universe exists as it does—in what feels very solid and un-mathlike? It would be very easy to criticize Dr. Tegmark by saying he is mistaking the tool for the terrain. Using the idea we just described of how to connect opposites shows the nature between reality and reality theory may be just a matter of perspective, similar to the diagram to the left. A reciprocal relationship might exist where the two structures bridge into one another, but are simultaneously reflections of each other — not all too different from Plato's Allegory of the Cave.



The idea of unifying opposites also has tangible practical applications that can help resolve real-world problems in fields as diverse as mathematics, physics,[26] and economics. Economics has been locked in a fight for over a century between two camps: Keynesians versus

[25] Frank 2008
[26] Darcy 2010 — http://archive.fo/cNYzy#pid8080537 & http://archive.fo/J0TE1#selection-295.105-301.1

Austrian economists like Hayek and Mises. A catchy musical score called Fear the Boom and the Bust[27] was released in 2010 that summarizes the debate between the deflationary ideas of the Chicago School of Economics versus inflationary theories based on Keynes's *General Theory*.

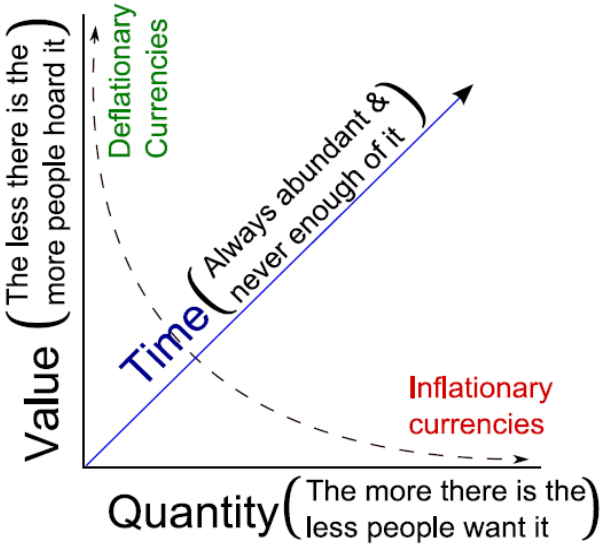
How might we synthesize these two concepts? Deflationary theorists believe value is created by something with tangible real world scarcity. More concretely, this manifests as a belief that financial systems should take this into account by having a currency backed by some finite limited resource like gold. Inflationary theorists believe financial assets should exist by governmental decree (fiat) to counteract economic downturns. Nixon took the United States off the gold-standard in 1971 effectively making the US dollar a fiat money with a freely floating exchange rate backed by nothing more than the "full faith and credit" of the US Government.[28]

The problem is both systems have degenerate scenarios. Limited or deflationary currencies have the possibility of going into a deflationary spiral like what was seen during Adam Smith's time under the gold and silver standard to some extent. Conversely inflationary currencies have to be concerned the government might try to monetize the debt by running the printing presses at full tilt, producing so much paper money it destabilizes the currency destroying its ability to function as a medium of exchange and thus act as a store of value. This is exactly what happened in Germany under the Weimar Republic with the Papiermark and helped set off World War 2. Zimbabwe provides another example of hyperinflation run amok.

Might there be a way we could somehow get the benefit of both systems, but none of the negatives? Using the system of unifying opposites shows we can. We have to view deflation and

[27] EconStories 2010
[28] Traynor 2011

inflation as being opposites of some unifying concept. What might such a thing look like? 'Well, imagine there is a bank account that credits your account each morning with $86,400 dollars [inflationary]. It carries over no balance from day to day [deflationary]. Every evening the bank deletes whatever part of the balance you failed to use during the day. Each of us has such a bank. Its name? Time. Every morning it credits you with 86,400 seconds. Every night it writes off as lost whatever you have failed to invest to a good purpose. It carries over no balance. It allows no overdraft. Each day it opens a new account for you. Each night it burns the remains of the day. If you fail to use the day's deposits, the loss is yours. There is no drawing against "tomorrow."'



This idea provides a way to stabilize currencies to make them resilient against deflationary and inflationary spirals. The project is actively under development and is called Bittime. Bittime is the world's first time-based cryptocurrency.

The process of synthesizing opposites has a mathematical structure of sorts that can be expressed in trigonometric terms that may have broad application to numerous subjects. One of the ideas hinted at in *The Scarcity Hypothesis* paper (S.H. for short) is that the positive and negative axes are unified by a larger concept that describes the entire axis. Looking at Fig. 1 on page 3[29] of the SH paper one will notice:

[29] Darcy 2009 — http://www.scribd.com/doc/33829028/The-Scarcity-Hypothesis-v2-1-3#page=3

- "Exigency" (or the base imperative) unifies "nature" and "choice"

  and,

- "Life as a good to be consumed" unifies "self" and "group"

  The *z*-axis further illustrates this principle as consequence.

So we can think of the negative *x*-axis as "nature enforced exigency" and the positive *x*-axis as "choice based imperative." Similarly the positive *y*-axis is "life as a good to be consumed for the self" and the negative *y*-axis is "life as a good to be consumed for the group."

Each of these concepts overlap in that [self, group, nature, choice] each extend over a period of $\frac{3\pi}{2}$ (270°) of a full 2π(360°) circle. Figure 2 on page 4 of the SH paper shows what this looks like geometrically.

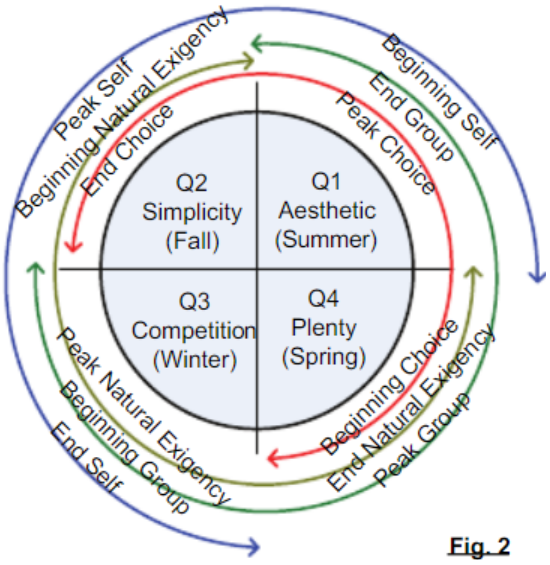


Fig. 2

This means Q2, as seen in Fig. 2 above, represents $\frac{self}{(choice + nature)}$ or put in plain English translates to ***self*** as proportioned to *choice* and *nature*. This pattern is repeated for all of the other

quarters. For example, Q1 is the ratio $\frac{(group + self)}{choice}$ as seen in Fig. 5 on page 5[30] and depicts *group* and *self* as proportioned to ***choice*** and so on. Each [self, group, nature, choice] characteristic then transitions through [beginning, **peak**, end, hidden] causing each quarter to segue from one characteristic to the next. Q2, for example, transitions from "end choice" to "beginning group" in Q3 as seen in Fig. 2.3 on page 7.

This is a system that can be applied to anything once the opposites have been synthesized by a larger concept that unifies the underlying behavior. As a tool this has applications potentially in numerous disciplines and has implications for mathematics. The concept no doubt has room for critique, but it seems to indicate we do have ways to tackle intangible subjects where conflicts arise and to still find solutions that otherwise might elude us.

Conclusion

The simple fact that an atheist could be convinced a god might exist is direct evidence of how, and under what circumstances, a person might change their perspectives about something they previously may have looked at as not only lunacy, but also as evil and wrong. We need more tools that look for universals and better ways to sift through information to discover the truth of hard to solve issues.

In my estimation there are still whole new areas of science that we have yet to fully articulate. It is an amazing fact there is little consensus among academics and philosophers as to how to define measurement, how to determine what sorts of things are measurable, or which

[30] ibid — https://www.scribd.com/document/33829028/The-Scarcity-Hypothesis-v2-1-3#page=5

conditions make measurement possible. Areas like spectroscopy, photogrammetry, GIS, and data sensor fusion will likely eventually be a part of a field that can be dubbed measurement science.

Another area of research I think will emerge in the next two decades is a field that will bridge the disconnect between military intelligence gathering techniques and how general knowledge acquisition happens using the traditional scientific methods (as a combination of AI, pedagogy, and measurement science). This will likely be something like a new search technology, but through the opposite in that the software will look for what the system doesn't know rather than what it does as hinted at in Fig. 1.

Lastly, I think we'll eventually start discovering there are many more universals like how mathematics as a field can be applied to all other fields — information science being of particular note. Once we start discovering more universals we'll likely start creating a category of what might be dubbed unological science. Unology being a portmanteau of "unidentified", "unknown", and "universal". The study of "universals" could be seen as a branch of research that goes "broad" rather than "deep." Wide-sciences will likely require researchers with several degrees in areas that are considered disconnected or close collaboration between many "deep" researchers similar to how Jim Simons runs Renaissance Technologies if there is to be serious advancement. Wide research previously was the domain of philosophy, but it seems like we may be getting to a point where we can start to apply the scientific method and empiricism

Summarized if we can solve the information problem and form consensus through new emerging scientific fields that look for universals, as a form of hyperuniformity or superhomogenity, that unite subjects that previously appeared to contradict or have no

connection to each other, it is possible for us to move into a possible golden age not unlike the Renaissance, but it will require new theories and ideas that seek to combine opposites.

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elsewhere. Now and then flashes showed from behind the lower cloud (the flashes themselves were mostly hidden, and thunder was not audible). The flashes were not so frequent as usual, say one per minute or so. Generally here they are almost incessant during thunderstorms."

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