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"Mainstream sociology is straying from its roots. This can be clearly seen in introductory sociology and social problems texts in which a focus on microsociology and social psychology has become ever more prominent. It can also be seen in the more recent graduates of sociology programs, specialists in one or two of the more than thirty subfields of sociology. While all tend to be well versed in questionnaire design and data manipulation as well as being excellent specialists in such diverse fields as gerontology or deviance, most have little background in the broader traditions of the discipline, little appreciation or experience with holistic analyses.

Today, too many sociologists practice the discipline as one of social data collection and manipulation, a reification of method over substance. Others are specializing in a small part of the sociocultural system – say family, or deviance, or criminality – and losing the inclination or ability to communicate with their colleagues and their students either in other subfields or about the larger social whole. Some still do continue the practice of macrosociology, but it too is often the preserve of specialists with their own jargon, interests, and readership."

- Frank W. Elwell, Macrosociology: Four Modern Theorists (2006), p. xi

<u>THE ONTOLOGICAL TERRORISM OF GGDM</u>: The terrorism that probably won't land you in a jail cell, but perhaps in a padded room; I'd wager that most law enforcement people would not have heard of ontology, or would confuse it with oncology (oncological terrorism? Hmmm, sounds tumorous-ly fun!). This would be an amusing scene for a dark comedy, except the audience wouldn't get it either. *In nuce*:

- 1. The existential void is the curse of intelligence, the more intelligent/sapient you are, the more you can see the inherent meaninglessness of the universe. Everyone sees the existential void in some way, at some point in their lives, at some time of the week, day, month, year we catch it in our peripheral vision as we rush through the days. We know it's there, we speak of it in different ways or not at all. We pretend not to look, except when we are alone at night.
- 2. Every sapient creature has an urge to non-existence ('the gift of life is a set of shackles'). This is not the same as death, though some people become quite confused on this point. Non-existence is the desire to have never existed, not merely to die. It is the paradox of sapient existence. Go ahead and disagree, but denial is not a river in Egypt.¹ Frustration of the urge to non-existence is the source of most radical human behaviors.
 - "Becoming extinct has its compensations. It's a good deal like beating the game. I would go so far as to say that becoming extinct is the perfect answer to everything and I defy anybody to think of a better. Other solutions are mere palliatives, just a bunch of loose ends, leaving the central problem untouched." Will Cuppy (humorist), <u>How to Become Extinct</u> (1941).
 - To quote Metallica (1991), "You know it's sad but true." As a humorist, he can say things that are supposed to be funny but aren't really, the audience laughs it off.
 - I generally do look up and familiarize myself with the person whom I am quoting. This practice has lent me the great relief of knowing that *I will not be subsequently quoted* by anyone who cares about their work.

- 3. Life must be constantly looking to insure its own continued existence, by this, I do not mean 'survival' but instead, that life is a continuous action of the Looking Law; life necessarily self-actualizes (or maintains its own Temporal Constructural Element).
 - Yes, in many places this would be regarded as quantum mysticism. We shall see, let's calendar a date a thousand years from now, and check back on this issue.
- 4. Civilization is a gestalt structure, a gestalt structure is the machine of the emergence. Life is an emergence, humanity is an emergence, most of what we consider important in the universe is an emergence. The universe was fractured by a series of emergences.
- 5. Civilization is what sapience/humanity does, it is our 'purpose,' our nature. Civilization is the only thing that can fill the Existential Void, it is what we are when we can't help ourselves (as Oscar Wilde said, 3 Writs, p. 446, *supra*). Without civilization, we are the Existential Void. Civilization should be our eternal fascination, not a flash afterthought.

The Existential Void is the metaphysical backdrop of my thought in macrosociology. In a word, the Gestalt Structure – a thing that is greater than the sum of its parts, of which human civilization is an example, is the only thing that can 'fill' the Existential Void. That's my metaphysics in a nutshell. I anticipate that many will immediately object – recoil in horror even – to inserting metaphysics into sociology; they may point to Bailey's general macrosocial theory of Social Entropy as an example of how macrosociology can proceed from pseudo-physics without metaphysics. We've already discussed that, e.g., see Pseudo-physics of the KM, 2 Kairotic Moments, p. 1434, *supra*.

Thus, not only is sociology more closely related to philosophy than it wants to admit, it needs philosophy – like the Lost Boys needed Wendy – and cannot pretend it doesn't exist so as to obtain the certification of an empirical science.

Metaphysics is the discussion of what is reality, and sociology is currently human-centric; half of our reality is human created. The sociologists who teach, lecture, conduct surveys, crunch statistics, work in family or youth services, every one of them, has an idea of what they think is real, what is reality and it affects their work and lives, and little of it has to do with sociology. To be human, to be sapient, is to be a metaphysical being; how can serious sociology object to metaphysics, except on the basis that it won't get you a professorship anywhere and it won't win grant money?

Professor Bailey's Social Entropy Theory is very interesting, but will never work entirely satisfactorily within macrosociology understanding because it depends upon and uses the language of first order natural phenomenon. *Id.* However, it is relatable to the audience of humanity because it uses language that we all understand, it fits the cultural and cognitive schema of our times.

The only way that macrosociology makes sense is to focus on civilizations/society as emergences and gestalt structures. An assertion or argument?

MINISTER OF LONELINESS: It's a lonely thankless job (just ask the Maytag repair man). On January 17, 2018, the BBC ran an article about the appointment of a Minister for Loneliness in the UK. Like many readers, I would guess, my first reaction was, are you kidding? This is silly; this has got to be some sort of boondoggle on the UK taxpayers and the opposition is going to have a riot with this. A ministry position? But the BBC was quite serious and level-headed about it, referring to the work of deceased MP Jo Cox and citing to medical studies

on loneliness. Later in the day, when the subject again caught my attention, I had a different thought: This is actually precisely or damned close to what I am talking about; loneliness is a human emotion related to a sense of the Existential Void. People who are lonely feel the meaninglessness of everything very acutely (along with alienation).

Apparently, someone else has this idea in commercial form. On April 1, 2019 (no fool'n), I encountered a chat website that boasts *an end to loneliness* and guarantees a response to anything you post there. How do they accomplish this? By use of 'fictitious ChatPals' ("Besides fictitious ChatPals you'll find real members. This website can be used for real connections besides the entertainment we are providing to you. ... It's not possible to physically connect with fictitious ChatPals.") which I assume are chatbots (hence the latter disclaimer). Could they pass the Turing Test? How close is it? I did not sign up to find out.

Though I have given thought to this and many other subjects of future humanity, I find the idea of turning to chat with a machine (or even an unknown low-paid human worker) *for the purpose advertised on that site* (which is not the same as using chatbots and AI for customer service or technical support inquiries),² revolting as a solution (like the disgusting AI psychological counseling scene at a public computer kiosk in Demolition Man (1993)); it's like learning that Santa Clause is a big lie, a conspiracy of civilization. But that is precisely the point of the Turing Test: What is artificial about intelligence? Can a machine pass the Turing Test without human emotion, or by mimicking human emotion?

- Who are the target audience of this website? Of the 28 pictures on the website, only 4 of them feature men, with one picture showing a young man and woman, suggesting an impending physical meeting. All of the people pictured on the web page are young, and of them, 23 of the pictures are of solo young female faces plus the one male-female picture mentioned previously. Do the 'fictitious ChatPals' use human face images? Do they pretend to have a gender? Because men speak a different language than women, and you knew that already. Are they attempting to fool users?
- QUIET DESPERATION: "Apathy and cynicism usually take root early in life. If unchecked by middle age, they lead to bitterness, lack of energy, health problems, depression, and related difficulties.... As the years slide by, a growing number of people don't really live, they merely exist – trapped in their lives of quiet desperation." – Jim Clemmer, "Apathy and Cynicism Zap Our Spirit."
 - ◆ "Hanging on in quiet desperation is the English way." Pink Floyd, "Time" (1973).

Mr. Clemmer is a professional business motivational writer and speaker, and his views are likely expressive of the mainstream business psychology and probably, broadly, the consensus of mental health professionals in the West. Otherwise, he'd be called a crackpot, the term for modern empirical scientific heretic. And you know Pink Floyd already, right?

- What if, however, we change the frame in which apathy, cynicism and bitterness are viewed?
- Would it make sense, for example, if these were part of the intellectual process, a status or stage – carefully avoiding teleological terms – of the individual human realization of The Absurd?

- Is it more likely than not that people who display apathy, cynicism and bitterness are intellectual sensitives who are experiencing the universe differently than their happygo-lucky fellows?
- Is it likely that apathy and cynicism are sociosomatic manifestations of the conflict caused in individuals between the inherent meaninglessness and our society's denial of The Absurd?
- * "Activist David Meslin argues that people often care, and that apathy is often the result of social systems actively obstructing engagement and involvement. He describes various obstacles that prevent people from knowing how or why they might get involved in something. Meslin focuses on design choices that unintentionally or intentionally exclude people. These include: capitalistic media systems that have no provisions for ideas that are not immediately (monetarily) profitable, government and political media ... that make it difficult for potentially interested individuals to find relevant information, and media portrayals of heroes as 'chosen' by outside forces rather than self-motivated. He moves that we redefine social apathy to think of it, not as a population that is stupid or lazy, but as a result of poorly designed systems that fail to invite others to participate." from Wikipedia article, "Apathy," May 12, 2019.
- WHAT IS COMPLETION?: Many days on end, I have a hard time working on GGDM in a *linear fashion*, which is unfortunate in that the final edit requires that I make *linear progress* through the game sections.³ Once in my youth, I was at a game convention; a group of players was playing the board game Kingmaker (1974), a game about the War of the Roses (1455-1487). It was near the end game, one player had a definite edge, but couldn't find a way to win. A group of others was standing around watching; one of the old players who was watching remarked to me, 'The game is over, but they don't quite know how to finish it.' The remark stuck in my memory, and that is how it is with my own GGDM project, it is essentially done, but I have to figure out how to finish it.'

So I remembered a technique I heard in some task or motivational article I read, to envision the job or project as complete and work toward it (common advice, really). Ok, so what do I envision as the completion of GGDM? The end of the work on the GGDM rules is both the completion of a lifetime cycle and nothingness. At the end of GGDM, I expect nothing and envision nothing will happen. You may say, Ah Ha!:

"You're missing the point. Enlightenment was not the diamond. Enlightenment was the choice." – Dr. Who, "Enlightenment, Part 4" (1983).

At some point after I complete GGDM, I will die. Neither will make my existence any better. Have I been enlightened? No one will care much about either event. I will also die whether I complete GGDM or not. Those are projectable facts. Anything other than that would be a lie. So dear optimist reader, should I lie to myself, knowing it's a lie?

"He who is not contented with what he has would not be contented with what he'd like to have." – Socrates.

Still, there will come a time when GGDM is 'complete' because it can't get any larger, I have no more space and no more time. In this perhaps, mortality is a fortunate condition. But what of God who is said to be immortal? Universe expansion will stop, someday.

EXIT LIGHT: This existence was not fun, it was not a great adventure; it was stupid, annoying, pointless, inane, and asinine. That is how I know I am not unconscious with a Dream Crab stuck to my face (Dr. Who, "Last Christmas" (2014)). I did not ask, could not have consented to be here (see Wikipedia quote about Kant, 3 Commerce, p. 1210, and 2112 Absurd Words, *supra*), I was put here (so were you) and I am very offended by the universe.

- ◆ The true moment of joy is when I can finally see the exit light out of this universe.
- ✤ Why would I want an afterlife, after this life?

It seems that is the way it must be; if I was having a great time and enjoying life, I wouldn't want to leave; I might conclude that the universe is offended by sapience. A cynical clever mind might suggest that this is the *raison d'etat* and *raison d'être* of the universe (except even that would be an unnecessary kindness), so that we are glad to exit in our time, and be forgotten. Like the dining area in a presidential underground nuclear bunker that I saw in a documentary or news segment once: The floor was a checkered black and white tile and the cheap plastic tables and chairs, and overall décor, were intended to make people eat and not linger after they finished. Are ghosts really people who linger here after death? Absurd!

- The way the priests have been telling it for hundreds of generations, the afterlife necessitates a gigantic celestial bureaucracy to orderly process the deceased, handing out rewards and punishments, distributing them to different planes, putting the enlightened into eternal torment or bliss, or back to work for cosmic order; in short, it's just like life, where no one consented to their own existence, no one bothers to ask if the deceased want to continue to exist, let alone eternally, non-existence is not an option on the check list.
- Because the afterlife is not about the dead, it's about the living, reminding them that there is more of the same on the other side, and making them think they want it.

In my youth, I heard a figure that there were enough nuclear weapons on Earth to kill everyone 14 times. Regardless of what you think of the figures – and I am sure there is some disputation of these numbers (and I don't even remember where I first heard it) – just follow the math for a moment:

- On a 'good' day, assume that 80% of the nuclear weapons could be intercepted or prevented from at least hitting their targets in a full scale global thermonuclear exchange.
- ◆ That still leaves enough weapons to kill everyone on Earth 2.8 times.
- If 90% of the nuclear weapons were intercepted, destroyed, or prevented from hitting their targets, there is still enough left to kill every man, woman, and child on Earth 1.4 times.
 - "Nuclear weapons made annihilation vastly more efficient. A single bomb could now destroy a target whose elimination had once required thousands of bombs. During an aerial attack, you could shoot down ninety-nine per cent of the enemy's bombers and the plane that you missed could obliterate an entire city." Eric Schlosser, "World War Three, by Mistake," The New Yorker, December 23, 2016 (free online).

It is quite likely in fact that these figures are accurate to some degree because planning for the thermonuclear global war would require overkill and redundancy in expectation that most

of the warheads would be intercepted by the enemy who is desperate to avoid an existential threat. It is called Mutually Assured Destruction (MAD). In fact, the Merriam-Webster online dictionary definition of *overkill* as a transitive verb (from 1957) means just that: To obliterate (a target) with more nuclear force than required.

- The general concept was confirmed by author Richard Rhodes when I watched the 2018 documentary The Half-Life of Genius: Physicist Raemer Schreiber. Mr. Rhodes said that the Soviet Union alone had nuclear weapons "enough to destroy the world many times over." See 1 Combat, bottom p. 940, *supra*, for full feature quote.
- "Is it not true that each superpower has enough nuclear weapons to kill all members of mankind several times over? Yes. And the same is true of kitchen knives." – Petr Beckmann (pro-nuclear advocate).

Exit light humanity.

"Every resultant is either a sum or a difference of the co-operant forces; their sum, when their directions are the same – their difference, when their directions are contrary. Further, every resultant is clearly traceable in its components, because these are homogeneous and commensurable. It is otherwise with emergents, when, instead of adding measurable motion to measurable motion, or things of one kind to other individuals of their kind, there is a cooperation of things of unlike kinds. The emergent is unlike its components insofar as these are incommensurable, and it cannot be reduced to their sum or their difference." – G. H. Lewes (1875)

NOT EMERGENT: Only one of four of the more prestigious online dictionaries that I checked offered a definition of "emergence" that was congruent with G.H. Lewes' definition, and it was offered under the heading of "evolutionary." The other three dictionaries stated the most literal and mindless meaning of emergence (e.g., "emerging or coming into view") and all offered various botany-related definitions. So, anyone trying to look up the term on the internet would be unlikely to come away with this understanding of the meaning of an emergence.

The medical definition of *emergent* is: 1. Arising suddenly and unexpectedly, calling for quick judgment and prompt action. 2. Coming out; leaving a cavity or other part – from Medilexicon, from Stedman's Medical Dictionary.

The common thread is a sudden or unexpected appearance within human timescale.

<u>Rhetorical Question</u>: What is the difference between an emergence and a miracle? This is not to suggest they are the same, but that thinking about and comparing them is cognitively useful. What about between an emergence and quantum tunneling, quantum teleportation, or quantum entanglement? What is the difference between a miracle and anything quantum?

 "All organised bodies are composed of parts, similar to those composing inorganic nature, and which have even themselves existed in an inorganic state; but the phenomena of life, which result from the juxtaposition of those parts in a certain manner, bear no analogy to any of the effects which would be produced by the action of the component substances considered as mere physical agents. To whatever degree we might imagine our knowledge of the properties of the several ingredients of a living

body to be extended and perfected, it is certain that no mere summing up of the separate actions of those elements will ever amount to the action of the living body itself." – John Stuart Mill, <u>A System of Logic</u>, Bk. III, Ch.6, §1 (1844) (emphasis added).

J.S. Mill refers here to what Clarence Marsh Case called the 'second order of natural phenomena' eighty years later in the 'introduction' section to <u>Outlines of Introductory Sociology</u> (1924); see discussion and citations, Aspects of Sociology, 2 Culture, p. 371, *supra*.

Carl Sagan made a visual demonstration and extended commentary of J.S. Mill's abiogenesis argument in Cosmos, Episode 2, by dumping inorganic matter, the known components and amounts of each in the human body, into a large mixer which just made a discolored mess, but could not produce life (see Carbon Chauvinist, 1 Order, p. 527, *supra*). We are missing something important in a positivist, empiricist view. Stated in the modern sense:

* "We all start life as a single-celled organism, and yet by the end of our development cycle, we're somehow composed of two hundred types of cells, all intricately connected to one another, and all performing stunningly complex tasks. How does an egg somehow know how to build a chicken?" – Steven Johnson, <u>Emergence: The Connected Lives of Ants, Brains, Cities, and Software</u> (2001) as cited by Matthew Mazur, "Emergence, Artificial Life, and A New Blog," February 24, 2014.

This firmly attaches emergence to abiogenesis and biogenesis (in the modern Huxley sense, see Order of Genesis, 1 Order, p. 522, *supra*).⁴

<u>GESTALT STRUCTURE</u>: According to G. H. Lewes, an emergence is a combination of unlike kinds that produces an unlike result (feature quote, *ut supra*). This had been described by John Stuart Mill 30 years earlier in 1844 (*ut supra*).

A Gestalt Structure then can be described as the 'combination' of unlike things that tends to produce unlike results more frequently than normal randomness, such as the emergent property of chemistry called Life.

 "Mathematics, law of averages. Let a complex system repeat itself long enough, eventually something surprising might occur." – Inner Number 6, Battlestar Galactica, "Day Break" (epilogue in New York City, 2010).

A Gestalt Structure is the 'machine' of emergence (as for example, life begets life, and evolves into a multiplicity of forms, trillions of natural experiments). Normal species reproduction should not be considered an emergence since, for example, a human male and a human female produce a human baby, male or female (usually). Rather the situation where offspring is produced that is permanently unlike either parent is called xenogenesis, a term that came into our language between 1865 and 1870 in the time when Darwin's evolution was being hotly argued. A Fuzzy Group then, is possibly another form of or another description for an emergence within a civilization. However, the two concepts may not be completely or always congruent. We are standing here at an intellectual frontier which will later be populated by essays, definitions, academic journal articles, and debates.

Structure tends to imply intention and design, the first three parts of the Merriam-Webster online dictionary definition, for example, discuss intentional structures. However, structure is also capable of being used in a very *neutral sense*, as in Merriam-Webster definition at *structure*: 4a: the arrangement of particles or parts in a substance or body; 4b: organization of parts as dominated by the general character of

the whole; **4c:** coherent form or organization; or **5:** the aggregate of elements of an entity in their relationships to each other. For some, structures must always imply intelligence and as such, they wish to attribute the universe, life and to a supreme being. We've already covered that. Gestalt Structure as used here, is *neutral* in all of the senses cited above.

The follow up question to this is what constitutes 'unlike things,' that is, what degree or properties of 'unlikeness' (or incommensurability or perhaps 'degrees of differencing,' see Order of Genesis, *et seq.*, 1 Order, p. 522, *supra*) is sufficient to create an emergence?

Notably, I have not found any discussion about degrees of unlikeness or differencing in its own right (a true philosophical discussion); rather, all such discussions seem to relate directly to some concrete time-observation issue or model. It is difficult to meaningfully discuss anything without reference to the universe's universal regulator.

Without answering the question directly, one might begin with a list of the very obviously unlike things that we can imagine created emergences related to human civilization of today (because we are, after all, narcissistic and our view is human-centric): Life on Earth and the universe (in the form of a big freak'n meteor), humans and pets, humans and domesticated animals, humans and machines, humans of different cultures and races, humans and the laws of physics, humans and entropy, sentience and sapience, life and death, religion and science. Each of these is presented as a pairing because that is the easiest and most natural way of grasping concepts, but that is not to say that pairings cannot be rearranged, or that there may be emergences from three or more unlike things, spinning off into an infinity of complexities. See continued discussion in The Axiom and Theory of Opposites, 5 Fallen to Earth, *infra*.

- The study of emergent properties of the internet (currently the unexpected, unplanned "fractal distribution of nodes" and a "sale-free power law," see "Emergent Properties of the Net" by Guy Tal⁵) is still nascent, but the internet itself is an emergence arising from, among other things, sapient control of matter through materials science and technology, and a different understanding of information. Insofar as the alleged emergent qualities of the internet, we must first define what 'unlike things' are producing identifiable and quantifiable 'unlike results.'
- Would it be interesting, and would we be surprised, if the occurrence of life in the universe followed some "fractal distribution of nodes" (*ut supra*)? This may have been quietly suggested by the ending of the 2017 movie Magellan (which received average ratings because it was cerebral while Star Trek 2009 received good ratings because it was big, colorful, loud and dumb).⁶

In fact, nearly anything different than ourselves has the potential to create an emergence. The basic realization of infancy that there are two things in the universe, me and not-me, creates in the developing human mind the necessity to begin naming or differentiating the things outside of me (and me is always outnumbered by ∞ :1 in this universe), classifying them as friendly, neutral/indifferent, or hostile/dangerous, perhaps creates the very first emergence: A piece of information associated in the infant's mind with a specific ontological thing. The creation of information (the resolution of uncertainty) is probably the very first human emergence. Is information the 'third thing' in combination with matter and energy, pushed along by time that creates universal emergence? As part of our education, we learn to accept the emergences of others as part of our collective commonality and civilization.⁷

NEUTRAL EMERGENCE: Emergence is a neutral term, a neutral process insofar as the results are irrelevant to whether they are planned or accidental, or whether we like or dislike the results. One should *never assume that all emergences are favorable* to humanity even when caused by human civilization. Emergences are not always 'good' and not always beautiful babies. Some of those human-caused, existentially-unfavorable emergences are becoming quite apparent in recent years.

For example, this quote from the Wikipedia article about the Kardashev Scale:

* "Excessive use of energy without adequate disposal of heat, for example, could plausibly make the planet of a civilization approaching Type I unsuitable to the biology of the dominant life-forms and their food sources. If Earth is an example, then sea temperatures in excess of 35 °C (95 °F) would jeopardize marine life and make the cooling of mammals to temperatures suitable for their metabolism difficult if not impossible. Of course, these theoretical speculations may not become problems in reality thanks to evolution or the application of future engineering and technology." (Retrieved February 12, 2017).

It is within the power of sapient beings to at least exert some control and foresight over the emergences that affect them.⁸

- TIMELESS EMERGENCE: It is of first importance to grasp that there is no inherent discrete time period defined in the emergence. There is a beginning, where we describe the original conditions from which the emergent end originates.
 - We have a tendency to frame the emergence within time periods meaningful to humanity, but this is just a fallacy of mortal provincial thinking.

An emergence is a comparison of the end product to the beginning; one may have observed the entire process, or not. Like many physical laws, it may be irrelevant whether time is running forward or backwards as we are only concerned about the origin and the end. One may understand step-by-step how A got to Z, or not. But if Z (the end result) is unlike a (the beginning), Z is logically and definitively related to A, and Z is not the result of simple addition or subtraction proceeding from A (are B, C, etc. 'additions' to A?), then Z is an emergence from a, and the time involved is irrelevant. It is thus that, in terms of human civilizations and the study called sociology, *that macrosociology is the branch of knowledge most likely to encounter and most suitable for, the study of emergences* within human civilizations.

- The way that emergence is currently defined, it is a *before and after* condition. To do so we must look, and have reason to look and it must matter. We can only see emergence by first connecting it to whatever it came from and then second, comparing what resulted from what preceded and concluding that an *incongruence* exists between the two, for example, the inorganic universe and the phenomenon of life, which lacking any other empirical evidence, we assume arose from the inorganic universe.
 - Merriam-Webster online dictionary at *incongruous*: Not harmonious, not conforming, inconsistent within itself, lacking propriety.

That is, we lack an operational understanding of emergence which might be linked to a lack of operational understanding of "internal structures of large distributed systems" (see feature quote, 2 Culture, p. 363, *supra*).

IMPERFECT INFORMATION: Emergence is arguably the result of imperfect information at any given moment. In a Newtonian clockwork universe sense, emergence is merely a product of humanity's lack of vision, understanding, foresight, and predictive abilities. In the clockwork universe, God or the Gods, as envisioned by humanity, have no emergences – as they are omnificent and omnipotent, they see all and know all, and can predict all with absolute certainty; every game has already been played to conclusion and the outcomes are all known or precisely predictable (like the chess players in Robert Sheckley's "Fool's Mate" (1953).

However, in the quantum universe of probabilities, the condition of Godliness and emergence are not so certain; quantum probability leaves room for emergence even on the smallest scale, here all possible outcomes *are probabilities*. All games have been played, but only the probability of the possible ranges of outcomes are known. It is thus that *an emergence is likely an illusion*, but one that is useful for human purposes, like the planetarium mechanics which still use the Ptolemic system, an intentional illusion, because it is most useful there.

- EMERGENT MACROSOCIOLOGY: Is it possible to meaningfully discuss macrosociology without emergences? Is macrosociology married to emergence philosophy? Is there another way to describe the macrostructures of civilization? I do not get the sense that macrosociology currently embraces the emergence idea of civilization or that civilization is a gestalt structure. Macrosociology does not appear to have shifted much in its frame of reference from microsociology; the appreciation of civilization as an emergence and a gestalt structure provides the basis for a true frame of reference in macrosociology. That's my assertion.
- EMERGENT DE-MYSTIFICATION: Emergence is just the latest term to describe what most of history has considered wondrous, puzzling, magical or mystical about human civilizations. As such, it is possible for "emergence" to be used in mystical or pseudo-religious ways – to simply be in the habit of calling things emergences without any real meaning, in ways similar to what modern physics dismisses as 'quantum mysticism' as an improper 'interpretation' of the meaning of quantum experiments. Or the way we use "miraculous."

The problem with emergences from an empirical, modernity perspective is that we are still treating them like magic. They just happen and we pat ourselves on the back that we can recognize them, like the quantum (see Daniel Styer quote, 4 Colleges, p. 506, *supra*). In a sense, emergences are not different in our perception than is π , the 'magic number' tying together mathematics (see Weird Circle Fixation excerpts, The Big Bang, *supra*). I am not saying that emergence will ever be predictable, it is possibly a statistical law like the Second Law of Thermodynamics, and perhaps in that sense, Social Entropy Theory is moving in the correct direction. To get a grip on emergences will require a different sort of thinking, of the natural physical laws such as gravity, waves, the atom, the quantum. Unfortunately, all of my efforts here have failed (except perhaps framing the problem for others, if I am correct) to make anything but a huge game model of human civilizations from which I hope that participants will engage in emergent narrative and game play.

In my primitive pre-epochal, pre-transhuman, pre-FTL brain, I tend to think of emergences – in relation to humanity – as a human echo of the tesseract. It is that thing that goes off in a direction that we cannot point to, but we know exists theoretically. It is thus that the emergence has properties that do not seem to be the sum of its parts, and it is not surprising that the tesseract has also been associated with magic sources

(e.g., Ebony Anpu). If there is a 'statistical tesseract,' that might be the model for an emergence in biological intelligence and civilizations.

For the term to have any utility in the future of macrosociology (or many other fields), it will need to be further disciplined: A definition will need to be crafted that places it firmly within the context of macrosociology, it will need to be used consistently in the field, expanded and modified with care; this process will inspire a whole sub-field of thought and historical study. It should at least be a task within the purview of macrosociology *to develop a terminology and language suitable to describing the fourth order of natural phenomenon* (see Pseudophysics of the KM, 2 Kairotic Moments, p. 1434, *supra*). Emergence, a first and second order phenomenon term, was the best I could do without writing a book that no one will read.

"Complex systems research has been hindered by a lack of precision when people refer to 'emergent properties.' Contemporary views of emergence in philosophy include Chalmers' spectrum ranging from a mystical property to the whole-part relationships in mundane objects including filing cabinets. They also include Bedau's distinction between 'weak' emergence, based on simulation and modeling, and 'strong' emergence relying on downwards causation.

As we have seen, problems arise because engineers combine many different aspects of these ideas when referring to emergence in complex systems. They refer to the surprise implicit in predictive approaches while talking about the design of emergent properties. In contrast, we have attempted to ground recent research into complex systems by surveying different approaches to emergence. The intention has been to help engineers avoid some of the paradoxes that arise when inconsistent definitions are used." – Christopher W. Johnson (University of Glasgow), "What are Emergent Properties and How Do They Affect the Engineering of Complex Systems?" 2005.

I could have tried to write a book instead, but along the way decided that the simulation was what interested me more, was more suited to my meagre talents, and would be more instructive, educational, fun and engaging than a book if people actually played the game and got an intuitive feel for the macrosocial dynamics. To add value, which is what any writing should do. Maybe I did actually write a book in the end, that no one will read.

Adding value is, of course, a rather tricky and slippery argument, a copyright is not an affirmation of redeeming social value of an original work. Even <u>Mein Kampf</u> 'added' value: It was read by millions, which 'added value' to the Nazi party ideology in its current time, and it brought forth in to *written form* the basest mumbled, guttural racial arguments of the early 20th Century for examination and argument (but not in 1930s Germany), it also has value, of course, as the ultimate form of historical record. To whom or what has GGDM added value?

"The field of sociology can be broadly split into two categories. Microsociology focuses upon relatively small-scale social groups and processes. This field is focused on such phenomena as face-to-face interaction (say classroom behavior), the socialization of children, or the influence of a particular group on the political behavior of its membership. As can be seen from a look at our introductory texts, microsociology increasingly dominates the field of sociology. I believe the field is increasingly emphasizing micro because it resonates with Americans who tend to be very much oriented to the individual. Consequently, they find micro sociology much easier to grasp and apply to their daily lives; and we do need students.

Macrosociology, on the other hand, is the study of large-scale social patterns. Closely related to history and anthropology, it focuses upon total societies and their constituent parts, such as economic and political structures, family and religious institutions, and how these institutions interrelate with one another and with the whole.... Immanuel Wallerstein believes the micro/ macro is the only distinction within the social sciences that has use and relevance."

- Frank Elwell, Macro Social Theory (2009), Kindle Edition, p. 11

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MOVING THROUGH KASHMIR: Another possible explanation is simply that macrosociology is more 'philosophical,' and mainstream sociology has followed the modern informationdriven empirical drift of our culture, for which microsociology and social psychology are best suited.

- "Sociology once debated 'the social' and did so with a public readership. Even as late as the Second World War, sociologists commanded a wide public on questions about the nature of society, altruism and the direction of social evolution. As a result of several waves of professionalization, however, these issues have vanished from academic sociology and from the public writings of sociologists. From the 1960s onwards sociologists instead wrote for the public by supporting social movements. Discussion within sociology became constrained both by 'professional' expectations and political taboos. Yet the original motivating concerns of sociology and its public, such as the compatibility of socialism and Darwinism, the nature of society, and the process of social evolution, did not cease to be of public interest. With sociologists showing little interest in satisfying the demand, it was met by non-sociologists, with the result that sociology lost both its intellectual public, as distinct from affinity groups, and its claim on these topics." Stephen Turner, abstract of "De-intellectualizing American sociology: A history, of sorts," Journal of Sociology, November 5, 2012.
- * "Basically, [Stephan Turner's] wondering: what happened to sociologists? When did they give up questions of human nature, altruism, society? Well, Turner argues that a big problem is that sociologists started getting political. 'It is evident that many of the most enthusiastic adherents of the new model of professionalization in the United States had roots in the left, and not infrequently in the Communist Party itself.' And that political slant limited the types of questions sociologists were allowed to ask. Turner's basic point is that sociology is now a joke because every sociologist is a liberal. That's not untrue: over 85 percent of the members of the American Sociological Association (ASA) vote for either the Democratic or Green parties. One survey found the ratio of Democrats to Republicans in the ASA to be 47 to 1. Now, whether or not sociology is joked about because its researchers' political leanings is another question. But that's the argument Turner seems to be making here." – Rose Eveleth, "Whatever Happened to Sociologists?" SmartNews (on smithsonianmag.org), November 6, 2012, referring to Stephen Turner, "De-intellectualizing American sociology: A history, of sorts," Journal of Sociology, November 5, 2012 (*ut supra*).

Exhibit A: GGDM, 'the macrosocial' sim written by a paralegal.⁹

Social data collection and microanalysis, statistics and hard numbers, not philosophical musings, win grant money. Schopenhauer wins the prize in 1839, but today, he would receive no grant

money, they would not even read his paper. And, as Tom Wolfe ("In the Land of the Rococo Marxists," Harpers, June 2000) suggested:

Today, at any leading American university, a Kant, with all his dithering about God, freedom, and immortality, or even a Hume, wouldn't survive a year in graduate school, much less get hired as an instructor."

Or as stated recently in the movie Einstein's God Model (2016):

Dr. Mastenbrook [talking about string theory]: Right. A unified theory of everything. The Holy Grail of physics. It makes sense mathematically, but we don't know any of it. This is science that is literally pushing the envelope.
 Dr. Taylor: Sounds more like philosophy.
 Dr. Mastenbrook: They don't give out Nobel Prizes for philosophy.

This work does not belong specifically within any of the four or five identifiable traditions of macrosocial theory. Frank Elwell in <u>Macro Social Theory</u>, holds out four traditions of macrosocial theory originating from Karl Marx, Emile Durkheim, Max Weber and T. Robert Malthus (instead of Spencer). George Herbert Mead is excluded from the pantheon, in fact, a word search of Elwell's book shows that Mead is never mentioned. Whereas, Mary Jo Deegan, published a book, <u>Self, War, and Society: George Herbert Mead's Macrosociology</u> (2008), specifically placing George Herbert Mead alongside Emily Durkheim and Max Weber in macrosociology.

None of the existing traditions of macrosocial theory embraces the emergence, more specifically, the structural tendency of human civilizations to produce and act in the manner of an emergence; that human civilization can only be properly understood as an emergence.

Further, while each of the existing traditions analyze human civilization from this or that perspective – all very interesting – none have really attempted to tackle the large distributed structures of human civilization, *a process that became necessary when I set out to simulate human civilizations as something more than numbers and points*. What macrosociology needs is an *a priori* science of the emergent. Without that, it will remain a vague smudge in the backwater of our civilization's public space:

* "Researchers, as yet, have very little ability to identify internal structures of large distributed systems like human societies, which is an important scientific problem. Genuine structural collapse seems, in many cases, the only plausible explanation supporting the idea that such structures exist. However, until they can be concretely identified, scientific inquiry appears limited to the construction of scientific narratives, using systems thinking for careful story telling about systemic organization and change." – Wikipedia article, "Societal Collapse," retrieved February 24, 2015.

However, as Prof. Elwell cautions:

- "If you attempted to account for all of social reality, the resulting theory would be long, boring, and as confusing as social reality itself. The best social theories attempt to describe the most important features of social reality using the fewest possible statements and assumptions." – Frank Elwell, <u>Macro-Social Theory</u> (2009), Kindle Edition, p. 20.
 - ➢ GGDM already failed on that issue: Long, boring, confusing, not useful.

LOST SOME MARBLES: For example, think of the problem in this way: There was a science-fiction short story that I read long ago – I do not remember the title or author, and I cannot find it in my books or the internet – where mechanical engineers were trying to build a rocket to go into orbit. The problem was the world (and the engineers) had not discovered electrical engineering (or electronics) and could not accept the existence of anything they could not see. These were very practical nuts and bolts men. The story is quite a bit of a stretch however because they would require some knowledge of chemistry to make rocket fuel – but after the fifth or sixth major premature ignition accident while working on the rocket, they finally called in the crazy eccentric pariah scientist who explained to them about electricity (see also discussion of space flight technology and weaponry relationships, Skylab is Falling, 2 Construction, p. 670, and The Cool Ship, 2 Stardrive, p. 795, *supra*).

The problem of trying to build a rocket without modern electronics, or at least electrical controls, was compared in the story to trying to tie together marbles with a piece of string. Without emergences and gestalt structures, it seems that macrosociology has been trying to tie together marbles with a piece of string.

For example, could you write a story about the invention of the internal combustion engine without electricity? And without resorting to magic, little demons, or mystical forces? Eventually, the author would find that something critical is missing – the spark to rapidly and repeatedly ignite the compressed gasified fuel.

Is the gestalt structure that missing thing in macro-human studies or am I - like a hack writer – inventing mystical forces and little demons to solve the problem and tell the story?

Gestalt is really the only explanation that makes any sense of the fourth order phenomenon before us and of us; Aristotle knew it, "The whole is more than the sum of its parts." (<u>Meta-physics</u>).¹⁰ I would call this new school, approach, perspective or tradition an emergence-structural approach to macrosocial theory. Others may choose to call it my absurd vanity and pretentiousness. We'll discuss that later.

More likely, I will be dismissed as a pseudoscientific quack (that might be a notable achievement, since sociology hasn't attracted as many as medicine and physics, maybe even an Ig Nobel achievement) who tries to, and almost makes sense, but ultimately is trying to inject mysticism into macrosociology as the 'missing piece.'

I don't really know what a new macrosociology based on emergences will look like or where it is going to lead us. As Sir Francis Bacon very likely only had a limited vision of where the new natural, empirical sciences might lead, he certainly could not have imagined the world of 400 years later. So, it had to start with the idea, working out the principles, philosophy, making arguments for why the new way was a better way, and waiting for the right people to find the right leads to get it started. And it took his entire life to reach *Novum Organum*, he died a broken man in 1626, six years after it was published.

Thomas S. Kuhn wrote a famous and highly recommendable book called <u>The Structure of Scientific Revolutions</u>. He points out that, whatever we might like to think, and whatever the mythology of the history of science tells us, new ideas are not accepted as soon as they come along, as soon as the evidence makes it clear that new ideas are needed. Actually, science progresses in a series of convulsive hiccups, during each one of which the attempt to suppress the coming convulsion is the strongest

feature of the landscape. There is always a body of conservatism which is defended to the death before the actual overthrow takes place. He calls this – the characteristic feature of this body of conservatism – paradigms, and he defines them as follows: 'universally recognised scientific achievements that, for a time, provide model problems and solutions to a community of practitioners.''' – James Blish, <u>The Tale that</u> Wags the God (1987), Kindle Loc. 529-535.

FOURTH DEGREE OF SEPARATION: It is possible then, if other theorist understand what has been attempted here and follow their own lines of development (without which, GGDM is just an anomaly, a "historical artifact" (quoting Elwell)), that a new holistic macrostructural tradition may be inadvertently introduced from this work. This new approach would focus on identifying the large distributed structures of civilization – in a non-reductionist way – and the *a priori* recognition that civilizations are gestalt structures and emergences.¹¹

"In most fields of human endeavor, new developments are unlikely to receive immediate endorsement by the authorities in that field, and the QJM [Quantified Judgment Method] was no exception. One of Trevor's greatest frustrations was his inability to get the US Defense establishment to pay more attention to the results of his historical analysis. He was impatient with people who did not recognize the wisdom of his insights, and his criticism tended to be explicit. In Europe and the Middle East he was considered an eminent person and became the confidant of chiefs of staff and defense ministers. In the US, while many agencies valued his research and insights, they often downplayed the value of his analysis, as it was not based on 'traditional' operations research methods. In fact, he was often prevented from following his frequent creative urges by the pressure of meeting payrolls and deadlines.

Yet although he could easily have sold out for the comfort of a stable job, he believed that his independence was a prerequisite for pursuing his work. Besides, he was not really interested in making money; what he really wanted was recognition of the validity of his theories about the historical analysis of combat. For over 30 years he persevered in this cause despite indifference, opposition and lack of reward, hoping to advance the use of history to protect both national and global security." – Susan Rich, biography page for Trevor N. Dupuy at The Dupuy Institute website.

As a precursor to this, argument was made separating the standards of the third and fourth order sciences from the empirical science of the first order, though there is also room for empiricism in psychological and social sciences, with due care. Arguments were made in Unsolved Problems, 3 Constructural Elements, p. 209, Math Boy and Turbulence of Being, 1 Entropy, p. 221 *et seq.*, 223, and **Aspects of Sociology**, *et seq.*, 2 Culture, p. 371, *supra*, discussing the history of sociology in the early 20th Century in relation to science development, the nature of social sciences as non-predictive (even biological science is not predictive, see Carl Sagan, *ut infra*), and the complexity of the subject as a whole. At the heart of this is the idea that empiricism and empirical science does not equate to predictability in all cases:

"Biology is more like history than it is like physics. You have to know the past to understand the present. There is no predictive theory of biology, nor is there for history. The reason is the same: Both subjects are still too complicated for us." – Carl Sagan, Cosmos, Episode 2.¹²

Prediction-testing-falsification are the triumvirate of empirical science.

"If a theory doesn't make a testable prediction, it isn't science. It's a basic axiom of the scientific method, dubbed 'falsifiability' by the 20th century philosopher of science Karl Popper. General relativity passes the falsifiability test because, in addition to elegantly accounting for previously-observed phenomena like the precession of Mercury's orbit, it also made predictions about as-yet-unseen effects – how light should bend around the Sun, the way clocks should seem to run slower in a strong gravitational field, and others that have since been borne out by experiment. On the other hand, theories like Marxism and Freudian psychoanalysis failed the falsifiability test – in Popper's mind, at least – because they could be twisted to explain nearly any 'data' about the world. ...

Now, some physicists and philosophers think it is time to reconsider the notion of falsifiability. Could a theory that provides an elegant and accurate account of the world around us – even if its predictions can't be tested by today's experiments, or tomorrow's – still 'count' as science? As theory pulls further and further ahead of the capabilities of experiment, physicists are taking this question seriously. 'We are in various ways hitting the limits of what will ever be testable, unless we have misunderstood some essential point about the nature of reality,' says theoretical cosmologist George Ellis." – Kate Becker, "Does Science Need Falsifiability?" NOVA, February 11, 2015.¹³

Once those two concepts are separated, a non-predictive empirical science is possible; if biology can be accepted as a science then sociology and mental science can be equally accepted. But they are not: Biology has more relation to physics, chemistry and the first order of natural phenomenon than social or psychological sciences. If one cannot accept the prior arguments made in this work (and the entirety of the work itself), then the gestalt-emergent-embracing conclusion for a macrostructural macrosociology will not be accepted.

- FOURTH ORDER LANGUAGE: It seems that macrosociology as a discipline has been wandering around aimlessly – like me at a party – unsure, alienated, and lost in the in-crowd of disciplines that belong to microsociology ('in-crowds' being a favorite subject of microsociology). Macrosociology has to become the equal of microsociology for this scheme to work. Macrosociology has to be the kid standing against the wall at the dance who goes on to become a brilliant researcher or successful writer, while half of the other kids at the party become druggies or felons. Thus, I am arguing a ground for macrosociology to get its footing (dare I ... use the dirty term, 'paradigm shift'?), to get to work in the correct framework:
 - 1) Treat fourth order natural phenomenon as equal to all else in reality and fact, and develop a language suitable for describing fourth order phenomenon as independent as possible from language used for the preceding orders of natural phenomenon (see Case and Mises quotes, Aspects of Sociology, 2 Culture, pp. 371-372, *supra*), and
 - 2) Embrace the emergence, and refine the terminology, begin with the axiom that human civilization is *an emergence from emergent creatures* which is the true scope of the problem, the true meaning of 'super-organic' and what makes it so damn difficult.

This situation is very comparable to when you are trying to explain something to someone and they obviously are not comprehending, or when you are trying to figure out a problem and not making progress – it isn't working, you need to try a different approach, a different assumption, a different framework. It isn't and hasn't been working for macrosociology for a

long time. While I perfectly understand the appropriation of first and second order phenomenon language imagery to describe groups, society, civilization, and whatever is inside our heads, it is at best a very crude and misleading comparison to the fourth order. Part of the problem is that the fourth order has not been regarded as an equal among reality; the mental health sciences in this regard are way ahead (no pun intended) of macrosociology.

Most of the language describing human civilizations, by sociologists, historians, anthropologists, is first and second-order language – I cannot even avoid it myself: Macrosociology needs a new approach that is as startling as the general and special theories of relativity or of quantum mechanics were to classical physics. As discussed in Pseudo-physics of the KM, 2 Kairotic Moments, p. 1434, *supra*, even Joseph Tainter described a pseudo-physical process of civilization, but avoided using the terms 'entropic' and 'entropy' in his book, though that is what he describes.

Have I lost my marbles, do you think? Sociology is the study of the society of volitional sapients. Those sapients – persons in another word – are congruent or nearly congruent with humanity in the local sense (Daniel Dennett, 1976, see feature quote, 2 Diplomacy, p. 1110, *supra*). We do not normally apply the term sociology to the study of social organization and behavior of herd animals, mammals, birds, fish, or eusocial creatures. Because we do not regard them as either sapient, or human equivalent in any possible sense. We do not think of these creatures – other than eusocial species and perhaps dolphins and whales – as having any complex social structure, as having much beyond mating and milk bond relationships.

Eusocial creatures we credit with more complex structures, and a form of altruistic behavior and collective intelligence, without free will (see meta-law and altruism discussion, Mephisto's Marriage Counseling, *et seq.*, 3 Diplomacy, p. 1135, *supra*). Thus, we do not normally apply the study of sociology to any creatures other than humans and human relationship to creatures we keep as pets. But sociology, especially microsociology as Professor Elwell describes it, does not treat humans as sapients, but more like herd animals. Thus, we have made very limited progress in understanding human society; a theory here, a theory there, each one illuminates a small corner of human society or civilization, but there is no enlightening view of the whole, no view from a height, even in current macrosociology.

Rhetorical Question: Is sociology and especially macrosociology like G.K. Chesterton's man who is *partially convinced* that social phenomenon are facts, or like the man who is *entirely convinced* that social phenomenon are facts? Sociology needs to decide one way or the other. Is it science, is it philosophy, is it faith? See G.K. Chesterton, <u>Orthodoxy</u>, Ch. 6 (1908), feature quote 4 Government Titles, p. 634, *supra*.

Macrosociology needs a better view of the whole, it needs to occupy the high ground overlooking the valleys, coasts, and plains where humanity lives. If sociology is the study of the society of sapients, then it needs to understand first, sapience, and second, to apply the proper framework. The Existential Void and Gestalt Structure are the starting frame of sapience.

This entire argument, threading through dozens of sections of GGDM as well as what is presented here, is not written to ASA or journal standards. If that causes a furrowing of the brow, curl of the lip... For one, it lacks citations in every sentence, every line, to someone else's study or article, as if the author's thoughts would not sufficiently stand on their own merit. The argument I am making here may not even be properly a 'sociology' argument in the current profession, but more of philosophical

argument. GGDM's argument may be acceptable as a paper in some philosophy courses, but still is not up to APA or journal standards. The argument here is made in the style of GGDM, it is probably at best, a 'lay' argument.

FALLACY OF PRETENTIOUSNESS: "One of the great challenges in this world is knowing enough about the subject to think you are right, but not enough to know you are wrong." – Neil deGrasse Tyson, "Class Trailer" video to Master Class program. Mr. Tyson is describing the paradoxical Dunning-Kruger effect.¹⁴ Is it pretentious for a non-Ph.D. to write on such weighty matters as structure of civilization, gestalt structures and macrosociology?

There are some who seem to think that anyone writing on non-trivial topics without a Ph.D. after their name is being pretentious. Is it pretentious for someone to think that a game design can be a *magnum opus*, a major intellectual project in the humanities? And in the end, to call for a revival, shift in macrosociology? If so, GGDM may be the *art brut* and I may be the Henry Darger (Chicago, 1892-1973) of macrosociology, social philosophy, game design, social metaphysics, or whatever other category you interpret.

Writing and other arts are criticised as pretentious when they seem to aim at the highfalutin aesthetic or intellectual stratosphere while lacking the chops to see it through. But that, of course, is an inevitable risk of any ambitious creative work. To employ the word 'pretentious' against it is empty as criticism, because all it means is 'not good'; but it is disgustingly full as moral injunction: it means that it is better not to try at all than to try and fail.... Some writers complain about the pretentious use of words, *as though the very act of writing down words and hoping that others will read them and approve of one's ideas is not itself fantastically pretentious in the first place.*" – Steven Poole, "Pretentiousness by Dan Fox review – why anti-intellectualism is the real snobbery," The Guardian, February 11, 2016 (emphasis added).

What I have written should not be ignored or considered ignoble out of hand because I don't have Ph.D. after my name (*ad hominem*), nor should I have received a free pass if I did have Ph.D. after my name (appeal to authority, elitism). Compelling elegance of the simulation in explaining humanity and modeling the civilization phenomena will not alone redeem GGDM from being another silly space game (see EN 13, *ut supra*, p. 1550).

"One of the things that I find interesting about Dwarf Fortress is that (to use programming jargon) it's sort of a declarative game rather than an imperative game. In e.g. StarCraft you select an individual unit and demand that it move to a specific point on the map; in Dwarf Fortress you configure which dwarves are allowed to perform certain tasks, then you place a task in a queue, and some dwarf somewhere will (eventually (hopefully)) take care of it (until they get distracted by a party, or decide to go fishing, or get hungry and wander off to the dining hall, or fall asleep in a stockpile, or drop anything they're carrying and run screaming from the forgotten beast hurtling down the hallway at them). It's a fascinating difference in paradigm, and I wish more games would explore the idea of actors in the world being chaotic/free agents which will only somewhat prioritize your wishes."

- By kibwen, "The Brilliance of Dwarf Fortress (2011) (nytimes.com)," found on forums at <u>https://news.ycombinator.com/item?id=13754307</u>

EMERGENT ASPECTS OF GAMING: In a sense, the declarative format of Dwarf Fortress mirrors the answer that Western religion has settled upon in the question of human free will: That God generally shapes people's lives and requests that we do certain things, but it is our free will to do or not do so, to execute when and where we feel compelled. That the relationship between God and individual humans is an imperative one or any sort of pre-destiny argument has been the dismissive stuff of freshman philosophy and religion courses for centuries.

The declarative relationship is the core subject of the lampooning of Christian evangelists in Robert Heinlein's Job: A Comedy of Justice (1984): If the relationship of Yahweh to humans was imperative, they would not be volitionals.

Emergent game play has become the sexy fascination and frontier of video gaming in the last decade or two, driven possibly by the concepts of Dwarf Fortress. The classic definition of emergent game play are complex systems or situations arising from simple game play mechanics; most definitions suggest that the emergence is unintended or unanticipated by the designers (sometimes via massive programming snafu, such as the famed Corrupted Blood incident in World of Warcraft), and all definitions necessarily imply – without saying so – that the emergent game play is (really) the human players.

"Emergent narratives are stories that are not authored by a single person or by any person really. They are stories that emerge from the interaction between players and the systems that govern gameplay. They are random, transient, ephemeral things that only ever exist for one person at one moment in time. I like emergent stories as much as the next person. ... Yet when I look back at my emergent experiences or when I try to tell the stories to others, I realize just how shallow an experience they really are. Emergent stories feel more engrossing than authored stories because they're personal for the player, and that personal interactivity gives it the illusion of importance." – Nick Dinicola, "The Problem With Emergent Stories in Video Games," Pop Matters, July 30, 2013.

Although emergence in video game play was initially 'accidental,' emergence is an intentional part of role-playing tabletop games and diplomacy or social tabletop gaming which precedes video gaming by a couple of decades.¹⁵ GGDM began as an expansion to a board game.

GGDM may be regarded as intentional emergent game play and emergent narrative via group storytelling, depending on what is considered as simple game mechanics – admittedly, most gamers would not regard the mechanics of GGDM as 'simple' but might agree readily that the situations created by the mechanics and human players are potentially complex. GGDM is as emergent as the players and Concierge wish and can find a way to implement.

GGDM invites and is built upon emergent narrative, see 3 Constructural Elements, p. 205, *su-pra*.¹⁶ The current game structure, based on the duality of Interpretations and Power Activations, has been in place since about 2002-2004. At that time, I was not familiar with emergence or various forms of the term, as now, when I invented the Interpretation mechanics, I was thinking in terms of adding role-playing opportunities to the game, as I had been familiar with tabletop role playing games since the early 1980s. The final game title occurred sometime in about late 2006, as I remember a very specific conversation about it. In the end, however it came about, Interpretations, News Events, and Interventions became the tools of emergent narrative in GGDM.

Technological emergence is exactly at the heart of the technological singularity. It is the thing we fear; it is the thing beyond our control; 'event horizon' is the current first order phenomenon metaphor for emergent behavior. That computers may reprogram themselves in ways we cannot predict and did not intend (and Deep Learning AI already has, see The AI Problem excerpts, Corporations, *supra*), and that they might find us abhorrent, primitive, slow, obsolete or consider us an existential threat, or a plaything of their emerging intelligence (like a little animal is treated Page | 1548 by children as a toy), that we may be superseded by our own creations, is the stuff of our nightmares. Given our appreciation of the nature of things, we expect nothing else.

- ✤ I never heard of Dwarf Fortress or emergent gaming until an office conversation in June 2017, after 25 years of working on GGDM and after I had already written the sections about emergence and gestalt structures. I am not by any measure, a PC or video gamer, I have a PlayStation 2 that I have not turned on in over 10 years, and would not work with my current television in any case. I am from the Space Invaders - PacMan - Galaxian - Asteroids - Defender generation and spent way too many hours in the arcades, but really, my interest in video games waned in the mid-90s (Gex, Zoop, Time Bandit). My regular PC play now consists of FreeCell, Mahjongg, and Race for the Galaxy, which I regard as a mental break from my routine - a pla*cebo* for my mind when I am supposed to be focusing on GGDM editing – and at the same time, intense focus and problem-solving training. I've never MMOGed.
- 4 AI EMERGENT PLAY?: An interesting area for study would be whether and when emergent game play occurs when all players are AI? We already know AIs can create their own language if not required to use standard English (see The AI Problem, Corporations, *supra*).
 - This is probably as good or better a measure than the Turing Test.

In order for AI to experience emergent game narrative, the AI would first have to be a separate entity from the game, and second, experience the game as a human would; that is, create an imaginative semi-fact based story from game mechanical events that it experienced. Connecting dots that are not connected in the game mechanics. And to feel the need to do so as well, almost as if necessary to completing the experience.

4 NO LOTUS FOR YOU: My obsession with GGDM in part arises possibly from the twin notions that the universe is a gestalt structure and that gestalt structures begat gestalt structures through emergences, e.g., see fractured universe discussion Order of Genesis, 1 Order, p. 522, supra. Thus, the Big Bang was an emergence event (or another botched creation, if you like David Hume's arguments, see quote, 1 Fallen to Earth, p. 1495, also ON THE OTHER HAND, p. 1496, *supra*). This is not an assume-the-lotus-position-and-levitate enlightenment - GGDM should never become that. And it does not answer the question of the Prime Mover or First Cause. But it does suggest that entropy is part of a larger non-linear structure, that we are not 'getting it' by physical science alone (but science cannot become religion, we need something new, a nascent role currently being filled by the mental and social sciences).

"The greater the decrease in the social significance of an art form, the sharper the distinction between criticism and enjoyment by the public. The conventional is uncritically enjoyed, and the truly new is criticized with aversion."

- Walter Benjamin

ENDNOTES.

¹ <u>Commentary</u>: I didn't make that up, it was on a poster for an anti-drug abuse campaign many years ago. Drug abuse, of course, goes back to the urge for non-existence, seeking the drug to cure sapience and meta-consciousness.
² <u>Commentary</u>: Which is why science fiction's envisioned sexual relations with bioroids or sophisticated human appearing androids (e.g., Bladerunner (1982), Cherry2000 (1988), The Stepford Wives (1975)), while it may appeal to young men, would ultimately in the long term be personally unsatisfying and unwholesome to humanity.
³ <u>Commentary</u>: My progress on this project and the progress of our civilization in any sense, is only wondrous because we are humans, we have nothing else to compare to, and we love the sense of self-satisfaction. In other words, progress is always measured compared to a relative standard and contrasted with what existed before.

⁴ <u>Commentary & Citation</u>: As an aside, the description of his ideas in the current Wikipedia article about him (February 2019) *which reads somewhat like a promo for his books*, makes it seem like he was writing about the development of GGDM, to wit:

- ✓ "His book <u>Where Good Ideas Come From</u> advances a notion to challenge the popular story of a lone genius experiencing an instantaneous moment of inspiration. Johnson instead argues that innovative thinking is a slow, gradual, and very networked process in which 'slow hunches' are cultivated, and completed, by exposure to seemingly unrelated ideas and quandaries from other disciplines and thinkers. He lists the themes he has identified from studying which environments and conditions have been correlated, historically, with high innovation. He argues that they make theoretical sense because of their tendency to effectively explore the 'adjacent possible,' Stuart Kauffman's concept (which Johnson cites) of the space of innovations waiting to be made from combining immediately-available notions and solutions." from Wikipedia article, "Steven Johnson (author)," February 14, 2019.
- ✓ Steven Johnson's 2001 idea is echoed by Benjamin Aldes Wurgraft, "Thinking, Public and Private: Intellectuals in the Time of the Public," Los Angeles Review of Books, July 15, 2016:
 - "In our focus on the immediate interventions that public intellectuals can make in the public sphere, is there room for private contemplation, and the glacial tempo at which ideas must sometimes develop?"
 - 'Glacial tempo' of ideas is an idea I can identify with... I ideate, cerebrate, percolate the noetic (all this, of course, is taradiddle, but you get the idea).

⁵ <u>Commentary</u>: The paper is undated, but I found it in February 2017 and shared it with a blockchain guy.
 ⁶ <u>Commentary</u>: Big, loud and dumb wins big about once every seven years, or wins all the time with about 1/7th of the population.

⁷ <u>Commentary</u>: It may seem a completely trivial thing, but in kindergarten, I used to say, "fumb" or "fum" instead of "thumb." My teacher pointed it out to my mother who went to great lengths to make sure I learned to say it correctly and stopped pronouncing it incorrectly. I also used to drag out the tail ends of "5" when writing it in kindergarten. All of such education says: 'This is the right way to do it because this is the way everyone else does it.' <u>8 Commentary</u>: The Babylon 5 television series overtly describes a sort of emergence with humans (of course) as the central catalyst. The 'overtly' part is what made the series story arc new and unique. Other science-fiction literature, in television or other forms, may naturally, but as almost an afterthought, describe an emergence of some kind. The reimagined Battlestar Galactica series also described an emergence in the form of a human-cylon hybrid, but did so in the context of (more than) a hint of divine intervention and as part of a greater cycle of history. <u>9 Commentary</u>: While I have avoided being overtly political in designing GGDM, admittedly there is not much in GGDM that will be liked by the current right side of the political aisle. Especially those for whom conservative values equate to religious Christianity, who will immediately dismiss GGDM as a typical ASA-like liberal work (of which I am not and cannot be a member because I don't have the educational requirements) and that cursory dismissal will be the end of their argument and inquiry on GGDM. Sad for them it is true.

✓ Continuing the Kiss-Off Fallacy: Suppose I were offered an honorary membership in the ASA on the strength of GGDM... what exactly does that mean? It means you do not meet the normal criteria, but they think it would be beneficial – mainly for them – if you were an 'honorary member.' It's like being an honorary member of the Mensa Society; it says you are not really smart enough. It's like when a Make-a-Wish child is signed to a one-day contract to be an honorary Pittsburgh Penguin, Steeler or Pirate – it's not real, it's make-believe, cosplay, puffery. It's almost insulting actually for an adult.

¹⁰ <u>Commentary</u>: However, I suspect that GGDM might be like the Ptolemaic system of geocentric cosmology, which, with a lot of fudging, produced the demonstratively correct results (predictions) of heavenly movement from an incorrect assumption. Planetariums, which are geocentric, still use the Ptolemaic model.

¹¹ <u>Citation</u>: "Frigyes Karinthy, in his 1929 short story "L'ancszemek" (in English, "Chains") suggested that any two persons are distanced by at most six friendship links. Stanley Milgram in his famous experiments challenged people to route postcards to a fixed recipient by passing them only through direct acquaintances. Milgram found that the average number of intermediaries on the path of the postcards lay between 4:4 and 5:7, depending on the sample of people chosen. We report the results of the first world-scale social-network graph distance computations, using the entire Facebook network of active users (\approx 721 million users, \approx 69 billion friendship links). The average distance we observe is 4:74, corresponding to 3:74 intermediaries or 'degrees of separation,' prompting the title of this paper. More generally, we study the distance distribution of Facebook and of some interesting geographic subgraphs, looking also at their evolution over time. The networks we are able to explore are almost two orders of magnitude larger than those analysed in the previous literature. We report detailed statistical metadata showing that our measurements (which rely on probabilistic algorithms) are very accurate." – Lars Backstrom, Paolo Boldi, *et al*, "Four Degrees of Separation," WebSci, June 22-24, 2012 (found on <u>http://www.leonidzhukov.net/hse/2015/sna/papers/websci12-fourdegrees.pdf</u>).

¹² <u>Commentary</u>: Suppose one declared that every human has to obey the Hayflick limit. While it is probably true, it is also probably an unfalsifiable statement because it would be impossible to test every living human now, and not every dead human has died of old age. After that, would come definition arguments, would someone like John in The Man from Earth (2007) be considered a human? Is the Hayflick limit central to the condition of being human?

✓ Thus, biology cannot be said to 'predict' senescence, other than by probability and experience, unlike physics prediction of gravity.

¹³ <u>Citation</u>: "It would be completely non-scientific to ignore that possibility just because it doesn't conform with some preexisting philosophical prejudices,' says Sean Carroll, a physicist at Caltech, who called for the 'retirement' of the falsifiability principle in a controversial essay for Edge last year. Falsifiability is 'just a simple motto that non-philosophically-trained scientists have latched onto,' argues Carroll. He also bristles at the notion that this viewpoint can be summed up as 'elegance will suffice,' as [George] Ellis put it in a stinging Nature comment written with cosmologist Joe Silk. 'Elegance can help us invent new theories, but does not count as empirical evidence in their favor,' says Carroll. 'The criteria we use for judging theories are how good they are at accounting for the data, not how pretty or seductive or intuitive they are.''' *Id*.

✓ "So my book ... is an examination of what has gone wrong. As the subtitle says, the problem is that physicists rely on unscientific methods to develop new theories. These arguments are variations on arguments from mathematical beauty, though many physicists are not aware that this is what they are doing." – Sabine Hossenfelder, "Physics is still in crisis," Sabine Hossenfelder YouTube Channel, June 5, 2020.

¹⁴ <u>Citation</u>: "The Dunning-Kruger effect ... is simply the observation that incompetent people ... can't know the shortcomings or incompetencies that they may possess. ... The key in the way that people ... get it wrong is that they ... think that this ... afflicts other people and it's all about them ... but actually ... this is a phenomenon that sooner or later hits all of us. It's really about us and ... our own shortcomings. ... The reason we have trouble is because of a paradox which is to spot expertise in other people, obviously you need expertise in yourself, but that's also true for spotting lack of expertise. That is, to tell when someone has a shortcoming ... you need true expertise to judge that. Now, if you lack that expertise, it means that you lack the very knowledge you need in order to identify shortcomings, and that is true not only in judgments of other people, but it's also true in the self. So ultimately what that means is that people who lack the knowledge lack the knowledge to know they lack the knowledge." – David Dunning interview, The Damage Report YouTube Channel, February 24, 2019.

¹⁵ <u>Commentary</u>: Fans of the Race for the Galaxy card game may recognize "six drop" (a player term) developments as a simulation of emergences in an interstellar civilization. In many ways, Tom Lehman (designer) and I are covering similar conceptual ground, except that we are using vastly different game formats, with different objectives.
¹⁶ Commentary: I found an image on the internet that made an interesting point about Dr. Who:

✓ "The first Doctor tries to act old and wise, but deep down inside is pretty much a stroppy teenager while the eleventh tries to act young and silly but deep down is a tired old man."

Now, as the story goes, the producers chose an older man to play the first Doctor because they didn't know what a time lord should look like, but clearly the initial run of the show had to be targeted for a certain demographic – young British males in the '60s. It is possible that the writers of the Eleventh Doctor might have deliberately, cleverly created this contrast with the First Doctor, but it is just as or more likely that the comparison is an unintentional result of the post-Cold War and post-millennial reemergence of Dr. Who.

3 FALLEN TO EARTH – GESTALT STRUCTURES & EMERGENCES