

# Cyphers of Revitalization

## The Reality of Measure and the Korzybski Challenge

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### Cypher, cipher<sub>1</sub>, and cipher<sub>2</sub>

Cyphers are Biblical and of ancient date. They refer to writings. Cipher<sub>1</sub> is a mere scribble – nothing. Cipher<sub>2</sub> is an encryption code – they key to secrets and treasures. I refer to all of these. Indeed, they are keys to success in our times – coupled with numbers.

There is a common sense that we live under great risk. Of course, we do. We live only months away from annihilation were the Sun's light to wane. We enjoy incredible geological stability. These and many other natural phenomena could prove decisive at any time. Socially and politically, we are painted into a corner. We have lost our way. We are at a cipher<sub>1</sub> stage, unsure of where we are going and skeptical of where we came from.

Did we ever know our way? Stated otherwise, was there a time in human history in which mankind adapted to natural realities in ways that did not compromise personal, social, and political activities and actions?

These are critically important questions, as Anthony Wallace has noted that it is far more likely that people will be successful at resurgence than revolution.<sup>1</sup> Revolutionaries do not do well – largely

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1 Wallace, A. F. C. 2003. *Revitalizations and mazeways: Essays on culture change*, Vol. 1. Lincoln, NE: University of Nebraska Press.

because their efforts inevitably involve violence and violence has the effect of driving out rationality and equity.<sup>2</sup> Revolutionaries similarly do not have a clear goal in mind. They stand a chance of falling into the ‘utopia’ trap, which can abend and veer off in any direction – typically resulting in chaotic forms of autocratic madness.

Revitalization is the thing – this is what Wallace, an anthropologist, has noted as being successful in many cultures, in many cases. Elements of desirable living are found in tradition, in religion, and in cultural pastimes. These are to be encouraged.

I will point out many cyphers here, longstanding records of successful elements of civilization’s roots. These are considered in light of forms of digression from notable ancient frameworks that have been documented by historians – the ‘three derivatives’ noted herein. Such studies rightly should absorb our efforts to find ourselves at all levels of society, politics, and governance. It only stands to reason that what proved effective before should serve our needs now and we wish to copy effective policy before so that we can enjoy associated benefits again.

It is ... functionally necessary for every person in society to maintain a mental image of the society and its culture, as well as of his own body and its behavioral regularities, in order to act in ways which reduce stress at all levels of the system. The person does, in fact, maintain such an image. This personality-nature-culture-society system or field, organized by the individual’s own experience, it includes perceptions of both the maze of physical objects of the environment (internal and external, human and nonhuman) and also of the ways in which this maze can be manipulated by the self and others in order to minimize stress. The mazeway is nature, society, culture, personality, and body image, as seen by one person.<sup>3</sup>

Indeed, we need effective cipher<sub>2</sub> forms now. These are needed to unlock the secrets of nature and of society – to help to guide the people through desirable “mazeways.” They need to incorporate numeric and conceptual aspects – quantitative and qualitative, described more commonly. What are these to be? This we will discuss, coupled with ideas of Alfred Korzybski, others, and my own. Alfred Crosby makes reference to the ‘measure of reality.’<sup>4</sup> Here, we are concerned with the ‘reality of measure’ and what it can do – and, with it, what we can do.

## Instability’s groundings

Even a ‘yellow dog’ walking down the road knows that there has been no substantive solution to the Great Recession of 2008. With the U.S. in the lead, decision-makers simply ‘kicked the can down the road.’ Lacking any other solution at global or organizational levels, all existing institutions were plied with cash. From state universities that got ‘fiscal stability’ funding to large banks that got much more even if they didn’t want it, the pills that were swallowed by society due to improper policy were made to go down easy by tasting good.

If this is the problem, what is the solution? Many commentaries have been offered, with varying validity within the current framework, but most of them stop far short of lasting or fundamental

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2 Johnson, C. 1982. *Revolutionary change*. Stanford, CA: Stanford University Press, 1-15.

3 Wallace, 2003, 12.

4 Crosby, A. W. 1997. *The measure of reality: Quantification and Western society, 1250-1600*. Cambridge, UK: Cambridge University Press.

analyses. Kees van der Pijl offers a model that I incorporate here. He refers to a “Lockean Heartland” (LH) pact, established in the late 17<sup>th</sup> century, which favors English ethnicity and the ongoing interests of existing proprietors and enterprises. Instigated by jealousy of the fruits of trade and colonization of the Dutch at the time – and encouragement by Dutch shipbuilders – they enthusiastically embraced a model of conquest and resultant gains in lieu of carrying out of domestic reforms. Taking a page from the book of the Portuguese and Spanish, they covered the globe within a century, the enterprise ground to a virtual halt in the 19<sup>th</sup> century and was ultimately passed to the United States with little change in the mid-20<sup>th</sup> century.<sup>5</sup> With Brexit immanent and the U.S. pullback from global leadership under Donald Trump, LH shows signs of implosion even if not challenged by anything else.

It is this model, the LH model, that needs to be cured. There are obvious social limitations in such a model and the economic implications have left the world with undue instability and regressive market conditions and structures. It is easy to draw a straight line from LH failures in this regard and the lack of faith in the institutions of governments under such programs – whether in core states or in the periphery. van der Pijl himself does not offer a remedy.

There is a longer version of history than is understood under LH, which van der Pijl describes as being highly manipulative and jealous of alternatives in this manner. Awareness of ancient conditions and civilization and governance have extended to Western sensibility only slowly, with the birth of and anthropological studies that emerged in the 19<sup>th</sup> century, where old records and old civilizations were studied and the complexities and nuances of the old cultures came into view. Similarly, environmental requirements of tropical islands and colonial and staging posts around the world encouraged the development of natural and social science that would not have otherwise occurred.<sup>6</sup>

The work of Alfred Crosby has helped in the understanding of the ‘tropical science’ and another related phenomena – an unbalanced commitment to numeric measures at the expense of all else.<sup>7</sup> Whether a part of LH or not – Crosby documents this as predating LH’s development – this commitment to measurement at the cost of all else encouraged LH conditions and outcomes.

## Numbers, counting, and measurement

Emphasis on numbers brought some benefits. First, it is important to note that the numbers under consideration are from the East. Roman numerals could be added, but only subtracted with great difficulty. Counting devices disappeared from 500 to 1000 CE – described by Crosby as the “nadir of civilization.” Obviously, this was the nadir of the West, not the East, where there was a ‘golden age’ that included mathematics, philosophy, astronomy, printing, and many aspects of art and culture.<sup>8</sup>

Western Europeans were brought up out of their morass slowly and painfully, and the process was not a smooth one.

The revival of the counting board in the West is associated with the French monk Gerbert (later Pope Sylvester II), who in the second half of the 10<sup>th</sup> century studied in Spain, then

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5 van der Pijl, K. 2007-2014. *Modes of foreign relations and political economy*, Volumes i-iii. London: Pluto Press.

6 Crosby, A. W. 2004. *Ecological imperialism: The biological expansion of Europe, 900-1900*, 2<sup>nd</sup> ed. Cambridge, UK: Cambridge University Press.

7 Crosby, 1997.

8 Starr, S. F. 2013. *Lost enlightenment: Central Asia’s golden age from the Arab conquest to Tamerlane*. Princeton, NJ: Princeton University Press, xxxii-xxxvi.

sizzling with Islamic scholarship and science. He learned about Hindu-Arabic numerals and about the counting board, which he may have brought back home with him. By the late 11<sup>th</sup> and 12<sup>th</sup> centuries treatises on elementary calculation were, by and large, treatises on the use of the counting board, and there was a new verb, to abacus, meaning to compute...

Counting boards can handle big numbers and complicated calculations, so we cannot blame them for what we may call medieval Westerners' mathematical impotence. Their ignorance ... explains a large part of their ineptness in reasoning about quantities, but there more to it than just that. For us, except for a few superstitions such as triskaidekaphobia\*, numbers are utterly neutral, and of themselves morally and emotionally free of all value, as purely tools as a shovel. Not so for the old Europeans: They thought of them as qualitative as well as quantitative.<sup>9</sup>

Fixation on numbers introduced imbalances that contributed to further erosion of legitimacy where faith in government protections and performance was already low. Individualism was the thing; lack of trust was endemic due to century after century of uncontested and poorly-contested raids from the north and from the east.<sup>10</sup> The English battled off the Danes, Paris was held under siege, and there were longstanding struggles on home soil between Celts and Vikings.<sup>11</sup>

I will return to the question of overestimation of quantitative thinking *per se*. Emphasis on numbers brought many benefits once Westerners warmed up to them.

...between 1250 and 1350 [CE], there came, not so much in theory as in actual application, a marked shift. We can probably pare that century down to fifty years, 1275 to 1325. Someone built Europe's first mechanical clock and cannon, devices that obliged Europeans to think in terms of quantified time and space. Portolano marine charts, perspective painting, and double-entry bookkeeping cannot be precisely dated because they were emerging techniques, not specific inventions, but we can say that the earliest surviving examples of all three date from that half century or immediately after.<sup>12</sup>

This soon extended to natural science, music with "precisely measured songs."<sup>13</sup> Many new words also came into use with invention and discovery. Crosby notes a certain detachment in this, much as a speeding car and an unseasoned driver. Civilization was not being recreated from prior experience, it was being invented based on fragments and specters from the past. He referred to this as the "Venerable Model," which made use of symbolism that sampled from the Bible and subsequent supposition. When these broke down due to travel and availability of some older documentation, a "New Model" was developed in the 12<sup>th</sup> century by "townspeople" who spent their time in "the university and the marketplace." Paris led out in this, providing "employment for professional thinkers and learners [that were] exempt[] from local authority." These were fixated on reconstructing ancient knowledge, but they had very little to work with. St. Bonaventure referred to them as "compilers and weavers of approved opinions."<sup>14</sup>

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\* Extreme superstition regarding the number thirteen.

9 Crosby, 1997, 44-45.

10 Cantor, N. F. 1963/1993. *The civilization of the Middle Ages: A completely revised and expanded edition of Medieval History*. New York: Harper Perennial, 331-333, 353, 193-195, 208-211.

11 Davies, N. 1996. *Europe: A history: A panorama of Europe, east and west, from the Ice Age to the Cold War, from the Urals to Gibraltar*. New York: HarperPerennial, 307-309.

12 Ibid., 18-19.

13 Crosby, 1997, 19.

14 Ibid., 61.

Innovations were introduced that were useful, but that served to amalgamate information – worsening the problem of false meaning through numerical manipulation. Alphabetizing tables of data was a significant example of this – making snatches of information available, but out of context. This was not entirely new, but mostly so.

For generations the [medieval] Schoolmen were at a loss for a principle by which to arrange masses of information for easy retrieval. They believed that the principle should pertain chiefly to the relative importance of bits of information. In library catalogs, for instance, the Bible should come first, then the church fathers, and so on, with books on the liberal arts last. But ordering by prestige alone did not always work well, especially at the level of minutiae, and so the Schoolmen supplemented it with a system occasionally used in the ancient world and now and again since, but never often or consistently: Alphabetization. As abstract as a progression of numerals, it required no judgment about the relative significance of what it arranged and, paradoxically, was therefore universally useful. One could use it to organize dictionaries of words, concordances of the pronouncements of God or of the statements of ancient Greeks, catalogs of books, collections of government documents. The Schoolmen supplied alphabetized handbooks and dictionaries of sermon materials for the preachers who at the end of the 12<sup>th</sup> century were competing with heretics for the souls of the inhabitants of the burgeoning cities. And we have been alphabetizing ever since.<sup>15</sup>

Abstraction assumed greater and greater orders of magnitude. Widespread adoption of money in the 13<sup>th</sup> and 14<sup>th</sup> centuries introduced that abstraction from value and more. Debts ultimately continued to be denominated in coin and currencies that “fell out of circulation” themselves. Much of this was due to a constant flow of precious metals from the West to the East.

The West suffered from a chronic balance-of-payments problem until some time in the 16<sup>th</sup> century. Specie flowed from Northern Europe to the Mediterranean ports and thence to trading partners in the East. In the 1420s Venice exported something like fifty thousand ducats a year to Syria alone. The flow of gold eastward was so steady and lasted for so long that the Spanish had a special name for it: *evacuación de oro*.<sup>16</sup>

This is an economic aspect of the political defeatism that resulted from the repeated violence of foreigners, which brought long-endured disgust with governance and government:

Westerners were obsessed with what they could not hold on to, money. Marco Polo waxed eloquent about the abundance of gold in parts of the East. Columbus fixated on finding it in his new world. Cortes and his Spaniards hungered for it, said the Aztecs, “like pigs.” There were no people on earth more concerned with coins than Westerners, no people who worried more about their weight and purity, who played more tricks with bills of exchange and other pieces of paper that represented money – no people on earth more obsessed with counting and counting and counting.<sup>17</sup>

The ascent into modernity was a semantic hall of mirrors and numeric asylum. Certainly, Westerners have learned to count; they have mastered various means of achieving precision. This was coupled with and encouraged by a longstanding commitment to visualization.

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15 Ibid., 63.

16 Ibid., 73.

17 Ibid., 74.

Beginning in the miraculous decades around the turn of the 14<sup>th</sup> century (decades unmatched in their radical changes in perception until the era of Einstein and Picasso) and continuing on for generations, sometimes swiftly, sometimes sluggishly, sometimes in one terrain of mentalité and sometimes another. Western Europeans evolved a new way, more purely visual and quantitative than the old, of perceiving time, space, and material environment.

Vision was and is a martinet and an aggressor, encroaching on the realms of the other senses. Record events in chronological order on parchment or paper and you have a time machine...

In practical terms, the new approach was simply this: Reduce what you are trying to think about to the minimum required by its definition; visualize it on paper, or at least in your mind, be it the fluctuation of wool prices at the Champagne fairs or the course of Mars through the heavens, and divide it, either in fact or in imagination, into equal quanta. Then you can measure it, that is, count the quanta.

Then you possess a quantitative representation of your subject that is, however simplified, even in its errors and omissions, precise. You can think about it rigorously. You can manipulate it and experiment with it, as we do today with computer models a sort of independence from you. It can do for you what verbal representation rarely does: Contradict your fondest wishes and elbow you on to more efficacious speculation. It was quantification, not aesthetics, not logic *per se*, that parried Kepler's every effort to thrust the solar system into a cage of his beloved Platonic solids and goaded him on until he grudgingly devised his planetary laws.

Visualization and quantification: Together they snap the padlock – reality is fettered (at least tightly enough and for long enough to get some work out of it and possibly a law of nature or two).<sup>18</sup>

Or not; this was a massive assault on meaning. There is an appearance of rigor here; that is the problem. The famous question follows: How do you know that you have modeled, that you are measuring the right thing, or even that you know what you are measuring?

## Why numbers are not enough

Of course, the questions have been asked from then to now, but the key to process, the details, the progression of states, is not investigated. All is comprised of empirical jumps. Visualization further is the harbinger of plausibility. Crosby quotes Galileo, who was a musician and artist as well as scientist. This represents a perspective that may serve study of the cosmos in some sense, but it represents a dangerous, a mirage or false image of *how* things happen, *how* they work, *how* they are done:

Philosophy is written in this grand book, the universe, which stands continually open to our gaze, but the book cannot be understood unless one first learns to comprehend the language and read the letters in which it is composed. It is written in the language of mathematics, and its characters are triangles, circles, and other geometric figures without which it is

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18 Ibid., 227-229.

humanly impossible to understand a single word of it; without these, one wanders about in a dark labyrinth.<sup>19</sup>

This was beneficial to a degree, but ultimately a pit that the Sumerians had not fallen for, being steeped in reality and process.<sup>20</sup> From the late medieval period onward, this new power constantly has skated on the edge, encouraged in this unstable way by printing in particular:

Unlike the societies of the East the West was hungry to learn by staring at standardized marks on paper...

The West in the 16<sup>th</sup> century was unique. It was advancing faster than any other large society in its ability to harness and control its environment. Few if any other societies equaled the West in its science and technology, its ability to project its power over long distances and to improvise new institutions and new commercial and bureaucratic techniques. The other side of that coin was the West's instability. It shook and rattled and fizzed as if about to blow itself to pieces, which it nearly did.<sup>21</sup>

If only we had the luxury of considering such a question in the past tense. All along the way – subsumed eventually by LH, the paring of visualization with numeracy – even literacy – provided always a false sense of understanding, of accomplishment. The risk of annihilation has been no more severe than it is now.

The West fizzed and bucketed, but survived and eventually flourished. The New Model, visual and quantitative, was one of its antidotes for the nagging insufficiency of its traditional explanations for the mysteries of reality. The New Model offered a new way to examine reality and an armature around which to organize perceptions of that reality. It proved to be extraordinarily robust, providing humanity with unprecedented power and many humans with the comfort of a faith – it lasted for centuries – that they were capable of an intimate understanding of their universe.<sup>22</sup>

As with the false sense of understanding that was assumed through computation, words were converted to logical and mathematical concepts just as numbers became “elegant and pure abstraction, a geometrical depiction of a physical phenomenon varying through time.” The schools were filled with “mathematicians without being quantifiers,”<sup>23</sup> as they did not extend their studies to measurement of reality, which Crosby described as “everything material within time and space, plus those two dimensions [with] comprehensible dimensions and function[] in ways that people could understand or to which they could reconcile themselves...”<sup>24</sup>

These leaps of faith – faith in numeric relationships alone in particular – has progressed in spite of naysayers along the way. As to LH, early 17<sup>th</sup> century forays by the English were complicated by competition with the Spanish, who had a head start in the Americas and religious motivations for colonization of North America. Adam Smith's publication of *Wealth of Nations* after a century of conquest of this kind provided much justification for the effort. Simone de Sismondi found error in the

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19 Ibid., 240.

20 Kramer, S. N. 1963. *The Sumerians: Their history, culture, and character*. Chicago: The University of Chicago Press, 116.

21 Ibid., 231, 238.

22 Ibid., 239.

23 Ibid., 67.

24 Ibid., 23.

approach as being detached from the reality of cycles, a line of reasoning that resonated through the works of Clement Juglar, William Jevons, Henry Moore, Wesley Mitchell, Joseph Schumpeter, and others.<sup>25</sup> I have written about these.

Two fatal errors of LH are the ethnic part and the irreversible political protection of existing cash flows at all costs. There are others.<sup>26</sup> Each of these serves to blind the people and to perpetuate the sense of dissociation between process and outcome. Furthermore distrust in government and collective efforts is perpetuated and untrammled faith in the law of large numbers is considered as the salve to heal all shortcomings. This has left us with an economic model that ignores realities and needs and a social model that ignores sociability. There is no faith in knowledge, as elaborated on by Frederic Hayek, and no faith in process, as emphasized by John Maynard Keynes.

Both were detached, but in different ways, ways that lead to contemporary politics of left vs right, of liberal vs conservative. The liberals do not believe in markets as Keynes did not and the conservatives do not believe in collaborative, social efforts as Hayek did not. Swinging back and forth, these form the awkward, bumpy ride from crisis to crisis in the current environment – leading eventually to breakdowns that are all the more risky because of the socio-political power behind the models.

William Jevons filled a curious role, as he both intensified numeracy's hold on policy while pushing for understanding of nature's irresistible pull on all human affairs. He was criticized for studies of sunspots and agricultural outputs,<sup>27</sup> areas of study continued by his son,<sup>28</sup> but the question had solid scientific roots for the time based on the work of William Herschel and its has been borne out since.<sup>29</sup>

Possibly unintentionally, one effect of his work was to intensify abstract mathematical endeavors. He was a devotee of logic and of the use of logical notation to support inductive reasoning.<sup>30</sup> He had significant influence in this regard in the 19<sup>th</sup> century, encouraging mathematical model-building. Margaret Schabas documented this in publications about Jevons<sup>31</sup> and others.<sup>32</sup> She makes perhaps a stronger case for modeling than Jevons would have recognized, but the phenomenon of supremacy of numeracy nonetheless is observable.

[Schabas'] argument is that the classical economists conceived of the economy as part of nature, and she contrasts this with the conception of J. S. Mill and the early neoclassicists, for whom man was no longer part of nature and by whom the economy was viewed as being directly governed by rational agency rather than natural forces.<sup>33</sup>

This connotes a major victory for mathematical leadership, but it is at least one step too far. It does resonate with LH. This is an argument for primacy that manifests itself in a variety of ways, the most

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25 Schumpeter, J. A., and E. B. Schumpeter (Ed.). 1954. *History of economic analysis*. New York: Oxford University Press, 1122-1135.

26 Tingey, K. B., Manicki, M., and Asllani, N. 2018. *Humanity 2.0 vs Golem 2.0: The dawn of a new era of civilization (Basileus revisited)*. Logan, UT: Fluidity Finance, 360-380.

27 Herschel, W. 1801. "Observations tending to investigate the nature of the Sun, in order to find the causes or symptoms of its variable emission of light and heat; With remarks on the use that may possibly be drawn from solar observations, *Philosophical Transactions of the Royal Society of London*, 91:265–318.

28 Jevons, H. S. 1910. *The Sun's heat and trade activity*. London: F. S. King and Son.

29 Moore, H. L. 1914. *Economic cycles: Their law and cause*. New York: The Macmillan Company.

30 Jevons, W. S. 1874. *The principles of science: A treatise on logic and scientific method*. New York: Macmillan & Co.

31 Schabas, M. 1990. *A world ruled by number: William Stanley Jevons and the rise of mathematical economics*. Princeton, NJ: Princeton University Press.

32 Schabas, M. 2006. *The natural origins of economics*. Chicago: University of Chicago Press.

33 Prendergast, R. 2009, April. Review: The natural origins of economics by Margaret Schabas. *Economica*, 407.

commonly-considered of which is the veritable quantitative vs qualitative debate. In the academies of higher education, quantitative primacy wins out, encouraged by preference under LH for finance-driven governance favoring the commercial status quo in all cases.<sup>34</sup> There is also the question of rigor, which is also claimed by the mathematicians, but there is little effective grounding for this; it is driven by some sense that calculation as a cognitive activity is more important than other mental activities. This is supported by the ease by which tests of calculation and mathematical reasoning can be conducted and evaluated. The process even lends itself to automation; SAT scores, ACT scores, GRE scores, GMAT scores, etc., are thus available immediately – nor reflection is required, nor is there a need to consider naturalistic, changing conditions.

Mathematics presents itself as the great mirage of our day. Its very fluency dooms mathematically-driven endeavors, as it far outshines the Bible's famous ability to support any point of Christian faith. As many a dissertation based on narrow statistical observations, contrived experiments, and stilted data has outshone truths less elegantly-described from a computational standpoint, and many a marketing plan has fallen prey to an accountant's certainty, often with regard to monetary constructs, which is abstract in and of itself.

There is an interesting mid-20<sup>th</sup>-century story that shines light on this phenomenon. The question under consideration involves economics in general and politics in particular as they relate to society. Mathematically-*driven* analysis, which is to say analysis that is fundamentally mathematical in nature, cannot truly reflect nature, nor can it represent societal commitments and preferences. It is too slippery, too rigid, and too self-absorbed. Investigation making use of mathematics – calculation, modeling, logical, computational as appropriate given methods and approaches – is essential. This is not all, however; it cannot be the driving force.

In the current political economy under LH, there is a clear precedence for economic issues over social ones. Economic issues and interests can muster more political power; they have access to more resources. They have the presumed cognitive and moral high ground over social questions. This can be seen in the common phrase: 'What you want would be nice, *but we cannot afford it.*'

Which is the 'tail' and which is the 'dog'? In the modern discourse, there is no debate – the dog is the economy and the tail is society. This is odd, to be sure; it was society that invented economic affairs – and mostly, of recent derivation. Sure, there has long been trade and commerce has been managed since ancient times, in many ways.<sup>35</sup>

*Here is the story:* In the mid-20<sup>th</sup> century the ultimately famous Harvard social scholar Talcott Parsons had an interaction with a similarly famous Harvard economist, Joseph Schumpeter, before Parsons had achieved obvious success in his career. To preface the story, it is important to note that Parsons expressed significant contributions to his career by Schumpeter, who he held in very high regard. Anyone with experience or understanding of the world of academics can appreciate the risks, as well as the sacrifices, incident to Parsons' behavior in this case.

There was one interesting episode which might, at a relatively late time, have turned me at least farther in the direction of economics. After my formal transfer to sociology,

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34 van der Pijl, K. 2014. *The discipline of Western supremacy*, Modes of foreign relations and political economy, Volume iii. London: Pluto Press.

35 Polanyi, K., Arensberg, C. M., and Pearson, H. W. 1957. *Trade and market in the early empires: Economies in history and theory*. Glencoe, IL: The Free Press.

Schumpeter organized a small discussion group with younger people, mostly graduate students, on problems of the nature of rationality. After a few meetings he proposed to me that the group should aim at producing a volume, of which he and I should be at least coeditors, if not coauthors. Though not specifically rejecting the proposal, at least immediately, I remember having reacted rather coolly, and in fact I let it die. I am not wholly clear about my motives, but I think they had to do with the feeling that I needed a relatively complete formal break with economics.<sup>36</sup>

Trained as an economist, when faced with the ultimate choice once he understood the issues more fully, he just could not deal with the switching of the issues and priorities that primal numeracy represents. Since that time, Parsons led out in the publication of “Economy and Society”<sup>37</sup> that clearly puts society in the place of preference. When it was published, he expressed surprise that it generated very little interest in academia or in the commercial realm. From what we see here, this comes as no great mystery; it calls into question primacy of numeracy, imposition of human prerogative over natural realities, and the kinds of preferences that exist under LH. It asked too much of the ‘little boys’ and challenged the ‘big boys.’ Neither kind of enterprise tends to do well.

## The Korzybski Challenge

How is importance to be judged, along with validity and legitimacy? Is this not dependent on context, as is meaning? There needs to be a firm connection between quantitative and qualitative aspects of society. The Korzybski message of the mid-20th century was that such a connection is warranted; he ultimately wrote of a lack of means to carry it about.<sup>38</sup> Improved application of technology, he said, is necessary to bring this about. This is the “Korzybski Challenge.” One *Achilles heel* of the LH approach is that it made knowledge and its application elective at best, often a suspect alternative to ongoing activities that were successful at stimulating the flow of financial artifacts.

There was a particular economist, one also with a background in physics, that negotiated a related gap in the time of Keynes and thereafter – professionally active from the 1920s to the 1990s. He did not introduce the kind of method that Korzybski had called for, but he did more intensive, more nature and society-inspired work using conventional tools of mathematical economics tools of the time. Interestingly, he was the first economist to receive a Nobel Prize for economics, Jan Tinbergen of Holland, who received the award in 1969. He objected to what he viewed as Keynes’ slipshod treatment of detail. Furthermore, Tinbergen was dismissive of what we call LH and its limited goals. He sought to achieve an “optimal social order”<sup>39</sup> and was particularly motivated to identify occupational choice as indicated by an individual’s “ability vector.”<sup>40</sup>

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36 Parsons, T. 1970. Talcott Parsons: On building social system theory: A personal history. *Daedalus*, 99(4): 834.

37 Parsons, T., and Smelser, N. J. 1956. *Economy and society: A major contribution to the synthesis of economic and sociological theory*. New York: The Free Press.

38 Korzybski, A. 1933/1995. *Science and sanity: An introduction to non-aristotelian systems and general semantics*, 5<sup>th</sup> ed. Englewood, NJ: Institute of General Semantics, 69.

39 Tinbergen, J. 1985. *Production, income, and welfare: The search for an optimal social order*. Lincoln, NE: University of Nebraska Press.

40 Houthakker, H. S. 1974. The size distribution of labor incomes derived from the distribution of aptitudes. In W. Sellekaerts (Ed.), 1974, *Econometrics and economic theory: Essays in honor of Jan Tinbergen*. New York: Macmillan, 177-187.

This bears some similarity to the other famous collaborator/contender to Keynes, Michal Kalecki, who also included social considerations in the idea of demand stimulus. All of these, however, are considerations with little understanding or concern for detailed underlying processes. At least, they represented awareness of social and qualitative conditions and needs. Another of these was the pragmatic effort in the United States at the beginning of the Great Depression in the early 1930s, in part based on encouragement by Marriner Eccles, to link development efforts to craft, artistic, and construction skills in direct investment in infrastructure to stimulate demand and support consumption.<sup>41</sup> None of this resonates directly with LH, nor is it fully in line with contemporary policy, which is based on faith in the behavior of cold, hard, mostly-monetary aggregates.

If maximal numeracy was not the answer, what is to be done? The modern answer is to ‘turn left’ or to ‘turn right.’ These are the two neo-Keynesian and neo-liberal options. This being the case I may be excused for not trying to provide a ‘sciencey’ answer. Science needs to offer the ultimate solution, but I am exhausted from efforts to apply rational, valid approaches to this problem. I have submitted about fifty such proposals to the federal government in the last twenty-five years or so and have received pitiful responses if anything. Typically, any response has been non-existent. Most of these have been military in nature, as this is the most active vehicle for such kinds of funding.

Such an important question should be dealt with systematically. There should be an appropriate literature review, fully and conclusively making a case for action. The review should make use of appropriate sampling of literature streams supporting these. The case that is thus made should form the framework for review and consideration. There should be comprehensive consideration of findings from the review. There could be a model that was tested; there could be data and findings generated from such a study. Finally, summaries and recommendations are appropriate.

As to this paper, the narrative to this point serves some of the purpose of a review. There is a body of work, much of it published on Amazon, providing associated background. As to groundings, I prefer to go way back, to consider the question under conditions as early as reasonable, if not possible. For this, I choose the moment when intensive agriculture is entered into. Some have referred to such a condition as an ‘invention’ of agriculture. Mark Cohen rather indicates that understanding of the requirements of growth and germination of edible plants was understood long before active efforts were entered into in order to encourage such growth. He indicates that this occurred in four regions in the world according to the best available evidence: Mesopotamia, the region of the lower Tigris and Euphrates rivers, Southern Mexico, the area now known as the Oaxaca region, the area of contemporary Peru and Bolivia south of Lake Titicaca, and Thailand in Southeast Asia.<sup>42</sup> In each case, he indicates, the motivation was for increased productivity of the land, to allow for greater population through more intensive cultivation efforts.

## Conceptual governance

I concentrate on the Mesopotamian case because of the availability of the earliest extant records – albeit from a period later than when overt planing and encouragement of plant growth and sedentary

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41 Eccles, M. S. 1951. *Beckoning frontiers: Public and personal revelations*. New York: Alfred A. Knopf, 91-113.

42 Cohen, M. N. 1977. *The food crisis in prehistory: Overpopulation and the origins of agriculture*. New Haven, CT: Yale University Press, 24.

lifestyles were assumed.<sup>43</sup> This does not mean that the other areas are not interesting, nor that they would not provide instructive insights, but that as limited to archaeological investigative outcomes, they represent another kind of data from which less detailed insights will be achievable.

When considering the ancient case in the region north of the Persian Gulf, the most recent six thousand years have been characterized by much more nuance and sophistication than has been understood by Western Europeans during the LH period. Given the commitment to detail and data-driven decision-making of the ancients, they would clearly step away from a perceived, unsupported faith in market equilibrium based on doctrines of self-centeredness and the law of large numbers, as is the case in modern policy – LH-inspired and otherwise. They used divination and other techniques that seem arcane and naive to our understanding, but they were also advanced in showed insight in their planning and use of data to support action that we could learn from.

Old records, written in clay, have been found in decipherable form dating to almost six thousand years ago. There are about a half million of these. They cover varied subjects, including narrative and literary forms as well as artifacts of trade, governance, and science. They are far more nuanced and sophisticated with respect to governance and society than had been assumed by moderns without the requisite archaeological and anthropological data. Faced with materials in the ancient records, typical conceptions of old civilizations appear both cartoonish and naive. With time, findings with respect to ancient knowledge have proved enlightening to many fields of study, both scientific and social. This has encouraged much collaboration between scholars in such languages and research colleagues in such fields of study.

The general pattern has demonstrated digression from the 2<sup>nd</sup> millennium BCE thereafter. From the Southern Tigris/Euphrates region from that period to Babylon at around 1,500 BCE to Assur from then to about 1,100, there was less sophistication, fewer options for living conditions by common people, and increased autocracy. This led to a time of collapse of the leading states that is poorly-understood from an LH perspective. This is to say that the LH preference for trade above all lends a blind eye to critical underpinnings of stable civilizations: The reduction of any and all risks associated with the fundamental needs of people everywhere: *Food, shelter, and clothing*.

Under LH, these fundamental needs are obscured, if not manipulated. The point of ancient systems – the stable ones – was to reduce any and all risks to these in maximal ways. Hopefully, this boils down to whether rain and other environmental perils permit cultivation. The best way to allow for this is to provide the conditions to the people themselves to cultivate and provide for themselves. There are risks to such plans that can be mitigated by means of governance and continual management of food-stocks in centralized ways. Furthermore, there are needs for protections when success creates conditions that attract attention of outsiders who would contravene the ongoing enjoyment of such by the people.

Mankind enjoys a long history. There are evidences of commitment to civilization, society, and urban existence dating back approximately twelve thousand years – considerably before a shift to sedentary, intensive agriculture about ten thousand years ago. Evidence points to a concerted commitment to support more intensive agriculture in face of deteriorating diets and mundane lifestyles associated with sedentary, urban life. Evidence has shown that knowledge of plant germination and growth and of the benefits of husbandry predated such intensive efforts for a very long time. For one thing, how would

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43 Woolley, C. L. 1995. *The Sumerians*. New York: Barnes & Noble Books, 27-61.

nomadic peoples know where to go – and when – in order to harvest desired seeds and fruits of such plants and hunt animals that were also dependent on them?

It is interesting to compare two times of consolidation in terms of their groundings and their patterns of development: The urbanization of Sumer above the Persian Gulf in the long period from the 4<sup>th</sup> to the 2<sup>nd</sup> millennium BCE and Western Europe as it emerged from the Dark Ages through the 2<sup>nd</sup> millennium CE. Sumer can be seen for its decisiveness, its connectedness with prior knowledge and organization as documented, the growth from copper to bronze as “foundation for a new economic organization.” There, “transformation can be followed step by step in the archaeological record.”<sup>44</sup> There was much less guessing then, much less abstraction:

By 4000 BCE the great tract of semi-arid lands round the East Mediterranean and eastwards to India was populated by a multiplicity of communities. Among them a diversity of economies, appropriate to the variety of local conditions, must be imagined – hunters and fishers, hoe-cultivators, nomadic pastoralists, and settled farmers. And on their fringe we can add other tribes spreading out into the distant wilderness. Among them these diverse communities had augmented man’s cultural capital by the discoveries and inventions... They had severally accumulated an imposing body of scientific knowledge – topographical, geological, astronomical, chemical, zoological, and botanical – of practical craftlore on agriculture, mechanics, metallurgy, and architecture, and of magical beliefs that might also enshrine scientific truths. As a result of the commerce and movements of peoples just hinted at, such science, techniques, and beliefs were being widely diffused; knowledge and skill were being pooled. And at the same time the exclusiveness of local groups was being broken down, the rigidity of social institutions was being relaxed, self-sufficing communities were sacrificing their economic independence.<sup>45</sup>

Desire to build on the population, then, led to urbanization. According to the Sumerian, early Mesopotamian model from the 4<sup>th</sup> to the 2<sup>nd</sup> millennium BCE, urbanization led to a sophisticated, nuanced approach to meeting basic needs while accounting for interruptions from nature and allowing for commerce and enterprise to acquire additional products and services. The nature of these could and should have granted pause for Western Europeans from a millennium ago onward as they attempted to improve their condition. What if they had known about this?

In the great alluvial valleys of the Nile, the Tigris-Euphrates, and the Indus system collective effort had created artificial environments. Societies dwelling therein had emancipated themselves from immediate dependence on the caprices of raw nature and had discovered uniformities that permitted rational planning. The organized exploitation of lands reclaimed from swamp and desert was yielding unprecedented supplies of corn, fish, and other foodstuffs. A local failure of crops need no longer mean starvation; for thanks to improved and artificial waterways food supplies could be collected for storage in the city granaries and distributed all over the valleys. State organizations, based on residence instead of kinship, abolished blood-feuds between clans, mitigated the violence of other internal conflicts, and probably reduced the frequencies of wars...

The vast areas of the new cities as compared with any barbarian village, the immense cemeteries attached to them, and the stupendous works executed by the citizens, place this conclusion beyond question. The standard of life had risen, too. The rulers and the new middle classes certainly enjoyed a variety of food and drink, and comfort in

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44 Childe, V. G. 1942/1964. *What happened in history*. New York: Peregrine Books, 97.

45 Childe, V. G. 1936/1951. *Man makes himself*. New York: Mentor Books, 114.

accommodation and clothing that no barbarian chieftain could imagine. Even the masses secured a more varied [diet] and more salubrious housing.<sup>46</sup>

Numbers factored into that world, as well as words – for the first known time, written words that have been preserved in the many clay tablets that were created in Sumer.

In Sumer, Egypt, and India the new economy had required and elicited conventional systems of writing and numeral notation, of weights and measures and of time-keeping. It had thus revolutionized the methods of accumulating knowledge and transmitting experience, and produced sciences of a new kind.<sup>47</sup>

The prosperity of Sumer depended on its agriculture and on its commerce. The carefully irrigated fields produced amazing crops of barley and spelt, onions and other vegetables grew along the canal banks, and as early as 2800 BCE the date-gardens were very extensive – a number of varieties of dates were cultivated, and the harvest afforded one of the staple foods of the people. A good deal of the land was the property of the temples and the king or governor would own his private estates; there were communal lands under collective ownership, but individual rights in land were very common and it was the rule rather than the exception for the countryman to have a small holding of his own: A certain proportion of these private possessions would be *ilku* lands granted by the king to ex-soldiers, the tenure of which was inalienable and involved the duty of military service. The possession or the transference of land was witnessed by written deeds of ownership...<sup>48</sup>

A smallholder might of course cultivate his own farm, employing labor hired by the year and paying wages in barley, wool, beasts, and sometimes in silver; if he were a poor man and compelled to borrow for seed-corn, instruments, etc., perhaps mortgaging his field for the purpose, he received legal protection against his creditors until the harvest, and should that fail through no fault of his own, was excused interest on the loan...

Thus Sumer was self-sufficing so far as the feeding of the population was concerned, as for their clothing also... in the later periods Babylonian stuffs were freely exported and fetched a high price in foreign markets and it is probable true that the same is true of the early period also... But everything else had to be imported.<sup>49</sup>

Such conditions existed for a good, long time. There was a long deterioration of affairs, in fact, with improved conditions in the Sumerian city-states, which were similar, but allowed significant autonomy. Archaeology demonstrates higher art – pottery and such – in the 4<sup>th</sup> millennium BCE, then a “steady decline both in imagination and craftsmanship ... and must have had behind it centuries of growth and experience.”<sup>50</sup>

Johnson quotes Wallace as to our predicament: If we do not like our state of affairs, if we cannot position associated plans in our past, in our tradition, we are doomed to violence as well as chaos. John Clammer provides guidance as to how this is to be done – a vexing challenge throughout the ages, as we will see:

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46 Childe, 1942/1964, 138-139.

47 Ibid., 140-141.

48 Woolley, 1995, 112.

49 Ibid., 112, 115.

50 Ibid., 45.

The issue of conceptualizing good development, as with the related process of defining the good society, is in fact a philosophical rather than a technical or economic question. It ... includes the comparative and cross-cultural exploration of the characteristics of human beings as a species, including our emotional, artistic, and religious make-up, our relationship to nature and to the world, of material things, and, in the light of this analysis of our qualities, the definition of genuine needs and the empirical exploration of what people themselves believe to constitute their true fulfillment, their conception of justice and rights, and the means available to them to overcome their alienation from nature and from one another.<sup>51</sup>

Forgiving Clammer for perhaps the longest sentence on record, his message is of prime importance. There is a holistic aspect to our reality and our ancestors' connection to it that we need to take into account. Whether considering natural or social realities, respect is in order – and more! This may be the biggest challenge, to gin up respect and an ounce of humility and start to look. It is clear that our forebears for thousands of years back were already so engaged. Following are some examples of these.

## Governance calculus

There is controversy over the why's of the situations of history, but it is clear that governance failed, or at least was substantially weakened, toward the end of the 3<sup>rd</sup> millennium BCE. This was a point of peak performance. John Clammer is a leading anthropologist in describing living arrangements that were both more socially-grounded, but also more complex and nuanced from an institutional standpoint when compared with contemporary, LH conditions. Through history, there is evidence on not only 'discovery' of new ways of living and governing, but 'rediscovery' of old ways, of old glories.<sup>52</sup> Quoting Firth, Clammer describes a more sense, rich, and fortunate long history of mankind than has been generally understood within Western belief.

Evidence of gross difference between primitive, peasant, and industrial economic systems is obvious. But absence of general markets for goods and services of all kinds and the lack of impersonal market relationship does not mean the lack of any concept of economic advantage ... the differences lie primarily in the structural and institutional fields. On the basic principles of choice in the use of resources and perception of relative worth in an exchange, there is a continuum of behavior over the whole range of human economic systems.<sup>53</sup>

There has been knowledge lost; the Sumerian records not only end that argument, they provide details as to the nature and implications of that loss to society. Improved means of governance had been developed and high levels of coherence, choice, and independence resulted from such arrangements. I follow a path here of memory of conditions in Sumer as documented in newer Western histories. Armed with limited knowledge, suffering abiding living requirements of all peoples in various climactic and security conditions, several major attempts were made at restoration.

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51 Clammer, J. 2012. *Culture, development, and social theory: Towards an integrated social development*. London: Zed, 31-32.

52 Clammer, J. 1985. Chapter 4: Economic anthropology and the problems of development. In J. Clammer, 1985, *Anthropology and political economy: Theoretical and Asian perspectives*. Houndsmills, Hampshire, UK: Macmillan, 47-70.

53 Clammer, J. 1985. *Anthropology and political economy: Theoretical and Asian perspectives*. Houndsmills, Hampshire, UK: Macmillan, 50.

## First derivative

Childe makes reference to constant rivalries among the dozen or so city-states with changeable borders that did not result in dominance any over the others after the disorganization of Sumer's city-state system until the city-state of Agade under Sargon achieved such a condition in the region for about a century in 2500 BCE or so.<sup>54</sup> This post-Sumerian development, progressively moving north to Babylon, then Assur. *This was a first derivative of the conceptual Sumer model.* The 'great organizations' as described by Mario Liverani<sup>55</sup> were eventually substantially weakened – particularly the temples – leaving the people to struggle, with some success, to extend benefits of Sumerian-type governance. Similar to China's success under Confucianism in the last two millennia, regimes came and went under one leader or group or another, to succumb to another that made use of the same cultural artifacts, governance models, and language elements.

Each of these had some memory of Sumer, but little means of passing such elements along. With each move to the north and west away from Sumer, the lives of the people became less cooperative and self-supporting and governance became more self-serving and autocratic. Still, lessons learned had been long-lasting and effective. As indicated by Leonard Woolley,

The difficulty lies not in recognizing the fact but in estimating the importance of the debt which the modern world owes to this race, so recently rescued from complete oblivion... Their civilization, lighting up a world still plunged in primitive barbarism, was in the nature of a first cause ... we have learnt how that flower of genius drew its sap from Lydians and Hittites, from Phoenicia and Crete, from Babylon and Egypt. But the roots go farther back: Behind all these lies Sumer.<sup>56</sup>

Sumer had been characterized by dynamic balance between the classes of people and the organizations of the the city-states and an equilibrium among the city-states themselves, which had mutual interests in trade and security to be sure, but had not developed mutual dependence based on trade or other forms of exchange with respect to necessities. As further described by Woolley,

The military conquests of the Sumerians, the arts and crafts which they raised to so high a level, their social organization and their conceptions of morality, even of religion, are not an isolated phenomenon, an archaeological curiosity; it is as part of our own substance that they claim our study, and in so far as they win our admiration we praise our spiritual forebears.<sup>57</sup>

After Sumer, a different condition has been described. Empires in Babylon and Assyria were the principal followers of Sumerian traditions and institutions. First derivative countries enjoyed highly-developed trade and social relationships, but evidence has pointed to inherent dependencies therein, resulting in the simultaneous decay of several strong ancient states with co-dependent affairs being at least a major contributing factor. There also seems to have been fixations on precious metals, luxuries, etc., and little overt infrastructure and methods in place to support the fundamental needs of the people. They did not start out that way:

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54 Childe, 1936/1951, 126.

55 Liverani, M., and Z. Bahrani and M. van de Mieroop (Trans.). 1998/2006. *Uruk: The first city*. Sheffield, UK: Equinox.

56 Woolley, 1995, 192-193.

57 Ibid., 193.

Sumerian genius evolved a civilization which persisted for nearly fifteen hundred years after its authors had vanished, and Babylon and Nineveh did not keep this heritage to themselves; they also were imperial peoples, and their dominion over or their intercourse with the west fostered in those lands the seed which earlier Sumerian conquerors had planted. The Hittites of Asia Minor adopted the cuneiform script which was one of the greatest of the Sumerian inventions; Babylonian became the diplomatic language of the courts of Syria and even of Egypt; the cylinder seals of Syria and Cappadocia are both in form and in style derived from Mesopotamia; the sculptures of Carchemish trace their descent through Assyria to Sumer; the eclectic art of the Phoenicians in so far as it drew from Oriental models was in the same indirect way an offshoot of the Sumerian. This is not to say that these countries were slavish copyists of a civilization which had as a matter of fact passed clean out of their ken; in each of them the arts developed in a normal way and received a more or less distinctive stamp of their nationality. But on each of them the Sumerian tradition has had a profound influence, stronger, naturally, in the home lands of the lower river valleys where it is indeed the direct begetter of all that is to follow, more subtle in the outlying provinces where it is a collateral rather than a source; and through these later peoples of the Near East it has influenced the material civilization of the modern world.<sup>58</sup>

The original model, for one acknowledge the difference between needs of the people and wants of their leaders. It also provided its leaders with substantive guidance, education, and support in these matters and provided written artifacts supporting desired behaviors in governance as noted earlier.<sup>59</sup> This was governance of conceptual space at mature and sophisticated levels. This was disappearing in the first derivative cultures, little-by-little over time.

## Second derivative

Cline's story comes thus more into view, as Eastern Mediterranean cultures developing around the 15<sup>th</sup> century BCE, they were indeed of the periphery of the mother civilization. *This was a second derivative of the Sumerian model as we now understand it.* Conditions pointed to a collapse to the center in and around 1177 BCE including all of these countries and more in the Near East. Cline documents these as the Hittites, the Mycenaeans, the Canaanites, the Cypriots, and others in the region. Egypt, Assyria, and Babylon also fell. These were seen as being overrun by Sea Peoples from various locations and Northern and Eastern Mediterranean countries, teeming with soldiers and desires to conquer and to return. One conquest was referred to a history's "largest drive-by shooting" on record. The conquerors were of little long-term consequence, from "countries of the sea."

Why were the major empires of the day susceptible to such threats? Cline points to extreme conditions:

...a concatenation of events, both human and natural – including climate change and drought, seismic disasters known as earthquake storms, internal rebellions, and "systems collapse" – coalesced to create a "perfect storm" that brought this age to an end.<sup>60</sup>

The second derivative empires failed, as Cline documents. He notes many evidences of communication and intermarriage, and exchange among elites that borders on the frantic and surreal. Perhaps there was simply hubris stemming from unbridled power. Mutual dependence on trade and interchange among the

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58 Ibid., 189-190.

59 Kramer, 1963, 116.

60 Cline, E. H. 2014. *1177 B. C.: The year civilization collapsed*. Princeton, NJ: Princeton University Press, 11.

countries of the Mediterranean and Near East, including gifts of many kinds and services of “physicians, artisans, weavers, musicians, and singers.” One king lavishly appointed an icehouse for year-round drinking,<sup>61</sup> and others became obsessed with gold and lavish goods.<sup>62</sup> Liverani describes results of a drift – certainly from the norms of Sumer – which Cline and others agree with:

... the particular concentration in the Palace of all the elements of organization, transformation, exchange, etc. – a concentration which seems to reach its maximum in the Late Bronze Age – has the effect of transforming the physical collapse of the Palace into a general disaster for the entire kingdom.<sup>63</sup>

This led to the conditions, described earlier, of the progressive deterioration of government legitimacy to about 1,100 BCE that led to a generalized collapse of all of the great monarchies, the great states, that existed then.<sup>64</sup> There has been much discussion of ‘perfect storms’ and ‘multiplier effects’ within national and international systems, but Nancy Sandars pointed out, “In the land surrounding the Mediterranean, there have always been earthquakes, famines, droughts and floods, and in fact dark ages of a sort are recurrent.”<sup>65</sup> It is one thing to benefit from trade and international exchange; quite another to be dependent on them<sup>66</sup> as seems to have occurred. Not only was knowledge and tradition lost, but also literacy.<sup>67</sup>

### Third derivative

Later in the region – as demonstrated in the writings of Homer and Hesiod, there was an effort to reestablish order in a way that defeated the prerogative problem of leaders that would be kings. It was described by Cline:

... the Bronze Age civilizations did come to an end and development did essentially have to begin completely anew in areas from Greece to the Levant and beyond. As a result, new peoples and/or new city-states like the Israelites, Aramaeans, and Phoenicians in the Eastern Mediterranean, and later the Athenians and Spartans in Greece, were able to establish themselves. From them eventually came fresh developments and innovative ideas, such as the alphabet, monotheistic religion, and eventually democracy. Sometimes it takes a large-scale wildfire to help renew the ecosystem of an old-growth forest and allow it to thrive afresh.<sup>68</sup>

*This was the third derivative.* This was the Greek experience; it created the tradition of the polis, which did not come from Sumer, but was a valiant effort to overcome social and political imbalances that could well have brought down the empires described by Cline. The experiment introduced innovations in community governance that may not have been necessary if the models and institutions of Sumer had been understood. The Greek experiment never survived the Peloponnesian War, which was fought in part due to different interpretations of the polis concept between Athens and Sparta.<sup>69</sup> Alexander the Great’s conquests were possible in part due to the weakness of Greek vis-à-vis Macedonian power, but

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61 Ibid., 18-19.

62 Ibid., 57-60.

63 Ibid., 162.

64 Ibid., xv-xviii.

65 Ibid., 160.

66 Ibid., 150.

67 Childe, 142/1964, 192.

68 Ibid., 176.

it didn't really change very much with respect to understanding and application of the Sumerian governance model. The message by this time was only minimally conceptual as to governance, only really considering questions of physical space and dominance.

Rome, though powerful and influential, was not directly a part of Sumerian tradition either. Originally an outpost of Athens, Rome was a strong kingdom, then republic, then empire, but never anything more than this. There was no 'polis' in this, all was domination and political and military power. Roman leaders would only listen to the Greeks in private when they did and they destroyed as many Greek institutions, schools, and records as they could as they went through the various waves of trying to preserve their power and wealth. Christian institutions of a kind survived in lieu of Roman ones, although Christian traditions of successful community governance that made Christianity desirable to the Romans in the first place did not.<sup>70</sup> Did the Christians get it from Sumer? Well, they got their culture from the Hebrews and Abraham, a key patriarch of those, did come out of Ur at a critical time – the fall of Sumerian city-states, leading to the first derivative nations of the time.

## Search for a fourth derivative

Is there a fourth derivative? Not knowledgeably so – at least, not in the West. The East presents different stories, which I have written about elsewhere.

In the West, there have been several attempts at recreating Rome. The case could be made that these were not only representative of the efforts of Constantine and Justinian, there was the Frankish/Merovingian world, Carolingian and Gregorian times, and, later, the advent of the Normans, who demonstrated above all of their predecessors from the north a commitment to cultural, religious, and political traditions of Europe toward the beginning of the 2<sup>nd</sup> millennium CE. All of this led through times of 'darkness,' times of ignorance of mankind's long history and of knowledge of how to live in the collective. The lessons dating through the beginnings of the written word, oral traditions, and epochs of study of nature and living patterns were not available to them.

LH is more Roman than anything else in this regard. Blackstone's Commentaries, although technically English common law, reflects the spirit and structure of Justinian's furtive efforts to save the Roman Empire by documenting elements of a legal model that had little of the stamp of legitimacy of Sumer, other than some references to Homer, of the 3<sup>rd</sup> derivative.<sup>71</sup> In the Justinian model, people do not resolve their differences among themselves, they turn them over to third parties to do so.<sup>72</sup> If that is not a recipe for corruption, what would be? No, no, no – don't go to Hammurabi. That was a part of the first derivative material.

The Justinian code greatly favors absolutism: The emperor is considered the living law, and his will has the unchallenged force of law. "The emperor alone can make laws [and] it should also be the province of the imperial dignity alone to interpret them." In this autocratic doctrine, as well as in its rationality and organization, its overriding principles of equity, its adherence to a system of legal procedure in which the authority of the judge as

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69 Thucydides, Strassler, R. B. (Ed.), Crawley, R. (Tran.), Hanson, V. D. (Intro.). 411BCE/1996/1998. *The landmark Thucydides: A comprehensive guide to the Peloponnesian War*. New York: Touchstone.

70 Brown, P. 1971. *The world of late antiquity: AD 150-750*. New York: W. W. Norton & Company, Inc., 64-68, 82-112.

71 Maine, H. S. 1861/1986. *Ancient law: Its connection with the early history of society and its relation to modern ideas*. Dorchester, UK: Dorset Press, 1-17.

72 Curry, W. 1796. *The commentaries of Sir William Blackstone on the law and constitution of England...* London: W. Clarke and Son, 401-407.

the representative of the emperor dominates the court, the Justinian code stands in boldest contrast to Germanic folk law.

Although the Justinian code was not studied in the West in the early Middle Ages, after the middle of the 11<sup>th</sup> century it slowly became the basis of the legal systems of all the European countries, with the exception of England. It is true that this reception of the Roman law brought unfortunate consequences politically in that it provided a juristic basis for the absolutism of the later Middle Ages and early modern times, but the other characteristics of the Justinian code are so much in line with enlightenment and rationality that it deserves to be recognized as an unsurpassed legal system.<sup>73</sup>

So its is elitist, absolutist, and contrary to democratic principles as most would recognize, it is “an unsurpassed legal system”? This the kind of detachment that exists under LH. Sumer in its prime had been characterized by much legal documentation and clarification of rights,<sup>74</sup> but it was when the integrity of the city-states was broken apart<sup>75</sup> that legalism, interpretation, and the groundings for what is currently called pragmatism in the law. This is of direct relevance to the question of harmony between nature and society – ultimately directed by natural realities, not societal preferences – or arbitrary modeling and interpretation as considered earlier. The legal aspects of this, the pragmatist perception, is as follows:

...we can see that “truth” is going to be a problematic concept for the pragmatist. The essential meaning of the word is observer independence, which is just what the pragmatist is included to deny. It is no surprise, therefore, that the pragmatists’ stabs at defining truth – truth is what is fated to be believed in the long run (Peirce), truth is what is good to believe (James), or truth is what survives in the competition among ideas (Holmes) – are riven by paradox. The pragmatist’s real interest is not in truth at all, but in belief justified by social need.

This change in direction does not necessarily make the pragmatists unfriendly to science... But it shifts the emphasis in philosophy of science from the discovery of nature’s laws by observation to the formulation of theories about nature that are motivated by the desire of human beings to predict and control their environment.<sup>76</sup>

This reflects the modern conceit with regard to policy. This is detached from the underpinnings of civilization, how it came about, how mankind came to prosper, and how cooperative governance can be brought together in support of needs to be sure, also allowing for initiative and innovation. The earliest records were highly practical – supporting administration of central stores of food, organizing transformation and exchange, standardizing productivity according to a “comprehensive taxonomy of reality,” organizing space – especially agricultural space – and tracking activities of the great organizations, the temples and the palaces.

Important to understanding the policy needs of a cooperative model, it is interesting to view the means by which legal issues were considered:

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73 Bertman, S. 2003. *Handbook to life in ancient Mesopotamia*. Oxford, UK: Oxford University Press, 86-87.

74 Kramer, 1963, 73-84.

75 Ibid., 85-88.

76 Posner, R. A. 2003. What has pragmatism to offer law? In D. Patterson (Ed.), 2003, *An anthology: Philosophy of law and legal theory*. Malden, MA: Blackwell Publishing, 181.

Outside the central administrative and bureaucratic apparatus, legal issues and the regulation of community affairs remained entrusted to collective organisms (assemblies, elders).<sup>77</sup>

This does not resonate with LH thinking. It is useful to understand the complex and nuanced social structure under which the early Sumerian city-states operated.

The archaic state – at least in the model of the urban revolution as attested in Lower Mesopotamia – was in essence a redistributive state with two concentric circles, an inner and an outer one. The inner circle of dependents of the central agency extracted from the outer circle a surplus of labor and, through it, of production. That enabled the support of specialists and the maintenance of the administrative machinery. The inner dependents were fully integrated in the redistributive system, both by giving and by receiving. They provided their services, and received their maintenance in exchange. On the other hand, the outer circle of the ‘free’ population, gave its contributions to the central agency, receiving practically nothing in exchange. The redistributive system functioned therefore in an unbalanced way: The principal flow went from the outer circle to the central storeroom, and from there, to the inner dependents.

In other words, we can probably say that the archaic state included two categories of subjects. In the outer band, which was the larger one in size, lived people who were subjects in the political and, especially, the fiscal sense. But they were economically free. People in the inner nucleus, on the other hand, depended on the state both politically and for their labor. They were totally integrated in the state-organization that supported itself by exploiting the people in the outer band.<sup>78</sup>

Choices, then – including increased risks for ‘off-the-record’ rewards. This reflects nuance and mutual respect that does resonate in many indigenous cultures and can be seen in certain historical records, but that is not reflected in modern governance and social models, particularly not within the LH framework.

Other than providing a religious justification for the imbalance of contributions, Sumerian ideology seems particularly directed at affirming the positive value of complementary social roles. Manifestations of this are found especially in wisdom literature and mythological texts, both of which are characteristically very conservative and thus presumably go back to a very early period.<sup>79</sup>

Under contemporary models, there is no honorable way to make the risk-free choice – everything must be pushed through the twin extruders of money and commodity labor, trading time for money. As can be seen, what would be considered economic factors did not prevail over social ones in Sumer; legalistic ones did not, either.

## **A fourth derivative model for the 21<sup>st</sup> century**

Now that we know of the prospects, is there some way of looking at a fourth derivative model now? We are worlds ahead with the realization that this is possible. That is a large part of my effort generally;

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<sup>77</sup> Liverani, 1998/2006, 61.

<sup>78</sup> Ibid., 62.

<sup>79</sup> Ibid., 64.

a ‘beacon of hope,’ if you will, that we indeed do already know how to live. This is to say that humanity does, or did, and predecessors have left enough breadcrumbs along the way to guide us through a process of revitalization.

I come to the battle from a utilitarian perspective; my path toward understanding the issues and question of governance and legitimacy began with a vision of sorts. I saw a view of the future, not from an experience in a remote cave, or an epiphany on a mountaintop. It did not come from a single experience, but from the effects of a persistent effort to create something of value, related to the computerization of knowledge, of something nuanced and complex, over a nine-month period in a time of difficulty. This was in 1993. I had started a software company; the technology we had chosen was interesting and timely.

Our effort was to provide something that was unique to direct selling companies in support of their missions. The companies in question gain much of their standing from novel means of compensating their agents. The matter is a dynamic combination of commercial performance and the structure or their compensation. The models and tools for doing so are very complex and detailed. Decision-makers in these companies were some of the least likely people to understand the formulas, as they were universally non-technical sales and marketing specialists. They did in fact understand the bottom line – they were not motivated by anything else. This is to say that they were fully invested in outcomes, but had little knowledge of the intricacies and mathematical sophistication of the models in question. The point of the project was to bridge the gap, to design a tool that would allow such people to make legitimate decisions as they presented themselves and to evaluate outcomes for themselves, leveraging my knowledge of such plans and making the results thus available to those who wanted and needed them the most.

I used the tree model to design this. Although I had training in conventional computer programming for the time – procedural programming as it is typically described, using Fortran, COBOL, and Basic programming languages. The use of trees, I found, was much different from those; the main challenge to thinking in terms of trees in this manner – the implementation I was using was more complex and less intuitive than it needed to be – was overcome with time. I found that the tasks in question supported my thought process and I was able to identify opportunities that neither I nor others had thought about. In short, I experienced the benefits of a very longstanding cognitive function – list-making.<sup>80</sup> This is a tried-and-true method for organizing thought and thinking through alternatives. Organizing lists by means of organized trees allows for computerizing and use that leverages the benefits of network tools and systems.

The tool that I made caused a minor splash in the industry, but in the final analysis, it mostly made the competition upset – and motivated them to take outsized actions to defeat our efforts. That was my first direct experience with Silicon Valley methods and norms, which are certainly not oriented toward empowerment of experts or any other class of users.

The point is, I got a vision of the possibilities for organization and use of technology based on a deeper level of knowledge than would otherwise be possible. What I said to myself, and to many others at the time, was “If this was possible with complex, performance-driven compensation plans, what would be the prospects with something that mattered?”

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80 Goody, J. 1977. *The domestication of the savage mind*. Cambridge, UK: Cambridge University Press.

This led to a series of white papers that I wrote and distributed to friend and colleagues. This led to understanding of related activities and concepts, most particularly process orientations and the work of Walter Shewhart and W. Edwards Deming. At that time, I came up with the idea of ‘dual control,’ the combination of authority and knowledge in process form and a related book.<sup>81</sup> The rest of the concepts of ‘methods-based management’ grew out of this.<sup>82</sup>

This serves as the backdrop for a ‘fourth derivative’ model that leverages human knowledge dating to early times. The point is, technology can be used to define and deploy the processes of nature and of society. One limitation in this process – a defining and limiting one – is a lack of confidence. Without such confidence – which would be virtually impossible to conjure by non-technologists and contrary to the norms of those who are – coherent policy implementation such as is considered herein would not even enter the minds of those who concern themselves with such matters. Such professionals are not any more likely to understand or concern themselves the details of technology nor of modeling than would direct selling executives as described earlier.

What should the fourth derivative look like? Truly, it would be best if it were a variation of the first derivative, not the third, to the degree that that is possible. Of course, much could be gleaned from the third derivative model, but there is no concrete reason to think that it would be meaningful, feasible, and conclusive options. Over the centuries, extending to millennia, daisy-chaining of the underpinnings of society and governments has proved to be effective, as described herein.

Modern conceit eliminates such a prospect, as also outlined. There are advantages from modernity to be sure, but they need to be considered carefully. LH-directed programs have resulted in skewed science. LH-driven ethnicity has discouraged equanimity. Progress in electricity and electronics is undeniably unique. This has resulted in impressive breakthroughs in physics, both the physics of large and small, along with technologies that are far beyond anything before.

These have laid bare the lack of solutions, as considered by Korzybski. This has proven damaging, in that technology is routinely used with no reference to any knowledge-oriented source, often contrary to accepted knowledge. Overcoming that alone will be a major challenge as such interests are heavily invested in LH. This has been underscored by Goody:

The shift from the science of the concrete to that of the abstract, in other words the development of concepts and formulations of an increasingly abstract kind (side by side with the more concrete), cannot be understood except in terms of basic changes in the nature of human communication...

Nevertheless, there is direction, especially in the areas of what has been called ‘control over nature’ and ‘the growth of knowledge,’ and this movement is related to developments in the technology of the intellect, to changes in the means of communication and, specifically, to the introduction of writing.<sup>83</sup>

Writing can lead to further list-making, as I described, which provides additional possibilities – breakthroughs. The Korzybski Challenge has thus not been met, although he made a strong case for its

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81 Tingey, K. B. 1999/2008. *Dual control: Science as applied to organizational performance*. Saarbrücken, Germany: VDM Verlag Dr. Müller. Available: <http://a.co/d/h1q8Wbk>.

82 Tingey, K. B. 2009/2018. *Methods-based management: Legitimacy via fluidity and immersion*. Logan, UT: Profundities LLC. Available: <http://a.co/d/aNChRvh>.

83 Goody, 1977, 150-151.

need. As an engineer, he dove deeply into physics and advancements there – the anomaly that there has been such fundamental discovery in a time of such chaos, indecision, and uncertainty. He provided some rationale for this:

It is well known that when it comes to the manipulation of symbols mathematicians agree, but when it comes to the semantic aspects or meanings, they are admittedly hopelessly at variance.<sup>84</sup>

Misuse of the knowledge of physics is ‘Exhibit A’ as to what is wrong – an extreme violation of semantics in the application of mathematically-driven knowledge. This was instigated by a famous letter from Albert Einstein to U.S. president Roosevelt in 1939.<sup>85</sup> It is interesting to review that letter from this perspective – fluidity, dual control of authority and knowledge, etc. Knowledge of quantum physics has the potential to unlock secrets of life and geology, energy and the cosmos, and rejoin the cognitive connection between humankind and nature that existed in the main in the development of biological and society underpinnings of civilization. Instead, it has been used to unleash unprecedented horror on society; horror that has itself skewed all aspects of human life.

Such knowledge has proven beneficial in energy and to some degree in some aspects of medicine and health, but there has been no major breakthrough. My sense is that there has been careful management of this from an LH standpoint. For example, there is considerable support for nuclear technologies with regard to late stage cancer treatment, but little support for metabolic and lifestyle applications of quantum signaling and similar models for diagnosis and assurance of the well-being of healthy people.

Confidence in fluidity can and should underscore confidence on the part of scientists as well as policy specialists to form alliances to extend contemporaneous governance models to the needs of the people at least in harmony with the ancient models, those of the ‘great organizations’ of Sumer and of systems to assure the availability of needs while maintaining capacity to gain optional wants.

Why don’t we have means of guaranteeing that biological and sociological needs are met? That seems to me to be a form of LH-induced madness. Why isn’t this obvious? Why isn’t it a priority? This is an egregious example of the failure of ‘time-binding’ as described by Korzybski. This is something that an intelligent populous would insist upon.

What are the other features of the primary documented civilization? Conceptual governance is a must; there is no way to achieve the gains and provide the opportunities to the people, socially and otherwise, as long as governance is fundamentally bound to geopolitical concerns. People with similar cultural, ethnic, and social priorities and commitments ought to be able to exercise these on one side of a physical border in substantially the same ways on the other side of that border, all things being equal. Should a state be able to enforce the opposite – socially-centered, ethnically-grounded, and politically singular? Possibly so – that is for the people in question to ultimately decide – but such decisions should be made by choice, barring compulsion and protecting rights as are generally accepted as fundamental by the community of nations.

Standards for contemporary governance can be seen in the writings of Jan Tinbergen in his conception of an “optimal social order.”<sup>86</sup> These reflect “interpretation of [different schools of thought]” incorporating conceptions regarding nuclear threats to security and environmental conditions. The

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84 Korzybski, 1933/1995, 566.

85 Einstein, A. 1939, August 2. *Einstein letter*. Available: <http://www.fdrlibrary.marist.edu/archives/pdfs/docsworldwar.pdf>.

factors include (1) civilian institutions and their instruments, (2) planning institutions, (3) executive institutions for production, distribution, and consumption, (4) the formal education system, (5) political security institutions, (6) military security institutions, (7) a means of integrating these, and (8) understanding of limits of sovereign policies.<sup>87</sup> As outlined by Jan Tinbergen and Dietrich Fischer, there are also spacial aspects of an optimal order – to which I qualify that they should include aspects of both physical and conceptual space – and time aspects, which relate to processes and cycles as can be seen in the long history of mankind.<sup>88</sup>

There are many criticism of current programs and conditions, but few presentations that purport to frame optimal, or even substantially improved, systems. A discussion of Tinbergen’s work in light of the historical model as represented by Sumer is useful.

There have been several efforts to come to grips with the problems of this time as well as the future with regard to rationality and cumulative efforts of us all. In the United States, the “Global 2000 Report to the President” was a major effort that followed many similar studies following the United Nations “mega-conferences” of the 1970s.<sup>89</sup> These were largely about resources and the perception that they are limited, influenced by the 1974 work “Limits to Growth” sponsored by the Club of Rome, which was also influenced by United Nations initiatives.<sup>90</sup> Tinbergen oversaw additional consideration of new kinds of priorities and means of governance in ways that were provocative to LH interests.<sup>91</sup> This was largely considered political, promoted by Democrats, then ignored by Republicans when in power. Surely, it was a challenge to LH, but not directly considering issues of governance and priority as described more recently by van der Pijl.

There was a response that was also considered political – the similarly thick “The Resourceful Earth.”<sup>92</sup> This was presented, more from an LH perspective, as confirmation that resources were not limited. The hubris of the 1980s fueled by the traditional liberalism of the United States and Great Britain was influenced and encouraged by this. Then came the end of the Soviet Union, with the beginning of movement toward universal liberalism.

There were many gains, social, political, and economic – more on the Soviet periphery than at the core. This is evidence that support for Russia was withheld where it had been given elsewhere. The Chinese were ‘whipsawed,’ as American policymakers who had serve advisory roles in China’s opening returned ‘with their hats in their hands’ in 2008 and thereafter when it became clear that the West did not have all of the answers with respect to economics. It became increasingly clear that the traditional core-periphery economic and development model of the postwar period was not sound in the long-term. This had been evident in the Latin American debt crisis and all the more obvious in whipsawed

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86 Tinbergen, J. 1985. *Production, income, and welfare: The search for an optimal social order*. Lincoln, NE: University of Nebraska Press.

87 Tinbergen, J., and Fischer, D. 1987. *Warfare and welfare: Integrating security policy into socio-economic policy*. Sussex, UK: Wheatsheaf Books, 41-61.

88 Ibid., 62-83.

89 Pickering, T. R., and Speth, G. 1980. *The global 2000 report to the President: Entering the twenty-first century*. New York: Penguin Books, iv. 1974

90 Meadows, D. H., Randers, J., Meadows, D. L., and Behrens, W. W.. 1974. *The Limits to growth: A report for the Club of Rome's Project on the predicament of mankind*. Milford, CT: Universe Books.

91 Tinbergen, J. (Coord.), Dolman, A. J. (Ed.), and van Ettinger, J. (Dir.). 1976. *Reshaping the international order: A report to the Club of Rome*. New York: E. P. Dutton & Co., Inc.

92 Simin, J. L., and Kahn, H. (Eds.). 1984. *The resourceful earth: A response to global 2000*. Oxford, UK: Basil Blackwell Publisher Limited.

events from the 1980s to the 2000s. We see this playing out even further as the LH continues to unwind. LH didn't work for England in the first place and similarly weakened the United States in the second place. That model forces traditional economies out of their areas of historical strength and weakens core societies by making their peoples dependent on chimeric markets for the fundamental need for nutritious food and water, shelter, and clothing.

The United Nations made efforts after the end of the Cold War, as well, to institute new and more legitimate means of governance. The Commission on Global Governance, with United Nations sponsorship, outlined many additional plans, for example.<sup>93</sup> Born of lessons learned from botched postwar negotiations after World War I, the United Nations served as centerpiece of many international programs established by the United States, including the World Bank, the International Monetary Fund, The World Trade Organization, and many other economic, social, and security institutions established to encourage prosperity and peace throughout the world. This had bridged some gaps between East and West – or, more to the point, what had been terms the capitalist versus the communist worlds as had coalesced after World War II. This is to say that some lessons had been learned after the first major 20<sup>th</sup> century war, but not all. The potential for nuclear annihilation as it came out of the second war and associated animosities took the world to the brink of human annihilation on more than one occasion, a condition that has not been resolved.

The “Global Neighborhood” phenomenon – after the fall of the Soviet Union – can be viewed of something of an olive branch, or at least a form of rapprochement to countries on both sides of the former divide. The benefits of the programs in question could thus be shared with apparent equanimity. Precedent for this was postwar success, which was successful in that it had avoided a third round of global belligerence, but hadn't avoided war in the least on regional and civil levels.

As discussed herein, neither the postwar regimes nor the post-Soviet olive branch dug very deep. They were in essence benevolent invitations to what remained of LH, with leadership by the United States and Britain – in reversed roles from prior centuries. As I have written elsewhere, Marxism itself is a reaction to Western economic and social philosophies and perceived limitations in them – itself being a Western philosophy. For this reason, none of the activities in modern times has been considered herein as ‘derivative’ of ancient efforts of civilization.

As written by Chalmers Johnson, when weighing the benefits of revolution vs revitalization, there is inevitably violence in the former, not necessarily so in the latter. In revolution, he documents a disconnectedness with reality – former or current. It is not clear where efforts, military or otherwise, are headed; it is indeterminate as to where it is going.<sup>94</sup> This can serve to account for the violence of the last century, violence throughout. Half-baked LH perspectives behind all efforts – “capitalist” or “communist” resulted in indeterminate objectives and unprecedented programs which were doomed to fail.<sup>95</sup> As evaluated by Henry Lamb, the UN-backed “Global Neighborhood” program argued for a different approach to governance, but did not make any case for precedent – nor did it attempt to:

... the system of governance described in the report is a new system. There is no historic model for the system here proposed, nor is there any method by which the governed may decide whether or not they wish to be governed by such a system. Global governance is a

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93 Carlsson, I., and Ramphal, S. (Co-chairs). 1995/2005. *Our global neighbourhood: The report of the Commission on Global Governance*. Oxford, UK: Oxford University Press.

94 Johnson, 1982, 127-130.

95 Hobsbawm, E., and Cameron, A. (Tran.). 1999/2000. *On the edge of the new century*. New York: The New Press, 9.

procedure toward defined objectives that employs a variety of methods, none of which give the governed an opportunity to vote “yes” or “no” for the outcome. Decisions taken by administrative bodies, or by bodies of appointed delegates, or by “accredited” civil society organizations, are already implementing many of the recommendations just published by the Commission.<sup>96</sup>

This is hardly inspiring now even if it made sense to some at the time. There are mountains of commentaries as to the paucity of solutions to the problems faced by the nations and peoples of the world at this time. Andrew Wallace has a message to these: Look for revitalization, to replicate approaches and programs that have worked in the past, that have served to support civilization and its underpinnings. He is not alone in this. This needs to be done *not* from the perspective of jaded English aristocrats of the 17<sup>th</sup> century, nor from that of LH proponents and adherents since that time. This needs to be done in fully-informed ways, respectful of both knowledge and commitment to cultural and societal norms as developed through time. Modern approaches treat knowledge in a dispassionate, distant way – similar to the famous ‘chopped liver’ of comedy fame. Its use and understanding are entirely optional in such plans; in many cases, it is nothing more than a costly distraction.

LH perspectives are embedded in these efforts in good-natured efforts for improvement. For example, there is commentary about eradication of ‘poverty,’ which boils down to a number. This is to say that in the current environment, poverty is a number – regardless of protections and means by which the people can secure sufficient resources to meet their needs. Similarly, there is an environmental bias against a declared state of poverty, indicating that “there is a strong relationship between environmental stress and poverty.”<sup>97</sup> That is indeed an eye-opener, clearly dismissive of rampant modern industrial and transport waste and ignorant of time-honored traditions, many of them interrupted, that consume small fractions of these. Think of the effusion of a single coast-to-coast flight of an airliner.

Such reform efforts do not take place in a vacuum. Not stated as eloquently, the ‘Global Neighborhood’ authors describe the LH phenomenon.

Historically, global governance has occurred without global institutions. The 19<sup>th</sup> century was a time of deepening integration and unprecedented expansion of trade, investment flows, and migration of people. Some world-wide governance was partly provided by the exercise of dominion through empires, especially Britain’s. It was politically stable, but it lacked consent and was ultimately unsustainable. It also depended heavily on self-regulated markets that were prone to crisis, drawing states into more active management of their economies. This in turn contributed to destructive economic nationalism and indirectly to the major 20<sup>th</sup> century conflicts.<sup>98</sup>

They call for something of a conceptual regime, perhaps not informed by the long history, but helpful and insightful nonetheless...

There is no case and no call for a return to a system like that of the 19<sup>th</sup> century. Without strong international rules, however, the most powerful countries will act unilaterally, or try to control the system, which makes rules-based processes all the more crucial ... No desirable system of governance can be based on the capacity of strong nations to coerce

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96 Lamb, H. 1996, January/February. Our global neighborhood, Report of the Commission on Global Governance: A summary analysis. *eco-logic*, 2.

97 Carlsson and Ramphal, 1995/2005, 146.

98 Ibid., 149.

weaker ones, which is the inevitable consequence of the unilateral projection of power in economics as much as it is in the military sector.<sup>99</sup>

This paper provides some important breadcrumbs as to how a conceptual heartland can be brought about. As I mentioned earlier, there is growing evidence as to the knowledge and wisdom of our forebears. They learned to work and live together; they learned what they needed to know of nature and the requirements of enjoying its rewards.

John McCain, the recently deceased American senator and disclosed some aspect of the conceptual space idea. As he stated in the 2008 Republican Convention when he made the memorable statement that resonates around the world:

I fell in love with my country when I was a prisoner in someone else's. I loved it not just for the many comforts of life here. I loved it for its decency; for its faith in the wisdom, justice and goodness of its people. I loved it because it was not just a place, but an idea, a cause worth fighting for. I was never the same again. I wasn't my own man anymore. I was my country's.<sup>100</sup>

He refers here to concepts that extend above and beyond real estate. We understand that the concepts in question had an LH skew, but the understanding of and commitment to conceptual space of any kind is significant. In this case, there are important aspects to the principles and programs famously instituted in the United States in the 18<sup>th</sup> century. These were established and implemented long before the United States assumed the perquisites and responsibilities of LH in the mid-20<sup>th</sup> century.

America embodied conceptual space before it did ideas of physical empire. It started out in this way, but made a critical error that instigated the drift to LH: It forced its pioneers and settlers to pay cash up front for their land. This forced them into debt and made independence and self-sufficiency virtually impossible. In fact, self-sufficiency has become an object of scorn, which I have written about. The result is the mysticism of numbers as markers for well-being.

Andrew Wallace documents religious roots of secular society, a phenomenon that is very present in the LH foundation in numbers. Criticism of religion *per se* is thus vacuous. The numbers game does nothing to drum up respect, even reverence for process with regard to either nature or society. Knowing how to combine these is a critical missing factor that we can now consider. For this, we can see how to use cyphers, cipher<sub>1</sub>s, and cipher<sub>2</sub>s.

## Technical notes and the Korzybski challenge

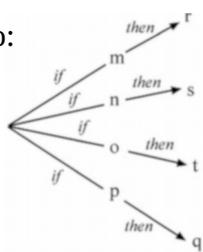
Information technology exists to provide important guidance and support for such efforts. The fact is, to meet the Korzybski challenge – dealing with massive scale, change, and cross-talk from the billions of individuals and groups populating the Earth – necessitates the use of technology. This section compares probably the most common means of studying and establishing policy, econometric analysis, with a proposed, process-based approach, generative taxonomies. Understanding the characteristics and difference of these can serve to support understanding of possibilities for improved governance and support of social and natural processes ad deemed important

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<sup>99</sup> Ibid., 149-150.

<sup>100</sup> Sathis, M. 2008, August 69 John McCain quotes that highlight his lifelong dedication to his country *Bustle*. Available: <https://tinyurl.com/yboesdrm>.

The journey in the use and misuse of numbers as outlined does not leave us without options – perhaps even such that limitations seen in the past cannot be employed fully. *Table 1: Battle of the models based on Korzybski challenge* provides details about these characteristics and differences. The main point is that generative taxonomies can serve to define and support conceptual space questions as needed in support of traditional and nature-oriented processes.

<b>Table 1: Battle of the Models Based on Korzybski Challenge</b>		
	<b>Econometric</b>	<b>Generative Taxonomy</b>
Fundamental structure	Polynomial expression – as in ‘ $t = \beta_0 + \beta_1 x_1 t + \beta_2 x_2 t + \dots + \beta_k x_k t + ut$ ’	Tree structure– as in: $\xrightarrow{\text{if}} p \xrightarrow{\text{then}} q$  extended to: 
Means of development	Statistical regression, sometimes Fourier analysis; logical inference based on evidence, if not primary data	Knowledge-based framework of step-wise processes including structure, mathematics, and semantics (SMS); this is a classification task that makes use of cyphers, cipher <sub>1</sub> s, and cipher <sub>2</sub> s
End product of efforts	Advance organizer (visual tables and graphs); guidance for computer programming activity; educational tools; some limited number of factors that may have explanatory or predictive use	Integrative, operational system; time-based modeling of phenomenon in question; real-time process examples; means of combining mathematical and symbolic knowledge representation in active processes (SMS); Tacit, Explicit, Expressive (TEE) models and tools
Strengths	Numbers; no knowledge of process, nor process data is required; assertions can be made without primary data	Guesswork reduced to a minimum; capable of supporting SMS-based functional integration; uncomplicated knowledge model
Weaknesses	Semantics; numbers provide only indirect evidence; interpretation of numeric constructs in expression are suggestive at best; ultimately a form of ‘water-bugging’ on the outside, looking in; very little semantic value	Detailed reflection of natural and social processes based on SMS; explicit basis for data collection and evaluation; Still, is artificial
Ease of deployment	Dependent on separate efforts at computerization and implementation, subject to a myriad of risks of misinterpretation, misunderstanding, disagreement, and inability to appropriately model	Can be used in direct operational ways if organized according to a generative model; this includes potential for nature interconnection with standards-based system implementations

Econometric models are immensely valuable. They are helpful in making sense of complex data and of teasing our relations from situations that are otherwise opaque and unclear. Under ‘fundamental structure’ in the Table, an equation can be seen with some number of elements, each conceivably associated with a concept, what can be considered a construct. These can be used to create a model that might be programmed. In that category under generative taxonomy, the model is cognitive and classified in nature. It may reflect mathematics in a number of ways, but the fundamental structure makes use of the primary inference question ‘if p, then q.’ This, then, extends to a tree as each intersection is investigated.

The means of development is mathematical vs taxonomic, or classificational task. The latter can make use of structure as well as mathematics and semantics (SMS). This allows it to support the Korzybski challenge.

Under end products, economic models can be used in various ways. It can create knowledge-based outcomes as well as educational charts and graphs, and tables. These are known as advance organizers, useful in education in particular. Generative taxonomies can be used in many ways. Tacit, Explicit, Expressive (TEE) models are of particular interest.<sup>101</sup>

Strengths and weaknesses of each approach are as listed. Deployment involves significant differences. Understanding of these according the TEE considerations introduces breakthrough opportunities that open the door to aspects of mankind’s long history, a history of investigation, integration, and collaboration. In such a case, borders will be of continued importance, but they will matter less.

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101 Tingey, 2009/2018, 95-99.