In memoriam

Dr. Karl Imre Jávorszky

1949 - 2025

Born in Budapest in 1949, he came to Austria at the end of the 60s, where he studied psychology at the University of Vienna and went on to practice psychology in his private office as well as worked as a statistician for the UNO Vienna where his love for numbers and mathematics developed further. For the last decades he was practicing psychology while he simultaneously kept evolving his informatics and mathematics theories and publishing numerous papers and conference contributions in those fields.

He was a loving father of three children and was fortunate enough to become a grandfather to seven grandchildren. He passed away on October 24th, 2025, peacefully in his sleep in his house in Hungary.

Dr. Karl Jávorszky was an active contributor to the conferences and journals of the International Scientific Society ITHEA. His articles were distinguished by their original perspective and style. It is with great sadness that we publish the last article by Dr. Karl Jávorszky on the following pages.

ITHEA

INTRODUCING A CONCURRENT METHOD TO COUNT

Karl Javorszky

Abstract: *We order and reorder a cohort of pairs of natural numbers (a, b); a ≤ b ≤ 16. The etalon collection C16 has 136 members. We keep track of the cycles (def oeis.org/A235647) while reordering from 72 into 71 different sorting orders (based on a, b, a+b, b-2a, b-a, 2b-3a, a-2b, 17-(a+b), 2a-3b). The patterns of the reorderings show draw a self-contained 'structural' geometry. The patterns being implications of a = a in different ways of reading it, the relations the patterns suggest existing, are to be found all over the laws of Nature. We present a truth table for discussing 'order': sentences that detail the properties of the symbols relative to their place among their peers. The present essay aims to be a rewrite of the Tractatus by Wittgenstein.*

Keywords: *Multidimensional partitions, Upper limits, Oeis.org/A242615, Structural geometry, Syntax of DNA, archaic incongruence, fine structure constant*

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1. Introduction

One wishes to offer an explanation, how the nuts and bolts of the data processing mechanisms work that manage the transformation of information from/to the short, concise, written, fixated, enumerable linear version of the DNA to/from the dynamic, cross-referential, changing, multidimensionally approportionated version of the same interdependence as produced by the cell.

The task has two parts:

One: find the forensic trail of accounting Nature uses linear ↔ spatial;

Two: explain the procedure to applied scientists.

The hunt for the accounting solution (data processing methods) Nature uses to maintain consistent references between properties of assemblies that are in

movement versus the stable background relative to which the assembly appears to move, as done by Nature, is easier to finish successfully than the task of explaining her gracious maneuvers to fellow human researchers.

1.1. Contrasting

Humans have cultural agreements in place, which are rooted in neurological facts connected to recognizing and processing signals coming from perception. Humans, like other animals, use the similarity of properties among members of the perceived collection, contrasting the perceived message to its background, which contains the diversity, which is also a part in/of the whole of the perceived assembly.

Our difficulty in understanding how Nature treats logical assemblies is hard-wired in the mechanism of our perception, on the level of neurology.

The method of **contrasting a foreground to a background** is a clever invention by Nature during evolution. Animals that can distinguish between foreground and background are clearly at advantage above their less adroit contemporaries.

In is not Nature's responsibility to teach us to use the technique of contrasting wisely. Before the onset of the XXI-th century, there was no need yet explicitly recognized to go deeper into the details of contrasting, and there were no tools available using which one could come to a theory about a **massive bias** committed by humans while doing the contrasting.

The reality of market pressure is urgent today for a solid, actionable, consistent theory of how biology is managed, in its realization as a data processing exercise. Our learned brethren in the wet sciences regularly present evidence that they have yet again found something, of which the 'where' property determines some of 'what and how much' properties of matters assembled in a non-linear way. While applied science shows that the linear enumeration of constituents of an assembly can be read under some circumstances in such a fashion that it shows property neighborhood constellations to be implications of linear arrangements (and vica versa), theoretical voices are widely silent on the subject.

The Aha! – effect of the present treatise: Any nice intellectual problem worth addressing has inevitably some deep historical – cultural roots to it. The solution to a basic, fundamental riddle is similarly basic and fundamental in its simplicity. Humans have gained evolutionary advantages from overweighting the similarities in the input series while contrasting them to the diversities in the background. (We learn by recognizing analogies.) More than that, being able to filter out analogies from the stream of the manifold perceptions in the background apparently has led us humans to the false belief, that we do contrasting *lege artis.* Herein lies the error in our ways.

Humans traditionally use the technique of contrasting foreground to background as we contrast diverse properties of objects before a background of similarities.

Table 1: Foreground vs Background

Foreground	Background similar	Background diverse
similar	Not visible	We see groups
diverse	We see sequences	Not visible

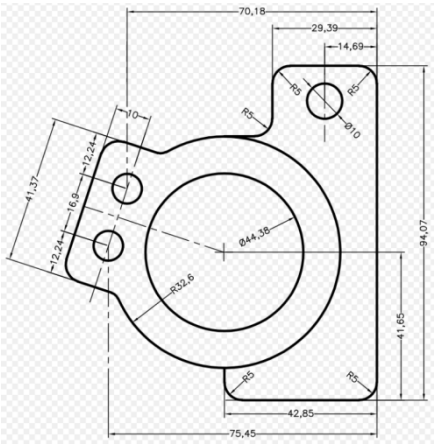
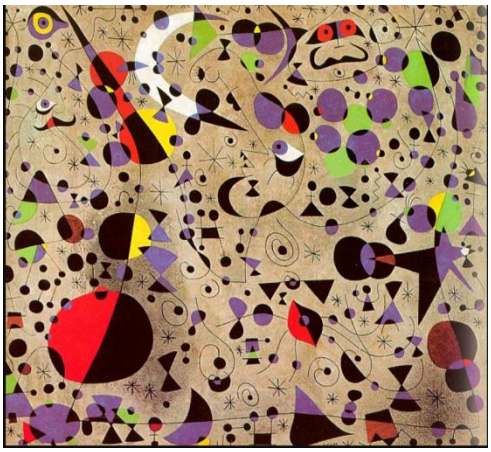
mm-paper with technical drawing of say a few parts of an assembly	Search puzzle with differently colored shapes
	
Wikipedia: Structural Drawing	Joan Miró The Poetess

Figure 1: Two examples of similar vs diverse backgrounds

The difference: left we see small quadrants of black and white, chessboard style, equivalent to a mm-paper. The background is similar. In the right picture

the yellow parts create a background grid that is different to the background grid the red pieces generate. The background is diverse.

Human neurology optimizes and simplifies recognition by using one and the same background to create stable concepts, gliding over small details. This innovational advantage is reflected in our cultural understanding that basic logical units are similar among each other.

We shall show that there are two ways of counting if one counts correctly, counting similar objects before a background of diversity and diverse objects before a background of similarity.

The present essay un-packages the manifold relations that come from the bias (inbuilt into our neurology by the process of evolutionary selection) by which we use our neurology optimized on efficiency. The evolutionary improvement goes beyond the naïve assumptions we intuitively maintain on how neurology should work if she was well designed, according to present human understandings of what a well-designed organ looks like.

The main hypothesis is: there is a method of counting which Nature uses, which happens on the difference between and among similar and different, stable and moving, relatively true and relatively false. Nature teaches us to count by using two sets of references, which we anyway do, by using the contrast between foreground and background, together with the contrast between similar and diverse. In short, the suggestion is that we should pay more attention to some details of contrasting impressions.

The didactic goal of the present essay is identical to the didactic goal of the Tractatus [1]. Use these thoughts as steps of a ladder. Having climbed up, you gain a perspective viewpoint, from which you can build a consistent picture of the relations of the furniture of the mental landscape. The ladder can then be discarded.

1.2. Preparation

The didactic requirement on the part of the user includes one subjective and one objective introductory exercise. Reader is asked to set aside a few minutes and actually, physically move (reorder) 12 books on their table from a linear lineup on author – title into a linear lineup title – author. Nothing beats learning

by doing, in terms of insight and understanding, and in the present context of building a coherent picture among concepts of where, what, when, which property, it is only too human to need to prepare brain areas for the reception of ideas that were probably never before placed in that area. We point out that this present explanation-essay is a philosophical bootstrap, all self-contained. It is important that you experience your own concept-generating sovereignty by touching a book of yours and saying: "I call these properties *a, b* and I call these places *1, 2, 3, …*". You will have in such a deictic way introduced the terms we shall use throughout the present essay, and we will all know what we refer to as we say place and property.

The more practical pre-requisite for a fruitful understanding is that you prepare your own tautomat. A tautomat is an extended truth table, giving answers to questions on how predictable it is that an object with properties *(a,b)* is at time t_i on any of places p_k.

1.3. Tautomat, etalon collection

Kernel of a tautomat

The tautomat consists basically of two loops:

do i,1,16; do j,i,16;

a=i; b=j; c=a+b; k=b-2a; u=b-a; t=2b-3a; q=a-2b; s=17-c; w=2a-3b;

next; next.

The resulting *136* numeric constants $a \le b \le 16$ are the members of the **etalon collection.** The name "logical primitives", for a tribe living in a logical habitat that undergoes perpetual periodic changes, was given to the elementary logical individuals by M. Abundis. [2]

Operationalizing the concepts means presenting a way out from a cacophony of opinions by offering a purely formal understanding of the sentences of the ongoing debate.

1.4. Remarks relating to the reception of new ideas:

> *Around the late years of the Monarchy, the educational reforms of Joseph II began to pay practical dividends. There was an educated stratum of society, within the general public, educated sufficiently well to understand arithmetic and formal logic as far as represented by correct results of numeric operations.*

Wittgenstein had an audience at his disposal who were able to follow his suggestion that there is a formal property to sentences that allows the

classification of sentences into such heaps that can and will refer to each other correctly, and then the others. There is an arithmetic property to sentences that agree among each other. At his lifetime, this was revolutionary. If the truth of a sentence is not whether it correctly mirrors divine destiny, but whether it agrees in an arithmetic fashion to other sentences, then there is the concept of the logical truth as such, which is independent of anything divine, therefore accessible to all, irrespective of individual contexts of divine vs. rational.

Wittgenstein offered a validation tool for the diverse contributions to the debate. In hindsight, one may say that his concept of truth was a linear additive equality. In a fashion, Wittgenstein has codified the absolute victory of the Sumerians above the Akkadians by reducing the truth to be an additive property conducted on manifolds of units that are otherwise undistinguishable. The codification, by means of the Tractatus of the basic idea of the Sumerians, has in the sequel led to Carnap and Frege and the rest is history.

In the present day cacophony we have the exact same one neutral way out, by showing that some of the sentences that are being communicated are related to each other in a formal way. Using algorithmic relations one can filter out some that agree specifically well with each other and use these relatively few cases to look deeper into the matter of what nuances of truth there may be in supplement to the truths based on one-dimensional additive amounts. The difference in our method beginning of the 21st century to the methods used beginning of the 20th century lies in utilizations of the technological progress of the past 100 years. We have tabulating machines (fundamentally paper-and-pencil-logic based computers) at our disposal. Using such, it is possible not only to generate **all possible variants of *a* + *b* = *c***, but also to deal with this very important and **fundamental elementary logical collection**. In our time we do not point to matches between results of measurements on one-dimensional entities, but to interferences between matches and not-matches and patterns of partial matches resulting from *two* one-dimensional amounts (which are slightly deviating to each other). Wittgenstein compared sentences in their form of being a name for an element of **N,** and when the comparison has matched, the truth has been established as existing. We do not compare sums coming from additions but rather **patterns that are congruent.**

1.5. Reverse engineering

Reverse engineering the neurological improvement supposes that there was in archaic times, before evolution has kicked in, a method of working with contrasts, because similar and different and background and foreground exist from the beginning of all particularization of generalities.

Wittgenstein says: "The eye can't see itself" [3]. While this remains true, technological progress of the last 100 years has allowed us to

a. build models of two eyes interacting,

b. count out the bias committed by two different camera standpoints,

c. count out the artefact needed to – apparently – unify the two pictures,

d. re-create the original two pictures transmitted by the eyes before the brain would have made one picture of them,

e. see how the splitting and merging of signals are conducted while creating one picture (illusion) from two (reality).

Nature plays on a stereo clavichord. She does distinguish between

a) symbols that are read as being different to symbols of the background, while being similar to other symbols of the foreground, vs

b) symbols that are read as being similar to symbols of the background, while being different to other symbols of the foreground.

Humans over-generalize, over-schematize the finer distinctions Nature keeps meticulously track of, and end up with a huge systematic bias with regard to the meaning of a value. Nature relates the value of a symbol by reading it into two different understandings of meaning: one meaning as a collection of k similar units among n units altogether, and once as n-k units that are dissimilar among n units.

This simple accounting detail, which Nature keeps track of, but humans don't (haven't so far), explains in a rather muscular fashion, how the sequence of symbols as seen in the DNA is basically the same as the set of communicative symbols which we recognize to be the cell.

The problem is not with the numbers. The problem is with the humans.

1.6. Context story

Historical perspective: If actual technical, societal, economic developments change society so fast and extensively, that observed, experienced social life runs ahead of the *contract social* that gives the planned, targeted, wished for texture of a common understanding of the society one lives in, great rhetorical opportunities arise. Such was the situation around the last years of the Monarchy. The loss of a common orientation has extended in wide areas.

> *We mention a few of the general cacophony of opinions: is there a Creator, what is the divine will, has the weight of Authority a rooting in reason, what is the role of the soul in recognizing the divine Order in Nature, if there is one such present, what is high output smoke and mirrors and what is reasonable speech.*

Wittgenstein rose to the task. He gave a general overview of communication, separating the phenomenon into

- *scientific talk,*
- *expressions of emotions.*

The collections of sentences that refer to each other constitute their own reality. Wittgenstein suggested that one investigates the sentences one hears and speaks, whether there are relations among the words that follow rules.

His suggestion was to synchronize the ideas about what is a correct, reasonable, understandable logical sentence with already pre-existing ideas that are embodied in mental constructs, like the units of counting.

Relevance for today's discussion: The cacophony today is not about Lombroso, magnetism as influencing agent or hypnotism and somnambulism, let alone spiritistic approaches to science. Today we discuss entanglements across space, quantum states and consciousness, mitochondria as bridging Scylla and Charybdis. [3]

1.7. New Idea

In both cases, the neutral suggestion is a proposition: forget about all the semantic content in your sentences. Find a well-suited formal property on which

you can validate questions of true and false. Use the small bias that exists between results when one counts similarities before a background of diversities, as opposed to when one counts diversities before a background of similarities, as the basis for a geometric exercise. Give the two different algorithms their $f^{-1}(x)$ form and watch whether the *n* values they point to, agree.

They do not. There is a **to-and-fro between two number lines** that are ever so slightly dis-calibrated relative to each other.

Using ranks on two linear axes to point out a place on a plane gives us dots for the planar places of occurrences of *a, b,* dots on a plane of which the axes are the two sequences that establish the ranks of *a, b*.

The Sumerians draw the lines in the rectangular webs of the Euclid axes of Euclid spaces, the Akkadians draw the strings that connect the dots with each other.

The dots connected by the strings are occurrences that possess descriptive coordinates both in the Akkadian and the Sumerian enumerating systems. These doubly indexed sequentially ordered subcollections are known in the literature as 'cycles'. These aggregate units are formed – according to rules valid for natural numbers – of logical primitives, quasi as task forces. One logical primitive can be a member of several task force groups.

The assembly can be read as a stable collection. Inner conflicts and contradictions can remain dormant if (as long as) there are no periodic changes.

During periodic changes, what moves contrasts to that what moves differently or not at all. The movement itself generates the additive diversity content to the habitat. The movement is an implication of an inbuilt **archaic discongruence** that comes from two static maps of the assembly assigning different places to individuals.

1.8. Order

We discuss logical sentences that refer to **order.** A sentence about order compares two parts of an occurrence: that the object has properties *a, b*, and that the object is in a spatial relation to its peers. The "spatial relation" part uses the Sumerian enumeration by units that are otherwise undistinguishable. The

properties of the occurrence are enumerated in the Akkadian way also, by it being a member of several groups. These group memberships are numeric values just like the Sumerian ones. (Their backgrounds are different. A translation into probabilities needs great care, as the median values are different.) The Akkadians derive individuality by being a part of several groups, the Sumerians have only one kind of group, but within it, quantity and position are synchronized.

The present essay invites the reader to explore the practicability of a logical tool. This repeats the Tractatus' invitation to use logic to determine whether something is true or false. Here, we propose to use a tool that determines, whether parts are together or separate, included in one group together, or not. There is an economy type bouquet of alternatives for the logical primitives to change liaisons. If several remain in one group, so in which group, and what are the sequential ranks (distances) among successive members of the group.

1.9. Reception

There is some banal inevitability to the contents of numeric tables, and the lack of any novelty value to them. The tables publicize for the knowledge of all what is the case (what is an occurrence with certainty). All the tables are concrete realizations of the general principle $a = a$, and are therefore, as truths, eternal.

The acknowledgement by society that the truth is such and not otherwise, is a separate matter. Bruno and Galilei have stories to tell about the difference.

Whether the education reforms of the last decades have produced a sufficient density of applied scientists among the general public, who can understand that sentences have their own formal properties, and one can constructively use such sentences that fit with each other, like Lego stones from Nature's own design labor, remains to be seen.

Socio-cultural reception, example

Darwin has pointed out that beads of birds were differently formed on different islands of the Galapagos group. He built his theory of evolution on observing that properties and places interact and match, the better the match the better the survival chances of individuals.

Resistance against the idea was visceral, as the implications were that Darwin said that your mother was a chimpanzee and your father was a gorilla.

In the present context we solve the general question of how to find out which property matches which place. We should count properties differently to how we count places, and the task is solved. Undoing the bias (caused because we try to count properties as if they were places, in a formal sense) opens up a way to a natural geometry and explains many of the phenomena we encounter in Nature.

Resistance is caused by the implication that this treatise suggests that the whole art and technique of counting has taken a wrong turn in elementary school and is now at a dead end what regards biology, and that what leading figures state as reasonable turns out to have been in some parts rooted less in rational facts than today's expectations require.

1.10. Points of contention

The improvement by our neurology on two pictures coming from two eyes is a contrasting – integrating exercise. There is obviously something to contrast and integrate.

Some basic properties of the individuals whom we see as members of the collection *a, b* give us the tools to undo the improvement engineered by neurology.

The resulting *one* picture is built on *two* pictures that are more archaic. The two pictures that are within an impression of the world are already within the outside picture, because neurology does not create reality.

The two pictures which we see both, alternating, are one where diversities are the background and we perceive similarities, and one where similarities are in the background and we perceive diversities.

These properties of the logical primitives exist in an objective logical fashion (proof for this: because we can speak understandably about similarity and diversity of symbols). Our task is to learn from neurology, how she uses the richness of properties of *a, b.*

We count back **from** the number of logical relations **towards** the number of objects that carry symbols by which the given number of logical relations can be achieved.

Example: in dependence of the rules of the card game, a win of *x* can be achieved by possession of *k* cards that are in their combination and succession defined as winning *x.* Using a different set of rules with the same set of cards, *how many cards are minimally needed* to achieve a win of *x*?

Nature has in her grace arranged for biology to be logically thinkable. We use two names for values of two combinatorial functions: **N!** for the succession of values *n!,* and **N?** for the succession of values *n?,* which is a derivate of the partitions of *n*.

$$\text{The } f^{-1}(x)_{N?} =, <, =, >, =, <, << f^{-1}(x)_{N!}. \qquad \textit{(Eq. 1)}$$

There exists a very slight relative dis-calibration between the two number lines.

We use the two number lines concurrently. The two lines represent the two backgrounds, once the Sumerian – well-known, used till today – concept of **N**, (where the background is made up of units otherwise undistinguishable), and once the Akkadian way of keeping diversities in the background, **N?** and recognizing similarities in the foreground.

1.11. Advantages and Challenges

Having found a formal property of sentences that allows grouping some of the sentences into an extra heap, which contains such that agree to each other in that said formal property, allows an insight to emerge: *these part-states of the world can coexist, maybe not all at once, but according to some rules, some of them, at some times, in some distances of each other..*

It would be helpful, if a **rewording** of Tractatus 1 "The world is everything that is the case" into "**The world is everything that is a coincidence**" could be accepted. [4] The fact of the coincidence existing is, in the updated concept, not a human invention/declaration but is already hard-wired into the natural numbers at factory delivery time.

The Akkadian world is very much a finite one. It appears that Eddington's fine structure constant [6] evolves into two forms, such forming the upper limit for the inner differentiation of the assembly. The congruence between the $f^{-1}(x)$ for the two number lines surpasses a critical limit (in integer expressions *136+1,*

measured *137.03*), above which limit the members of a group cease to be dependably related to each other.

The challenges will be manifold. Like Wittgenstein had to endure questions like "What has combinatorics of words to do with the freedom of the divine will to create new spirits, infinitely many of them?", etc., one who uses tautomatic evaluations on questions of whether things will or will not build a group, will meet irrelevant emotional talk about how one kind of mental construct interacts with a different kind of – also self-made – mental constructs. Let us be conservative and follow the facts, which are in our case the natural numbers, once one makes pairs of them and reorders the pairs.

Wittgenstein delineated the two, that was in existence by itself, (= the grammar of the language), and the content that was created (by a divine or human force), from each other, using exclusion and inclusion rhetoric.

There is a Viennese tradition of rhetorical rejection of some viewpoints of your opponent, by simply not even ignoring them. Nietzsche still had to kill his God by declaring "Gott ist tot". Wittgenstein never spent a word on that idea, whether alive or dead.

The inclusion rhetoric has offered a habitat for exchanges people use if they talk in a scientific way.

2. Presentation

2.1. Casus belli

We wish to state that the habitual switching to and from that we are doing between *foreground and background,* as demonstrated in the Introduction,

- Creates a **bias,**
- The extent of the bias created is beyond being negligible,
- The bias spawn *artefacts,* which we recognize as constants, ranges, limits; these serve as *Laws of Nature (*structure of Mu [7])

To discuss this, we establish the relevant *upper limits* for both kinds of backgrounds. It is generally true that a about an assembly limited in size, only a limited number of distinct sentences can be said. We want to establish, *how*

many different sentences can be said about the etalon collection, the collection once seen as happening before a background of otherwise undistinguishable elements (the Sumerian system of using identical sized steps one after the other in the background), and once seen as happening before a background of elements that are diverse among each other (the Akkadian way of counting the foreground contents, which are similar among each other, before all the others, that are not similar to the contents of the foreground).

2.2. Two upper limits

2.2.1. The Sumerian upper limit

Agrees to the well-known series of values *n!* for each value of *n. (N! = exp(*$Sum_{1\text{-}n}$ *(ln(n))))*.

2.2.2. The Akkadian upper limit

Relies on the number of partitions (*part(n)*) of n, in a quadratic form. *(N? = exp((ln(part(n))*^{2} *)).*

Test theory states that no more results can be validated on a finite number of probands than there are ways for the finite number of probands to generate distinct groups (patterns of partitions overlaid above the other = multidimensional partitions). About each of the distinct states of the assembly, one separate picture is made. There can be no more nor less pictures about the states of the assembly than there are possible states of the assembly. The resulting upper limit is quadratic in form:

$$n? = part(n)^{ln\ part(n)} \qquad (Eq\ 2)$$

where part(n) = oeis.org/A000041.

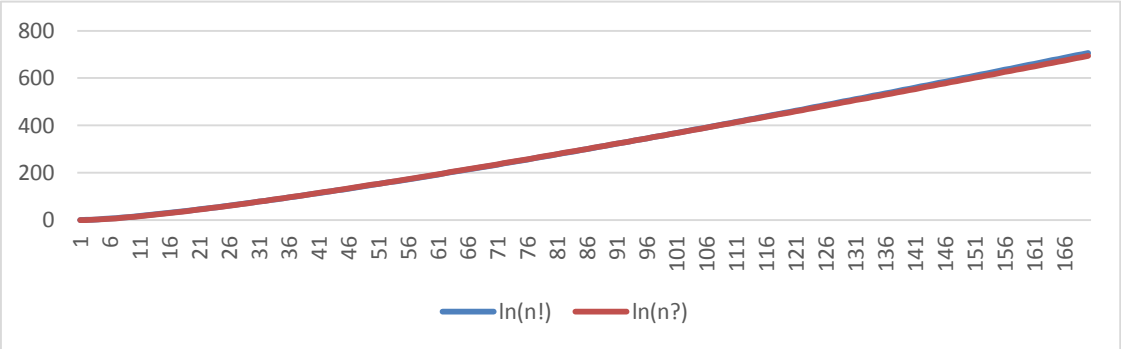


Figure 2: Extents of *ln(n!), ln(n?), f(n)*

The Figure shows that the difference *Δ (n!, n?)* is graphically not presentable unless normed.

2.2.3 Outer dimensions of the doubly indexed collection

The Eddington upper limit

There is a coincidence in a value for a common threshold for the two types of describing a collection. Above *136 + 1* in integer notation and *137.03* as an observed fact, the functions *n?, n!* deviate relative to each other (in their $f^{-1}(x)$ reading) to the *tune of one whole unit in the assembly.*

> *Two surveyors measure distances from a commonly agreed starting point. At distances 32, 97 the surveyors agree that the measured distances are 32, 97 in each of both reference systems. Above 136 the two surveyors congruently declare that their cooperation has come to a natural finish. They compare themselves to two teachers, who in cooperation wish to establish how many pupils are currently in the school. One listens to the noise level, one measures CO_2 emitted by the pupils. They are well calibrated in case of 1, 32, 97 pupils. The congruent testing loses its raison d'être if the error tolerance is above one whole unit. If according to one measurement, it is reasonable to assume that 137 objects are present that yield the given result, and concurrently it is reasonable to assume that 136 objects are present that yield the given result, then the whole concept of utilizing the exact – specific interferences to come to results (that are true in both systems of enumerations), collapses. The added value of the cooperation of the two surveyors was specifically, that their two judgements on the finer structure of the interplay between measurement units that are otherwise undistinguishable among each other and such units that are each different, is referring to* ***one and the same*** *number of constituents. The point the two surveyors stand, where they agree that their common work cannot continue in the usual way, is common to both of them, even if one calls it 136+1 and the other 137.03.*

Inner differentiation

The term *ln(part(n))* is for *n = 66* ~ 15. No more than *15* independent queries are needed to describe the structure of multidimensional partitions for the group size that allows for the maximum number of possible variants.

The value of *n?* not being an integer comes from the probabilities that discount a case for the ever increasing probability that the case has already been registered, under a different of its aspects.

We use in the design prototype 9 primary aspects *(a, b, c = a+ b, k = b – 2a, u = b – a, t = 2b – 3a, q = a – 2b, s = 17 – (a + b), w = 2a – 3b)*, of which we create *72* primary sorted sequences, by using each of the 9 primary aspects once as

the first and once as the second sorting criterium. Edits and changes are of course welcome.

2.2.4 Inner properties of the doubly indexed collection

Norming the two functions one on the other, we receive

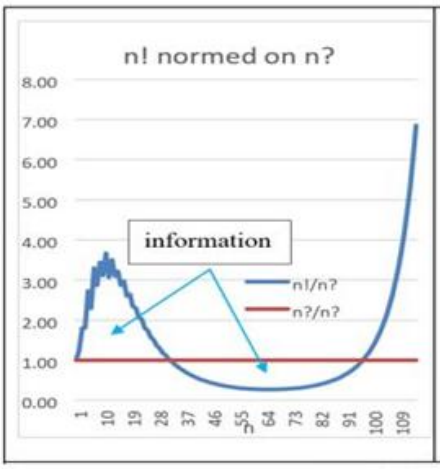


Figure 3: n! normed on n?

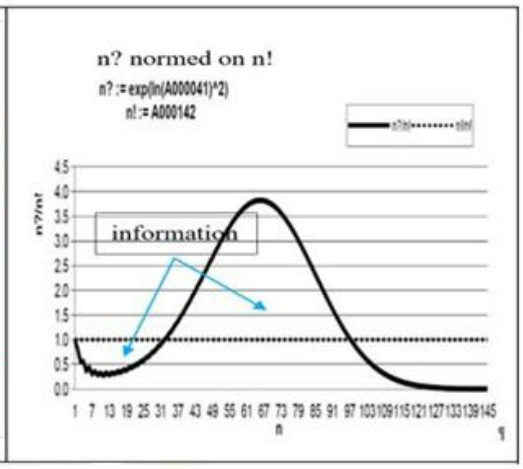


Figure 4: n? normed on n!

We see that the values

$$n!\ (=, >, =, <, =, >, >>)\ n?$$

for $n = (1, 11, 32, 66, 97, 136, 140)$ (Eq 3)

We state

- That **the bias exists;**
- That **the bias has extents** of relative dis-calibration of max ~ 3.5;
- That **the bias shows an absolute extent** of dis-calibration of ~ $3*10^{-92}$ %.

2.3 Order in its static form

2.3.1 Standard groups within the etalon collection

Catalogizing, typifying and ordering the inventory of elementary connectors (60.676 cycles of the etalon collection) one will find the **standard reorders.**

Please filter out such cycles that fulfill the following criteria:

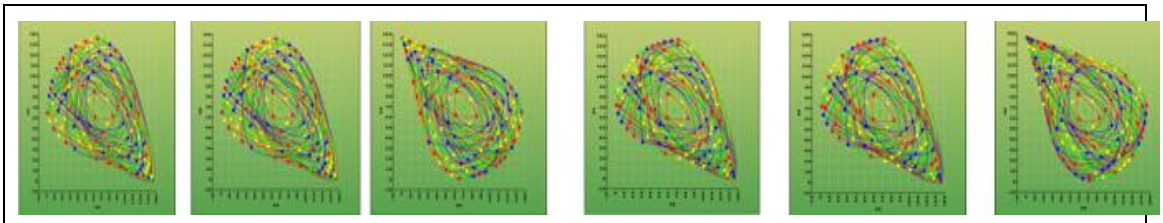
- No of cycles in reorder: 46

- 45 cycles of 3 members + 1 cycle of 1 member
- The 45 triads have $\sum a = 18, \sum b = 33$
- The stand-alone element has values $a = 6, b = 11$

We call the 136-th, stand-alone element the **Central Element** of that standard reorder.

2.3.2 The form of a standard reorder

The standard reorders have each following form:



ca -ka	ka qk	qk -ca	cb – kq	kq – qa	qa - cb

Figure 5: General form of the standard reorders

These twice three are a good example. These planes generate two rectangular 3D spaces, which we call Euclid spaces.

2.3.3 The archaic discongruence

Static map **aq ↔ ua**

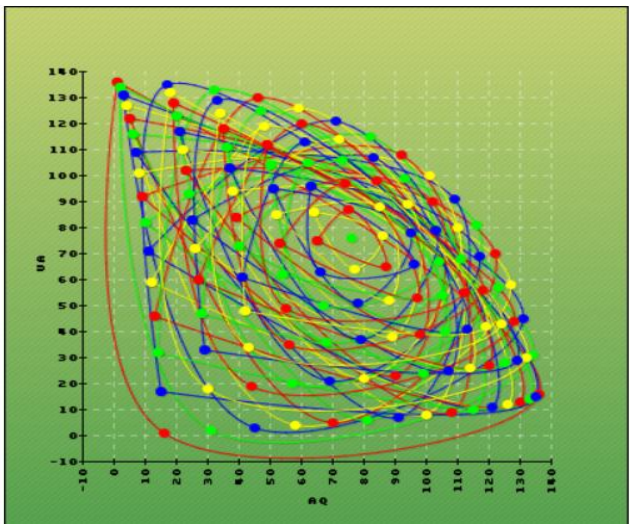


Figure 6: Values of *a,b* in a grid built by *a, a-2b ↔ b-a, a*

Static map **ab** ↔ **uk**

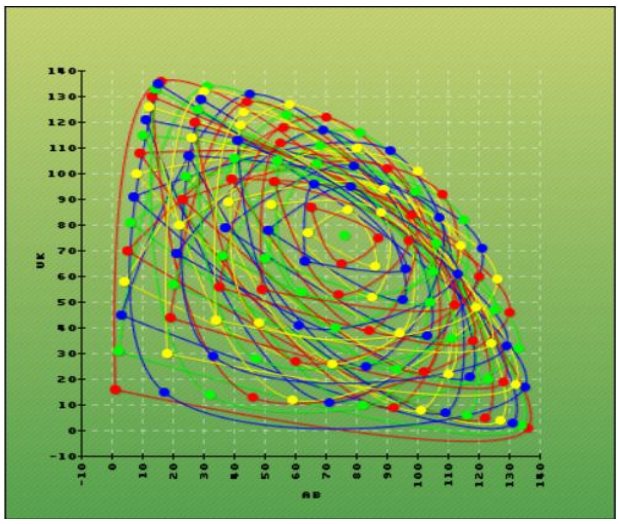


Figure 7: Values of *a,b* in a grid built by *a, b* ↔ *b-a, b-2 a*

The coordinates of the **Central Elements** in the two static maps are identical. All the other 135 logical primitives have two different places assigned to them in the two maps.

Different positions:

Blue: **aq** ↔ **ua**, red: **ab** ↔ **uk**

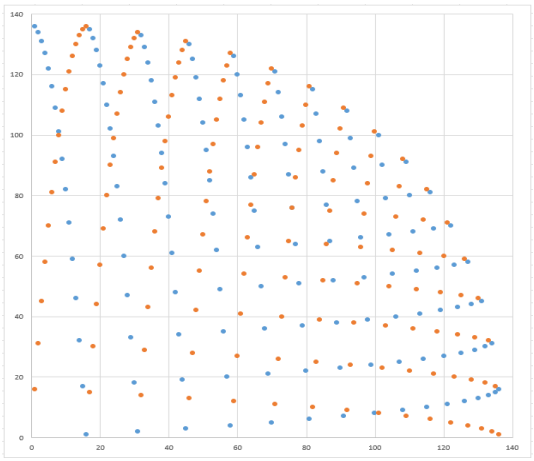


Figure 8: Values of *a,b* twice in a grid built by *a, a-2b* ↔ *b-a, a* and *a, b* ↔ *b-a, b-2 a*

Increasing extents of distances:

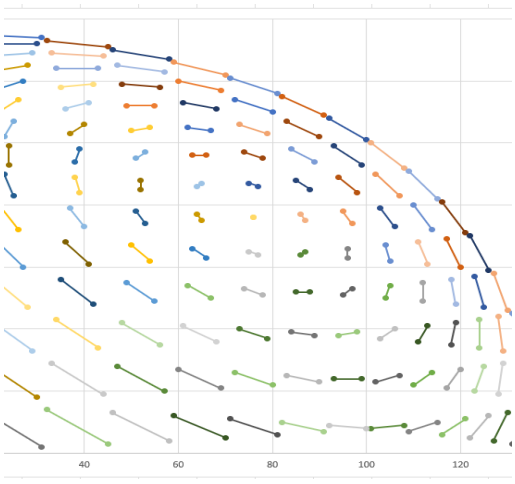


Figure 9: Distance between two values of *a,b* in a grid built by *a, b* ↔ *b-a, b-2 a* and *a, b* ↔ *b-a, b-2 a*

There is a **fundamental, archaic, immanent discongruence** within the numbering system. The static maps **aq** ↔ **ua** and **ab** ↔ **uk** assign two different places to one and the same logical individual named *a, b.*

The built-in basic imbalance is a structural element in natural geometry. It appears that the archaic discongruence and its manifold implications of are being referred to by applied scientists under the name of **electro-magnetic phenomena.**

3. Conclusions, Summary

One could go on and bring up many more drawings that deserve the name "Nature's way of ordering things", as they are based on relations among natural numbers.

The material presented here should serve as an appetizer. If the Reader decides that the time has arrived for a multi-perspectives view of the world, the facts presented above will serve as a common sense and common logic network, out of which several relations can be read out. [8] – [12]

The numbers presented here speak for themselves. Amateur first designs of a laboratory prototype can be used at www.tautomat.com.

The next step should be the establishment of a Tautomat Resource, a system of databases that yield answers to questions relating to states of order.

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Authors' Information

Karl Javorszky ***:*** *clinical psychologist; retired.*

Scientific Interest: Memory, How registering and reconstructing information is actually done, as a task of accounting and data processing.