

## Time

### 1. Time is called "an aspect on the relative motions of bodies".

Two parallel motions with the same velocity cannot define any time, that is show any change, but 2 antiparallel motions can. The two motions must be convergent or divergent in the mutual relation. That presumes - or defines - a 0-pole, a centre - and a 00-pole, an anti-centre.

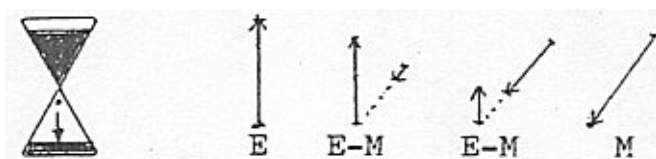
It implies too that Time is described through increasing / decreasing distances. As well as distances are defined through relations between times. From one viewpoint in the same way as the complementary poles 1a --- 1b are defining one another, in "interaction".

Defining time - and distances - from relative movements, doesn't imply that they are more "relative" than other physical quantities. Also surfaces and matter are "relative" concepts. It isn't likely that a neutrino or a gravitation field experiences a floor or an electron shell as a surface. And each concept must be defined through a relation between two (or more) other concepts as "poles". Definitions follows in this the dimension model, arise as "outer connection" à la "potentials" by a polarising step.

### 2. Time out of converging motions?

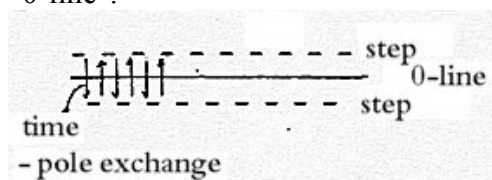
Distance as quality (in opposition to "closeness") is at the same time defined out of diverging movements. What could justify that we - in some respect - see Time as defined by the 1a-pole, out of converging motions?

Time and Distance seems to have a certain a parallel in the M/E-components of an electromagnetic wave, they seem to be complementary in a similar way. Electric charges in motion give rise to magnetic fields (as distance changes give time). And when the electric component in the wave decreases, the magnetic component increases, and inversely: it looks like a transformation between them. The relation can be compared with the both halves of a sandglass:



In the walking of a human being, it is the divergence of the legs that measures out distance. Convergence is represented by displacements of the centre of gravity, and this centre is representing an inner 0-pole. Convergence towards a pole exchange 0/00.

Time as originating from crossings of the "E0-line", between paced distances, polarised to anti-centres around this "0-line".



Another aspect on the polarity Distance / Time as counterdirected divergent - convergent could perhaps be illuminated by the factors *kinetic energy* versus *potential energy* in a vibration. "Movements from" in direction outwards leads to outside positions, distance as relation between positions, expressions of potential energy; while movements towards the middle line, equal to kinetic energy or motion, express Time.

### 3. Space-time and time as "surface":

If we want to describe the world as "space-time" and interpret space as 3-dimensional, time should be 2-dimensional in a 5-dimensional model!

In expressions for energy we have the time factor squared and inverted.

$$E = mc^2 = \frac{\text{Mass} \times \text{Distance}^2}{\text{Time}^2} \quad (\text{Einstein})$$

$$E_k = \frac{m \times v^2}{2} \quad E_k = \text{kinetic energy proportional to the velocity squared}$$

In a simpleminded reading: Time squared to a surface, in the underground of Masses in a 5-dimensional space.

(We have Time squared too in the relation between orbital times of the planets and the cube of their distance to the sun:

$A^3 / T^2 = \text{a constant}$ . And space 3-dimensional.

The 5th dimension degree divided to a quotient!)

In the ordinary Cartesian co-ordinate system Time is introduced as a 4th co-ordinate axis which usually is

designated as  $\sqrt{-1}$  (i), which hints a quadratic time = -1.

Remember; Einstein's equations had also the solution

$E = -mc^2$ , which Dirac pointed out and Dirac's hole theory became a consequence.

Hence we could imagine time as a negative "surface" - in direction inwards, built-in into matter.

And the surfaces could have "negative curvature" (where some surfaces are growing faster than proportional to the radius squared).

Compare negative curvature inwards (a principle in living structures), as invaginations and multi-layer structures... (see booklet "Biology" in this series, still only in Swedish.)

See also "Einstein - some comments".

### 4. Time poles 0 and 00:

The "moment" is a 0-pole of Time, the eternity its 00-pole. (But if we want to count from the starting point of Universe, from "Big Bang", we have another 0-pole there, and the moment will be a secondary one, a displaced centre, or just a current origin.)

In the dimension model here "eternity" will be that anti-centre which is created of

diverging motions "from each other". And the moment, "the Now", will be defined by motions "towards each other".

Motions "from each other" describes an interval, draws out an interval. Motions "towards each other" define a borderline or a meeting point.

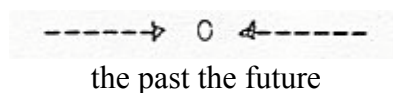
Eternity as interval and as continuum. The moment as a limit and as quantified.

The pole-exchange 0/00 from moment to eternity is a discontinuity (a kind of quantum jump). With 0/00 equivalent to 5', the 5th dimension degree will also be a "turnstile of time".

In relation to a point, a 0-pole, everything else is anti-centre, representing the 00-pole. Eternity as the 00-pole of Time is according to this interpretation built-in everywhere in our world. Near centre and furthest out and everywhere in between, in units of lower dimension degrees with relative motions.

Time is coming to a standstill at both its end: in the moment, "time 0", and at the other end increased to infinite, where time has stopped in another sense, is idle like a coordinate axis. Time has expired. Like velocity ceases at the turning points in a vibration.

## 5. The past and the future as directions of Time:



The both directions of time will be complementary, in the same way as matter / vacant space has been described as complementary poles.

(The "Now" or the moment is the Future's designing of the Past. Future and past could be said to meet on all levels within a human being, in the chemical processes and in the genes, in the inner organs as well as on the surface. Each separate local event is a collision between 2 (or several) things, and collisions create the moment, centre for new outward direction. Hence, the Big Bang of Universe could be said to occur everywhere, in each course, locally as well as centrally.)

What other kinds of expressions from the "empty" future do we have as directed inwards towards the present? We could probably see the future in motions with negative kinetic energy?.

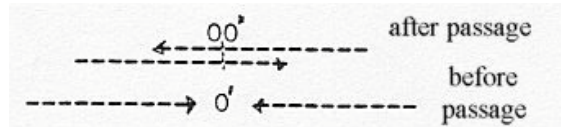
Or in the all bonds between poles, between units as halves on some level: the potential counterdirected other half: expressed as "the still not realised", as dream, as goal, as "needs".

We could talk about "want-projections" into the future as a minus-field. Or about resonances between past and future. At bottom then coupled via an underlying, double-directed Time. Analogous to the relation Matter - Vacant space.

A usual expression for Time as something irretrievable one-way directed, is that actions and events are irreversible: they cannot be enacted backwards, as when a movie is turned backwards.

One way to formulate this could be what was said above about pole exchange: that which a moment ago was the present, the 0-pole, has been eternity, a 00-pole, by definition. The gap of eternity has opened behind the back of the present moment. We

should need an "eternity of time", as "the other way around" to come back to that past moment.



Another way to formulate the same thing is perhaps to say that every motion and every event is just a part of the entirety, and if it should be possible to reverse one event, then also that which preceded the event has to be reversed - and so on to the beginning of Time. Everything previous exerts pressure (as a wall behind).

Perhaps a reversing would be possible if one simultaneously could give the whole Universe summertime.

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