

Understanding Synchronicity in Perspective of Pauli-Jung "Correspondence" - Hungarians Involved

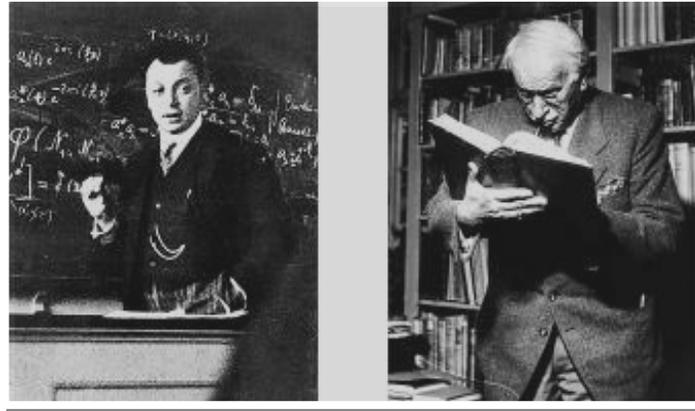
László Nádai, Péter Várlaki, József Bokor

Heisenberg on the Pauli-Jung Cooperation

- W. Heisenberg, „Wolfgang Paulis Philosophische Auffassungen“, in Ztschr. für Parapsychologie und Grenzgebiete der Psychologie. III. Nr. 2/3, 1960, p. 127

Jung and Pauli

- Personal and professional relationship
- Main references:
 - *Naturerklärung und Psyche* (Zurich, 1952)
 - In English *The Interpretation of Nature and the Psyche* (New York 1955)



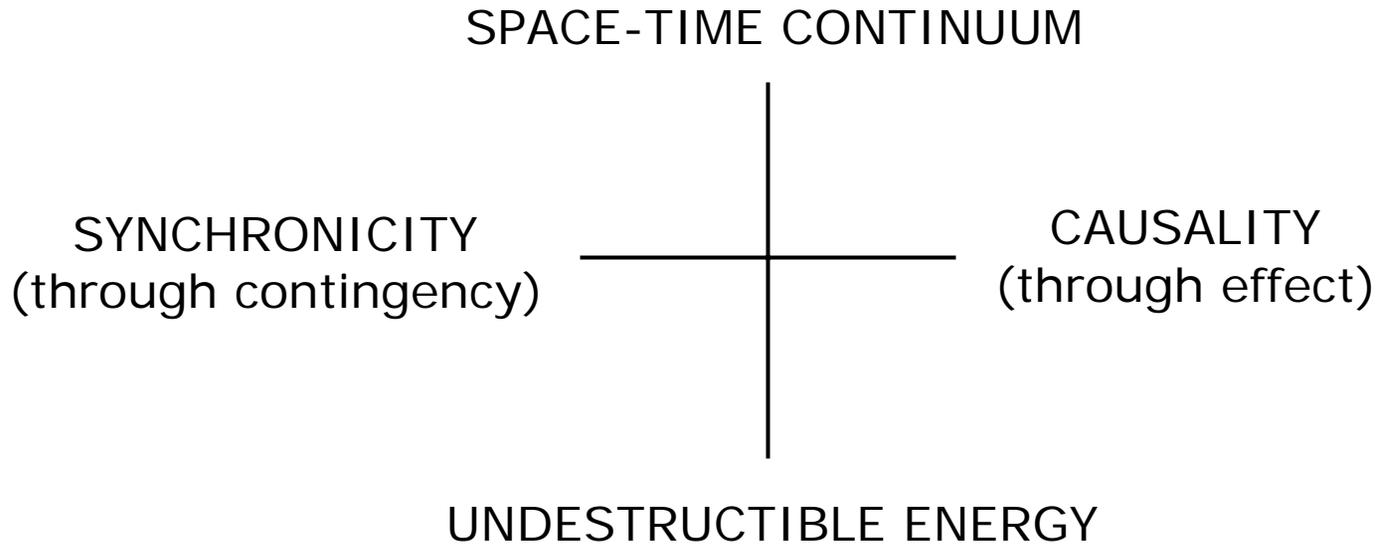
New modeling attitude

- A directly observable “outside” reality
- An (in itself) unrecognizable postulated “transcendental” background
- A “transgressive” dynamics between these two worlds, with a rather simple *symmetry structure*, that can be grasped i.e. in
 - the probabilistic (stochastic) phenomena of modern quantum physics,
 - the statistical data of ESP experiments,
 - in the subjective probabilistic experiences of human individuation processes alike.

Synchronicity

- Synchronicity is *meaningful coincidence*, significantly related patterns of chance.
- Instead of simultaneity we could also use the concept of a meaningful coincidence of two or more events, where something other than the probability of chance is involved.

Jung-Pauli hermeneutic diagram



Fine structure constant

$$\alpha = \frac{e^2}{4\pi\epsilon_0 hc}$$

- e is the elementary charge of electron
- c is the speed of light
- h is the Planck-constant
- ϵ_0 is the vacuum permittivity.

Different interpretations

- Calculation on the basis of the three most important constants of physics
- Calculation from direct spectroscopic measurement of hydrogen spectra
- *What is the “true” or “best” value of the fine structure constant?*

Theoretical values for FSC

Date	Author(s)	Expression	Value
1914	Lewis and Adams	$8\pi(8\pi^5/15)^{1/3}$	137.348
1928	Perles	$[2\pi(\pi-1)]^{-1}m_p/m_e$	136.455 7
1930	Eddington	$(16^2-16)/2+16+1$	137 (exactly)
1931	Beck et al.	$T_0=-(2/\alpha-l) \text{ }^\circ\text{C}$	137.075
1970	Wylter	$(8\pi^4/9)(2^{45!}/\pi^5)^{1/4}$	137.036 082
1972	Aspden and Eagles	$108\pi(8/1843)^{1/6}$	137.035 915
1973	Cohen and Taylor	Review value	137.036 04

Proposition

- Without knowing the “accepted”, probably, most accurate two values (considering just the 137.03... value of FSC), the following formula for the general (synchronistic) definition of the fine structure constant was **proposed by Stambury and the authors**:

$$\alpha^{-1} = 4\pi^3 + \pi^2 + \pi = 137.036\ 303\ 7$$

Latest Best Value of FSC

$$\alpha^{-1} = 137.035999068$$

$$\alpha^{-1} \cong 4\pi^3 + \left(1 - \pi_r^{-2}\right)\pi^2 + \pi \cong 137.03599916$$

$$\alpha^{-1}(\pi) = 4\pi^3 + \pi^2 + \pi - \frac{\delta}{1-\delta} \frac{\delta}{1+\delta} = 137.035999065, \quad \delta = \frac{2\pi}{360}$$

$$\alpha^{-1}(\pi, x) = 4\pi^3 + \pi^2 + \pi - \frac{\delta}{1-\delta} \frac{\delta}{1+\delta}, \quad \delta = \frac{2\pi}{x}$$

The Kalmanian view of systems

- Beside the usual dichotomic *reality and description* (model) “attitude” use **trichomic** paradigm.
- I.e. besides the (in itself unknowable) “reality” – which is characterized by a certain kind of measurement data – the theory postulates hypostatized *system classes*.
- Furthermore, constitutes, as a third entity, the so-called *model classes* related to the former classes of systems.

Structure classification

- The *first quaternary principle* originates from the synchronistic extension of the Kalmanian approach, because besides the **causal** system definition interpretation the **anticausal** one is also needed.
- Similarly, we can consider **straight** and **inverse** (input state/output state) models as well.

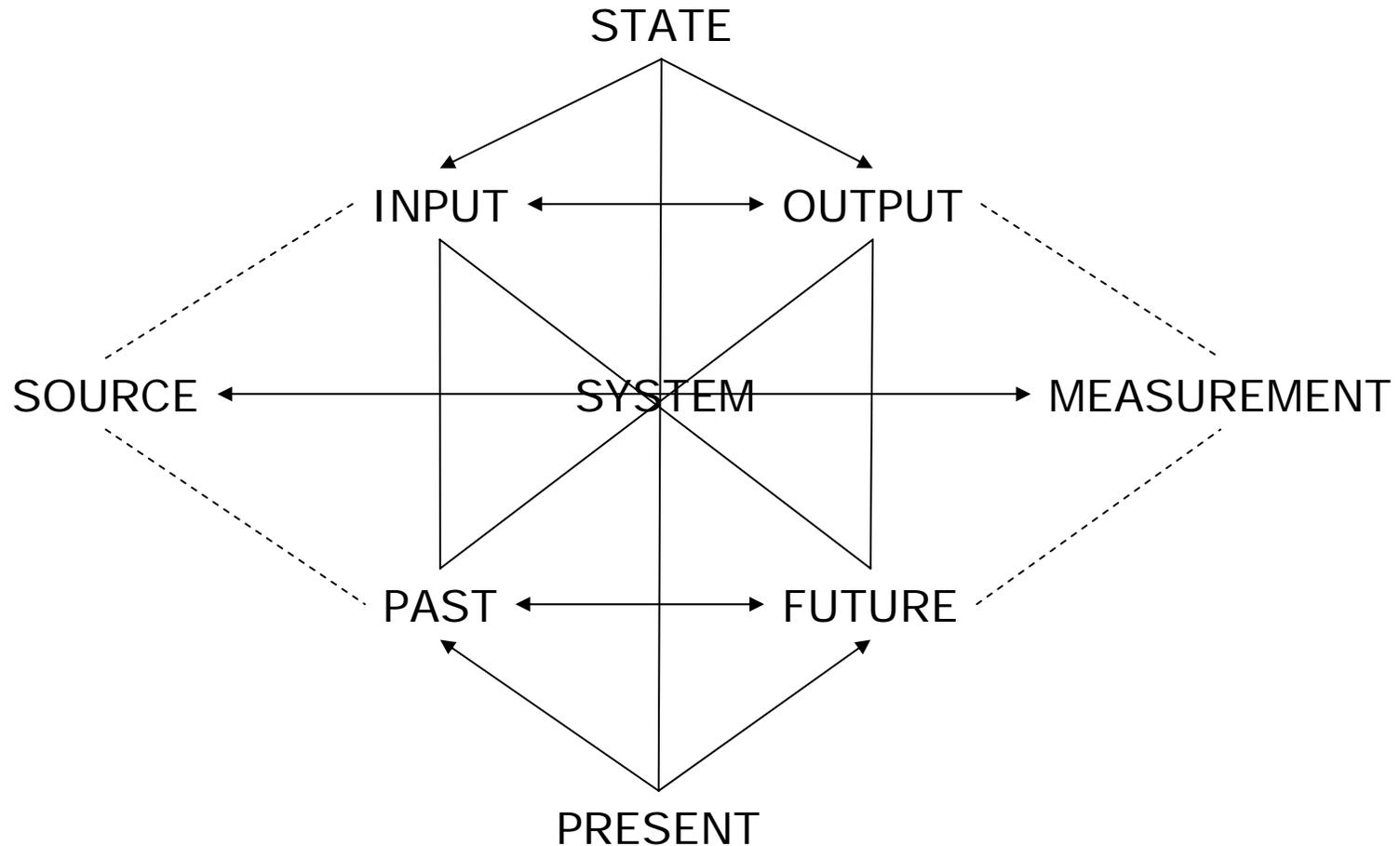
Structure classification

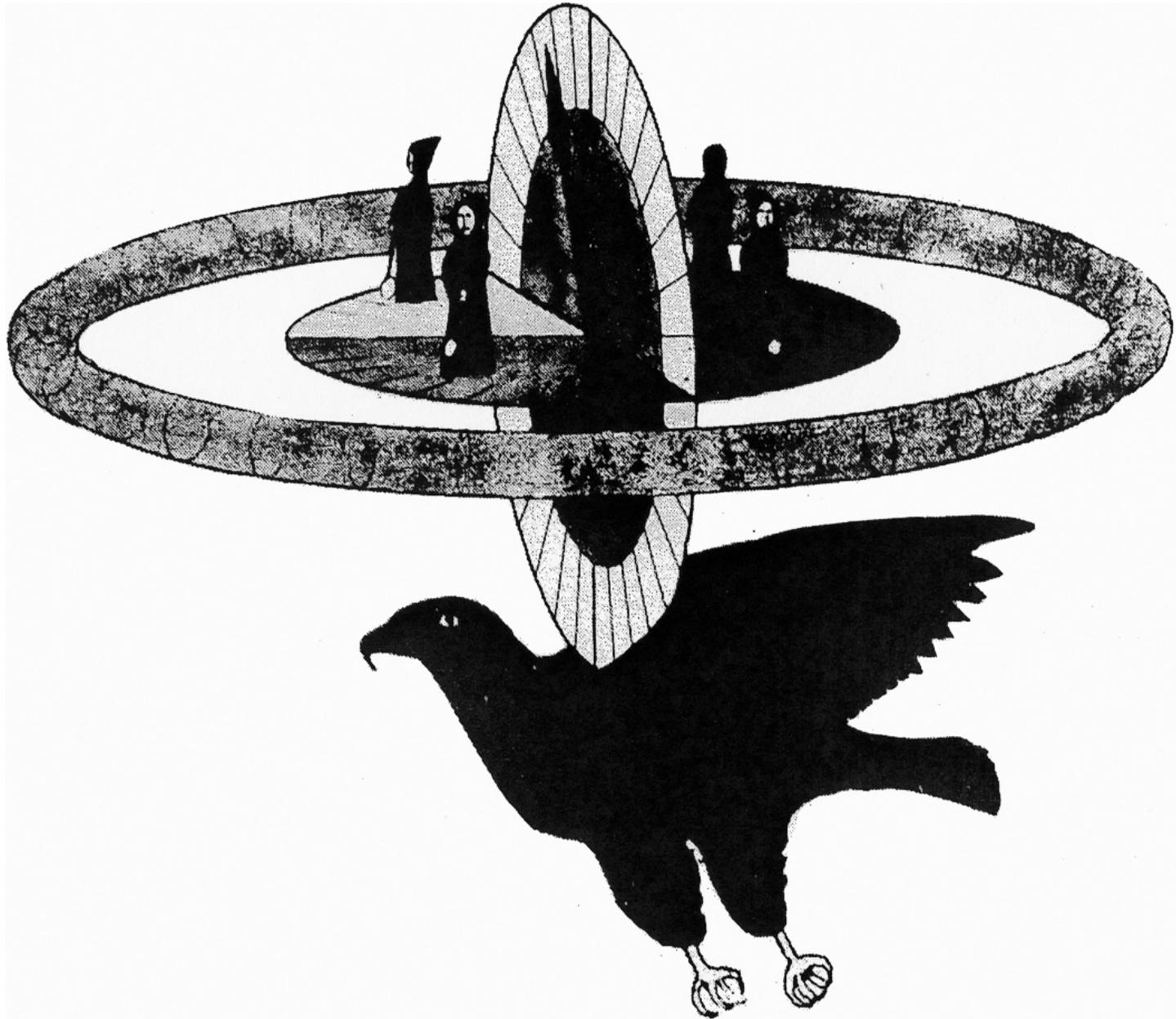
- The *second quaternary principle* is based on the time separation and the “type” of the past/future projections which are known as the realizability of the Kalmanian paradigm, thus, we can distinguish the four well known criteria:
 - **Observability, (re)constructibility, controllability, reachability**

Structure classification

- The *third quaternary principle* is related to the only “automorph” transformations of the possible past and future projections.
 - There are the **past/past**, **past/future**, **future/past** and **future/future** projections.

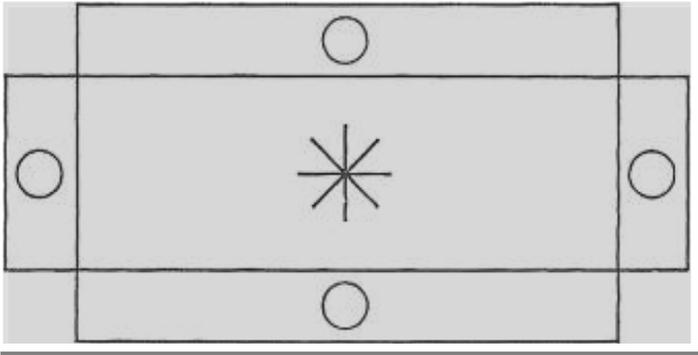
Representation structure generation of synchronistic system



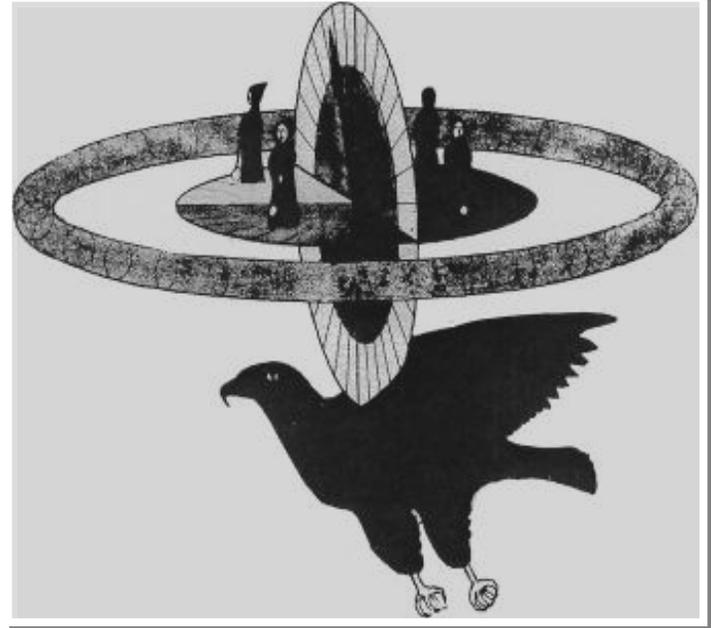


- auli postulates a transcendental background, an “informational cosmos” which is the (probabilistic) basis of both physics and psychology, or the subject of both theological and mythological ways of cognition; in which the physical, mental, and spiritual layers create a unity on the basis of a transcendental informational and control language.

Various dreams containing algebraic archetypes

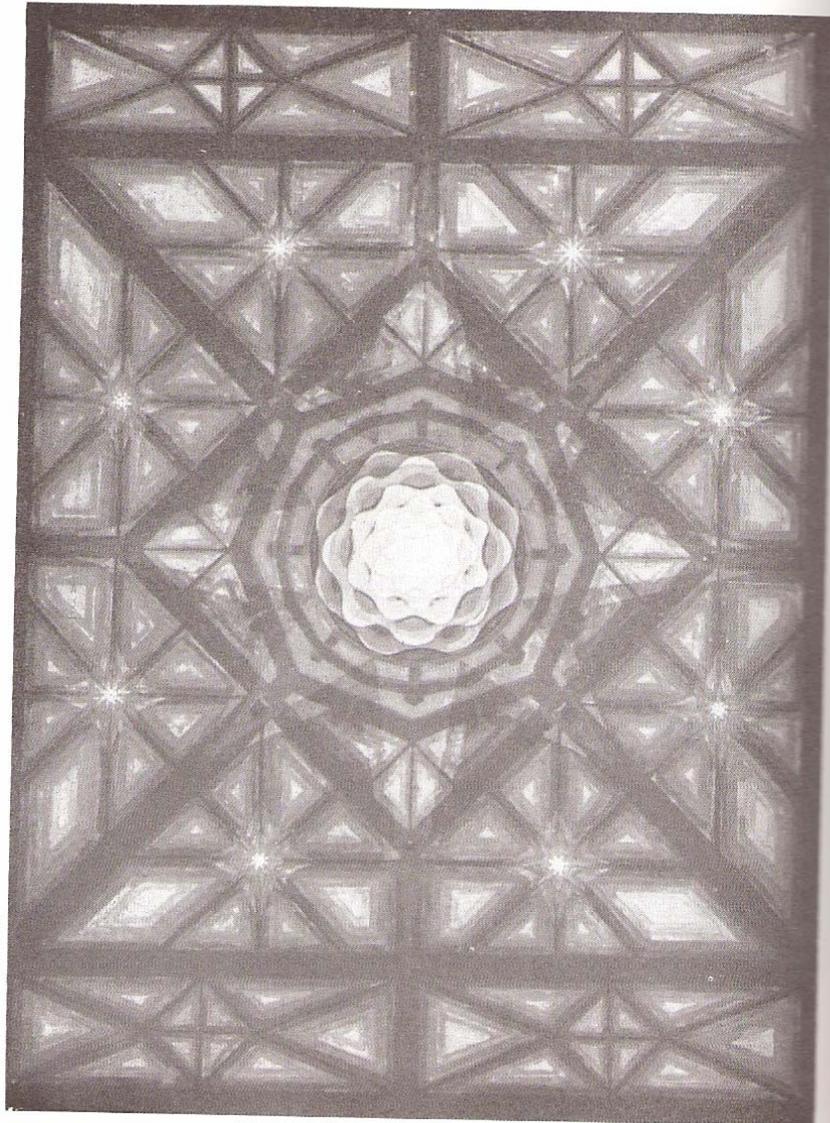


- Dream of the four rectangles forming a geometric quaternion



- Dream of the World Clock

Liverpool Mandala of C. G. Jung





Scanned at the American
Institute of Physics



Nostradamus Magyarországáról 1556



*Par vie et mort changé
regne **d'Ongrie** La loy fera
plus aspre que feruice En
grand cité urlemens plains
et crys **Castor et Polux**
ennemis dans la lyce.”*
(Nostradamus, Centuries, II.
90.)

Johannes Regio Montanus



James Joyce









Körút a Pál utca („via Pauli”) környékén szemben a Corvin mozival



Anagrammák

- CAROLVS GVSTAVVS = AVGVSTVS
LOCVS VNGARIVS
- WOLFGANGVS ERNESTVS PAVLIVS =
LEGO STEFANVS PLVVIVS VNGARVS
- “Perhaps we could express it as follows:“

$$\frac{(W + (E) + P)(C + G + J)}{2} = 1$$

Hyeronimus Cardanus



Johann Wolfgang Goethe

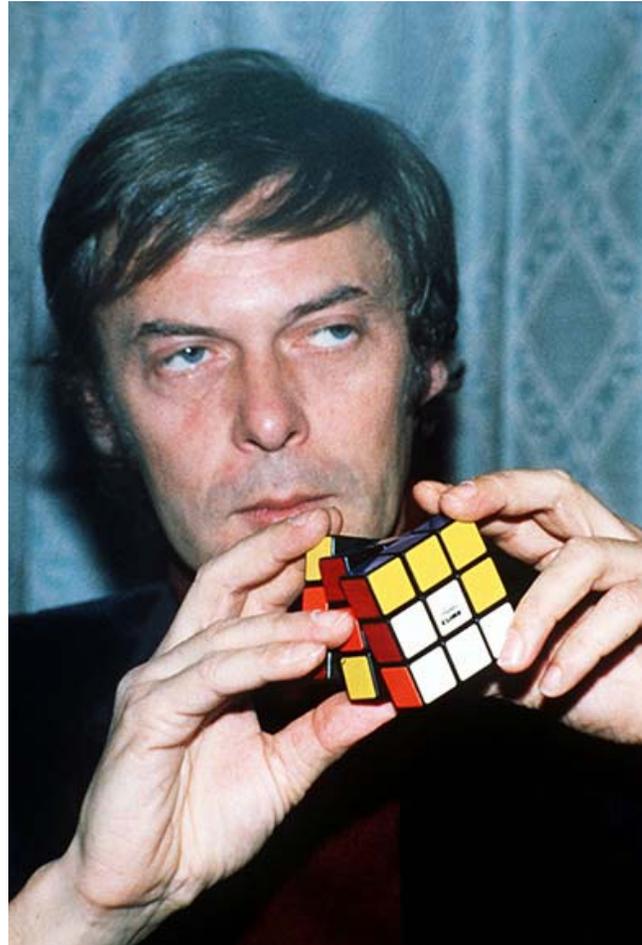


Karl August (Károly Ágoston Weimari Nagyherceg)

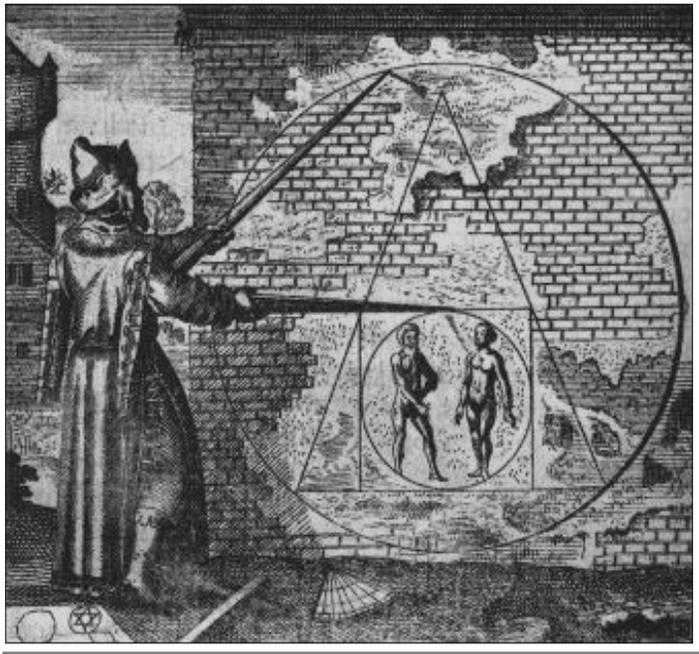




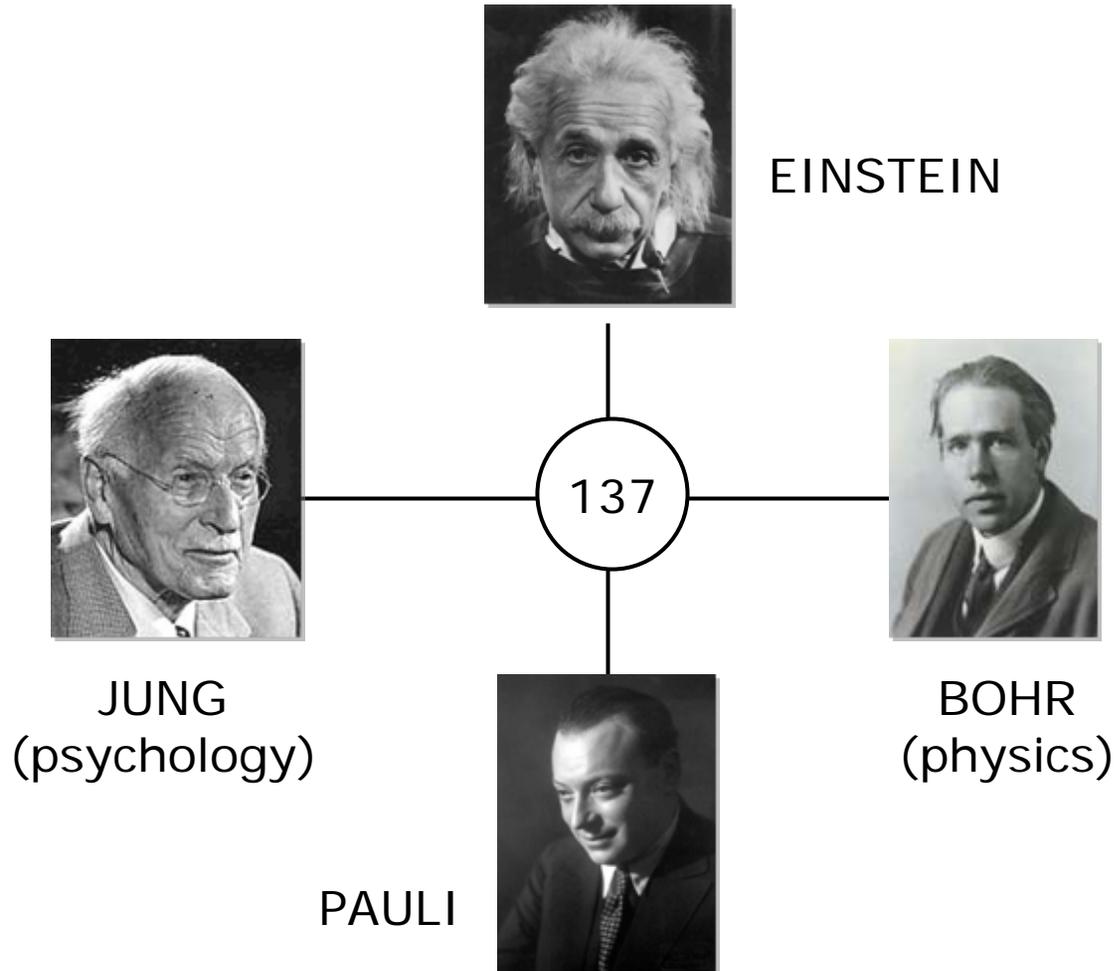
Rubik Ernő (Ernestus Rubicus)

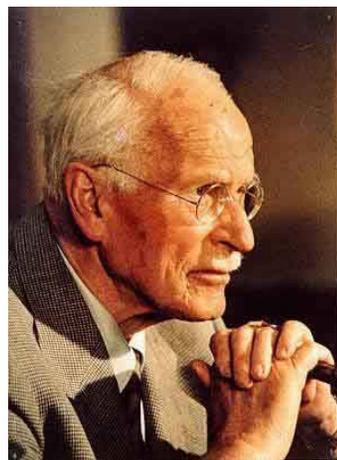
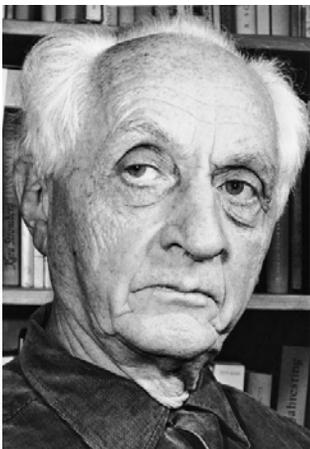


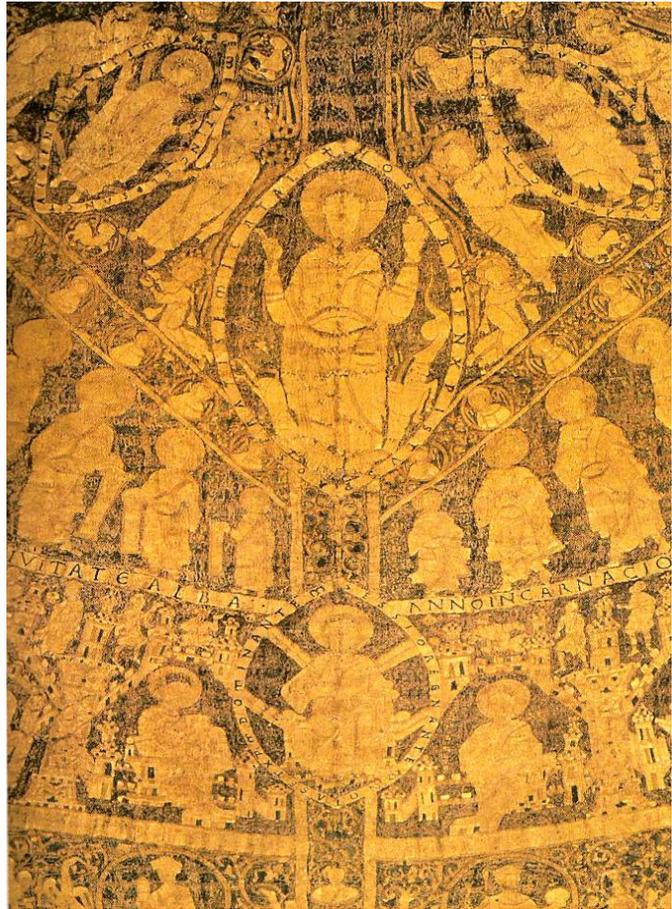
New Ways of Cognition



Traditional professorship











Publications

- P.Várlaki, J.Bokor, „Cognitive Symmetry-Structures in Stochastic Control Theory and Early Quantum Physics,” in *MAKOG I. – Cognitive Systems*, Visegrád, Hungary, 1993, in Hungarian
- P. Várlaki, J. Bokor, L. Nádai, „Historical Background and Coincidences of Kalman System Realization Theory,” in 5 th IEEE Int. Conference on Computational Cybernetics, Gammarth, Tunisia, 2007, on CD-ROM
- P. Várlaki, L. Nádai, J. Bokor, „Numbers and System Representations in Perspective of the Pauli-Jung Correspondance,” in CD-ROM of the *6 th Slovakian-Hungarian Joint Symposium on Applied Machine Intelligence and Informatics (SAMI 208)*, Herlany, Slovakia, 2008.
- P. Várlaki, L. Nádai, J. Bokor, Number Archetypes and „Background” Control Theory Concerning the Fine Sctructure Constant. *Acta Polytechnica Hungarica*. Vol. 5. 2008. pp. 71-104
- P. Várlaki, L. Nádai, J. Bokor, Number Archetypes in System Realization Theory Concerning the Fine Structure Constant. *12 th International Conference on Intelligent Engineering Systems, 2008, Miami, Florida*.
- P. Várlaki, L. Nádai, J. Bokor, A. Rövid, Synchronistic “System Identification” Background Control and Fine Structure Constant Concerning the “As of Clubs” Dream Series in Perspective of Pauli-Jung “Correspondence”

Thank you for attention!