

# The Paradigm of Relations

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## 1. Introduction

We are familiar with the existing views of the world of today, e.g. the theory of quantum, the theory of relativity, the table of element, the standard model, different ideologies and religions.

The world is challenged by severe problems within societies as well as within science, e.g. nuclear weapons, population growth, refugee flows, climate change, starvation and diseases within societies; how to unite the theory of relativity and the theory of quantum physics, question the standard model, the table of elements and the theory of evolution within science.

Now it is time for a new view of the world – *the Paradigm of Relations* - that can handle and solve these problems. We must start all over again trying to find new answers.

In this paper I propose *The Paradigm of Relations*, based on *The Principle of Relations*<sup>1</sup> and its applications.

The Principle of Relations is based on these postulates:

1. "All" consists of the world today, the world of the past and the world of tomorrow.
  - 1.1 Everything that ever existed, exists or will exist is a part of "All".
  - 1.2. All is dynamic – All is "alive".
  - 1.3. All = **X**.
2. One world exists today.
  - 2.1. The world is a part of "All".
  - 2.2. Anything that does not exist today is not part of this world.
  - 2.3. The world is dynamic – the world is "alive".
3. Any world is differentiated into component parts, each one of which stands in relation to another.
  - 3.1. It all hangs together.
  - 3.2. Nothing exists in isolation.
  - 3.3. It all hangs together through a relation - **R**.
    - 3.3.1 Since it all hangs together, nothing is in isolation.
    - 3.3.2 The relation is superior to the parts, **a, b, c ...**
  - 3.4. If the relation is superior, there will be no cause and effect between the parts.
  - 3.5. The relation makes the parts' existence possible.
    - 3.5.1 Without relation the part will die and disappear.
  - 3.6. The concept of relation explains the concept of system.
  - 3.7. All systems are arranged in a logical hierarchy. If a superior system collapses, then all subordinate systems will collapse.
  - 3.8. All systems of relations, at a certain time, constitute the world.
    - 3.8.1 Everything happens only one time.

Nothing that happens will happen again.

The unique disappears and will never come again.

3.8.2 Everything which is will become something new.

4. Everything that exists is physically concrete.
  - 4.1. Meaningful concepts are concretely interrelated.
  - 4.2. Abstract concepts must be able to be derived from concrete concepts.
  - 4.3. The sentence expresses the thought in a way which is perceptible for the senses.
  - 4.4. There are no meaningful concepts without concrete meanings.
  - 4.5. The contents of thoughts are concrete.
  - 4.6. That which is concrete either exists or does not at a certain point of time.
  - 4.7. The combination of article 3 and articles 4.1 – 4.6 is that the world is alive.
5. Thoughts about concrete facts are meaningful propositions at a certain point of time.

These five postulates describe reality and that the concepts reality, physically and concretely are synonyms.

Based on the postulates we can now formulate the formula  $X = aRb$ .

The Principle of Relations,  $P_R$ , claims to represent all aspects of reality, based on I-III:

### I. Requirement for a complete theory:

Every concept has to represent the reality directly and concretely.

### II. Postulate:

Nothing exists in isolation, i.e. everything exists in relations.

### III. Basic concepts:

- 1) Mass, i.e.  $m$ .
- 2) Wave, i.e.  $\Psi(x, t)$ .
- 3) Relation, i.e.  $p_{1-n}$  = flow of packages.

The concept of relation relates to reality by showing that there are relations between all parts in the physical reality, where:

- 1) **a, b, c ...** are any system, subsystem, unit or part in any field of the Universe, e.g. suns, planets, moons, galaxies, atoms, molecules, cells, organs and species.
- 2) The relation, **R**, is a flow (wave) of packages,  $p_{1-n}$ , e.g. quarks, protons, neutrons, electrons, photons, proteins, fats, polysaccharides, between a, b, c ... in any field of the Universe.



Based on the postulate - nothing exists in isolation, i.e. everything exists in relations –in combination with 1 and 2 above, the principle of relations is  $X=aRb$ , where X stands for gravitation, forces, interaction and energy.

The same organizational principle rules at all levels, i.e.  $aRb$  organizes all masses and all matter at all levels of the reality.

For each level and for each system there is different masses/matter and for each level and for each system adequate masses/matter occurs. So, the atom uses quarks and leptons when an atom occurs and the solar system uses the Sun, planets and moons when it occurs.

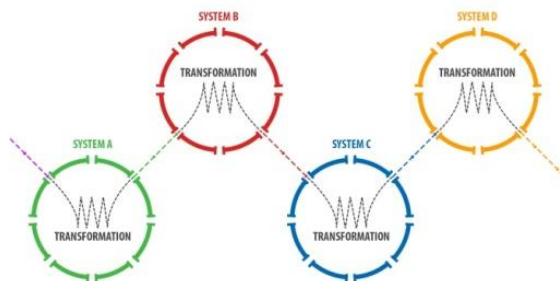
In the Universe continuous flows of packages goes in “tubes” between all systems, resulting in gravitation, force and energy. These flows contain all mass in the Universe, including dark matter and dark energy. The key concepts are flows of packages, gates, transformers and systems.

When any flow of packages arrives at any system there are gates transforming the content to fit in to the system, and then the content will change appearance.

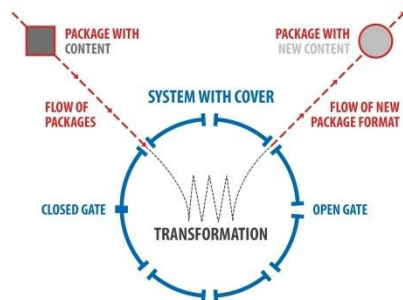
A Transformer is *the mechanism which directs and leads packages*, e.g. protons, electrons and nutrient molecules, within the cells in the human body.

Throughout reality the same principle applies to the mechanisms of a Transformer’s functions, e.g. the Earth, the Sun, the Moon, the human body, galaxies, organs and cells.

Please accept this simple illustration, where A, B, C and D are planets, suns and galaxies as well as atoms, molecules and conglomerates of molecules and cells:



For each system there are gates, i.e. the transformation mechanism by the transformer, where the content of the packages is transformed for the next level of physical reality.



**The Principle of Relations and its Applications**

Now we must find out what happens when we imply the principle to different parts of reality, i.e.:

- 1) Logic
- 2) Physics
- 3) Chemistry
- 4) Medicine
- 5) Biology
- 6) Society

**2. The Principle of Relations applied to logic**

Now, let us find out the meaning of numbers based on the principle of relations. First number 1 and then number 0.

**The number 1**

Based on articles 3.8.1 and 3.8.2 of the postulates, *a* and *b* change, which means that the content of *a* and *b* are different from time  $t_1$  to time  $t_2$ .

1.  $a = a$  at  $t_1$  and this is called  $= a_1$ ;
2. so  $a_1$  is valid at  $t_1$ ;
3. Then  $a_2$  is valid at  $t_2 = a_2$ ; etc.
4.  $a_1 \neq a_2$ ;
5.  $b_1 \neq b_2$ ;
6.  $\Delta = a_1 - a_2$ ;
7.  $\Delta a = R$ ;
8.  $\Delta t = t_1 - t_2$
9. Within a certain time  $t_1 - t_2$ , the content changes by  $a_1 - a_2 = \text{content of } R$ .
10. If  $a = a$  at  $t_1$ , then  $a_1 = a_1$ ,
11. thus  $1 = 1$  at  $t_1$ , then  $1_1 = 1_1$
12. if  $a_2 = a_2$ , thus  $1_2 = 1_2$
13. if  $a_1 \neq a_2$ , thus  $1_1 \neq 1_2$
14. Consequently *a* and *1* are not static entities.
15. Thus  $1+1=2$  and  $a + b = ab$  are false, except at  $t_1$ ; however  $t_1$  exists before  $t_2$ , which is always the fact, i.e. what is true at  $t_1$  is not true at  $t_2$ .
16. Instead we have to realize that at  $t_1$   $1+1=2$ , but at  $t_2$   $1+1 \neq 2$
17. This perspective gives a new interpretation to the definition of the natural number *n*, which so far has been defined as the set whose members each have *n* elements, which is a fallacy by circularity and therefore an impossible definition.
18. Conclusion 1: We do not know if the nature of the Universe is based on numbers.
19. Conclusion 2: Science, natural sciences and mathematics, based on the number 1, are not valid.

**The number 0**

Up until now the definition of the number 0, zero, represents nothing; it is the symbol for emptiness, i.e. it represents the absence of any quality and its quantity.

But, since R exists, there is no empty space, whether in the cosmos or between particles, i.e. R is present with its contents all over space all the time.

Then, the number 0 does not exist and it is not valid.

The same conclusion can be found in this aphorism in Tractatus:

“4.128 The logical forms are a numerical. Therefore there are in logic no pre-eminent numbers, and therefore there is no philosophical monism or dualism, etc.”

When Frege<sup>3</sup> came to his conclusion, he first dealt with the concepts unit, thing and object; and if they are identical. “Why do we ascribe identity to objects that are to be numbered? And is it only ascribed to them, or is they really identical? In any case, no two objects are *ever* completely identical.”

This is the question of unity and diversity, i.e. are numbers based on unity or diversity.

The answer, based on the definition of number 1 above, is that the symbol of any number, e.g. 3 will *not* look like this 1+1+1. The symbol 3 has to be shown like this 1'+1''+1'''.

However, if the existence of arithmetic should persist, this is impossible, according to Frege.

How, then, can we deal with science based on the definition made in this paper?

We must invent *a new logic*, since the foundations of arithmetic are weak, i.e. *the logic of relations*:

$$1. S_1 = (a_1R_1b_1)R_2(a_2R_2b_2) \dots$$

S is a complex of relations between all parts and elements in the system, i.e. the a, b, and c are complicated systems, that send and/or receive flows of packages, i.e.  $p_{1-n}$

$$2. R = \sum p_{1-n} = p_1 + p_2 + p_3 \dots p_n$$

The big challenge is now to identify all the *p* in all relations.

$$3. (a_1R_1b_1)R_3(a_2R_2b_2) \dots$$

$$4. S = (aR_1b)R_2(aR_3b) \dots$$

$$5. S = \sum (a_1R_1b_1)R_3(a_2R_2b_2) \dots^{n-1}$$

6.  $R_1$  is the relations within the Earth;  $R_2$  is the relations between  $R_1$  and  $R_{3-n} \dots$

$$7. (a_{1-n}R_{1-n} b_{1-n})R^{\infty-1}(c_{1-n}R_{1-n}d_{1-n}) \dots$$

### 3. The Principle of Relations applied to Physics

Based on the postulate - Nothing exists in isolation, i.e. everything exists in relations –in combination with 1 and 2 above, the principle is

Now, please feel free to use your imagination.

Entities, relations and system of relations									
Entities	Proton	Electron	Atom	Molecule	Cell	Planet Earth	Solar system	Galaxy	Intergalaxy
Proton	1	2	3	4	5	6	7	8	9
Electron	10	11	12	13	14	15	16	17	18
Atom	19	20	21	22	23	24	25	26	27
Molecule	28	29	30	31	32	33	34	35	36
Cell	37	38	39	40	41	42	43	44	45
Planet Earth	46	47	48	49	50	51	52	53	54
Solar system	55	56	57	58	59	60	61	62	63
Galaxy	64	65	66	67	68	69	70	71	72
Intergalaxy	73	74	75	76	77	78	79	80	81

### 5. The Principle of Relations applied to medicine

R contains  $p_{1-n}$  and the function of R is as below:

$$R = \sum p_{1-n} = p_1 + p_2 + p_3 \dots p_n$$

$$X = aRb$$

Between all systems and between all parts of any system, S, there is a continuous flow of packages  $p_{1-n}$ , i.e.  $R = p_{1-n}$ . The formula will be this

$$S = ap_{1-n}b$$

Manifestations of the flow of packages are gravitation, energy, interaction, dark energy, dark matter and force.

Based on  $X = aRb$  and  $S = ap_{1-n}b$  any system is and can be described as complex flows. We might call them wave functions, since a wave function is a flow of masses.

We can transform the most important equations of force, relativity and quantum physics into the equation below, which unites force, relativity, quantum and energy with dark matter and dark energy, i.e.

$$X = a(\Psi(x, t) = p_{1-n})b$$

Where X stands for force, gravitation and energy, *a* and *b* are systems and  $p_{1-n}$  is a flow of packages.

The absorption of any flow of packages is guided by a *Transformer*, which is *the mechanism that directs and leads packages*, e.g. protons, electrons, photons and nutrient molecules, as shown below in the example of Black Holes, i.e. Black Holes are Transformers creating new galaxies, suns and planets.

### 4. The Principle of Relations applied to Chemistry

In the Table of Relations below, which replaces the Table of Elements and the Standard Model, there are many interesting relations for further research, and e.g. we can add atoms with other properties and reach an enormous amount of atoms. The relations 1-27 are very interesting, but of course also the relations 73 and 46. Please feel free to choose the one you find most interesting. The table should be read so that each number represents one specific relation; e.g. no. 28 describes the relation between a proton and a molecule. Where can we find no. 28 in the physical reality? *Then the Table of Elements shows itself to be rigid and cannot represent reality.*

This content will over time change any structure a, b, c in the human body, from the lowest element in the cells to relations between subsystems. Within the body there are a complex  $R_{1-n}$ .

If  $S_H$  stands for the system of the human body, then  $S_H = (aRb)^{-\infty}$  consists of  $S_i, S_s, S_m, S_c, S_l, S_r, S_d, S_u, S_{re}, S_n$  and  $S_e$ , where each  $S_{1-11}$  has its own system of  $R_{1-10}$ .  
 $S_H = (aRb)^{-\infty} = S_iR_1S_mR_2S_c R_3S_lR_4S_rR_5S_dR_6S_uR_7S_{re}R_8S_nR_9S_e R_{10}S_s$

Based on the postulates and the Principle  $X=aRb$ , we can look into the System of the Human Body.

With the language of the principle of relation we can summarize the system,  $S$ , for the human body,  $H$ , as  $S_H=(aRb)^{-\infty}$

Since there are 100.000.000.000.000 cells, i.e.100trillion cells, where each cell is a living unit, between all cells and organs there are billions and billions of relations,  $R$ .

As we all know the human body is a complex system of relations between subsystems, down to the smallest elements in and between cells.

When any  $R$  is broken or damaged, there will be disorders and diseases, e.g. cancer, AV-block III, Alzheimer's and cardiac infarction.

## 6. The Principle of Relations applied to Biology

$SP$  is species,  $R$  is the relation between  $SP$  and Nature,  $N$ .  $N$  has impact on  $SP$  by  $R$ .  $SP$  will change as a consequence of  $N$ 's impact.

With the language of the Principle of Relations we can summarize the change, not the evolution, of  $SP$ .  
 $SP_{\infty}=(aRb)^{\infty}$

Where  $a$  is  $N$ , which by  $R$ , i.e.  $p_{1-n}$  = flow of packages, will change  $b$ , to another species  $SP_2$  or changes in attributes such as the size and shape of a specie, e.g. finches pecker.

$N \rightarrow SP$   
 $SP_2=a_1R_{1-11} \rightarrow b_1$

Now we must study how  $R$  affects the genes and how new mutations occur, *not as random*, but as a logical effect of  $R$ , i.e. Nature.

$S_{DNA}$ -the system of DNA.

$aRb$ , where  $a$  is  $N$ ,  $R$  is the content, i.e.  $p_{1-n}$  = flow of packages, and  $b$  is  $S_{DNA}$

The formula is then  $N_{1-n}RS_{DNA}$

## 7. The Principle of Relations applied to society

Based on the postulate - *Nothing exists in isolation, i.e. everything exists in relations-Good is actions that secure and assure survival and life quality in dependent relations.*

When we directly or indirectly perform actions that secure and assure survival and life quality, we are doing good.

A world government is needed, based on a new constitution and a new pragmatic ideology for global politics,

i.e. PASISM<sup>2</sup>, a Power Assuring Survival of humanity, dealing with the global situation.

A comparison between 2021 and 2121 gives us what we need to do.

*The world of 2021:* the figure of \$ 1.7 trillion represents global military spending for one year; nuclear weapons; population growth; the climate change, nationalism, refugee flows, waste, democracy and its difficulties, starvation, diseases, corruption, false news, racism, migration, micro plastics, trust decrease, war, demagoguery, water shortages, conflicts, violence, populism, 193 national states and power blocs dominate the global scene, etc.

*The world of 2121:* disarmament and demobilization, forces for daily safety, food and medicine supply, energy access , water supply, global equality, education, global infrastructure, legal and regulatory framework for the economy and business, laws and legislation, no waste , housing for all, and healthcare for all.

## 8. Further Reading

In the International Journal of Science and Research, Search Articles by the name Thomas Nordstrom, then you will find 15 articles dealing with the Principle of Relations and in notes 1-2 below three books are mentioned.

### Notes

- [1] The theory was first published by Cambridge Scholars Publishing: *The Principle of Relations*. 2018. The theory has been developed in the book *The Theoretical Foundation of Physical Reality*, author HOUSE, 2020.
- [2] *A World Government in Action: A New Pragmatic Ideology for Global Politics*. Cambridge Scholars Publishing, 2020, Thomas Nordström.