STRUCTURING CONCEPTS AND DETERMINATIONS

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Abstract

Concepts,as we define them here,have a built-in structure which based on some axioms,result into two hypotheses.The first hypothesis leads us to the birth of noesis as a concept in its own,while the second one,in turn,leads us to conclusions that are incomprehensible.The birth of noesis is an action of noesis itself,hence we are talking about a self-determination,from where the concepts of space and time emerge.So,from the first hypothesis,we end up to a mental birth of the natural world.The mental passing from the second hypothesis to the first one,has a -close enough- resemblance to the big-bang.That is,as Universe was risen from a big-bang of matter,in the same way the set of concepts commences from a big-bang of noesis.The set of concepts (ennoias) is a mental representation of Universe and Universe is the set of determinations coming from noesis.

Finally self-determination of noesis leads us to a conclusion that can be used as a basis to explain many Quantum Mechanics phenomena.

Keywords

Philosophy,Noesis,Concept,Determination,Self determination,Quantum Mechanics,Big-Bang.

DEFINITIONS

Anthropic principle: We see the universe the way it is because if it were different we would not be here to observe it[1].

In other words everything in the Universe is there because we are here to observe it.

In this text we are consistently dealing with inter-subjective properties of subjective entities.

§Noesis,concepts and determinations

An *Object* is anything that can be perceived by a human being in any way.Either with the senses, emotions,thoughts or in any other way.*Objects* are the ingredients of the natural world.

The mechanism by which an object is perceived consists of two subsystems.The first subsystem is the means of perception,e.g. through the senses,through thinking,etc., while the second subsystem - which is fed by the first -is the mental apprehension of the object which we call *noesis*.The action of the mental apprehension of an object by the noesis is called *determination* and the product of this determination is a *mental object*,which is called *concept* or *ennoia*.Determination and concept are two different entities,where each one uniquely identifies the other.That is,it is not possible for the same determination to produce two different concepts or two different determinations to produce the same concept.Since -by definition- a determination corresponds uniquely to an object,we conclude that the same stands for a concept in respect to an object.

[1] Stephen Hawking."A Brief History of Time" (Glossary).

Anything that can be perceived mentally can also be expressed.Apart from the syntax,which we are not concerned with here,an expression that determines a concept C,is made up of other concepts,which noesis,as part of the process of mental apprehension,welds together and thus determines the concept in question.We then say that C,based on a specific expression,*requires* those concepts in order to be determined (or to be comprehended) and we use the symbolism [C,C'),where C' is one of the concepts that C requires.For example,for the concept "square" as a geometrical shape,an expression that determines it,is the following:"A quadrilateral with sides of equal length and right angles".Hence the concepts which concept "square" requires in order to be determined,based on the specific expression or definition,are: {quadrilateral,side, equality, length,angle,right angle} and we symbolize as [square,quadrilateral), [square,side) and so on.If noesis has not determined the concept "angle" for example,then it cannot determine the concept "square".Let's see another example:The "tree":"A plant with an elongated stem, or trunk, usually supporting branches and leaves".Hence the concepts that are required in order to determine the concept "tree" (based again on the specific expression) are {plant,elongated,stem,trunk,branch,leave}.Again,if the concept of -say- "plant" does not exist,then the concept "tree" cannot be determined.

A concept that requires one or more concepts in order to be determined is called a *compound* concept.A concept that does not require any concept in order to be determined is call a *pure* concept.

If a concept C requires concept C' in order to be determined,and C' in its turn requires concept C'',then we say that C requires C' to *degree* 1 and C'' to *degree* 2,and we symbolize [C,C'|1) and [C,C''|2) correspondingly.If this continues,for example to degree n (n>0),then the symbol is [C,C'n).If n=1 then [C,C'|1) is abbreviated to [C,C').

Remarks

-What is mentally perceived and can be expressed is the form.It is not the content.We embrace the view that the content cannot be expressed, so the content is not a concept in the way we define it here.That is, the content cannot be determined.

-An expression is a form of the determination of a concept and possibly there are more forms for the same determination and consequently for the same concept.

-The concepts that are required in order to determine a concept C,might be exactly the same as those required in order to determine a different concept C',but in a different expression.

§Rules

We will now define two rules that are meant to imply a form (a norm) on the set of all concepts or to be more precise on the set of all pairs (concept,determination).The normalized set that results,is symbolized with $\mathcal{N}$,and from now on when we speak about concepts we are referring to members of this set.

Rule #1: Each concept corresponds to one and only one set of concepts that it requires in order to be determined.

Equivalently:In $\mathcal{N}$, each concept is determined by one and only one expression.

For example,regarding the concept of "square" as a geometry object,besides the determining expression that we saw previously,there is also the expression:"Square is a quadrilateral which is a rectangle and a rhombus at the same time".Consequently "square" can be determined using either the set of concepts that we mentioned above i.e {quadrilateral,side,equality,length,angle, right angle} or the set {quadrilateral,rectangle,rhombus,at the same time}.Rule #1 says that for every member of $\mathcal{N}$, one and only one of those sets is allowed .

The above rule,as we previously noted,does not exclude the case where two different concepts correspond to the same set of concepts.

Rule #2 (Noncommutativity):If a concept C requires -amongst others- concept C' in order to be determined,then the reverse condition cannot apply.

Symbolically:If it's true that [C,C') then [C',C) cannot be true.
Rule #2 says that if concept C requires concept C' in order to be determined,then it cannot be true that concept C' also requires concept C in order to be determined,because this will lead us to a reiterating definition,i.e a tautology.For example the expression "Square is a quadrilateral with sides of equal length and right angles" and the expression "Right angle is the angle between the two sides of a square",are not both allowed in our structure.Both expressions say the same thing about the "right angle".

Rule #2 applies even if C requires C' to a degree higher than 1.For example if C requires C' in order to be determined and C' requires C'',then C'' cannot possibly require C in order to be determined,because this will imply that also C' requires C in order to be determined.

§Axioms
Axiom #1:<u>For every single</u> concept C there always exist one or more concepts that C requires in order to be determined.

We conclude that for every concept C and for any number n > 0,however big,there will always exist a concept C' such that C will require C' to degree n,in order to be determined.

Axiom #1 tells us that there does not exist any concept C,that can be determined by noesis, without requiring the use of at least one other concept for this determination.Here we observe an interesting aspect of noesis where its operation is based on an endless recursive process. That is, noesis uses itself during its operation,as a separate entity. However, its operation is special and specific. It is the definition of concepts. So we can say that noesis during its operation also defines itself. This is a very important observation that we will come across again.

Axiom #1 also tells us that there are no pure concepts and that all concepts are compound.

Axiom #2:For every two concepts C and C' there exists at least one concept C'' which both require in order to be determined.C and C' may require C'' to the same or different degrees.

With our notation: For every two concepts C and C' there is at least one concept C'' such that [C,C''|n) and [C',C''|m), where n,m > 0.

Axiom #3:For every concept C there exists at least one other concept C' that requires it in order to be determined.

That is, for every concept C there exists a concept C' such that (C',C|n), where n>0.In other words, each concept is a component of at least one compound concept.

§The sequence

For each concept C we define a sequence $\mathbf{S}_n(C)$ where the n^{th} member (for n > 0) consists of all the concepts required for the determination of all the concepts that make up the $(n-1)^{th}$ member and where $\mathbf{S}_0(C)=C$.

It is true that:$\mathbf{S}_n(C)=\{C_1,C_2,..,C_m\}$ where $[C,C_i|n)$,and i is in (1,2,..m).

For example:
$\mathbf{S}_0$(Square)={Square}
$\mathbf{S}_1$(Square)={quadrilateral,side,equality,length,angle,right angle}
$\mathbf{S}_2$(Square)=All the following concepts that are within the brackets {}:

quadrilateral	{four,side,polygon,side,vertex}
side	{straight line,vertex,two-dimensional geometrical object}
equal	{same,length}
length	{measure,straight line}
angle	{geometrical object,straight line,common,vertex}
right angle	{angle,perpendicular}

$\mathbf{S}_3$(Square)= etc

From Rule #1 we conclude that to each C corresponds one and only one sequence $\mathbf{S}(C)$, in the sense that each $\mathbf{S}_n(C)$,for every n>0,consists of a uniquely defined set of concepts.

Note here that should a pure concept exist,say P,it functions,in some way,as a neutral element in every sequence $\mathbf{S}(E)$. For example,in the term $\mathbf{S}_1$(Square) we could have the concepts {quadrilateral,side,equality,length,angle,right angle,P} without having to refer in the corresponding expression to the pure concept P. Then in all the following $\mathbf{S}_n$(Square) for n>1, nothing would change.

From Axiom #1 we deduce that for every concept C the sequence $\mathbf{S}_n(C)$ is infinite, because the determination of a concept C presupposes the determination of all the concepts that it requires in order to be determined,which (concepts) in turn require other concepts to have been determined and so forth. As n increases, the number of concepts comprising $\mathbf{S}_n(C)$ increases. At the same time, as n grows, the concepts of $\mathbf{S}_n(C)$ are required in more and more concepts (those of the previous n), so they become more and more general.So, after some large enough n,the number of concepts in the terms of the sequence,should have decreasing trends.The question that arises is whether this sequence (for each concept C) converges or not.That is, if there is an entity L that <u>each and every one</u> concept requires in order to be determined.In other words, it answers the question: how does noesis "begins"?.Symbolically if $\mathbf{S}_n(C) \rightarrow \{L\}$ when $n\rightarrow\infty$.

The positive answer to the previous question about convergence or not, is called the First Hypothesis and it says that for every concept C, the sequence $\mathbf{S}(C)$ converges.As we will see the conclusions from this Hypothesis are consistent with our reality.The Second Hypothesis i.e. that the sequence $\mathbf{S}(C)$ does not converge leads us to conclusions that we cannot comprehend.

<u>FIRST HYPOTHESIS</u>

We define as **p.r. (physical reality)** the set $\mathcal{N}$ with the First Hypothesis.

Since each concept uniquely identifies an object and vice versa,we understand that p.r. is the anthropic mental conception of the whole physical world with the additional assumption that all concepts emanate from a common start.

Therefore, for each concept C of p.r.,there exists an entity (the limit) from which noesis starts and determines the concepts of each term of sequence $\mathbf{S}$(C) and therefore finally also for C. This limit –say L- is the same for every sequence defined by every concept.
Proof:
Let there be two concepts C' and C''.Then by Axiom #2,there exists a concept C which is a concept of the n^{th} term $\mathbf{S}_n$(C') and at the same time a concept of the m^{th} term $\mathbf{S}_m$(C'') for some n and m.Suppose now that $\mathbf{S}$(C') has the limit L' and $\mathbf{S}$(C'') has the limit L''.From L',noesis begins and determines concepts.Since starting from L' has determined C' then obviously noesis has also determined every concept of every term of the sequence $\mathbf{S}$(C') otherwise L' would not be a limit of $\mathbf{S}$(C').Correspondingly for C'',noesis has also determined every concept of every term of the sequence $\mathbf{S}$(C'').So noesis has also determined the common concept C and therefore every concept of every term of $\mathbf{S}$(C). If now L' and L'' are different then $\mathbf{S}$(C) must converge in two different limits, which is not possible.

Therefore,starting from the limit,say L,noesis begins and defines all concepts.What is the nature of this limit?.Firstly,L is an entity which by its definition - or if you prefer, since it is defined - is determined.So we can refer to it as a concept.L -as we have showed- is the only concept that every other concept requires it,in order to be determined. L cannot be like the terms of the sequences that converge to it. That is,it cannot be a compound concept,because if it were,it would require other concepts in order to be determined,so it would be a term of one or more of the sequences $\mathbf{S}$(C) and not their limit. It is a concept that is determined without requiring any other concept.It is, as we defined it,a pure concept.But according to Axiom #1,noesis always requires one or more concepts in order to determine a concept.The dispute with Axiom #1 is avoided only if noesis does indeed uses a concept in order to determine L, but which cannot be different from itself because then the limit would be a compound concept.In other words, we are talking about the determination of noesis itself,by itself, thus the **self-determination of noesis(sdn).**No concept participates in sdn.It is an incomprehensible circumstance or fact where,with the exclusive use of itself,noesis determines itself as the limit L.L as a pure concept does not belong to $\mathcal{N}$ and therefore neither to p.r..

So with the First Hypothesis noesis acquires the meaning of the concept, i.e. it is a concept itself, which determines itself and determines every term of p.r.. Likewise,noesis with its self-determination acquires the property of a pure concept and is also the only concept that comes from self-determination.As we saw before, a pure concept acts as a neutral element in every sequence $\mathbf{S}$(C).So we could say that every concept C needs the concepts {C,noesis} in order to be determined.

What the previous reasonings tell us,is that noesis is born thanks to the concepts it determines by itself. This agrees with the conclusion from Axiom #1, that the determination of a concept presupposes the determination of noesis itself.

§Self-determination of noesis(sdn)
As we have seen,sdn and noesis as a concept have meaning only with the First Hypothesis.Sdn consists of two terms.Noesis and determination.Noesis as a 'being' must be *outside* of itself in order to determine itself, and determination as an 'action' must act *before* the concept is

determined (this concept –incomprehensibly enough- performs the action of determination). Consequently,with sdn,two terms primarily come into existence. The term "apart from each other" and the term "before-after". These terms,which respectively correspond to space and time,are necessary for noesis to exist and for determination to act.Every concept of p.r. requires noesis in order to be determined and therefore – as a consequence - it requires these two terms.So based on the First Hypothesis, every concept requires space and time in order to be determined.That is,p.r. is anything that can be determined based on space and time, with the additional normalization of the concepts we defined initially.

Therefore, from the point of view of p.r. (outside sdn), where all concepts are perceived based on space and time, the two terms of sdn cannot be separated,i.e co-exist spatially and temporally as separate entities,because when we have noesis in sdn,this means that the determination has already acted and no longer exists.Also when we have the determination we cannot have noesis because determination has not yet acted in order to determine it.Consequently sdn appears in the p.r. with two aspects (sides),noesis and its determination,where one aspect is born from the other.In other words,noesis and the determination are the two sides of the same entity,which is the sdn.

We will generalize this finding with the following reasoning.Because of the First Hypothesis, every concept C in p.r. requires -indirectly- sdn in order to be determined.However,as p.r. sees it, sdn either exists as noesis or acts as a determination.So noesis defines C either as a being (concept) or as an act (determination), where these two terms are the two sides of the same thing of the p.r..So we conclude that <u>every</u> concept (not only noesis) with its determination in p.r.,comprise the two sides of the same thing.The capability of such an alternation between concept and determination is an instance of the noesis,and consequently noesis is intrinsically within every concept that it identifies.

As can be seen,each term of p.r. is a dialectical movement between concept and determination. It is the act of transforming the concept into determination and vice versa, where each direction has a different role in our reality.In other words - as long as concept and determination are subjective entities- there is no objective reality but only subjective.

Determination as derived from sdn does not have the meaning that conventionally comes to mind.It is not the action of tracking some pre-existing entity but, in accordance with its mode of operation within self-determination, it identifies something "before" it exists.Somehow it hypostatizes it, with the hypostatization lasting as long as the determination, in the sense that determination and the determination result coexist.

In continuation of the above,since the concept is the determined entity,we take our reasoning one step further and make the further generalization, that the determination process is the other side of the determination result or in short **“determination is the other side of the determined”.**

<u>Space and Time</u>

"Apart from each other" makes sense when sdn shows the side of noesis, and "before-after" when it shows the side determination.Thus,like the pair “noesis” and “determination”,so both concepts "apart from each other" and "before-after" are the two aspects of the same thing and each one gives existence to the other.So space and time are the two aspects of the same thing which gives existence to noesis, i.e. the sdn.

We have seen that time as a concept arises from the action of determination within the sdn. Generalizing our reasoning, we consider that in p.r. time arises from every action.The essence of any action in p.r. is the realization of time.The "before-after".In its most abstract form,**an action is a form of time or -if you prefer- a structure of time content**. Similarly,in sdn,space arises as a concept,from the existence of the noesis. Generalizing, in p.r.,"apart from each other " is the realization of space.In in its most abstract form,**existence is a form of space -or as above- a structure of space content**.

Paralipomena

-Sdn is not an event.It is neither one nor an event, i.e. something that happens at some time somewhere.These propositions about sdn do not make sense.What we can say -abusively- is that sdn is a transcendent event, which can only be comprehended in a context where the concepts of space and time do not exist, concepts which eventually emanate from the sdn.

-Sdn is the limit that results from the First Hypothesis and is a singularity of p.r..We can describe it as the phenomenon where the self-determining noesis within p.r.,loses its immediacy within it and creates a singularity. The self-determining noesis is an interaction between noesis and determination where - in terms of dialectic – concept (being),transitions to determination (energy) and vice versa, resulting in the disappearance of their immediacy and unity in a new entity within the p.r., which is the singularity we call sdn.Two concepts,noesis and determination,which have a meaning in p.r.,dialectically disappear in an entity which no longer has any meaning in p.r..

-In our daily life we can think that we are thinking. In a way, a confirmation of the ability of the noesis to see itself from the outside.

SECOND HYPOTHESIS

Based on the Second Hypothesis the sequences $\mathbb{S}(C)$ for each C do not converge, i.e. there is no entity from which noesis can start in order to determine C.That is to say,the beginning of noesis is not defined and therefore sdn does not exist either.Consequently, in the case of the Second Hypothesis,neither "apart from each other" nor "before-after" is born.From the absence of "before-after" it follows that the determination of each concept is identical with its existence, because there is no concept of time where the determination actually acts.However,the determination emanates from noesis,so the existence of the concept is part of noesis.And this applies to every concept, which is also consistent with the absence of the concept of "apart from each other".So,in the case of the Second Hypothesis all concepts are "condensed" inside noesis.As in the First Hypothesis,here too we are in agreement with the conclusion from Axiom #1 that the determination of a concept C presupposes the determination of noesis by itself, because now C should exist within the noesis.Nevertheless this determination of noesis is not the sdn,because some concept different from noesis always participates in the action,i.e it is not noesis by itself only.To be more precise, all concepts participate in the action.We should note here that also the determination of noesis presupposes the determination of each and every concept,i.e the presupposition is bidirectional,which again is not logically conceivable.

So in the Second Hypothesis when we say determination we mean "part" of noesis.The phrase "concept C requires concept C' in order to be determined" translates to "for C to be part of noesis,C' must also be".But both C and C' are part of noesis,so every concept can be determined by the use of every other concept and - paradoxically and incomprehensibly - since a concept is

part of noesis,no other concept is required in order to be determined,apart from noesis itself.So every concept is pure.

Therefore,it could be considered that a definition of noesis is “all the concepts that noesis could ever determine”.With this view we conclude that noesis is comprised of every concept it could ever determine.

We define as a.r. (absolute reality) or simply Absolute the set $\mathcal{N}$ with the Second Hypothesis.

In the Absolute there is no sdn and the question "how does noesis begin" has no meaning. Space and time have no meaning and therefore it is a state which has no meaning for us.For example, in the Absolute one could understand the concept of "square" without knowing the concept of "angle", or to make it even more incomprehensible the concept of "square" and the concept of "angle" are somehow identical without them being the same.

It is clear that we cannot talk about noesis in the Absolute.However,considering noesis as the set that we described before,will help us in the next paragraph.

§Big-bang and sdn

big-bang

Big-bang is the theory according to which the Universe was created from a hyperdense state of matter and energy. This event was the beginning of expansion of the Universe and at the same time the beginning of time and space.
Let's note that the expanding space does not occupy points that it did not occupy before.What existed at the original "point", exists in the entire Universe, and nothing more or less.That is, this "point" is the entire expanding Universe and therefore the big-bang happened everywhere in the sense that every point of the Universe is a point from which the big-bang started! So every point of space existed before the big- bang.

sdn

We have seen that in the Absolute,everything that can be determined exists within the noesis.If - mentally - we consider sdn being triggered in the Absolute,then,just as with the big-bang space and time gained a meaning,in the same manner we pass from the Absolute to the p.r. with the concepts of space and time appearing.Also,as every point of the expanding space pre-existed the big-bang,so every term (concept) of the expanding p.r. pre-existed the triggering of the sdn.Every such term was within the noesis as this is perceived in the Absolute.Just as the “point” of the big-bang is the entire Universe in a hyperdense state, so the sdn is the entire p.r.,since every concept pre-exists within the noesis that is born with the sdn.

FIRST HYPOTHESIS PARALIPOMENA

§Quantum mechanics

The finding that **determination is the other side of the determined** can form the basis for explaining many phenomena of quantum mechanics.

Superposition.Superposition is the ability of a quantum system to be in multiple states at the same time until it is observed (measured). Observation causes the superposition to collapse into a single state. In our words: the determination corresponds to one and only determinate.

Two-slit experiment. In this experiment, a photon behaves like a wave until the moment we check through which slit it passes.After that -and while we are checking- it behaves like a particle.That is,the photon (or any other elementary particle) sometimes shows a wave nature and sometimes a particle nature.

The photon and the devices arrangement,say A, that detects it (determined and determination correspondingly) are the two sides of the same entity. If arrangement A becomes arrangement B - because, for example, we added to A a mechanism to see through which slit the photon passes - then we have another determination,so according to our principle,the determined i.e the photon,will not be the same.In our example,the photon,instead of a wave,it will appear (determined) as a particle.Conceptually, a devices arrangement constitutes an energy,a "before-after" and a photon constitutes a being, an "apart from each other" entity.

Quantum eraser experiment.If arrangement A in the two-slits experiment becomes arrangement B, in the way we said before, and then arrangement B becomes arrangement A again,by adding some mechanism by which we remove the information of the slit through which the photons pass (quantum eraser experiment), then the determined photon will be the same as the original one, because the determination is the same.

Nonlocality or spatial entanglement.Suppose we have a pair of electrons, E_1 and E_2, which are in a solitary state in which their spins add up to zero.The spin value is not known until it is measured. The measurement causes the superposition of the two possible spin values (positive or negative) to collapse and display only one of the two values.This means that when the spin of one is measured, e.g. of E_1,we automatically know the value of the spin of E_2,so that their sum adds up to zero.If we now separate the electrons at any distance, without observing them during this separation, and the spin of one is observed, then, as before, the spin of the other is such that the spin values add up to zero.The instantaneous transfer of information from one electron to another – which as we said can be at any distance apart- goes against the maximum speed that anything can travel in nature(including information), which is the speed of light.

The two-electron system with the spin measurement (the determination) and the total spin of the system (the determined), are two aspects of the same phenomenon.This determination has no spatial parameter.It simply consists of the birth of the electrons and the measurement of the spin of one. So the spatial separation we described before does not change the determination (it does not even make sense for it) and therefore neither does the determined.

As we said before, if during the separation of the electrons, we observe one or some of them, then we change the determination (we cause decoherence) so we also change the determined. The quantum system collapses (in quantum mechanics terms).

§Concepts revisited

Let us suppose that we perform the following thought process: We are removing,in the appropriate order,every concept that exists.The removal must be in the order that noesis allows.We cannot,for example,remove the concept "angle" first and then the concept "square", because the second one needs the first in order to be determined or,for example,the concept "equality" will be removed much later than the concept "angle" because obviously “equality” is required in many more concepts.

Also,from Rule #2 (Noncommutativity) we are sure that we will not end up in a deadlock,where a concept C cannot be removed because a concept of the sequence $\mathbf{S}(C)$, say C',requires it in

order to be determined,while obviously from the definition of the sequence also C requires C' in order to be determined.

As we mentioned above,all concepts,without exception,have emerged from others, which in turn have emerged from other and so forth.So this process is something like -an infinite- peeling of an onion.Its infinite limit, where all concepts have been removed, is the concept that every concept requires in order to be determined.It is a pure concept which, as we have seen, is the sdn.

Consider now the pair (C,D) of a concept C and it's determination D.We define as "distance" between a determination D and the concept C it determines, (and denote it by D<>C) the "sum" of the "distances" of the determinations of the concepts that C requires in order to be determined (to degree 1).
Symbolically:
If $\mathbf{S}_1(C)=\{C_1,C_2,..,C_m\}$ where $[C,C_i)$,with i in (1,2,..m) then: $D<>C = D_1<>C_1 + D_2<>C_2 + \ldots + D_m<>C_m$.

"Distance" is a measure of the complexity of each concept and depends on the form taken by its determination,based on a specific expression.As concepts are removed,in the process we described in the previous paragraph,after a certain point - and since we operate by accepting the First Hypothesis - the "distance" between the remaining determinations and the concepts they define will begin to decrease.This "distance" is "zeroed out" at infinity, where determination and determined (i.e. the concept) are identical.This is the sdn. It is the infinite point where the concept is identified with its determination, existence with action, matter with energy. Where these concept-entities are the two sides of the same thing,the incomprehensible, which is the non-existent (nil).

Remarks
-The "distance" of a determination from the concept it determines,is the "distance" between the two sides of an entity,so it is actually a property of this entity.

-The determinations of two concepts that are closely related,have very close "distances" from the concepts they determine.If the concepts are contradictory, the determinations have the same "distance", because in essence the contradictory concepts result from exactly the same concepts.

EPILOGUE

Normalizing the set of concepts only helps us to give a more structured description to our thoughts.The bottom line is that concepts,with or without any normalization, originate from one entity (First Hypothesis) and are "contained", in an incomprehensible way, in the same entity (Second Hypothesis).We cannot take a position in favor of one Hypothesis or the other and one complements the other. If we accept the Second Hypothesis then,with the triggering of sdn -in the form of big-bang-,pwe can explain the existence of p.r. which is defined on the basis of the First Hypothesis.

Concepts, as we have seen, are "alive" entities and each one participates in the birth of some others and each one is born from some others.Concepts evolve and each one carries within itself an instantiation of noesis,so -like the cell of a multicellular organism - it carries within itself the concept of reproduction of other concepts and thus by nature participates in the birth of other concepts.This concept of reproduction is the concept of noesis as it determines itself

based on the First Hypothesis.The presence of noesis within each concept, on the other hand, supports the Second Hypothesis, that is, noesis is shaped by the infinite set of concepts. Could a multicellular organism be a form of the concept of reproduction?.