1. PROCESS PHILOSOPHY (WHAT IS PROCESS PHILOSOPHY)

1.1 Provisional Content

1.1.1 What is the common western view of reaity?

Substance philosophy?

The common world view in the western world, the substance paradigm, is an heritage of the substance philosophy of classical Greek antiquity. In the classical substance philosophy the primairy units of reality, called 'substances', the things in the world the world are composed of ever lasting inert atoms. The only change possible on these substances was the alteration in their position in space and time. The properties of substances never changed. (Rescher, 1996; Seibt, 2013; ?, ?).

(?, ?, ch 5) p72 This view of nature is an aggregation of a convoluted historical process through the combined efforts of many great scientist. For example Descartes gave us the mechanical conception of nature.

In this atomistic view reality is constituted of a merely mechanical conception of nature (Descartes), as aggregation of parts and change is interpreted as a mere reorganisation of passive elements (PR 208-209.) end

What is the problem with the common western philosophical view of reality?

(Seibt, 2013)

(?, ?, ch 5) The Creativity of Church Teaching 1983 Gerald Thomas Floyd

p72 Creativity or novelty is not found as a categorie in natural science.

riedrich Rapp states that in the natural science there is not a category for novelty or creativity (Rapp & Wiehl, 1990).

p73 One seeks in vain for the categories of creativity, of novelty, or of creative advance in the conceptual system of natural sciences.

NS is based on experimental methods and mathimatical description.

Rapp shows how modern science is build on the substance paradigm and mentions four points in relation to the epistemological an methodological methods sciences rest on for gaining discursive knowledge. First the experimental procedure, the relevant object of examination is isolated from its natural environment and placed in a laboratory equipped with technological artifacts for te examination of the object. The technical equipment is however build on the very same knowledge that is found with this specific experimental procedure.

Second the the Analytical method. The aim of the scientific method is not an comprehensive understanding of phenomena but rather a conscious choice is made for a theoretical conceptual analysis which is made concrete by a experimental set up.

Third The mechanistic mode of thought. The model for the conceptual understanding is provided by the functional aspects of a mechanical systems and not by living beings that, by purpose, are organized in a certain way or value or goal directed human acting. The physical world is explained as existing of elements with exclusive material properties.

Fourth the mathmatical rendering of science that leads to general laws and axioms that can be used for deduction to more specifiation. The mathematical system enables exact predictions that are practical for technical application

p77 With the theoritical framework modern science offers there is no room for categories to elaborate on the origin of novelty and creativive advance. It is only possible to discus these phenomenon from other, already known concepts. In this way modern science creates an reductionist view of novelty and creativity. It is not possible to explain every detail of novelty because the concepts are missing. If they would be there already we would not deal with creative novelty.

Because of the experimental method of isolation of phenomena and the abstaraction caused by of mathematical description, the very different sensation novelty and creativy exibit under different circumstances are disregarded.

p79 scientific ethod fruitfull, maar vergeleken met wat? De periode voor deze methode? Wat is de invloed van de wereld bevolking en de tijd geinvesteerd in wetenschap?

evt: Merits and Limits of Applying the Scientific Method to Human Society

Western metaphysics has long been obsessed with describing reality as an assembly of static individuals whose dynamic features are either taken to be mere appearances or ontologically secondary and derivative.

The scientifical method is tuned for this worldview and the Knowledge comes from science Scientifical method very fruitfull but fails to describe phenomena like creativity Logic, descartes object-subject, see Rapp in ch 5 (?, ?, chapter 5) labratory, reductionist, isolating and testing, not as a combination (interwined verbeek) paradigma, limits seeing (?, ?, ch 5)

zie scientific revolution, vak Roberts

1.1.2 What is the process philosophical view of reality?

Seibt.What is the process philosophical view of reality?

kan ik hier voorbeelden aanhalen uit de boeken gelezen van phil en psych?

Process Philosophy is a methapisics that is based on the idea that the world is not static but in a state of flux. Reality consists in modes of becoming and types of occurrences. The things the world is build of is not an everlasting substance but are the representations of processes that interact with each other.

However there are different views among process philosophers how this world is realized most process philosophers share the following view.

Paul/Kaufman pp komt niet voor in de index en whitehead ook niet libgen heeft het boek niet google op title en whitehead of "process philosophy" levert niets op

For replacement of the descriptive concepts of sustance methaphisics, what an basic entity is, basic categories are introduced with focus on what a basic entity does. Functionalities of dynamic entities are explained with the label of *process*.

A process is to understand in different ways. What holds for all processes is that they occur that they are somehow or other intimately connected not only to temporal extension but also to the directionality or passage of time.

stukje over kuhn p79 over

Some processes are to understand as our as our common understanding of a processes, a temporally structured sequences of stages of an occurrence, with each such stage being numerically and qualitatively different from any other.

But some processes are different. For example they are non-development occurences like activities or non-spatiotemporal happenings that realize themselves in a developmental fashion and thereby constitute the directionality of time.

Everything we experience is made out of all kind of processes for example physical, biological or cognitive, Micro processes aggregate to macro processes, complex dynamic organisations, for more complex behavior.

In this way the perhaps most powerful argument for process philosophy is its wide descriptive or explanatory scope. For example the human body and the human mind are both explained by the same principle of being representations of processes, this in contrast with the substance philosophy.

The temporally stable and reliably recurrent aspects of reality, the basic principle of substance methaphisics, are in process philosophy explained as the regular behavior of dynamic organizations of processes.

Seibt.What solution offers process philosophy?

One of the goals of pp was to overcome the problems problems that substance philosophy marginalizes or sidesteps al together. Therefore process philosphers start asking questions like those related to varieties of becoming, developments and the mergency of novel conditions (Seibt, 2013).

These overlap my question of creativity as technological ideation.

process philosophy?Reschner introduction

According Reschner (Rescher, 1996) there are two closely interrelated sectors, the one conceptual or epistemic and the other metaphysical or ontological.

process philosophy?

creative activity (transforming potentiality into actuality)

Voorbeeld met de begrippen van Whitehead: Process Actueal-entity Creativity Concrenesse Prehension Misschien ook de categorien van zijnden.

???With the process as a universal building block process philosophy tries to overcome the object subject dualism.

and in this way the body is a groupexist of the combination of ther processes

Because everything in pp is expained with processe With the explanation of y is explained with processesm

The modern scientific method is in this metaphysics is presented as

has long been based on a description of reallity existing of is based on entities Process philosophy is a metaphysical endeavour that explanation of the phenomena in the world based on the developmental nature of reality where as the dominant, western, explenation of the world is based on a static reality. Process philosophy share the idea that to understand the world and answer the basic philosophical questions it is best to understand the world as an ever changing reality, is not what is, but what is becoming.

There is not one process philosophy view but there are different views. In the field of process philosophy Alfred North Whitehead and Charles Hartshorn

are seen as the most important contributers to the contempory view of process philosophy. But thes ar by far not the only scholars. Especially in the North America's, process philosophie had and has a large community of philosophers.

Nichlas Rescher has writen a clear introduction into PP (Rescher, 1996).

Process philosophers try to find one principle of explanation for al questions and in this the western substance philosophy has failed, (Descartes gave us dualism). With one and get rid of the object-subject dichotomy. For this they define one basic principle that lies behind all the entities of reality. In the substance philosophy not everything is to explain from the basic unit matter. In science this is neglected. Newton mechanica -¿ quentum physics.

becoming and changing over static being. The dominant western worl view is that of a world consisting of entities that consist of matter that is constructed from small building blocks. The idea is that these blocks exist for ever.

Process philosophy, or process theology, or simply process thought, is a tradition in philosophy that is in progress. Different scholars contribute different views but there are some commonalities.

See Reschner introduction en SEP art (Rescher, 2012) Seibt SEP entry (?, ?)

In the methaphysics of process philosophie], change is the basic principle. The reality as we experience it is a reality that is becoming, being is becoming. The continuously going on and coming about of reality is explained by the working of processes. The temporally stable and recurrend aspects what the substance philosophy explains by the concept of matter is in process philosophy explained with the regular behavior of a dynamic system that is the result ot the interaction of processes.

Processes can be grouped to macro processes. Processes are related to other existing processes (in hoeverre?). In the atomistic view of pp the reduction of processes is finit and ends at the categorie of basic processes. It is however also possible to see processes as construction of processes in to infinity, and deny the existance of basic categories of processes.

The acceptance of a basic categorie of processes brings with it a limitation in novelty because agregate processes inheret characteristics of the basic processes. Compare this with the evolution theory where new species depend on the genetic structure of their predecessor. ???If I accepte the reduction into inifinite view, there is no limitation in what is possible.

What are the Basic Doctrines?

Third, the measurement problem presents a particular difficulty for substance metaphysics, since the latter rests on the assumption that all individuals are fully determinate independently of their interaction context. In contrast, process metaphysics endorses the principle that interaction is determination.[9]

(ii) Self-organization: Process metaphysics has traditionally been motivated by the fact that it seems to give the best explanation of the phenomena of emergence, originally understood as an integral feature of evolution. Since the development of scientific theories of self-organization, chaos, and complexity have begun to alter our understanding of evolutionary change, there is a new need for a metaphysics that can accommodate all sorts of phenomena where dynamic organizations exert causal constraints. While older, speculative, process metaphysics embraced the idea of purposes and creativity in nature, and allowed for

the explanatory category of a self-realizing or self-engendering entity (in various terminological guises), present-day analytical processists confine themselves to arguing that downward causation becomes perfectly intelligible once physicalism has been divorced from the assumptions of the substance paradigm, and most especially from the principle that causal powers cannot be attributed to dynamic organizations.[10]

(iii) Embodied cognition: The turn to embodied cognition in cognitive science provides another strong motivation for the turn to process in metaphysics. The standard model of cognition as the computation of symbolic representations fits well with the assumptions of substance metaphysics and suggested a pleasing analogy to classical atomism: mental operations effect relational change of cognitive atoms. But the first rivals to the standard model, connectionism and the so-called Dynamic Hypothesis (Tim Van Gelder), were constructed along largely process-ontological lines, replacing the classical conception of cognitions as discrete abstract objects that represent concrete things outside the head with a dynamic conception of cognitions as modes of functionings of a neural net or of process organizations. Recent results in embodied cognition research seem to tip the balance further into the direction of a process-based philosophy of mind, since they suggest that the bodily interaction of an organism plays a constitutive role in cognition. Some proponents of embodied cognition or interactivism insist that the new focus on organism-environment interactions makes any talk about representations obsolete, while others argue for a naturalist account of emergent representational processes and emergent normativity (Mark Bickhard). A key notion for the embodiment thesis is the concept of structural coupling, a phase in the co-temporaneous development of two systems (e.g., organism and environment) where mutual dynamic dependencies unfold across system boundaries. Critics argue that the embodiment thesis might only hold for some form of cognition, but whatever the scope of the thesis might be, the fact remains that a more detailed description of the notion of structural coupling requires a process-ontological framework.

What solution offers process philosophy?

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The whole individual person is continuously in the making or being constituted, yet it also continuously influences which components (e.g., experiences, feelings, actions) enter into the constitution of the whole and in which ways these components occur. Such circular dependencies between a whole and its parts cannot be accommodated within a theory of individuals that is committed to the basic constructional principles of the substance paradigm, especially the claim that concrete individuals are fully determinate. Relationships of mutual constitution are legitimate theoretical tools within process ontologies where entangled recursive definitions are not in conflict with basic tenets about individual entities. By extending the dynamic dependencies among the component processes of a self to include aspects of the person's physical and social context, a process account of persons can formulate in a differentiated and scientifically informed fashion various claims about the formative role of our environments.[12]

But there are other domains and topics of science that, as processists stress, directly imply a process-based metaphysics. For, on the one hand, it appears that the conceptual contents of the relevant scientific terms cannot, without problematic distortions, be analyzed in terms of the categories of substance metaphysics. On the other hand, the researchers working in these areas have already adopted a largely processist perspective in their informal glosses of mathematical descriptions and in their heuristic approach to the domain. Among the various cases in point for either one or both of these claims are (i) quantum physics, (ii) self-organization, and, most recently, (iii) embodied cognition.

(i) Quantum-physical processes: When Whitehead turned from mathematics to philosophy, he was quite aware that recent developments in physics (the demise of classical atomism in the face of quantum theory and relativity theory) had thrown out our old common-sense vision of the order of the universe. Quantum physics brought on the dematerialization of physical matter matter in the small could no longer be conceptualized as a Rutherfordian planetary system of particle-like objects. The entities described by the mathematical formalism seemed to fit the picture of a collection of fluctuating processes organized into apparently stable structures by statistical regularities i.e., by regularities of comportment at the level of aggregate phenomena. During the early decades of the twentieth century process philosophers were excited by the evidence that physics had turned the tables on that core refuge of substance metaphysics, classical atomism. Instead of very small things (atoms) combining to produce standard processes (avalanches, snowstorms) modern physics envisions very small processes (quantum phenomena) combining to produce standard things (ordinary macro-objects) as a result of an as yet not understood modus operandi that could, nevertheless, be mathematically described. So-called enduring things in this picture come about through the emergence of stabilities in statistical fluctuations, as a stability wave in a surging sea of process, metaphorically speaking.

Unifying Claims

What unifies contemporary process-philosophical research more than any other aspect, however, is its metaphilosophical aim to revise long-standing theoretical habits. Given its current role as a rival to the dominant substance-geared paradigm of Western metaphysics, process philosophy has the overarching task of establishing the following three claims:

(Claim 1) The basic assumptions of the substance paradigm (i.e., a metaphysics based on static entities such as substances, objects, states of affairs, or instantaneous stages) are dispensable theoretical presuppositions rather than laws of thought. (Claim 2) Process-based theories perform just as well or better than substance-based theories in application to the familiar philosophical topics identified within the substance paradigm. (Claim 3) There are other important philosophical topics that can only be addressed within a process metaphysics.

1.1.3 Why Whitehead?

> seibt sep However, within that broad framework, process philosophers debate about how such a world of processes is to be construed, how it relates to the human mind (which is another process) and how the dynamic nature of reality relates to our scientific theories. In consequence, process philosophers also differ in their view on the role of philosophy itself and in their choice of theoretical style

The best way to show that the core assumptions of the substance paradigm can be dispensed with is surely just to do it. For process philosophy, as for any attempt at theory revision, the proof of the pudding is in the eating. Since Whitehead's process metaphysics is terminologically somewhat difficult to digest at first try, contemporary processists increasingly take non-Whiteheadian routes into process philosophy and proceed from linguistic ruminations and a critical review of the traditional philosophical menu.

p84 whiteheads notion van creativity is heel algemeen ivm zijn strefen van een verklaring voor allse. Bergson en Hegel concept van creativty liggen dichter bij het event zelf maar zijn mogelijk niet algemeen toepasbaar.

p84 His philosophy offers one of the few serious endeavors fo formulate a comprehensive system aimed ad harmononizing the thoroughness and universality of philosophical questioning with the state of knoeledge attainend by modern science (Rapp & Wiehl, 1990, p84)

What is his model?

(?, ?) Whitehead builds his theory on three universal categories are 'creativity', 'many', 'one' and his concrete elements are 'actual entity', 'prehension', 'nexus'.

Whitehead replaces the mechanical substance paradigm with te idea of a of the universal relatedness and reciprocal prehension of real occasions, factors that are expressed in the concrete elements of 'actual entity', 'prehension', 'nexus'.

How to use Whitehead?

moeilijk te begrijpen, volledige werk -¿ volg stengers Nadeel atomist, laat begin buiten beschouwing? Nadeel God, reposotory functie, belemert niet de creativiteit, Sommige stellen God is niet nodig

What is creativity in the view of Whitehead?

1.1.4 How does process philosophy help to understand creativity?

1.1.5 Disadvantages of Whiteheads view?

-Whiteheads concept of creativitym because of its universal and fundamental significance creativity ccomes close to the traditional concept of God.

1.1.6 Conclusion

1.2 Conclusion

Denk er aan dat automatische referenties van bv scholar niet altijd volledig zijn en ook van het verkeerde type kunnen zijn bv aticle ipv book

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