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THE MAN OF PRAGMATISM AND A REFUGEE OF PRAGMATICISM – Red Book

Tämä versio aikomastani väistöskijasta on niin sanottu *Punainen Kirja*, joka on saanut nimensä kannen väristä. Se painettiin Kuopiolaisessa kirjapainossa, ja tein siihen itse taiton. Huomionarvoista tässä on se, että kirjoitin pohjana olleen version suomenkielellä, mutta se ei kelvannut Jyväskylän yliopiston silloiselle filosofian laitokselle, ja he perustelivat tätä sillä, että väitöskirjat pitää kirjoittaa jollakin sivistyskielellä, jollaiseksi suomi ei siis kelvannut. Englanti ei ole minun äidinkieleni, joten tämän kirjoittaminen oli minulle huomattavan työlästä, koska jo normaali puhekielikin tuotti vaikeuksia. Minun on vieläkin hankalaa kirjoittaa englantia niin, että minun on koko ajan mietittävä kuulostaako teksti älyttömältä, tai suorastaan huvittavalta. Tällaista kielikorvaa ei ole minulle suotu, sillä en ole koskaan kokenut kuuluvani mihinkään joukkoon, ja minä koen ihmisten puheet ja kirjoitukset kaikki huvittavina – suorastaan vitseinä. Pappien puheet kirkoissa naurattavat, ja erityisesti haudoilla hurskaina lausutut muistosanat. Niiden mukaan me kaikki kuolemme sankareina, ja olemme suorastaan ikimuistoisia, ja ilkeimmätkin ihmiset saavat ylleen enkelin valkoiset vaatteet, ja riemuitsevat kaikki taivaan ilossa. En pystyisi enää puolustamaan tätä esitystä missään virallisessa tai epävirallisessa väitöstilaisuudessa, sillä se edellyttäisi kaiken sen tiedon aktiivista hallintaa, joiden pohjalta tämä keitos on keitelty. En minä muista enää jokaista kohtaa, tai tiedon tarkkaa alkuperää, ja siten puolustuspuheeni koostuisi ynähtelyistä: ”Kyll’ varrrmaan on niin” (niinkuin eräässä Speden sketsissä). Sen mitä olen päässyt seuraamaan erilaisia väitöstilaisuuksia, niin eivät ne tämän kummempia ole olleet nekään, ja läpi menivät että hujautti. Sen tiedän, että eivät ihmiset tällaisia juurikaan lue, koska eivät ymmärrä mistä näissä kirjoituksissa on kyse, eli todellisuuden elementtien kutomisesta yhteen, ja riippuvuuksia paljastamisesta. Se, että onnistuuko todistelu, on paljolti uskonasia, sillä totuudet muuttuvat ja todellisuuden perusteet huojahtelevat. Eivät siinä jotkut opinnäytteen tekijät vakuuttelut mitään vaikuta. ”Kyll’ varrrmaan on niin” - tai sitten ei.

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1. Preface

Pragmatism the philosophy of greenbacks and industry?

Sometimes it has been thought that American pragmatism, or pragmatic method is a single tradition which has no connections to the other traditions of philosophy. We can quite freely illustrate it as a pure, restricted and a simple method, too, and accept the view which C.S. Peirce has presented on the essence of pragmatism e.g. in his letter to Mario Calderoni in 1905 where he emphasized its methodological nature and agreed with Calderoni's friend, Juliano Il Sofista. I shall return to the letter more closely later in the current study.

But this kind of an opinion could only mean that pragmatism were some kind of equipment to reach something concrete, which shall produce, in the same time, certain kind of useful consequences in regard to somebody who want, perhaps, to prove something by the equipment. For the reason it has also been thought that pragmatism is a philosophy which is a kind of slave of industry, and has specially suited itself to the intresses of developing industrial powers and business world, and which were suitable as their mean to get more and more profits. For example, Finnish Juho A. Hollo has written in his *Kasvatuksen maailma*, that pragmatism has been characterized as a philosophy in which the truth itself is deeply dependent of dollars. But this cannot be the whole truth because the industry has not at all, now and then, adopted pragmatism as its favorite philosophy. And there can't be found an evidence on that stress in pragmatism itself, as we shall be seen later in this study, especially what concerns the later stages of C.S. Peirce's philosophy.

Ism and ist as my orientation in the current study - or the doctrine of synechism: isms and views as real continuums or illusions

At a first glance, every ism appears to us, as such, unit and compact - as some kind a continuum in spite of that some of them divide the world as the two separate portions or recognize only one of them as true one. There can be also conflicts, which cannot be solved at all. And there can be unsolvable questions, as well as the questions which are never raised up because of that they would break the illusion of unity, if ever solved. But still those isms can be considered as complex unity. By this kind of continuity, say, idealism, for example, seems to become capable to see materialism as an antithesis of it, notwithstanding that it cannot falsify materialism, or deny that presence of materia. In fact, idealism doesn't deny that there are also material things but it tries to claim that these are not as infinite as ideas, but that ideas we actually have are some kind a reflection of them, or shadows on the wall of our cave - that is how Plato has described them. But in the same time idealism, and also all of its counterpart views have argumented for that there is only one kind a reality which is stable.

Joseph P. Fell has written that before Plato ideas had been regarded as the forms of the presence of physis, and that aletheia was a carrier of ideas. Plato regarded ideas as absolute an eternal, and we may say that by the process which began since that both textual and contextual have been covered with enduring facts. And since that, if we are idealists, we must explain a truth only in one way, because of that there is only one, and will always be, too. But is this the case by accident, or due of that there are certain tendencies which make an illusion of order and certain laws, or consciousness?

If we argue something against materialism we suppose implicitly that there is a view which we can prove or disprove, whatever that view has stood for, or is there something real at all, for which it had argued. Anyway, we must regard something as true, notwithstanding that we are trying to prove something an illusion. Martin Heidegger has written:

"... if the truth itself is an illusion, there is still some ground, by which it could be proved to an illusion".

Obviously there is that demand, for whom Ludwig Wittgenstein has argued for, that somebody must have "taught" us something which is, and which can be considered in the same time as an unreducible rock bottom and foundation of our concepts and forms of life (Lebensformen), which we can also regard as the final ground for communication.

If we consider the whole world as a fiction, or illusion, consisting illusory of innumerable continuums which do not have anything common with each others, we cannot speak about the world at all, and any general concepts either. If we suppose that only eternal ideas are true ones, where we can get them, if our experience is very faint form of them, and if our continuums are not at all valid ones, or wide enough and if our interpretations do not resemble in any way to the ideas which are true. We have no use of those true ideas, notwithstanding they existed if we are not able to get them, and the only thing we can get is that the world is splitted into two, and that there might be that part of it true which we cannot comprehend, as it is, and will always be. This suggest to that we have an illusory way of being, because we have not yet got any pure ideas, because the nature of our experience is quite illusory.

In that kind of splitted world we cannot prove other of all possible continuums as false ones, because the continuums we have are not real one, and by them we cannot prove any of other continuums as false. But should we conclude from this that our continuums, as well as those other ones are not at all reliable, and they never will be, notwithstanding that we have survived with our experience, as well as with our weak understandings and intellect trough the all previous ages?

And does it mean, if we accept, say, idealism as a true one, that our illusory experience do not have any meaning, and it does not make sense to talk about our everyday continuity and its continuums? Does this mean that all our arguments and scientific achievements are nothing?

What does it mean that we can still discuss those false beliefs which are not like ours? Does it make sense that we cannot have any true ideas, and we are continuously proving something to false by the ideas we only believe to be true? What are we doing? The answer is, probably, that we are doing nothing, if we have any ideas ad infinitum at hand. But we cannot claim that we have not done anything, either. We can have a very feeling that we are doing something, when we are asleep, and we can be sure that something has happened and caused results in certain part of reality, and we have not had this or that belief but instead the very feeling of presence and immediacy. There will be arisen several what concerns dreaming or believing: what are we actually doing with our faint facts in our everyday life, which is like an illusion? And if we accept that those facts are valid ones, what are we doing in our dreams, or when believing to supernatural beings or eternal ideas? What are we doing when believing to be right? When we can claim that we have, at last, known exactly what is the phenomenon of believing, and what is its role in human understanding, and so on.

If we accept that we have not got any essential features, or ideas in the real world, when we are believing something concerning other beliefs? What are consequences of that. One of them is that there could be no difference between science and religion. But what makes it possible that we can discuss the concepts false and true, if our ordinary life is rather fictitious, and if we have not comprehended ideas properly?

Let us suppose that we have apprehended all of the ideas which are true. Then the question is: why those false things have been in front of us, and what has been their role, and should we conclude that there has taken place some development? We can conclude further that there must be a possibility that both false and true things and ideas are able to interact with each other somehow, and that also those false ideas must have some characters which we can find in true ideas.

However, I suppose that every ism can be proved to be true or false, notwithstanding that there were no eternal and infinite ideas available, because it might be the case that ideas are not that kind, yet, and that the very nature of them can be explained in quite another way. I shall discuss on these ways which have been presented e.g. by pragmatists and Ludwig Wittgenstein during the current study. But especially C.S. Peirce has emphasized the view that the most important is if we discuss what our new concepts and inventions really mean the distant future, where our concepts get their real contexts. Notwithstanding the fact that the world to come seems to be e.g. spiritual and that in the same time it has fixed and predictable habits we have the world to come yet. There is some ifs before it, and the most important of them is that the mind becomes capable to handle with those new surroundings, and that it gets new features which are, in the same time, the essential features of the world, as a whole. If we have any isms in the world to come, we have not reached the world, to which the development has been aimed to, but a kind of future, and a kind of potentiality. And if we have the world which we have just expected and predicted in detail, we have, in fact, lost the whole game before it has began. To avoid those traps of the universe, or its loops, we must have the principle of synechism at hand, and at work, too, as well as many other means. And we must also comprehend in the new way those things eternal and infinite as kinds of ends, which we have not got yet because the world we have is not such kind that it is able to form surroundings and contexts to things mentioned. But we shall discuss these means later during the current study in detail.

Bigge's model as an orientation in the current study

For what has previously been said, the isms I have chosen for my use in the current study will appear quite inadequate, as all of them are in their very nature. If we study any of them closely it will be seem clear that they can't catch any philosophical view totally but only some features of them, and any of the views shall spread and spill to the other isms anyway. That will happen especially when we have very carefully and sharply located the view to the certain intelligible context which possibly is absolute in its nature - or we at least believe that it is like such kind. But something in the world we believe to be true prevents us to catch the ultimate essence of it. Thousands and thousands human generations has tried to crasp those truths and we still don't have any better world to live as earlier. We are strangers in the world despite of all our intelligence and knowledge. And that is because we can't crasp the very essence of the world which makes possible that things can be or come. There are obviously some questions to which we can't get answers. That concerns especially those internal structures of the universe, which makes possible to reach something and understand which we reached. We are not really inside, and if we desire to point something to be, say, the ultimate truth about the world we miss that truth. In any circumstances and in any depth of understandings we keep the world or the universe as whole but in the same time something to be explained and understood and ourselves something who explains it.

For that very reason the isms I have chosen are nothing but some kind of work hypotheses which must be overruled. However, I want to adopt some isms which Morris L. Bigge has used in his book which concerned positive relativism and some other views, too. In the book in question Bigge has described certain approaches, or rather has presented a conceptual system, which expresses different philosophical ways to explain e.g. what kind are such concepts as humanities, human character, reality, and human knowledge, and how they are explained. He has taken account logical empirism, idealism, rational realism and positive realism in his categorization. Bigge has emphasized clearly the importance of positive realism, and he has linked pragmatism to this view. However, I will strengthen those views that Bigge has described to certain historical dimensions and philosophies, for example to evolution philosophy during my current study, as well as to naturalism, and to its predecessors. But I do not discuss them now but later in the current study in detail.

Those views that Morris L. Bigge has illustrated, are not that kind large views, but we can say that they are very fruitful start, especially what concerns positive relativism, to which pragmatism is associated to. In addition to that I will describe those views, I am striving in my study to examine the rich synechist forms of those views. This is not the same that I should continuously repeat the sentence: "I have found that synechist tendency"! - but instead that I shall present different connections between philosophical traditions and philosophers. This concerns the conceptions and explanations which all philosophies have presented concerning e.g. the essence of language, symbols and the human mind. I think that all philosophers have been trying to explain quite the same phenomenons but they do it in different ways and with different strategies. Our understandings are surrounding the phenomenons explained but they are not something outside them but they are their symbolic expressions, and because of our symbolic nature our explanations belong to the same family, or to the common world, and they cannot be totally apart from each other. Our explanations do not differ from each other fundamentally for another reason, too; we are human beings, and we are striving for better understanding on ourselves, or on the world, if we want to put the question in that way. Hence, I want to localize the overflows and create cross-fertilization - which is the way, I suppose - also the nature actually and continuously does.

But these views do not include all the possible philosophies which we can describe as isms, or possible isms in future if we shall not succeed to reach the true ends of the world and which isms all are essential in order to understand properly any special ism which we can have at hand right now. Thus, there are certain wider requirements. And because all of them hypothetic and larger views are needed, and they ought to be presented also during the current study, especially if we hope to explain pragmatism, or any of the philosophies at all, as the whole creature, and in the same time, perhaps, want keep our target continuous, extensive, referential, as well as keep it, by its essential nature, still as orienting to somewhere. This is not quite the same thing that we are able to give a single name to certain philosophy, and keeping its meaning stable.

It seems to me quite clear that Bigge's model, and other that kind of models, too, are quite inadequate to explain the whole development of the universe, or the human mind, but they seem to be a kind of link to certain philosophical traditions, which have been described by them. Those models are nothing but tests, or equipments, or means, and they do not give any answers to the serious questions of the whole mankind. But for the current study those models are quite adequate as dead conceptual structures, to which they can associated.

From some other dilemmas and the questions of literal sources, and the question of denied philosophical influences

In short, all of the philosophical influences are very real persons, who have had certain abilities, qualities and names - and they have them still, in spite of that many of them have died. Every philosopher, and his philosophy, too, has a certain diffuse and live background, and a part of it may vanish to dust and misery. But this is not the way, by which philosophers have been studied when trying seriously to comprehend their work. There is The ENCYclopedia of Philosophy - for example - which has presented as well as philosophical traditions as philosophers, as a kind of net, where they have been connected to each other with philosophical slogans, as well as they have been separated from each others in according to the schools they belong to. This is, of course, a simplified way to see their role, but it produces an impact of different species which all belong to the family of philosophy, however. I will use that book for that reason, that there is an image of philosophy, as a kind of family and a net of philosophical sentences which refer to other sentences. For short, I shall use the letters ENCY to indicate to that Encyclopedia. But I will use beside it in the current study several other literal sources. But it is true, however, that we cannot get sight any real persons by that way. We can read, for example, that Immanuel Kant's (1724-1804) philosophical ideas were such and such, but it doesn't tell not much how he actually has lived and what kind was his emotional life, or nonphilosophical interactions. No book and nobody can do that much. The descriptions concerning philosophers are quite stereotypic ones. Further, in most encyclopaedical sources philosophers have been described quite the same way. They have been advocates of certain isms, they have copied their philosophers from other philosophers, or they have been founders of quite new isms, notwithstanding that they have not wanted to do any of those things.

But what about original material which has been produced by philosophers? Mostly there can be found only few references to other philosophers, from whose books the new doctrines are derived from, and in some cases they have been denied. Examples of those denied, but still evident influences we have between C.S. Peirce and Ludwig Wittgenstein. The former of them can be regarded as the grandfather, and the latter as the son, who has referred to his friends instead of his relatives or philosophical family, as we shall see later in the current study. Hence, there must be used another kind of strategy, namely the strategy of reconstruction, in which we must suspect the originality of a philosopher, and try to trace the sources of ideas by another way than we do by footnotes and other references which a philosopher has used. And there is another question of originality of the sources, namely that the work of some philosophers has been published and edited after their death the works of C.S. Peirce and Wittgenstein as an example. In *Collected Papers* there are several footnotes, and other references but they have been made mostly by editors of the book. There are also texts which have been synthesized by editors, as we get to know from Arthur W. Burks . And as we shall see later in the current study, Wittgenstein gave most thanks for his certain new ideas to Frank Plumpton Ramsey, and not at all to C.S. Peirce. Their close philosophical relationship have emphasized also K.T. Fann and Ingemund Gullvåg but they have suggested, too, that behind Ramsey we can trace C.S. Peirce. I shall return to the question more detail later in the current study. Thus, the originality, and the validity of references is very difficult question, anyway.

But must we, in spite of this, accept the membership of a philosophical school, as it has been suggested by commentators, as a more explanative thing than an opinion which has been presented by a philosopher himself? For example, if Wittgenstein has himself claimed that he has got philosophical influences e.g. from Ramsey is it still more plausible than he has got them from C.S. Peirce or is he a liar? From Ingemund Gullvåg we know that Wittgenstein has proposed to be conventionalist, traditionalist, or naturalist but has he really got philosophical influences only from one of them, or from all of them, or none of them? How we can inevitably prove that this or that is the case!

So, I have to use both the strategy, in which there have always been presented philosophers as advocates of certain philosophical schools, as well as the strategy, in which I have tried to conclude the meaning of the sentences, as they are! I have found in their books a lot of remarks, where I have found lagunas, as well I have found a lot of writings which are logical, compact - but in the same time dead as catacombs. But what is an explanation? I think that there might be some reason in those writings, as a whole, but also a reason quite outside them. For example, in C.S. Peirce's writings there are certain themes which seem to stay relatively stable, but there are also material which seem to change from time to time. Somewhere, between all of those writings, there must be a reason for the rest of them, and from which the rest of them are only experiments.

Let us remind that C.S. Peirce's own philosophical work consisted of strong criticism on isms, as well as of criticism on nominalism. As a one of solutions I refer to C.S. Peirce's doctrine of synechism, which is a special kind of ism, too but a very special kind one. It has certain special properties, as continuity, for example, which means also that there are no fixed boundaries in the world, and the world cannot be understood if it really have them.

But what about distant ages, and their philosophies? In spite of that very fact of absence those wanted personal traits of those philosophers, I shall try also to describe some older philosophers, in a nutshell, for the purposes of my current study, and I will also present them so that they can be associated to the categories mentioned, as well as somehow to pragmatism. On the other hand I will examine certain topics of some other philosophers which can not easily be associated to the categories included. I shall present later some short examples of them, as Franz Brentano (1838-1917) who have been associated to the early phenomenology. I will return to him at a later stage in the current study, when I discuss some philosophical similarities between Brentano and C.S. Peirce (1839-1914).

General map on C.S. Peirce's literary remains, themes and also some references, and how they are used in the current study

On the use of C.S. Peirce's very own books

There are certain difficulties to use C.S. Peirce's own books as references. Some of commentators have especially emphasized that C.S. Peirce did not write a lot of very own books, or got them published. For example, from A.J. Ayer we get to know that C.S. Peirce got published several articles, but did not succeed to finish those books he planned to write, or he didn't get them published - if he had some manuscripts. C.S. Peirce has got finished a whole, short book on logic but nobody was not interested in it. In addition to these books there might be mentioned especially his Photometric Research (1878).

Arthur W. Burks has mentioned that C.S. Peirce produced a lot of published writings in natural science, e.g. in astronomy, geodetics and psychology, and some of them were rather long. But his only work, which concerned physics to be precise photometric was Photometric Research, which we just discussed above. During 1883 C.S. Peirce made also measurements in gravity, and invented that there were also some physical instabilities. At the same time he participated to psychological experiments at John Hopkins university. We can read at those psychological studies in question at Memoirs and that their active participants were C.S. Peirce and Joseph Jastrow. But we can get better information, and background of them also from Collected Papers .

I am not going to use those books, articles and reports of empirical science in my current study as references, by which to explain C.S. Peirce's philosophy. But they are important for the reason that one of the editors of Collected Papers, namely Arthur W. Burks, has emphasized their role in the development of C.S. Peirce's philosophy.

But what kind of a figure C.S. Peirce was in the field of empirical science? Arthur W. Burks has written that C.S. Peirce cannot be regarded as a leading figure in natural science, but his studies in astronomy have been original ones, and his studies in geodetics have been praised very high by scientists in that field. Those works has influenced to his pragmatist theory of meaning, which can be considered as an overview on the scientific practices of his age. But there were other consequences, too. His experiences from laboratories have influenced to those parts of his theories, where he has referred to laboratory conditions. And further, his indeterminism has been derived from his empirical works at Coast Survey. And finally, his studies on psychology has influenced to his theory of mind.

Are there any evidences that C.S. Peirce himself has ever used the terms like laboratory mind? There is the fact that there were certain differences between John Dewey's and C.S. Peirce's philosophies especially in regard of the way we get more knowledge in the best way. John Dewey has separated his own instrumentalism from C.S. Peirce's experimentalism, as Dewey has called it. Dewey's instrumentalism has been derived from NeoKantian background, but has carefully been differentiated from it, and then it has developed to a reaction against Bradley's and Bosaquet's idealistic interpretation, and finally it has associated near to Watson's behaviorism. C.S. Peirce was an empiricist, too. He was strongly against laboratory conditions, and he didn't want to call his method practicalism (which refers to Kant), because he emphasized contexts, where our purposive strivings can function. C.S. Peirce differentiated in his experimentalism from each other the concepts of laboratory mind and experimental mind. An experimentalist, who has been educated at a laboratory, is narrowminded, because he can understand only those experiments which has been made at a laboratory. And if the description of the experiment which has been made at a laboratory is quite similar to a description which has been made outside laboratory, there is a strong possibility to a misunderstanding, because of the difference of those conditions.

C.S. Peirce has written on some restrictions of laboratory conditions, for example, when describing abduction. But was this theme of instrumentalism which John Dewey has introduced, as his main orientation, originally his very own idea, however? From Israel Scheffler we get to know that C.S. Peirce's problem theory of thinking has influenced Dewey, and that it was applied in his progressive theories of education. This problem theory of thinking seemed to be insisting that genuine thought arises from real and living difficulties in the environment rather than from abstract theoretical motives.

All this might suggest to that C.S. Peirce was at an influential academic post, from where he could influence e.g. professor John Dewey, and especially to professor William James, and to others. But this was not at all the case. Both A.J. Ayer and John E. Smith has given the information that C.S. Peirce didn't succeed to have any academical post, notwithstanding all of his efforts. I think that this may be one of those reasons that it was difficult to him to get his writings published, as we know e.g. from John Dewey (1859-1952) who has given us this kind of information regarding an among of texts which C.S. Peirce has got published. But there were also other reasons, namely that C.S. Peirce did not write down his philosophical findings systematically. All of these remarks might suggest to that it makes no sense to talk about a remarkable figure in philosophy and natural science.

On the use of C.S. Peirce's correspondence

I shall use a lot as my references to C.S. Peirce correspondence in the current study. For me the most interesting sources concerning C.S. Peirce are just his letters, and the letters he has got himself, and the most important of these are the letters which he has mailed to William James or has received from him. However, I am not going to consider C.S. Peirce's whole correspondence in detail. I do not consider at all the letters which he has written to, or got from Josiah Royce, F.E. Abbot, C.E. Norton, J.J. Sylvester, Josiah Gibbs, André Laland, Sylvia Wright, and many others. I refer to these letters to *Collected Papers* for the better information.

But why to study correspondence? By C.S. Peirce's correspondence, or his articles, we shall get quite opposite picture of the width and depth, and the role of his whole production in the development of pragmatism. But still, it seems to be true that he didn't get ready all that he really wished to get finished. For example, in a letter which C.S. Peirce has mailed a letter to William James (1842-1910), and which has been dated on the 7th March in 1904. C.S. Peirce told him that he was going to write a 150-sided book on pragmatism. He planned to join to it some of his earlier writings concerning same themes with critical notes, too. It seems to me that there have been certain transformations in C.S. Peirce's philosophy during his whole philosophical career, and for that reason we ought to discuss his pragmatism, as well as his other views, as certain stages. There might be a hypothesis where young C.S. Peirce can be regarded as a man who has presented strict doctrines, as well as large cosmological views, to which he applied them, and by those larger cosmological views and also by his doctrine of synechism changed his doctrine of pragmatism. He can be regarded a man who has made several extensions to his earlier doctrines in his older days. We have some letters, indeed, which suggest to this interpretation. This scheme of different philosophical stages seems to be applicable also to other pragmatists, as we shall see later, too. Those stages are applicable e.g. John Dewey's philosophical development, as well as to Ludwig Wittgenstein's philosophical career.

Chance, Love and Logic and Collected Papers of Charles Sanders Peirce

Let us remind that there is the very fact that the most part of C.S. Peirce's literal production have been collected after his death, but this is the case with Ludwig Wittgenstein, and with the most ancient philosophers, too.

But if we discuss the collection process of C.S. Peirce's writings, there is the fact that we have several collections, or the stages of them. We can discuss mainly two different stages. From Ingemund Gullvåg we know that *Chance, Love and Logic*, whose editor was M.R. Cohen can be considered as the very first version, as well as the precedent of larger version, namely *Collected Papers* by Charles Sanders Peirce. This later version has been also called the Great Harvard Edition, and it have been edited by Charles Hartshorne and P. Weiss . I shall refer to the book in question repeatedly during the current study, especially what concerns continuity, and some other themes, when discussing e.g. the relationship between C.S. Peirce and Ludwig Wittgenstein. But there is also later edition which has been published in 1966, and which I have mostly used in the current study especially when discussing science and C.S. Peirce's philosophy and its relationships to other philosophical traditions. I have regarded as an important source in the current study *Collected Papers* volume VII, which deal with Science and Philosophy, and VIII, which deal with Reviews, Correspondence, and Bibliography. In this edition, and its volume VII Arthur W. Burks has also described in detail the whole collection process and edition policies.

There seems to have been a lot of literal material which were produced by C.S. Peirce. From Collected Papers which I have mainly used and from its Bibliography of the Works of Charles Sanders Peirce we get to know that in Harvard University Widener Library there were sixty boxes and bundles, of which Knight W. McMahon has made a catalogue, as follows:

I Science of Discovery

- A. Mathematics
- B. Philosophy

1. Pragmatism and the categories
2. Normative sciences (logic)
3. Metaphysics

C. Idioscopy

II Science of review: Classification of the sciences

III Practical science and miscellaneous

IV Book reviews

V Life and letters

- A. Bibliography
- B. Correspondence

1. Personal
2. Professional
3. Business
4. Official: Coast Survey (The United States Coast and Geodetic Survey)
5. Application

But there have been another material available, too. From Collected Papers and its Bibliography of the Works of Charles Sanders Peirce we get to know further that in Harvard University Houghton Library there have been twenty boxes and bundles, but they have not been catalogized because of their fragmentary. However, any of the findings have been examined carefully by editors and by those people who had personally known C.S. Peirce, or were acquainted somehow with the texts in question.

Arthur W. Burks has written that editors found often several versions which concerned the same theme, but any of them was not final, and it was not possible to imagine what kind a version should be the final one. So editors synthesized the possible solution from different materials which were available. But that couldn't guarantee that in the texts accepted with could include still fragmented elements or that the final version were more comprehensible than the individual texts from which it was synthesized. And this is the case concerning any acceptable edition of C.S. Peirce's literary remains. Accepted solutions were, and will also always be, due to the current policy by editors, and accepted material were especially in the current edition also dependent of their possible public interest. Arthur W. Burks has written, too, that for localize another material editors worked a lot, and a part of the founded material found was unknown before. There have been several counterparts in the collection process, such as Rockefeller Foundation, Department of Philosophy of Harvard University, and Horace H. Rackham School of Graduate Studies of the University of Michigan.

Let us remind what John Dewey has proposed for that C.S. Peirce did not write down his philosophical findings systematically. Then there will be arisen a question, how those editors of his writings did succeed to create Collected Papers if there were no system in C.S. Peirce's writings? And further, if there were no reason in those writings, how editor could make them sensible and reasonable? And what about that fragmentary? We get an answer from Arthur W. Burks who has proposed for that fragmentary of material was partly quite apparent, because of editors tried to put it under pre-determined headings, according to their current policy. Those headings has been stated mostly by editors, but in some cases they have used C.S. Peirce's headings. In general, editors have used his way to use punctuation marks, spelling, or underline but they have made some corrections, too.

On some other literal sources and studies

There have been a lot of studies on C.S. Peirce. One of commentators has been Charles William Morris (1901-1979) who has published a lot of studies. He has written on neo-pragmatism , on pragmatism and metaphysics , on Schiller's relationship to pragmatism , on the relationship between pragmatism and logical positivism , on the relationship between pragmatism, logical positivism and scientific empiricism , and on William James's philosophy , on the theory of signs , on the relationship between semiotics and scientific empiricism , and so on. I have used in the current study his *Six Theories of Mind* where he has studied the transformations which have taken place concerning the theories of mind during centuries.

But there are also later studies. For example, there is a study of Catharine Wells Hantzis which has dealt with the relationship of C.S. Peirce and phenomenology. And then there is a study of Umberto Eco and Thomas A. Sebeok which was a semiotic approach. And then there is a study of Jeremiah E. McCarthy on C.S. Peirce's normative science. And we have also a study of Robert Allen Brown on C.S. Peirce's normative conception of truth. But I am not going to use them as references in the current study. Instead, I shall use a lot, as my source and reference, Ingemund Gullvåg's article "Wittgenstein and Peirce", because he seems to have been studied especially the philosophical ideas which Ludwig Wittgenstein has derived from C.S. Peirce. But there is an interesting reference in the article in question, which I want take into consideration: Gullvåg has referred to Karl-Otto Apel and to his opinion that C.S. Peirce was not immune to interpretations drawing him into the tradition to transcendental philosophy. As we shall see also later during my current study, I cannot offer much new information to get from that direction. Anyway, it is not quite clear that C.S. Peirce has adopted all of his ideas from Kant instead it seems to me that he has examined how well Kant has understood e.g. the idea of time, and from whom he has got his ideas - as we shall see later during the current study.

Then I have used e.g. Israel Scheffler as a reference in the current study. He has studied a lot the relationships of pragmatists, and also from that direction we cannot find much quite new information. Are there left any more such questions which have not at all been studied, then? If I examine that production by Charles W. Morris, for instance, and also others, I must get a conclusion that there are not many. Nowadays it is rather difficult to find quite new dimensions for study, and more difficult it is to avoid just repeating information which have been presented already in the existing material. For that, and also for other reasons I have been studied right C.S. Peirce's correspondence which shall give us more information of his philosophical background, as well as more information on the nature of his work.

It seems to me that Immanuel Kant is only one of the most influential philosophers, and we shall find also some critics to him. There are such features in C.S. Peirce's philosophy which Plato and especially Aristotle have introduced in their philosophies, and to whom many commentators are referred to, when explaining C.S. Peirce's philosophical influences. But the most important question to me is, however, to understand properly his philosophy, as well as to explain it. And for that reason I must explain to myself western philosophical tradition and its role in the development of pragmatism.

And in addition to this, I shall study certain ideas of C.S. Peirce and William James through their correspondence, as well as the relationship of their ideas, as certain ideas which are typical to the late philosophy of Ludwig Wittgenstein. Let us remark that these questions have been studied by many others, too, and there is, I think, no more interesting to be found. However, I shall count some of those findings in the current study. But the question which bothers me is still: is there any new features which have not known, yet, in C.S. Peirce's philosophy, and which have not at all been studied? Anyway, we have a new world at front of us, and by the good and bad changes in the world, I think, there are contexts to some of C.S. Peirce's ideas, and they are more comprehensible now.

2. The grandfather of pragmatism and a refugee of pragmatism

Some main themes in C.S. Peirce's philosophy and pragmatism and how it has been emphasized the role of William James in the development of pragmatism and how it has been displaced C.S. Peirce

Finnish writer and professor Juho A. Hollo has categorized pragmatism belonging to the school of relativism, and he has promoted William James to the father and the developer of pragmatism. I think that this kind of proposition is due to that Hollo didn't recognize C.S. Peirce's decisive role as originator in the whole development of pragmatic movement. But this kind an attitude towards C.S. Peirce's role was also familiar to John Dewey who was a disciple of C.S. Peirce, and who has described C.S. Peirce's pragmatic method narrow one and that William James enlarged the field of pragmatic method emphasizing the role of special consequences of ideas as the means in proving them as true ones, instead the universal consequences of ideas. James has also used his new method at almost all areas of study, for example when studying religion.

But is it quite natural to trace special consequences of ideas, if we think about any special circumstances, from which we are enlarging our experiences to more general ideas, as e.g. in elementary education, and in religious experiences where James has used his method, too? But quite another question is that we cannot easily get our children to understand that the ideas are certain universal consequences of certain experiences, and that we cannot understand, as experiencing beings, or as scientists, our religious experiences otherwise than as special consequences of God's will, whatever it might to be, if we regard ourselves as individuals. That is, our special experiences don't produce the existence of God, or his will.

There are other similar reviews concerning the lesser importance of the role of C.S. Peirce. When discussing C.S. Peirce's educational and religious ideas Israel Scheffler has generally argued for that C.S. Peirce didn't succeed to join together the strivings of human intelligence to the other human activities by his logic and by his other means which were inadequate for the questions of pedagogic. I think that these kind of negative general judgments may be the reason that C.S. Peirce's ideas were not much appreciated in the large pedagogic fields, and that most of them had no instant applications. But there are obviously other reasons, too. However, both from Ingemund Gullvåg and Israel Scheffler we get to know C.S. Peirce's problem theory of thinking has influenced to John Dewey, who, in turn, has been regarded as a great figure in the field of pedagogics. Namely, there was an emphasis of environment and its influence to thought in C.S. Peirce's thinking.

But is it strange that Juho A. Hollo didn't recognize C.S. Peirce as the founder and grandfather of pragmatism, and just the person who strongly influenced to William James. We can become acquainted with that Juho A. Hollo has written the large version of his *Kasvatuksen maailma* already in 1927. But what are the necessary conclusions of this? We know that C.S. Peirce was not yet generally known and accepted as an originator of pragmatism. But we get to know, too, that Hollo's book in question has been published in 1952, when there should have been enough knowledge on C.S. Peirce and his role in the development of pragmatism.

Let us consider again C.S. Peirce's literal production, and its edition after his death. From Ingemund Gullvåg we get to know that "The Great Harvard Edition" which was going to be published since 1931 and was finished in 1958 was not yet available in 1952. However, there was available *Chance, Love and Logic* (1923) whose editor was Morris Raphael Cohen. And there was available also C.S. Peirce's *Truth and Probability* which has been published in 1926. And as we shall see later, there were several references to C.S. Peirce by William James, and in addition to these, also John Dewey has referred to C.S. Peirce e.g. in his article "George Herbert Mead" in 1931. Hence, there were a lot of references in 1952 when Juho A. Hollo has published his short *Kasvatuksen maailma*.

Most of those books, which included C.S. Peirce's own thoughts, seems to have been published far after C.S. Peirce's death, including his "logical" book *Chance, Love and Logic*, and they have been dealt with logic, signs, relations, chance, and such themes, and for that reason, I think, he was known, for a long time, as a logician. However, it seems to me that there has been such books, in which it has been presented, at least, influences between pragmatists, as an example those books and articles which were written by Charles W. Morris, and which we discussed at an earlier stage in the current study, and some other similar writings.

But what about ideas which have been presented by Juho A. Hollo in his brief edition *Kasvatuksen maailma*? There have been presented several thoughts which have been supposed to be presented originally by William James. There is an idea that James was horrified about the absolutic concepts and appreciated relativism as the solution of the concept of truth. Hollo assumed, too, that pragmatism was the philosophical exhibition of relativism in the United States.

But these are not the only tendencies which both C.S. Peirce and William James has advocated for. I think that it is rather simplified view of pragmatism to see it as an enterprise to find out the truth just denying all which cannot be revealed by inferences and relations, or consequences. By James there are always both unity and variety equally present, and by them also something more. The world is growing more and more unified by the systems of connections at least which human energy keeps framing as time goes on. And James has argued, too, that what our intellect aims at is neither variety nor unity taken singly, but totality. However, we cannot argue for certain structures which become revealed during the course of time but instead that the world has, in addition, several other characters, by which we can join to the world as passion, for instance. And we are able to systematize that passion, and by that we can understand the diversities of reality.

And this principle concerns not only concepts but also explains the world, as it is. C.S. Peirce has suggested for, when discussing especially on Ernst Mach's relativism in physics and its consequences:

"... space can have both relative and non-relative characters which depends on if there are present such features which are covered by the law of causality, when space shows such indications of secondness that motions act as though governed by the law of causality. There may be present such features as continuum in which space preserves all its thirdness the motions preserve their dynamical character. Hence, in so far as space is continuum, is a mere law,- a mere thirdness. But it does not stand in the ways of its being a thing, too. If besides its continuity it presents arbitrary thisness, we must admit that it is something more than a mere law. We can suppose that the question of relativity of motion is a question of the measurement of space; not the nature of space itself; and therefore, although motion be not relative, it would not necessary follow that space itself is non-relative. But we must not suppose, either, that space has not some kind of topical singularity".

But what about thirdness? C.S. Peirce has written that there does not exist absolute immediacy, or something absolute but there we must confront the doctrine of synechism, that is, there are elements in reality which we can call by the term thirdness. But how we can get those elements? C.S. Peirce has described medisense as the consciousness of thirdness, and it has, as it means, abstraction, suggestion and association. I shall return to these questions in detail later in the current study.

Quite near to these themes comes what William James has written on variety and one. If we try to treat the problem of the one and many in a purely intellectual way, we shall fail to obtain it, and if we try to do so, we can clearly see where pragmatism stands. The world is one just so far as its parts hang together by any definite connection, and it is many just so far as any definite connection fails to obtain. James has said that the world is nor universum, and neither multiversum. And where we have unity in the world, we can create programs in science. C.S. Peirce has suggested to that unity when discussing the heart of science, which has no individual characters any more. By this media scientis can give their work to science. C.S. Peirce has described the branches of science as social network, and they are real objects, too, which have certain way of life as the limbs has their own way of life in a human body.

From Israel Scheffler we know that C.S. Peirce has regarded science as autonomic because science is theoretical. The ideal methodology and purposiveness say what kind of scientific reality we have. But what about C.S. Peirce's opinions on individual and final opinions, habits and false beliefs? From Israel Scheffler we know, too, that the mind of a branch of science is not what it has been said to be by specialists right now, because the mind is something to come, and not ready. C.S. Peirce has written that the final opinion, if there are such ones, is not any special cognition in such and such mind, at such and such time notwithstanding that individual opinions were similar as cognition. The object of an individual mind is always what it has been thought at objects at the time when an individual has those opinions and if an individual thinks something else, he has also some other object as his target what he thinks it to be. The final opinion cannot change any more, and it includes all what can be said at object, no more or less. But what is important is that different perspectives which we have to an object does not produce a kind of sum, in the course of time, which then could be called as the final opinion. In addition to these, there are all habits, ignorance and beliefs of the mankind which have been regarded as true ones from generation to generation. Hence, the final opinion includes the elimination of those stubborn habits, as well as ignorance and false beliefs. William James has had a rather pessimistic view in 1899, when he wrote that our whole life if it has certain form is nothing but a group of habits, which are pragmatic, emotional, and intellectual and which carry us irresistibly towards our destiny, whatever it shall be like.

I think that the positive view of totality of C.S. Peirce associates to his doctrine of synechism. If we accept that doctrine, or as its corollary the view of science as organic and social structure, we have at least the possibility to change those habits and beliefs, because we are in that totality. But there are other questions, too, in which we can, and cannot talk about relativity in a sense that there were certain blocks of reality in certain and enduring relationships with each other, or monism in a sense that there were certain immanent creatures in itself, and that they had always been such ones. That is because of the essence of signs, man as sign of signs, the law of final causation, and such ones which themes I shall discuss later in the current study, too.

When C.S. Peirce and James became acquainted with each others

But when C.S. Peirce and William James have become acquainted with each other? A.J. Ayer has affirmed that C.S. Peirce and William James were close friends through their whole life, since the year James has started his studies at Harvard. In the same time C.S. Peirce has been employed to The United States Coast and Geodetic Survey. We get to know, too, that C.S. Peirce has lectured occasionally at Harvard but also at John Hopkins university five years on logic. Arthur W. Burks has given us more information, namely that C.S. Peirce worked two different sessions at The United States Coast and Geodetic Survey. The first of them began on the 21th September in 1859 and lasted on the 1th June in 1860. The second session began on the 1th July 1861 and lasted on the 31th September in 1891. During these sessions, and also later, there was growing selfcritics, which we must especially reckon, when dealing with the correspondence between C.S. Peirce and William James.

At a letter to William James, which has been dated on the 13th March in 1897 C.S. Peirce criticized his earlier writings and their emphasis of practical results. At a letter, which has been dated on the 25th November 1902 he was also critical to his earlier philosophy, which he had e.g. in 1877 or during Cambridge lectures. And there we can also find a kind of supporting information to what Arthur W. Burks has suggested to how C.S. Peirce's experience in empirical science influenced to his philosophy. We know that he lectured at Cambridge e.g. in 1898, where one of his themes in the lectures was the term habit, especially on the 7th lecture. And further, C.S. Peirce has referred to his father's, Benjamin Peirce's work and examples during those lectures.

But what about the personal connection between C.S. Peirce and William James? It is obvious that they did not contact much face to face during the first session when C.S. Peirce worked at The United States Coast and Geodetic Survey. But for what reason? From the fourth ENCY we know that James has studied in Europe during the years 1855-1860, because his father had sent him to Europe to get some impacts from German and French cultures. And we also get to know also that James has went to Europe also in 1867, and he has studied then psychology. So we can conclude that they had not much opportunities to discuss from face to face at this time.

However, it seems to me that they must have had conversations concerning Europe, and its philosophical climate. From Israel Scheffler we get to know that C.S. Peirce appreciated the universities of the Middle-Ages, as well as universities in Germany and new colleges in England, because of they have done so much for personality of students. But how he should have been personally become acquainted with them if he never has spent his time in Europe? I think that he had to get information of that experience right from William James, and the rest of his knowledge he has got from books.

But there is one trait which I want to discuss more detail, because French language and philosophy had a certain role in the development of pragmatism. When William James was in Europe, he has studied e.g. Charles Renouvier's influential book *Essais de Critique G n rale* which was already available during James' first journey to Europe. From the fourth ENCY we get to know that James has derived a lot of his conception of freedom from Charles Renouvier. However, he didn't study Renouvier's book in question before 1870 when he had his emotional crisis which could be cured only by belief to the free will. Later James also personally met Renouvier who joined to his intellectual society.

From the fourth ENCY we know that there was also Josiah Royce, as a member in James' intellectual society and it is obvious that James has got influences from Royce, notwithstanding that they did not agree with the question of the nature of error. In addition to this, also John Dewey has got influences from Royce. I shall return to the question later in the current study. From the first ENCY we know that there was also evolution philosopher Chauncey Wright. Then there was the French philosopher Henri Bergson whose philosophical themes dealt with the themes of determinism and freedom, as well as the connection of the body and the mind, which were important themes in James's philosophy, too. And there was Sharworth Hodgson, who has published *The Philosophy of Reflection*, and who has also studied metaphysics e.g. in his *Metaphysics of Experience*, and there was also F.H. Bradley.

From the sixth ENCY we get to know that Charles Renouvier had got published his *Le Personnalisme* in 1903, and it might be quite possible, too, that James knew also something about this book, or became acquainted with its ideas. But this is a hypothesis. However, William James owed one of his books to memoriam of Renouvier. And we have some evidences of that C.S. Peirce and William James have discussed Renouvier and that both of them have been acquainted with his literal production. We can meet Renouvier's name in C.S. Peirce's letter to F.C.S. Schiller which is dated on the 10th November in 1906 where C.S. Peirce referred to Charles Renouvier's book, which he, for some reason, named to

"... *Essais de Critique Philosophique*, or something like that",

as he wrote. Anyway, there was that common French language between C.S. Peirce and William James. And what is important there is that C.S. Peirce seems to have derived the concept *real* from Renouvier, which has originally been presented by Johannes Duns Scotus, however, as we shall see later in the current study.

In a letter which C.S. Peirce mailed to William James on the 23th July in 1905 he praised for James' fluent French: the rhetoric qualities of French produce to James' expression a clarity that seems to lack in his English expressions. And in addition: C.S. Peirce has made a remark that nearly always when James has written something in English he has not quite understood the goal of James' writings, or what he was going to say. Just in that time William James has written an article, whose French name was *La Notion de Conscience*.

C.S. Peirce and William James had also other common themes to discuss, too. During the time when C.S. Peirce was employed at John Hopkins university, he had an opportunity to be acquainted with empirical psychology and its methods. Let us remind those experiments, to which C.S. Peirce and Joseph Jastrow participated, and which we have discussed at an earlier stage in the current study via *Collected Papers* .

But what about the role of Harvard and The United States Coast and Geodetic Survey? Let us remind that C.S. Peirce lectured at Harvard occasionally, as A.J. Ayer has informed us. Let us also remind what Arthur W. Burks has told us at the beginning of the second chapter, namely that C.S. Peirce's second session at The United States Coast and Geodetic Survey began on the 1th July 1861 and lasted on the 31th September in 1891. But why these dates are so important ones? Because of that C.S. Peirce had an opportunity to meet William James personally at Harvard, from face to face, from the beginning of 1870's. From A.J. Ayer we get to know that William James worked at Harvard at first as an instructor in physiology since 1872, and that he was elected to an office of professor in 1880 when he had already degree in medicine.

I think that C.S. Peirce and James had a lot to talk about experimental psychology, as well as philosophical themes since 1870. C.S. Peirce has referred to psychological books in his letter to William James on the 3th October in 1904 where he referred to several psychological books which he had used in his previous letter to James which, in turn, had been dated on the 28th September in 1904 where he referred to his own "library". In the letter that C.S. Peirce mailed to William James and which is dated on the 25th November in 1902 there is a reference to psychological aspects of aesthetics, ethics, and logic.

Hence, we can conclude that in addition to some encyclopedies, which we shall discuss later when dealing with C.S. Peirce's economical status, that he had also some psychological books, as well as some knowledge and experience concerning psychology. I think that his remarks to psychological books, or psychology indicate to the interest which both of them had to psychology, and that they used psychology as an important reference in their philosophing. I will return to the question of C.S. Peirce's own "library" and among of its books later in the current study when discussing his own economical status. However, I think that the role of philosophical and religious themes in their correspondence was more remarkable during their later years.

C.S. Peirce: inventor of the term pragmatism

When I have read the correspondence between C.S. Peirce and William James then it has begun to seem to me quite obvious that James appreciated C.S. Peirce in a way, by which any other pragmatists seldom have done. I shall present three different contexts where James clearly expressed his indebtedness to his philosophical grandfather. First I consider the term pragmatism. In the letter which was dated on the 10th November in 1900 C.S. Peirce inquired from James the person who originally invented the term pragmatism. He was at that time writing about philosophic ideas and philosophers which could be associated to the character "J" to Baldwin's famous Dictionary of Philosophy and Psychology. From Ingemund Gullvåg we know that there was C.S. Peirce's article "Signs", which dealt with the thought-sign theory whose role was, perhaps, decisive to F.P. Ramsey, and via him also to Ludwig Wittgenstein. Anyway, William James answered to C.S. Peirce with a postcard dated on the 26th November in 1900 saying that he regarded C.S. Peirce as the inventor of the term in question. James told that he has given an honor to his close friend in his lecture on "Philosophical Concepts and Practical Results" two years earlier.

Secondly. There are also other gradations concerning C.S. Peirce's role in the development of American pragmatic movement. William James has given an honor to his friend in some of his articles, too. For example, William James he has described C.S. Peirce's philosophy, as a whole, in his article on F.C.S. Schiller's humanism which was published in The Nation on the 3th March in 1904:

"... Quite recently the word pragmatism, first used thirty years ago by our American philosopher, C.S. Peirce, has become fashionable as the designation of a novel way of looking at the mind's relation to reality".

Thirdly. One occurrence of those references to C.S. Peirce we find at a book, which concerned religion, namely *The Will to Believe*, from which theme those close friend so much discussed, and where William James has written:

"... To My Old Friend, CHARLES SANDERS PEIRCE, to whose philosophic comradeship in old times and to whose writings in more recent years I owe more incitement and help than I can express or repay".

All of these passages suggest to the fact that William James has greatly appreciated C.S. Peirce, and that their comradeship was warm. A.J. Ayer has also emphasized their close comradeship which lasted almost through their whole life. I think that there is no doubt about this question. But their philosophies were not so much alike which e.g. John Dewey has emphasized when saying that James just continued C.S. Peirce's work. As we shall see later in the current study there have been a lot of conversations between them by correspondence, and it is very easy to say, anyway, from whom most of James' ideas are derived from.

If we think all of those similarities, it seems quite clear that we can categorize them into the common term pragmatism. But there are also dissimilarities, which suggest to the fact that there was no philosophical school or if there was such one, we cannot put all the statements to the common context. We can speak an acceptance of certain principle, for instance, and not the worldview. We have a problem of the homogeneity of the ism, and if there is lot of disagreements, we cannot speak at any ism, and we must seek isms from certain single doctrines within pragmatism such as doctrine of synechism, for instance, which seems to me more universal and applicable than a school of pragmatism, or pragmatic method.

Pragmatism and disagreement in the question about humanism

But there were also disagreements on how C.S. Peirce, William James and F.C.S. Schiller have described humanism in pragmatism. From Ingemund Gullvåg we know that C.S. Peirce used the modified term pragmatism to dissociate himself from the views of William James and Schiller. And there can be found also more that kind of information. And A.J. Ayer has also suggested for that C.S. Peirce took the term pragmatism to his use for the reason that other pragmatists, as James, Dewey, Papini and Schiller had changed his original ideas, and for the reason that the original term pragmatism had become known by them. Hence, C.S. Peirce gave to his "system" a new name which he considered ugly enough that nobody would not to kidnap it any more.

The new term pragmatism we can find in a letter which C.S. Peirce wrote to Mario Calderoni probably in the year 1905 where C.S. Peirce tried to correct the misunderstanding, namely that pragmatism was regarded essentially as a philosophical system. He wanted reject this interpretation saying that pragmatism were rather the method of thinking. He continued that a friend of Calderoni, who he named Juliano il Sofista, that Juliano was quite right when saying that the ideas within pragmatism were not new ones in philosophy. C.S. Peirce claimed also in this letter that he had presented those ideas thirty years ago. Just the similar information on these thirty years we can find also from William James's article in The Nation which we discussed before in the current study.

We have now that information that pragmatism was originally developed by C.S. Peirce, and that he had later certain disagreements with his philosophical followers, and that pragmatism was not any system but instead a method of thinking. But is that older and original concept pragmatism produced by C.S. Peirce at all?

John Dewey has emphasized that the concept pragmatism is not American origin, and he referred to Immanuel Kant's *Metaphysics of Morals*, and that C.S. Peirce has derived his term pragmatism from Immanuel Kant's concept pragmatic, whose other, but still explanative counterpart is the concept practical. C.S. Peirce didn't want to call the method which he has developed by the term practicalism, because he was interested in as a logician the arts and methods of thinking. The pragmatic method was very useful when making our ideas clear, and when making adequate definitions in the relationship of their objects according to the ideal of science. The new method C.S. Peirce used was able to map certain goaldirectiveness and intentionality in human functioning, because it tried to say something about those contexts, to where rational goaldirectiveness can take its stand. Thus, the rational cognition and rational intentionality are inseparable counterparts. Rather near to this comes what William James has written in his essay, which he has written in 1908 arguing for that things which are pragmata in their nature, are pluralistic by their very essence in all of their variety but they can have in the same time theoretic nature.

From John Dewey we know further that Kant argued for that the true meaning of concepts lies in future, which we have not yet at hand, and in this sense they exist a priori. There are several indications in C.S. Peirce's philosophy to this direction. From the letter which C.S. Peirce has mailed to ChristineLadd Franklin and which has been dated on the 29th August in 1891 there is a description of the whole development process of the universe, where our present time consists of both chance and conformity but in future the world shall grow into fullfillness of laws in spite of that it has been derived from the world of chance. From the letter which C.S. Peirce has mailed to William James and which has been dated on the 28th September in 1904 there is a description of mellonization, which is a logical operation by which has been is interpreted expanding infinity, and by which an operation we can enter until to what will always be. But the prerequisite of this is that we experience the world of thought as real one, and that it has been right understood. I shall discuss these letters more closely later in the current study.

But there are also other references to the important role of future in the development of knowledge in C.S. Peirce's philosophy. For example, when C.S. Peirce has described the orientation of getting rid of ignorance in scientific knowledge, and the orientation to future, too, by which all the other demands we have will clear, too. But we have also C.S. Peirce's opinion on the development of science and its geologic successions, and the similar idea of future orientation, by which we can have future more and more as actually being crystallizing the fundamental laws of matter and mind. C.S. Peirce has a special concept of anticipation, which describes the role of our expectations concerning what kind of future we shall have. The he has used speculation identical to generalization discussing the interaction between present and future as the means to reach future.

We can say, at least, that C.S. Peirce has clearly emphasized the role of future, but in the same time he has introduced the view of schedule according to evolution philosophy. But in the same time he has regarded concepts, and laws as real ones, and that they have decisive role in the development, as a whole. We can say that there is something similar to Immanuel Kant in C.S. Peirce's philosophy in these questions but there is something more than it, too.

But are there Kantian tendencies in C.S. Peirce's philosophy, especially what concerns humanism? From Henry Sidgwick we know that Immanuel Kant has stated that:

"... all rational beings as such are ends to each",

which is similar to that:

"... humanity exists as an end in itself".

And further, by Henry Sidgwick, Kant has also argued for that so long as I confine myself to mere non-interference with others, I do not positively make Humanity my end; my aims remain selfish, though restricted by this condition of non-interference with others. My action, therefore, is not truly virtuous; for virtue is exhibited and consists in effort to realize the end of reason in opposition to mere selfish impulses.

Therefore, as we can read at Grundlegug :

"... the ends of the subject, which is itself an end, must of necessity be my ends, if the representation of Humanity as an end in itself is to have its full weight with me".

But back to the question: are there similarities between Immanuel Kant's and C.S. Peirce's humanismus? There are certain themes in C.S. Peirce's philosophy which are not very far from those which have been presented by Kant e.g. what concerns the meaning of the end. From C.S. Peirce's letter to William James which has been dated on the 25th November in 1902 we know that C.S. Peirce considered the term reaction something which is both "be-all" and "end-all", where "The End" is something which sanctions action, and "The End" belongs essentially to the third category. He suggested further that this kind of thinking leads to synechism, and further that aesthetics, ethics, and logic, as normative sciences, are corresponding by their psychological aspect to the categories feeling, reaction and thought. C.S. Peirce has argued in his synechism for man's social consciousness, and for man's capability of spiritual consciousness which, in turn, constitutes him one of the eternal verities. Then we have an opinion, in which C.S. Peirce has regarded the human mind as an essential component in the whole (evolutionary) development of the universe. There seems to be certain links to Kant's epistemology. However, I shall discuss that C.S. Peirce's doctrine of synechism, as well as his references to evolutionary philosophy later in detail later in the current study.

I think that all of these remarks suggest to the conception of humanity that denying those selfish strivings of man, and that man is something more that we can see right now. From Charles W. Morris we can read that C.S. Peirce regarded the nature of man as symbolic, and that signs shall become something which a man is himself to which nature man cannot do any restrictions. Charles W. Morris has argued, too, that there are eternal laws behind all the laws we have. he has suggested to that C.S. Peirce can be regarded as Platonian realist. Hence, we can say that idealism C.S. Peirce's philosophy is a mixture of many other philosophical references that Kant. From A.J. Ayer we know that there were also Hegelian tendencies in C.S. Peirce's philosophy. I shall return to these influences mentioned later in the current study more detail.

Far more decisive than the dissimilarities and similarities between C.S. Peirce and former advocates of idealism (if we think pragmatic movement) were those dissimilarities which we can trace within pragmatism. We must return to C.S. Peirce's letter to William James which has been dated on the 25th November in 1902 where we get to know C.S. Peirce's opinion that Mr. Schiller had lost the very essence of pragmatism which is: there is not possible to create no other kind of concepts than pragmatic ones. C.S. Peirce felt himself as dethroned and too weak to create the complete system, which were so compact that it would be impossible to bring something into it as fragments.

But we can "read" from this letter that C.S. Peirce's and James' personal and philosophical relationship was good one. However, we can find more information on that disagreement concerning humanismus. C.S. Peirce has sent to William James a letter which, in turn, has been dated on the 7th March 1904 where he regarded the humanistic element in pragmatism very impressive, but did not believe that the doctrine of pragmatism could be proved like Schiller has suggested. In this letter C.S. Peirce accused both James and Schiller that they have developed pragmatism to far that he could accept it any more.

3. On semiotics

Short excursion to C.S. Peirce's semiotics by his correspondence with Christine Ladd-Franklin and William James

I am not intending to examine in detail in the current study the modern symbolic logic, semiotics, or semantics, such as they exist now. The main concern of my current study are certain characters of C.S. Peirce's semiotics, which is the science of signs. Let us remind how Charles W. Morris has illustrated the essence of sign e.g. as man himself at an earlier stage in the current study. In addition to this, according to him, we must consider mind as sign, too. Our signs has three characters, namely object, its effects and person. There is a general course of the development from interpretant to sign ad infinitum during which what is personal becomes nonpersonal and infinite. These general features are essential when understanding the essence of signs.

In the letter which is dated on the 29th August in 1891 C.S. Peirce explained to Christine Ladd-Franklin that his work in philosophy consisted of the strict analysis of ideas, and that he has tried to prove what is essential when studying the target of analysis.

It can be assumed there that if we wish to be acquainted with C.S. Peirce's semiotics, we should keep in mind that one way to that theme are his previews, comments and arguments which he has presented for or against other philosophers. In the letter which C.S. Peirce mailed to William James on the 3th October in 1904 which we have discussed at an earlier stage in the current study, and where C.S. Peirce explained that he had long carried on the study which concerned the essence of language, and he wondered why other philosophers had not understood them.

C.S. Peirce has written to English semantic Lady Welby (Maid of Honour to Queen Victoria) several letters on semantics and on other themes, too. Let us take one example. C.S. Peirce wrote her a long letter, which is only partly been spared. This letter in question was dated on the 12th October in 1904 and C.S. Peirce discussed the theory of signs and categories. He also explained that he was forced to develop totally new terms and words to describe his findings. In addition to this C.S. Peirce has written an article to *The Nation*, which was concerning Lady Welby's book *What Is Meaning*. But we cannot find the article in question as such in *Collected Papers*, because it has been synthesized to other manuscripts which have been found later. For more information I refer to the *Reviews in Collected Papers* .

C.S. Peirce: the grandfather of semiotics and symbolic logic

Walker Percy has promoted C.S. Peirce to the founder of semiotics; the science of signs. He has regarded C.S. Peirce as the father of symbolic logic, too. Ingemund Gullvåg has regarded C.S. Peirce as the founder of logical theory of relations although he says that there were some influences from the famous British logician and mathematician Augustus de Morgan, who lived in the 19th century. Bertrand Russell appropriated one half of C.S. Peirce's theory, namely the one of external relations, but rejected the idea of internal relations, because feeling that it smacked too much of Hegel. I shall return to this tendency later in the current study when discussing closely Hegelian tendencies within pragmatism, and the philosophical relationship between Russell, C.S. Peirce and Ludwig Wittgenstein.

I think that this theory especially what concerns internal relations, can be regarded as important part of his semiotics, because the triadic relation between a sign and object is internal. If we think a computer program, which was a semantic model of artificial paranoia which was constructed by K.M. Colby et al. at the beginning of seventies, and in which internal structures were affective, and where external structures were linguistic, we can see easily one difference between semantic and semiotic approach.

Let us remark especially that Percy has used the term semiotics, and not semantics, or semeiotics. But is that term semiotics same as modern symbolism? Charles W. Morris has suggested that C.S. Peirce has been the grandfather of modern symbolism, as well as Morris has written that C.S. Peirce has made an extensive analyses of symbols, and has stated sign as the fundamental category. This means that all that is thought can also be expressed as signs, and it means also that the whole human nature is symbolic.

4. On Logic

On the similarities and dissimilarities between pragmatism and logical empirism

Let us take short overture to logical empirism, notwithstanding that we shall discuss it more detail later in the current study. From John Dewey we get to know that C.S. Peirce has developed "symbolic relation logic", as Dewey has it expressed. Ingemund Gullvåg has, in turn, told us that a lot of C.S. Peirce's logical theory of relations have become acquainted more widely by Bertrand Russell (1872-1970), who have been considered as one of the originators of logical empirism.

We know that Bertrand Russell has espoused some ideas from William James (1842-1910) as he told in his *The Analysis of Mind* and moreover from John Watson (1878-1958), the originator of behaviorism. According to S.S. Hilmy Russell's opinions on behaviorism were negative still in 1919 but in 1921 already his opinions were changed to positive. It can be also said that he created his causal theory of meaning, which he calls according to S.S. Hilmy as mnemic causation. Russell used also R.W. Semon's writings, *Die Mneme* for example. Bertrand Russell has presented his causal theory especially in his *On Propositions*. He might be referred to the method which was aimed to improve memory, and which is known as mnemonics. Usually there can be used verses e.g. for remembering irregular declensions of conjugations.

Let us state now that modern logic is supposed to be developed especially by such philosophers as Gottlob Frege (1848-1925), Bertrand Russell and Alfred North Whitehead (1861-1947), but they have been appreciated as the original founders of semantics within logical empiricism, which as a term is a different thing as semiotics which we have discussed at an earlier stage in the current study. But we must remember here that then we discuss certain concepts of the logical structure of language, and also of the original aim of those originators to join together mathematics and logic, and of their aim to form their logistic thesis, too.

Bertrand Russell and Alfred North Whitehead have been abbreviated specially by logical empiricists for that logistic thesis which is presented mainly in *Principia Mathematica* where it has been argued for that mathematics, as a whole, is only a part of logic and both of them can be expressed by logical calculus. But we must take in consideration, too, that Ludwig Wittgenstein's *Tractatus* which was originally known by its German name *Logisch-philosophische Abhandlung*, and which was published after the First World War in 1921. *Tractatus* is far better known by the name which G.E. Moore suggested to it as *Tractatus Logico-Philosophicus*. Anyway, there seems to be not much similarities e.g. to C.S. Peirce in the book in question, but instead to Whitehead and Russell and to their logistic thesis in *Principia Mathematica*. Anyway, Russell and his philosophical followers has been promoted to fathers of the modern logic by logical empiricists, too. Anyway, let us keep in mind that they are not the only possible grandfathers of semantics or logic.

There is a fundamental difference in the view of C.S. Peirce's and Bertrand Russell's and his philosophic fellows and companions on mathematics. C.S. Peirce didn't regard mathematics as a part of logic at all, and if he ever knew logistic thesis, he probably should not accept such a doctrine at all. Charles W. Morris has regarded C.S. Peirce as logical realist, because he didn't consider logic as tautologies but as a mean, by which we can trace a presence of intellect.

Positive doubt

But because we know logical empirism also by the name logical positivism, and that positivists believed to the positive facts which are measurable and calculable, we shall stay studying that term positive a while. There are lot of appearances of the term positive in C.S. Peirce's philosophy.

From Israel Scheffler we get to know that C.S. Peirce has used an expression positive doubt that is: man can learn something new by mistakes, and trough positive doubt concerning the interferences of twisted signs. And what is important is that man can learn to separate those positive doubts from the doubts which are imagined and twisted themselves, and which shall never have definite targets. C.S. Peirce has regarded logic, as a science, as experimental and positive but he has emphasized that it is positive because it is common for all human beings and because it is part of our experience. Logic tells us about the positive facts and how they are arranged in the universe. And further, that C.S. Peirce has proposed for that logic is a part of philosophy, and for that reason it is experimental and positive. C.S Peirce has emphasized that practice comes always before theory and for the reason we cannot learn logic from the books in a sense that only by logic we were able to verify or deny something. A consequence of this is that the material of positive science must form the latitude and means of science. We cannot do much just teaching the methods of positive science notwithstanding tha we knew science, as a whole, and knew all the phenomens. Our destiny seems to be making mistakes, and learning by them.

The relationship between logic and mathematics and high philosophy

We know from Charles W. Morris that C.S. Peirce lived in a philosophical climate, where one main stream was logical realism and other main stream was idealism but that he didn't adopt them as such but instead synthesized them and made his own interpretation of them. In spite of that he regarded C.S. Peirce as logical realist, because C.S. Peirce did not regard logic as tautologies but instead as a mean, by which we are able to identify the presence of intellect.

C.S. Peirce has argued for that the reasoning applied in mathematics has no concrete targets; he regarded mathematics as a science to which logic is not relevant, because in mathematics it has not been questionable that it consists of reasoning which has seldom living references outside mathematics itself. Hence, mathematics is quite different thing as logic, which in turn is experimental and positive in its nature, because it is common part of experience to all human beings. Let us remind, too, that logic tells us about the positive facts in the universe, and how they are organized in there. When we talk about inductive reasoning this is generally accepted, and that reasoning is considered to be in the real relationship to the real world. But all of these real things, which can be found, can not applied, as such, to the deductive reasoning, because in it there can be only hypothetic constructions and hypothetic facts. Hence, pure deductive logic, for instance, is restricted to mathematical hypotheses, and it is mostly mathematics.

But what is remarkable in C.S. Peirce's those arguments just mentioned? He has emphasized clearly that in the real world there can be found those positive facts, and that the universe consists mostly of them, and that they are applicable in our thinking, too. But why we are able to use our hypotheses, as well as mathematics, as the mean by which we can produce certain results in the world, and what is the role of hypotheses. There is a certain relationship between hypotheses, deduction and induction.

C.S. Peirce has written that the only way to discover the principles upon which anything ought to be constructed is to consider what is to be done with the constructed thing after it is constructed. That which is to be done with the hypothesis is to trace out its consequences by deduction, to compare them with results of experiment by induction, and to discard the hypothesis, and try another, as soon as the first has been refuted; as it presumably will be. In our choice of a hypothesis must take in advantage with that it is capable of being subjected to experimental testing, and it will explain the surprising facts, and we must remember that the true hypothesis is only one of innumerable possible false ones.

It is no wonder that C.S. Peirce argued for that logic, as such, is not enough, what concerns our understanding, and that there can be found two orientations in it:

- 1) there is logic which is the philosophy of thought,
- 2) there is metaphysics which is the philosophy of being,

but in addition to these there must be created also a high philosophy, as C.S. Peirce has suggested for. This high philosophy is to come explain the certain truths of logic and metaphysics but they must ground to experiments, and to human experience and be viewed only through it.

The role of logic

Aristotle has considered logic as the common tool of all the sciences. And in this way also C.S. Peirce has apprehended the role of logic: logic can be regarded as a common part of all human experience, but also as a branch of philosophy, and as the very true idea of science. We can reach those levels which are out there by such a logic which is not purely formal by its very nature. From Israel Scheffler we know that C.S. Peirce emphasized also theoretical orientation but also that he has tried to connect together the laws of reason and love. I shall discuss that latter orientation later in the current study. From Charles W. Morris we know that C.S. Peirce emphasized as a kind of consequence from this that the true science must study mainly the useless things, and that science should not deal with the useful things.

C.S. Peirce has used the concept theoretical interest, and also described it in detail. There are several stages, where we are orienting at first by surprise, suggestions and intensity which are themselves capable to bring us to the next stage which consists of series of recollections, and finally to the stage where we can reach sets. Our consciousness is especially sensitive to suggestions, and it is striving to get certain impressions, because it has a feeling of that connection between materia and certain forms. But it is the whole process which explains theoretical interest, as well as the concept of beauty. I shall return later during the current study to the question of love and reason e.g. when discussing Benedict (Baurd) de Spinoza's (1632-1677) Plato's very similar conceptions.

C.S. Peirce has regarded the pure logic, or dialectics as an art of thought and as a science of normative laws. He has cited Nicholas de Orbellis:

"... Dialectica est arts artium et scietia scientiarum, ad omnium aliarium scientiarum methodorum principia viam habens".

Ethical and aesthetic nature of logic

What concerns on C.S. Peirce's views on logic, there has been some changes in C.S. Peirce's thinking during his life. Let us remind the letter which we have discussed repeatedly at an earlier stage in the current study, and which C.S. Peirce has mailed to William James and which has been dated on the 25th November in 1902 where C.S. Peirce reconsidered his views of logic which he has presented at Cambridge in 1877 as a rough one. In the year 1902, when the letter in question has been written, he illustrated his new view on logic saying that logic is anchored to ethics, and that in turn is anchored to aesthetics. From Ingemund Gullvåg we also get to know that C.S. Peirce has considered logic subsidiary to ethics by Charles Hartshorne and P. Weiss. Let us also consider what William James has presented in his Finnish translation of Pragmatism, where he has described the world consisting of aesthetic unities which do not express themselves as drama but in epical form.

But what is that epical form which James has proposed for the expression of aesthetic unities? From the most dictionaries we know that the term epic is derived from the Greek *epoioi'a* which referred to hexameter which help just remembering things and continuing with them, and so it can also, as a form, cause things to happen in certain predicted way and, on the other hand, cause them to stay, in the same time, in certain self-repeating form. It may seem that James has talked about nothing but causation but obviously this is not the case, because there is a kind of inner logic in hexameter which produces certain contents, or maintains in them certain form. We must remember that in addition to aesthetic unity William James has illustrated in Finnish translation of Pragmatism also many other unities for example teleological unity which he may also have derived from C.S. Peirce.

But is there any evidence of that there can be such kinds of logic which can make all this possible? I mean that if there have been developed such logic at all that may give support to C.S. Peirce's and William James' views on them. Now, we have, in fact, certain evidence of that we have now different branches of logic which have expanded to concern almost all kinds of areas in human activities. From WÖRT we know that there are such ones as normative,- speculative,-dialogical,- hermeneutic,- and transcendental but there are also the logic of feelings, dialectic materialism, as well as mathematics. It seems to me that there are several unities in the world, and we are discussing human activities and different logic with them.

Because I do not discuss much of the philosophical companionship between C.S. Peirce and John Dewey in the current study I take an example of their philosophical discussions on logic. We can get to know from C.S. Peirce's letter to John Dewey which has been dated on the 9th Juny in 1904 that he had written an article which was concerning John Dewey's book *Studies in Logical Theory*. I do not deal with the contents of the article, but only that C.S. Peirce also informed Dewey for his intention to comment the book in *The Nation*, as he also did. In the letter in question C.S. Peirce has outlined shortly how to solve the problems of normative science and also has suggested that instead of the idea of that normative science we must develop the natural history.

But what consequences we can have, if we accept that there are certain unities, as aesthetic or theleological ones or that we have certain natural histories instead of the idea of normative science? One of the consequences of those ideas when we have synthesized them especially to the principle of synechism, in all of its referential and live richness and inseparability is that we have some living continuums, which are ours, and perhaps in future more and more nonpersonal and valid ones. And if we accept the theory of signs, which I have introduced at an earlier stage in the current study, we have something which is not only there but which is also out there especially in distant future or it may have had its origin in distant and diffuse past.

5. On Simplicity, generalization and probability

Simple rules, complexes and the mind

Let us suppose that the world originally as the whole and unity in its simplicity, by its very nature, have spread and enlarged itself into the different, but into developed and complex creatures which have a tendency to emphasize their rightness and validity to the other identified creatures. John Dewey has regarded nature as an irreversible unity, in its all roughness, and with all the connections of its things and objects which is just what the world is. We could not know anything about the world without that unity of nature. If we accept that former proposition we come very close to William James who has presented that the whole totality consisting both of variety and unity. And what for? Let us remind that William James believed that the world is not only universum but also multiversum, and by those unities in the world we are able to give to science its programs.

Quite opposite to that we may suppose, too, that the world is not that kind but instead that it has been, as it is, from the beginning, and that it will endure similar till the end, if there is any end or beginning in the world of enduring and eternal facts. I shall discuss the world which is this kind later in the current study when discussing atomism, as well as idealism, too.

From M. Fairbanks we know that both James and Ludwig Wittgenstein have emphasized that we live in the world which is full of vagueness, which is a thoroughgoing epistemological state by all human experience and communication. From this state there are several consequences what concerns methods we must use e.g. studying practical contexts and the contextual use of language, that is, practical bearings of the use of our concepts.

From M. Fairbanks we get to know further that William James argued in his *The Will to Believe* for that a single explanation of the fact only explains it from single point of view, and that the entire fact is not accounted for until each and all of its characters have been classed with their likes elsewhere.

In this sense we have no compact world before us, and thus we cannot use our words, as simple and complex, for instance, as fixed ones notwithstanding that we accept the world itself as unity, or that nature is an unity in itself. Ludwig Wittgenstein has presented and proposed in his *Philosophical Investigations* for that the concepts simple and complex are not absolute but contextual, and in the analyze of reality there is no definite endpoint in it. We use those concepts by innumerable different ways, and the purposes we have are connected with each others by different ways, too. Hence, if we do not have any fixed simple or complex phenomena before us, we do not have any fixed meaning of our concepts, either. Also John Dewey has argued for that there are now several levels, which can be separated from each other by their complexity, and referentiality.

But what kind are those connections, as well as levels, then? Wittgenstein has used an important and illustrative concept, whose German name is *Familienähnlichkeit* which binds the components of concept to families of meanings. We can see manydimensional and complicated net of similarities regarding as well as big and little things. We are not talking about things themselves but our propositions on them in the field of those unities which make possible to make e.g. those scientific programs, to which William James has referred to. From M. Fairbanks we know that [like Wittgenstein] James has also used an idea of game when discussing in science and its rules.

I think that we have only an illusion of continuum, or unity, when we use e.g. concepts which describe the state of continuity and finity, but we do not have in the same time a picture of all of those present and future references, which our concepts must have before we have certain unity now or at later stages. Another question

is that there are similar influences between objects, as they are, as we have between propositions. It may seem to us that our propositions live their own life, as English nominalists have believed, for instance. But this is not the case - because we know, by certain, that all of those creatures which we have created, as well as those creatures they are aimed to describe, can divide the same world, and we can find both of them existing somewhere.

We can suppose that isms have certain ontological status, notwithstanding that they are, without any doubt, such creatures which we have created because of they live in that part of reality where we have unities, or where we can make them because of that the world includes certain unities and referentiality. This is the case, notwithstanding were we able to prove them as true ones by logic or induction, or not.

Ludwig Wittgenstein has argued for, that somebody must have taught us something which "is", and which can be considered as a rock bottom and foundation of our concepts and different forms of life (Lebensformen). And there a language game (Sprachspiel) is something which just is there as our life not as sensible or as proved to be something. Wittgenstein has argued for that speak a language is a part of functioning and a form of life. That is for language games stands for, too.

There are several passages in C.S. Peirce's philosophy where he has referred to life. I take in consideration two on them. C.S. Peirce has e.g. suggested for that mentality and mind are only cases in the phenomenon of life, and they are part of larger processes. C.S. Peirce has also described science as living being, and as the concrete life of men, who try to get truth. But there are also similar concepts as Wittgenstein's Familienähnlichkeit in C.S. Peirce's epistemology, namely when he described the formation of the sets of ideas, or association where we have the same living contextuality:

"... A great many associations of the ideas are inherited. Others grow spontaneously. The rest depend upon the principle that ideas once brought together into a set remain in that set. Many associations are merely accidental".

Now, if we regard all of these previous propositions as true ones, and accept isms as a nets or families which are essential part of our life, too, we have also support to that isms are quite real - as we ourselves are, at least.

But the situation is quite different, if we try to explain the very distant past. Obviously there have once been only simple rules which could not deny each others, because it is not possible that a simple rule could overrun another simple rule if there are no other kind of rules available. But a well-developed complex can overrun another complex, or it can be, in some respects, better than others. This, in turn, suggests to that the mind or consciousness can continuously change into another kind. Let's start from the fact that there have existed once a situation, where there were nothing but simple rules which nobody apprehended, yet, and those simple units had began to interact with similar ones occasionally. There were present that kind a tendency, as well as the tendency that contacted units returned back to their diffuse existence soon after they existed. But they were not material atoms, and if they were such ones, the most important in them was that tendency to interact, and the possibility in them to make larger connections much later. But, in general, there were no well-developed complexes, yet. We can suppose that these kind of simple tendencies can still be traced, and that they are still influential. This is very Peircean view concerning the very beginning of the birth of universe, where did not exist such things as time and continuity, yet, which the human mind can take advantage with. I shall discuss these views later in the current study in detail.

Let us also suppose that there are several tendencies, and the part of them make it possible that there can be also such complexes which behave in another way than we may conclude from those simple rules which are present in them. But there can be also such tendencies which make it possible that there can be persons, consciousness and the human mind. We cannot propose for that all of the existing tendencies are able to produce over and over again also such complexes as the human mind, but instead that the human consciousness can take advantage of such things which are also familiar to habit taking, fusion, centrifugal tendency, and also that interaction of feelings. The human mind, for example, can be relatively independent of simple rules, but it must be in close connection to them. As an operative unit the human mind can take advantage also of which do not exist yet, but perhaps in future, and there is no fixed past, and still there is a continuum which is flexible and conscious. In that way the human mind, as a whole and collective, can include quite new tendencies, and create them, and expand itself to the nothingness, say, to future, or to infinite. But this very Peircean theme will be discussed little later.

In addition to the previous propositions we might suppose that the most important thing in the development of the whole universe is just enlarging interaction and sociability. In addition to this the human mind has a certain role in the world evolution; we may argue there for that this interactivity and participation are necessary prerequisites for the further development. There must also be a possibility for purposive interactions in different levels, too. Hence, it seems to me that we cannot think all prevailing tendencies something which are a kind of mind in itself in spite of that there are such behaviors which makes sense to us. The human mind is something which can take advantage of some other tendencies, because it is interactive, and can, for instance, on the one hand make fusions, and on the other hand can take advantage of centrifugal tendency, according to natural laws. But there might be some purposes which are not fulfilled, yet, and which could not fulfill at all, if there were no human beings, and the mind they have in their use. These all are very Peircean views of cosmology, too, and I will return to them little later.

These point of views are necessary, because only in this way we can apprehend how human understanding work. We may also conclude that even an ism have some purely human characters. For example, in the course of time, say, idealism has began to battle with other isms which have seemed to be on the contrary position to it, since idealism has considered himself to be the only and valid one. We can suppose that it has been defended, and in the same time felt as familiar and true. But we cannot forget that there are some simple rules, too, and the complexes might behave quite differently as a whole as those repeating simple things by which those simple rules. We might suppose that they are something to be understood, because the human mind cannot be something which grows up by chance, and changes to something else by chance, but still intelligibly. But there is the fact that the human mind will, for certain, behave quite another way in future as it behaves right now, and will cause that other complexes which may exist due of chance, will change to organized and fixed. That is because of human beings learn how to manipulate those simple rules.

There are unintentional, and also intentional overlaps between all the things and complexes which C.S. Peirce wanted to make comprehensible when he presented his doctrine of synechism, which I shall discuss later in the current study, as well as his views on isms and the doctrines of materialism, idealism and dualism. He argued for that the world is such kind of a creature, as a whole, that it doesn't have any strict boundaries in it, and if it has them occasionally they are vague and changing continuously - because the world itself is expanding and developing to infinite.

On the role of simplicity, probability, continuity, and complexity in C.S. Peirce's philosophy

From Ingemund Gullvåg and also from Hartshorne and Weiss we get to know that C.S. Peirce has emphasized simplicity, especially when he spoke of an analysis of signification into absolutely simple concepts. Let us also remind what we have discussed many times at an earlier stage in the current study by John Dewey that our concepts are continuously seeking the most optimal position where they can function in the most effective way as the means of purposive striving. From Israel Scheffler we know something on how C.S. Peirce saw the role of scientists: they are striving to the truth by using methods which themselves are able to change better and better, and which have firm structure.

But why the concepts and methods we use have this kind of quality? Is there something which makes it possible? There might really be some inborn mechanisms which modern anti-chaos theory has described. But we must be careful, when employing any chaos theories in there. Walker Percy has written:

"... when I speak of dyadic phenomena, as descriptive of "matter" in motion, it will be understood that I am using the word matter to mean whatever you please as long as it is also understood that such phenomena, at least at the biological level, are not challenged by so called chaos science, or the indeterminacy of particle physics, however vagarious and mystical the behavior of some particles and however chaotic some turbulences. Which is to say: Even though it has been tried, it is surely a silly business to extrapolate from the indeterminacy of subatomic particles to such things as the freedom of the will. At statistical level, large numbers of atoms behave lawfully. Boyle's law still obtains. If the will is free, it is no thanks to Heisenberg. As for chaos theory, it has been well described not as a repudiation of Newtonian determinism but an enrichment. Accordingly, like Charles Sanders Peirce, I insist on the qualitative and irreducible difference between dyadic and triadic phenomena".

But what is that simplicity, then? C.S. Peirce has emphasized the methodic nature of science, and that the goal of science is to be find simpler methods, and in the same time to achieve better results. But why this insisting that simplicity? Because of that C.S. Peirce believed that the whole universe has born by those simple rules, and the complexity is due of certain other kind of laws which can make more alternatives possible, and that there can be more complex and organized forms. The role of simple feelings in the early development of the universe has been decisive, where they made the first connections with each other. They make them still, and by them we have such things as continuity.

C.S. Peirce has written a letter to William James which has been dated on the 28th September in 1904 that feelings have an intermediate role in double-consciousness. C.S. Peirce has also proposed for that feelings have two kinds of intensity. The first one is that intensity of feeling itself, and the second one is that intensity of altersense consciousness. This suggests to that feelings can be also as a part of sensation and will, and thus a part of human activities. It seems to me that by feelings, in a way, we can join to the continuous creation, as well as to an intima contact to instancy and continuity.

But what about generalization and time, then? Is it so that as soon as we try to reflect our feelings we need time, and we loose that intimacy and continuity? C.S. Peirce has given us further information that there is not such things as absolute instancy, or presence, either by accident or by confrontation. What is present includes portions which are remembered, and which are diffuse ones. But there are also such portions which are anticipated, and which suggest to generalization. And still, what is present is experienced confrontial and it glides before us. And because of that the universe is developing by generalizing tendency we can reach also our future only by generalizing as we have already proposed for during the current study.

If we study C.S. Peirce's letter to Christine Ladd-Franklin which has been dated on the 29th August in 1891 we can make a proposition that there is certain dilemma when we speak about such statistical terms as chance, prediction, probability, or classes, or random samples. It only seems to have been, as seen from our modern world, that there has been very high probability in question, when quite similar feelings make relations with each other, or that they have occurred by chance, or that those relations have belonged to a class. But those other kind of connections were not yet possible, and we cannot make any prediction, now and then, that certain feeling will interact with another certain feeling which is quite similar one, because those feelings were not that individual. There was no kind of generality, yet, because of that there could not been predicted which special feeling was in question when something connected to something. There have not been anything, either, by which to put feelings to certain class. This specialty can be described only when we have several different feelings, their categories, and other kind of generalities, or generalizing tendencies. Nowadays, when we actually have several different kinds of feelings, and also more generalities, too, we can say that there have been a very high probability that similar feeling had connect to another which were the same kind. But if we think those conditions at the very beginning it makes no sense, because there have not been possible to think at all. But if we discuss those feelings which are different with each other in past, as well as in our own time, we can discuss just lower or higher probability. And there we can imagine contingency, continuity, and time. When we can say that there is time, we can also discuss things which can happen repeatedly in the same way.

But we have some generalities and principles right now. This suggests to the situation where we have certain and specific feelings at hand, and there is some principles, or laws - which have brought them before us. We may have available thousands of different feelings in that sense, and we also have different models to which they can also be connected, but there cannot be no rules without habit taking and laws. And because those habit takings we can have very high probability that things will happen in predicted way. And when we have habits and laws at hand, it means that certain things will happen similar way, as well as they can happen in another way, but will still be predicted. Thus, we can have more laws, and more general tendencies in the course of time.

6. On cosmology

Views of the development of the universe

From the first ENCY we know that American evolution philosopher John Fiske tried to construct a theory which concerned cosmos in his book, whose name was *Outlines of Cosmic Philosophy*. His solution was cosmic theism which does not include Herbert Spencer's agnosticism, and his solution does not lead to anthropomorphism, either.

By Spencer's agnosticism we do not have any means to get knowledge concerning the true essence of the universe but only some of its main laws. From the seventh ENCY we know that Spencer has thought that we can measure only effects but not their causes because we have no opportunity to see any cause as it is, in itself. And because we have been at our primitive and early stages of development unable to separate what is shadow, dream or reflection, we have made e.g. a belief that there are eternal spirits and souls and from this belief and conception we have formulated a conception that there are persons, who are omnipotent and eternal, and thus divine beings. But what concerns our knowledge on unknown, or notknown, in general, we can have some information of it, because it may have some flow of energy to us and we must make hypotheses on them, and hypothetically describe those reasons which have caused those effect we have experienced. For example, evolution process does not appear to us at one and same time, but we can reason it from certain symptoms which it has and we can use the concepts of time and space, as the means, to which we can place sequences of phenomenons notwithstanding that the concepts of space and time have not real targets.

From the seventh ENCY we know further that Spencer has emphasized the view of the development from simple to complex, and more structured forms, but the development of our knowledge has also undergone several transformations, by which the internal way of our knowledge to be explained will change. We have no fixed teleological goal, to which we are going to aim for, notwithstanding that we have certain start and endpoints in the developments, as well as periods, where we have a balance. If we think finite time and space, we can place as well as start as end to their context as we can manage with human societies, which have their own histories. However, in general, we can state all the development under the principle, by which there is a process, where matter changes from the state of homogeneity to the state of coherent heterogeneity. I think that right there we have interesting similarities to the cosmologies within pragmatism, and especially with William James and C.S. Peirce.

C.S. Peirce presented his cosmic theory little later but his conclusions did not include John Fiske's cosmic theism. His conclusions were similar to Fiske's in the question of denying the pure anthropomorphic structure of cosmos. In C.S. Peirce's cosmology the human mind has certain role but it cannot be regarded as substance, or as psychological. From a letter which C.S. Peirce has mailed to William T. Harris, and which has been dated on the 30th November in 1868 we get to know that C.S. Peirce regarded the mind as virtual one, and not as something being in time-space, or not something whose essence would be solid at a given moment. It seems to me, if I think this closely, that the mind is something between, and not purely rational. We cannot regard it as something which has been derived from materia by the prerequisites which materia can have in itself, or as something which has always been. but in the same time there is still something which cannot be apprehended, as it is.

But when C.S. Peirce has developed his cosmology? And how long it took to make it clear? In his letter to Christine Ladd-Franklin, which has been dated on the 29th August in 1891 he has told that he had been studying on cosmology during ten years. He must have done it during his second session at The United States Coast and Geodetic Survey which began on the 1th July 1861 and lasted on the 31th September in 1891, as we have got to know from Arthur W. Burks .

In his letter to Christine Ladd-Franklin, which has been dated on the 29th August in 1891 C.S. Peirce has described the evolution of the world as hyperbolic, where the beginning of it was spontaneous and diffuse, and where, little by little, will appear more developed laws, conformity. There will appear more and more of the influence of generalization tendency, as well as other such kind of more general features. But how do we join to that development? Charles W. Morris has emphasized that in C.S. Peirce's theory of signs the essence of man has been regarded as symbolic: our signs are developing so that at last they are same as man himself.

But what about the processes and prerequisites far before it, then? C.S. Peirce has suggested that when matter, certain physical-, chemical-, and biological processes have been developing further, one consequence of them has been scientific passion, for certain. But what about the very beginning? The whole development of the world has began, as C.S. Peirce has proposed for, at one Sunday, perhaps, when it has been said the words "let there be light" (Lat. fiat lux).

The Latin words fiat lux suggest implicitly, as C.S. Peirce has used them, to the fact that at first there must be always a possibility, or potentiality, and soon after its presence things will be arranged in certain ways. There is no need for a supernatural being, from whose demand all has been derived from. And there are those potentialities present when we deal with our concepts. From John Dewey we know that C.S. Peirce has explained the essence of concepts quite similarly: they are continuously seeking the most optimal position, from where they can operate in the most effective way as the means of purposive striving. But in addition to this there are also other similar statements which refer to similar automatic inborn mechanisms, or necessities.

It seems to me that C.S. Peirce has strongly argued for that the presence of well-developed physical phenomena, for example, are certain prerequisites for the further development, as our present situation is the predecessor of future. But does this refer to the re-arrangements of simple atoms? The answer is no. Let us take consideration what William James has argued against the view that mentality and new forms were only due of the self-same atoms which, chaotically dispersed, have made the nebula, and now jammed and temporarily caught in peculiar positions have, formed our brains, too, and that the "evolution" of the brains would be simply the account of how the atoms came to be so caught and jammed:

"... But in this story no new natures, no factors not present at the beginning, are introduced at any later stage".

William James has suggested further that there are material atoms which formed bodies and brains but also the mental atoms, which, by an analogous process of aggregation, have fused into those larger consciousnesses which we know in ourselves and suppose to exist in our fellow-animals.

Let us take in consideration one of John Dewey's sentences which is quite identical. He has argued for that the world does not consist of masses which are moving mechanically, according to other masses - without any characteristic ways of being. There are certain similarities between Dewey and George Herbert Mead, too, namely their emphasis of sociability of language which, in turn, makes it possible to have concepts. From Ingemund Gullvåg we get to know that both Dewey and Mead saw language as a tool; its primary function being the realization of cooperative activity. They focussed on the biological and sociological nature of language. I shall return to their philosophical relationship later in the current study.

Hence, I think, there must be more than atoms themselves, namely, that there is something which must have some of their properties but also some new abilities. Then there can be also new mechanisms which make possible that there becomes to existence certain forms of life, as well as their configurations and species. When we talk about feeling, which is a kind of mental atom, we tend to categorize it to the well-developed class of human activities: that we are able to classify the concern of our intima and personal feelings this or that. But there are also C.S. Peirce's different conceptions of feeling, because he has presented feeling both as developing phenomena, and as a phenomena which originally caused that things began to develop and interact with each other. Now, we have a good reason to say that he has put feelings to the central position when he has described the beginning of the world evolution.

C.S. Peirce has argued for in his letter to Christine Ladd-Franklin which has been dated on the 29th August in 1891 that at the very beginning of the world evolution there was the only and one covering principle, namely the principle of that similarities will join occasionally to each other, and that there were nothing more. Feelings were a kind of pulver, and that pulver had any name. Hence, there was no duration, and no rules, whose presence could indicate to the presence of time. When a feeling joined to other feeling they could not stay a long with each other, because there were not yet shortest possible passages of time - if we want to use the time-language. But gradually feelings were able to get arranged so that they could stay a while with relationship, and they could produce more similarities; there was a kind of generality which simply ment that something could be alike another. There were born simple relations in which similar feelings were connected with each other, and there was that habit taking. Later there was another kind of generalities which were more complex. That is, that there were also dissimilarities which were not alike with each others, and that they became able to join to each other. We may say, in a quite good reason, that those new generalities were born, too, as well as we can say that they made something new possible. Anyway, also different kind of feelings were connected with each other.

C.S. Peirce has written that the laws we know, or which exist, are the results of evolution which cannot be complete before the laws have reached their ultimate possible limits. But if we have these kind of laws, we have a problem on how there can become to existence new laws, that is, there must also be such a law or tendency which would owe a tendency to strengthen itself, in order to that the evolution could develop further. This kind a principle could be just a tendency toward generalization which ought to manifest itself in nature, too. He did not expect to find that tendency in such simple phenomena as gravitation, for instance, where evolution has so nearly approached its ultimate limit, that nothing even simulating irregularly can be found in it any more. He suggested that we must search for this generalizing tendency rather in such departments of nature where we find plasticity and evolution still at work. Let us remind what William James has suggested at an earlier stage in the current study that in addition of material atoms, which formed bodies and brains, there are the mental atoms, which, by an analogues process of aggregation, have fused into those larger consciousnesses.

C.S. Peirce has assumed, too, that the human mind is such still developing department because it is the most plastic of all things. Quite interesting there is also his view that all active protoplasm has a tendency to take habits, too, and also that there are such more developed general tendencies, as the great law of mind, the law of association, and the law of habit taking. But what may happen when also this generalizing tendency has reached its ultimate limits, too? Or there do not exist plasticity any more? We might guess that the whole universe is developing so that there are at last the fulfillment of all laws and the death, because there is not any more fluidity or accidents.

Is this exactly same what we have read from the seventh ENCY about Herbert Spencer's cosmology, and, especially how matter changes from the state of homogeny to the state of coherent heterogeny. From C.S. Peirce's letter to Christine-Ladd Franklin which is dated on the 29th August in 1891 there is an argument that matter is a kind of dead mind, and a suggestion that we are living right now partly in spontaneity which resists laws which have not yet reached their full conformity, and only partly according fixed habits. I shall return to the letter in question also later in the current study.

Short overture on synechism

We have been discussed on synechism at an earlier stages durin the current study but now we must study the topic more closer. I think that there are several associative connections to C.S. Peirce's cosmological views, and fot that reason I have included the theme under the main title cosmology

C.S. Peirce has derived many of his terms from ancient languages, and synechism is not an exception. As he has stated it: the word synechism has been derived from the Creek ΣΥΝΕΧΙΣΜΟΣ, whose English form that word in question is, and that Creek word in question has its origin and roots in the word ΣΥΝΕΧΗΣ, which means continuous. But there is a larger meaning by that English term synechism, which signifies to the general tendency in C.S. Peirce's philosophy that regard everything as continuous. By the new term he considered existing isms saying that for two centuries we have been affixing -ist and -ism to words, in order to note sects which exalt the importance of those elements which the stemwords signify. Thus materialism is the doctrine that matter everything, idealism is the doctrine that ideas are everything, and dualism is the philosophy which splits everything in two.

C.S. Peirce has given us as information that he has been endeavoring to develope this idea a long time, and he has also written some of his results in The Monist. He insisted further that continuity governs the whole domain of experience in every element of it. Accordingly , every proposition, except so far as it relates to an unattainable limit of experience (which he has called by the term absolute) is to be taken with an indefinite qualification; for a proposition which has no relation whatever to experience is devoid all meaning.

I will emphasize just here that most philosophies have produced a lot of speculation on the true essence of the world but I think that there are certain, perhaps originally human antitheses. Thus, on the one hand you can see (if you want to) the world as ideal in its nature, and on the other hand you can see it as material. But what about physicality and psychic phenomenons? C.S. Peirce wanted to root up also physical and psychical controversy insisting that all phenomena are such of one character, though some are more mental and spontaneous, others more material and regular. Still, all alike present that mixture of freedom and constraint, which allows them to be teleological or purposive. It is no wonder that C.S. Peirce has argued for, too, that there is no fundamental difference between a self and another self.

And then there is the question of larger personality. It seems obvious that C.S. Peirce has wanted to broaden the barbaric conception of personal identity quoting a brahmanical hymn in *Collected Papers* as follows:

"... I am that pure and infinitive Self, who am bliss, eternal, manifest, all-pervading, and who am the substrate of all that owns name and form".

continuing that this expresses more than humiliation - the utter swallowing up of the poor individual self in the spirit of prayer. I think that he might have derived some elements from hinduistic philosophy to his synechism.

But there is the question concerning the rôle of man in the whole development of the universe. C.S. Peirce has argued for that:

"... all communication from mind to mind is through continuity of being! A man is capable of having assigned him a rôle in the drama of creation, and so far as he loses himself in that rôle, -no matter how humble it may be, -so far he identifies himself with an author".

And there is the question on the relationship between waking and sleeping. C.S. Peirce has suggested that:

"... When you sleep, you are not so largely asleep as your fancy that you be".

There must also be discussion on the nature of immortality, to which C.S. Peirce has suggested to, when studying that possibility in carnal,- social,- and spiritual consciousness, and when referring to Edward Stanton's and Freytag's books for further information:

"... synechism refuses to believe that when death comes, even the carnal consciousness ceases quickly. How it is to be, it is hard to say, in the all but entire lack of observational data! Here, as elsewhere the synechist oracle is enigmatic ... But further, synechism recognizes that the carnal consciousness is but a small part of a man. There is, in the second place, the social consciousness, by which a man's spirit is embodied in others, and which continues to live and breathe and having itself being very much longer than superficial observers think ... A man is capable of a spiritual consciousness, which constitutes him one of the eternal verities, which is embodied in the universe as a whole. This is an archetypal idea (that) can never fail; and in the world to come is destined to a special spiritual embodiment".

Walker Percy has considered the difference between mental and physical and emphasized there especially the role of Rene Descartes (1596-1650) and his categorization of the world to the departments of res extensa and to res cogitans, and his proposition that only the God know what one had to do with another. Percy has referred to English nominalism which has split off the words and ideas from things. He continued, that there is also difference between European materialism and idealism. Let us remind what C.S. Peirce has proposed for the invalid nature of isms and ists in his synechism. But further: more interesting at this context is what Percy uttered on dyadic and triadic. According to him there are not one but two kinds of natural events in the world. One of them is dyadic and the other is triadic. In addition to this there are also complexus of dyads which associate to conditioned learning by animals.

But there are also other themes which can be associated to the principle of synechism. C.S. Peirce has described feeling, knowing and willing as the three integral states of mind according to Immanuel Kant and Hegel. The doctrine and principle of synechism gives also support on that very fact that we cannot produce any remarkable views on reality without other people which refers to sociability and that we must suspect strongly the possibility that there existed that kind of individuality that were rather independent from other individualities, that is, that there were single truths, which were independent and something in themselves. In addition to this, we ought to expect that the difference between mental and material is not at all real one. If we think the essence of man, as sign of signs, that we have discussed at an earlier stage in the current study, or the sociability of man and his concepts, there are certain consequences of them.

As an concrete and illustrative example of this, C.S. Peirce could not work not quite alone or develop his ideas. I refer especially to his correspondence with William James and others. But why this correspondence is so important? First, there is that very fact that if correspondence has continued for years, and there is a friendship, too, we may expect that letters join to each other as a kind of cumulative and interactive conversation. Secondly, at C.S. Peirce's and James' age the correspondence had more important role than now, and it has also really shaped both philosophers and their thoughts. Thirdly, we know that James and C.S. Peirce did not send to each others only letters but also some manuscripts and articles, as well as books. For example, from Collected Papers we know that James has read that C.S. Peirce's manuscript which is known by the name Telepathy and he also has made several marginal notes on it.

But what an earth does this theme of telepathy at this context? Especially when we discuss pragmatism which has been considered very empirical and also as very pragmatic in its nature? We know that especially what concerns the questions on religion and metaphysics C.S. Peirce, as well as other pragmatists kicked very often over the traces. J.E. Smith has written that when C.S. Peirce studied the questions of the philosophy of science he also studied the existence of God, and he tried to use the theory of hypothetic reasoning in the questions of religion.

From A.J. Ayer we get to know that James was influenced morally and intellectually strongly by Henry James Sr. so that James was during his life a deeply religious person. There were several consequences from his religious attitudes, and his acceptance of those proofs which he regarded acceptable almost without critics. From A.J. Ayer we know that nobody could challenge James, what comes to his vividness and large imagination, and the freshness of his sense of humour. But when he tried to get more audiences than his colleagues had, he emphasized mainly those vivid and (psychologically) influential features, and not the features which could force his audience to get more critical attitudes. He was apt to maintain his own attitudes, too, and he appreciated also the philosophy which was a kind of view of life.

But what seems to me very important is that both William James and C.S. Peirce have tried to synthesize different areas of human knowledge together, and seek tendencies between them which are syncretistic, and on the other hand, live and flexible. And just this tendency and strive is the very heart of the doctrine of syncretism.

Cosmology of classic atomistic philosophy

I think that originally there were not very fundamental difference between atomism and idealism. I mean that by both of them it have been considered that there could be something eternal which belonged to eternity, and that there was something which existed only temporarily. But there were also differences between these views, too. By idealism it has been regarded ideas as eternal and true ones, and material bodies as temporary and finite. By atomism it has been emphasized that atoms are eternal, moreover the universe, too. But atomistic philosophers have thought that there cannot be find any eternity with cosmos, and idealists have thought that there might be eternal ideas beyond materia. Both idealists and atomistic philosophers have agreed to that human beings are unable to reach some parts of the reality. But again, there were not disagreement with the question that there is human reason.

We can speak a kind of a Peircean view, too, which tried to connect both idealistic and atomistic views. It denied the everlasting existence of eternal atoms, and that there had not been any beginning. By Peirceans it has been suggested that there are objects which influence to us but those objects are well-developed, as well as organized. There have not been any organized matter at the very beginning of the development of the universe, but instead simple feelings which were quite diffuse, as we have seen earlier during the current study when discussing C.S. Peirce's views on cosmology. By Peirceans there will be, in the course of the development, the final goal and such formations as the law of final causation, which are not at all material ones, and which make possible that we can have any development at all.

We may suppose that order in the universe is nothing but simple atoms which are eternal ones, and that there are also blind tendencies, which will be born quite automatically, and will do so over and over again, and there will be exist all kinds of aggregates of atoms which way be regarded as complexes. But we have, then, that very hypothesis, or interpretation, that tells us this state of things and it cannot be derived from aggregates of atoms, themselves, as our hypothesis says them existing. Another kind of view is that there must be something which originally causes all the development to happen in certain way, and perhaps maintains it; so there must be also certain final goal which explains all the things which has taken place before. And again, we have quite new hypothesis at hand, notwithstanding whether it is true or not. Further, we can make a proposition that whenever we have some hypotheses, we shall have also quite new isms as a consequence of them in future. But what are the consequences if we accept the hypothesis which leads to atomism? Let us study that ism first.

J.C.A. Gaskin has written also that the very first advocates of atomistic philosophy were Leucippus (5th c. B.C.) and Democritus (5th c. B.C.). From Democritus we have got only few writings. But we know that Epicurus got his influences from Diogenes Laertius who collected philosophical anecdotes, and also bibliographies; we have from Laertius the collection of three letters and forty short writings. But in the best way that atomistic philosophy was presented by Titus Lucretius Carus (c. 99-55 B.C.) in his *De Rerum Natura*. In addition to this, we also know the collection Vatican Sayings which were written later, and were founded in 1880. Hence, we do not have much literal remains, as a whole, concerning atomistic philosophy.

In the cosmology of classic atomistic philosophy there was room enough for reason, and that in the idealistic tradition there was that presence of matter.

J.C.A. Gaskin has written that in the atomistic system of Epicurus (c. 300 B.C.) and of Titus Lucretius Carus the universe consisted of bodies and void, that is, of material things and emptiness. The former ones can be perceived by senses, but the latter one is a space, where material things can move and where they have their location. That emptiness is still something which is out there. The classic atomistic philosophers regarded cosmos as a relatively stabile one, and they thought, too, that cosmos consisted of configurations of material things which could not last forever, however. Anyway, they accepted that there could exist rational cosmos. But configurations should be spread out there into atoms soon after they were no longer be able to maintain their existence as configurations. This kind of erosion of cosmos shall take place continuously in the universe, as well as new configurations shall emerge from simple atoms. The classic atomistic philosophers thought that the total amount of atoms must be infinite, that is, that atoms themselves are eternal ones. But some of their configurations, as cosmos, for example, cannot be such one, notwithstanding that it seems to be a part of the whole universe. And in the universe there cannot be any beginnings or ends in it, or any centrum and fixed boundaries.

But there still exists the problem I tried to illustrate at the beginning, namely, that if we regard these sentences as hypotheses, we cannot make sure that the world is alike them. We cannot prove e.g. that atoms are eternal, or that all species of cosmos are absolutely finite. Further, we cannot prove that there were states where there were no kinds of reasons in the world, but only simple atoms. But if there were only single and separate atoms, there must be some principle, by which atoms are separable, and not interacting with each others, as well as there must be a principle by which atoms have an individuality, by which it is possible to call them atoms for example a principle of being infinitesimal. And there must be a principle of eternity, too, by which they are in certain state of being eternal in a such and such way.

7. On grand cosmogony and nomological psychology

When C.S. Peirce gave lectures at Lowell-Institute 1892-1893 which were named The History of Science, and where he also presented some traits of his grand cosmogony, which was to come in future. We know that C.S. Peirce has emphasized the view that what has been perceived, is also something which is continuously growing, and that the human thought has been developed from generation to generation, and will be. He regarded that development as geological successions. He argued for that the development was seen clearly at art, religion, and politics, and at certain institutions. but also in individual minds and organisms, where this development can be seen, too. They have produced that which is to come to actual existence, crystallizing all the time the fundamental laws of matter and the mind. And for those preparatory stages and prerequisites we can also wait to come in future such as grand cosmogony, which can be called the philosophy of creating.

This kind a view seems to me quite an identical to which we know as Aristotle's first philosophy. Let us remind what we have discussed at an earlier stage in the current study that C.S. Peirce tried also to formulate a kind of high philosophy when he considered the relationship between logic and metaphysics. So, it seems to me quite evident that he wanted to outline a system which consisted of different levels, and one of them, namely high philosophy, linked the whole system to the level of ordinary life and experience.

But there is also the classification of nomological psychology by C.S. Peirce which he obviously aimed to be a hierarchy where he could put most of his philosophical findings. He has used here the term nomology which refers to the theory, and which in turn refers to the general legitimacy. I will present his nomological psychology in a nutshell already now because I shall refer to it repeatedly in the current study:

GENERAL PSYCHOGNOSY

Families:

Essence of Mind and the Law of Final Causation (non-biological), phenomenological pneumotology.

How Final Causation works on the development of biological stocks.

How Law of Final causation can be applied to biological individuals and their consciousness.

Demonomy:

Applications and associations as professions, etc.

Subfamilies of general psychognosy:

General Laws of Concert and Strict

Apply to these principles of special phenomena as constitution of society and law, also the wealth

NOMOLOGICAL PSYCHOGNOSY OF SPECIAL PSYCHOGNOSY

Treat Laws of Mind; association subordinate to the General Principles of Causation.

Families:

Study of the Great law of Association (fusion) or mutual attraction of all ideas (as analogy to gravitation in physical world)

Subfamilies of special psychognosy

Association per se

Association as modified by association:

Habit, imagination and vividness, generalization and reasoning, recognition and belief.

The Laws of the Growth of Mind in Individual and in the Society or Stock:

Relating to general laws; growth of morphogeny; growth of consciousness of mind; laws of growth of social consciousness.

Study of the connections of body and mind

Subfamilies of the connections of body and mind:

Elementary Laws:

Psychophysics, sensation, volition, impulse, control, controlled volition.

Laws of Peculiar States of Mind:

Dissolution and double consciousness, credenciveness, suggestion, passion.

8. On science

C.S. Peirce and Aristotle

Walker Percy has written:

"... The great contribution of Charles Peirce, a rigorous scientific realist, was that he preserved the truth, as he saw it, of philosophical realism from Aristotle to the 17th century, salvaged it from the medieval language of scholastics which is now all but incomprehensible to us, recast it in terms familiar to scientists, to the most simple-minded empirist, and even to us laymen. It, Peirce's realism, cannot now be escaped or fobbed off as scholastic mumbo jumbo".

There are also other references to Aristotle as an influential figure to C.S. Peirce. For example A.J. Ayer has proposed for that C.S. Peirce appreciated Aristotle's philosophy. But what are these influences? We know that C.S. Peirce has presented first the truth tables, and that he has discussed widely on logic, and its positive nature.

Aristotle has, in turn, developed syllogistic logic, but in addition to this, he has brought into use variables which suggest to that there are some vivid elements in the world, too. Then there is that Aristotle's idea of the change from potentiality to actuality, and the idea that all of the possible essential forms shall become to existence. There are such causations as material,- formal,- and final ones. These ideas can be associated to C.S. Peirce's cosmology, as well as to his nomological psychology which we have discussed at previous chapters.

Then there is that Aristotle's idea that soul cannot be considered as substance but as a function of body, and as its shape but there are different levels in it, however. Robert E. Gringer has described how Aristotle divided soul to three different levels. There is Anima which stimulates plants to grow and gets animals and human beings to build up such as they are; it also causes that they are reproduced into new generations. Then there is Sentient Appetive which includes such things as feelings, hope and movements. And finally, there is Rational which exists only by humans and makes him the highest living form on the earth.

Plato and Aristotle have also made a classification what comes to the levels where human beings perceive their experiences. First. They can perceive their instincts and feelings. Secondly. They can also perceive spiritual level such as perseverance and heroism. These previous two levels are common with humans and animals. Thirdly. Only man is able to reach Nus, which is pure reason and being inseparable part of the universe. Human beings cannot have reason before they are adult persons. Aristotle emphasized the meaning of the whole experience in the development of human beings, because he considered soul as a goal to where all the development is oriented to. Soul is not something apart from the wholeness, in spite of that we use education for developing it. Plato considered education something which helps soul to realize that just it is soul. I propose for that some of C.S. Peirce's influences from Aristotle came from that dimension. But there are differences, too. C.S. Peirce did not advocate for an axiomatic ideal of science, and he didn't regard substance as a fundamental category, as Aristotle did. And we know that Aristotle regarded the system of biological organisms unchangeable, and there was no place to evolution in it - which a view C.S. Peirce did not advocate for.

The role of future in knowing and crystallization and plasticity of science

From Charles W. Morris and Israel Scheffler, as well as from C.S. Peirce himself by his *Lessons from The History of Science* we know that the true science must concentrate to the useless things, because the useful ones are studied and carried on just without consultation of scientists. And from Israel Scheffler we know the proposition that C.S. Peirce considered science the most rational of all enterprises a man can have. He proposed for that the only thing which makes the continuity of the whole human race valuable - is just that rational ideas can developed, as well as the rationalization of meanings between objects and things shall advance further and further. I think that these comments indicate to a similar conception that Aristotle had on the question of the difference of theoretical and practical sciences.

Let us remind that C.S. Peirce has regarded science as an organic phenomenon, which is, in the same time, a kind of form of life, whose name is knowing and who operates analogically as an organic body and it's limbs. And there is also the continuous competition where those wretched human beings take unlawfully to their own use the knowledge which has laid on somebody else's shoulders and who have been unable to defend it. But on the other hand there becomes also gradually to existence the mind, or the heart of science which will be crystallized, and become into the non-personal one in its nature. He argued for that knowing must be recognized as a form of life, which will be, in future, finally get rid of errors, but that form of life do not yet know of what kind that final form of life is to be.

Let us also remind that C.S. Peirce has considered the role of future in the whole development of human knowledge, or in knowing, very important for example in his article "What Pragmatism Is". But there are also other literal contexts, where C.S. Peirce has argued for that future is the goal to where knowing is orienting, e.g. in the introduction of the book *A Treatise on Cosmology*. It seems to me that the essence of the human knowledge is that it takes advantage with time, and the most advantaged forms of that knowledge could not at all exist without time. But time is not fixed one, and this, in turn, means that past and present are relative to future, which concerns the functioning of human thought.

Let us remind what C.S. Peirce has proposed for the necessity of human knowledge and scientific passion as a consequence of certain material conditions. Let us also remind what C.S. Peirce has urged for the existence of generalizing tendency, especially with the human mind. An interesting question is that are there similar remarks concerning the relationship between these necessities, generalization tendencies and future with other pragmatists, and other philosophers? The answer is yes, because from S.K. Wertz we know that both William James and Ludwig Wittgenstein have used the term *craving* suggesting to our striving for generality, and that James has described in his *Sentiment of Rationality*, too, that [as a consequence of that craving] theoretic function is one of the most invincible [unconquerable] of human impulses. But when the conception of the universe as a unique fact is nearest its perfection, the craving for the further perfection the ontological wonder sickness arises in its extremest form. James has described philosophy and metaphysics as passion, too. From S.K. Wertz we know, too, that Wittgenstein has used the term *craving* in his *The Blue and Brown Book*, as well as in his *Lectures and Conversations*. As we can see, both James and Wittgenstein has nearly criticised that craving for generality, as a source of misunderstanding but instead C.S. Peirce has tried to emphasize its decisive role especially in future orientation.

C.S. Peirce has argued for that the modern time is the era of methods, and due to them such branches of science as mathematics and astronomy has got a new kind of expression. So has undergone transformation such sciences as linguistics, history, sociology, biology and mythologies. I want to emphasize that these are no dead structures, and there are not one and the only methodology which C.S. Peirce has offered to use. But what about general principles, then? C.S. Peirce has proposed for that in science there are such general principles, in spite of that we can state them in different ways. And there are several methods, as well as systems of doctrines. But is this same that Morris L. Bigge has presented us when discussing logical empirism and how it is emphasizing of the hierarchy of science, where there are objective sciences which can measure things better than lesser reliable sciences? Not necessary. There is an idea of change, fluidity and transformation in C.S. Peirce's philosophy of science, and he has seen the whole science as an organ.

But has C.S. Peirce described living organisms, because there are such qualities as an ability to behave, and an ability to take roles, for instance, as discussed before? C.S. Peirce has emphasized that those branches of science, as physical chemistry, archeology, and alike, are not only words but also objects who have their concrete way of life, where the social group of facts maintain in their relationships to their objects. He has compared them to the functions of human body; sciences are living and active in their very essence.

C.S. Peirce has also suggested that different branches of science can overlap each others. He has used there similar terms as are used in the set theory, namely inclusion, intersection and exclusion. But there are also present the activities of interaction and behaving. One branch of science can act upon as another branch of science. In addition to this one branch of science can influence to what kinds of problems shall be risen in another branch of science. One branch of science can also study some areas from which others are not interested in, and later they may feel that those areas are important ones.

Diffuse interaction of science

There must take in consideration that C.S. Peirce used a lot of examples of empirical sciences and of restricted, non-scientific circumstances when he described the development of different branches of science, for example. So, I study cursorily the methods which associate in specific and certain circumstances, which are constricted but can develop as the beginning of the new branches of sciences. For that reason I consider now those C.S. Peirce's descriptions, where he characterized methods in specific use and the questions raised there as preparatory stages of a new science. C.S. Peirce has written that such findings are Rankine's work with steam engines, which helped greatly to form the kinesthetic theory of hot gases, and also Hoff's findings which affected to the development of physical chemistry, and so on.

But there are another prerequisites, too. There must be present an expanding experience and knowledge of the world and its phenomenons, as a prerequisite for the development. C.S. Peirce has emphasized the importance of our expanding experience. He has argued for that by the ancient Hellenics it was not understood at all certain problems of thermodynamics because there were not yet steam engines. They could not either make questionable the world view of Ptolemaios, because they had not yet the equipments which Galileo Galilei had used. But in Philodemus' argumentation for induction we can see clearly that the reason for the simplicity, or narrowness of their science was not due of their methodology. It is because certain problems of technology were not yet manifested themselves in the ancient world.

Doubt in science

But in what way there can be any progression if all the knowledge which is crystallizing into some kind a compact heart of a science, then? There is also a kind of tendency of doubt which means that the world is not yet ready, or it is not ready at all. There is C.S. Peirce's letter to William James which is dated on the 12th June in 1902 where C.S. Peirce has described the stages by which the general progression of the knowledge takes its form. We might suppose that we have already such phenomenons at work as consciousness and we have some kind the mind at hands, too. In the first stage there is the fatigue, which is followed by the curiosity and as one of present elements also the doubt, from which it can be developed a new information, and also the new belief which in turn eliminates fragmentary. I will discuss this letter later in the current study, when studying closely Friedrich Hegel, because there is an opinion e.g. on Hegel's poor logic.

C. S. Peirce has regarded hypotheses as a kind of beliefs, too. They have a decisive role when we are getting more knowledge. When he has considered his second order of induction he illustrated the essence of hypotheses and suggested that facts are not the only way to reach the rightness. Hypotheses can form our earlier expectations, as we can find them fulfilled already, which means that we ought not to regard past as fixed one. But more important than this is that we set to our hypotheses their rightness by how well they define and can cause our thoughts in future.

It seems to me that the essence of hypotheses and theories is that by means of them we can both cause things to effect to us more and more, and that we become capable to construct more effective hypotheses, too. This means that we can use a mechanism by which that potentiality becomes actuality, and that we expand the mind so that it assimilates to eternal forms and laws more and more so that we can create different ages in future which favor different existences as we have now at hand. And these existences we can comprehend as matter which consists of habits. So we cannot speak about certain physicality which maintains itself to us from age to age but instead that there will be different habit takings in future which maintain themselves as a new kind of matter. Let us remind what C.S. Peirce has argued for, in his letter to Christine-Ladd Franklin which we have discussed at an earlier stage in the current study, and which has been dated on the 29th August in 1891 that matter is a kind of mind which has been dead. It seems to me that there is no doubt in regard of dead matter, and laws, which are fulfilled, but instead what concerns mind and thought.

Let us remind how Israel Scheffler has presented some of C.S. Peirce's arguments concerning the role of positive doubt in the development of human knowledge: a man can learn something making mistakes, as well as by positive doubt of twisted signs. A man is also able to separate from each other the doubts which may be false or imaginable, from the doubts which are right positive. Science has also clearly distinguishable human nature, and it is inspired with the method of the doubt and belief - which suggests to that we can have such beliefs, by which we can later also know something about the world, and that we can have very real things in front of us. C.S. Peirce himself has presented an idea of those false beliefs, or stubborn habits, or fictions, which are connected to an ignorance in the ordinary life, but they are familiar in science, too. Most of them are associated to the beliefs which have been generally, and without any doubt, regarded as true knowledge, and as truth, notwithstanding that they in fact are false. C.S. Peirce has also suggested to that we can win our twisted beliefs, habits, and ignorance by experience and reasoning, in the course of time, and then we can get those opinions which we cannot disprove any more.

But on what reason we need hypotheses and different explanations? Israel Scheffler has presented some of C.S. Peirce's arguments on the relationship of hypotheses and beliefs. Namely, if we really knew all knowable things we should not doubt, believe anything or make hypotheses at all. And what else is the doubt that we have observed that our explanations are unreliable ones, that is, the things we try to understand seem to behave quite another way than we have them explained.

But there must be some psychological irritation by us, or some kind of motive. In *Chance, Love and Logic* there is an idea of the irritation which is produced just by the doubt, and which is the only motive in that striving where we will find out of sure that we are believing to something (and not knowing), and that striving comes to its end, when there is no doubt left. Charles W. Morris has written that C.S. Peirce argued for that the function of thought is nothing more than to produce actions of habit; there are no so fine differences between meanings that there could be also differences between uses of meanings. And then there are their effects, and we should watch especially those effects which could be due of the effects of objects which our concepts has tried to describe.

There are certain similarities to Herber Spencer's agnostism, fro sure, but also to Francis Bacon's (1561-1626) *idolas*, as well as to David Hume's (1711-1776) skepticism, or agnostism, which we shall discuss later in the current study.

On Newtonian physics and indeterminism

C.S. Peirce has written on the relationship between our propositions and future also when criticizing Newtonian physics, and has emphasized the decisive role of future in human understanding, too, which we have already discussed at an earlier stages in the current study. He has considered future, as it is understood in Isaac Newton's physics, very important when we try to understand something but he regarded future at least as important as past. Both of them will fuse into a whole in the present, but so that fused something is not absolutely present. This in turn causes that we get to know something concerning the very distant future only by generalization. He has regarded Newton's doctrines of physics as a theory or hypothesis concerning especially to that absoluteness of both space and time. There is the fact that theories and hypotheses refer to the human mind, and not to the facts themselves, and for that reason, too, they can be regarded as substances which can be in certain relationship to each other. But why this idea of absolute is so important there, and are e.g. space and time really absolute?

Let us remind some topics on objects and their relationships to signs, which we have discussed at an earlier stage in the current study. From Charles W. Morris we get to know that C.S. Peirce argued for that we can reach only the effects of objects, not objects themselves. An further that we can only interpret those effects, and gradually develop our interpretations to the form of signs. So, we can interpret objects, as they come available to us actually, as given, because of those effects of them just seem to become from certain source but in the same time we can also comprehend our interpretations as something which are something more that they seem to be right now. Hence, we can expand that is given, or perceived by creating the deeper meanings of it, and then we can have more effects, by the enlarging interferences. But what about mind and thought, then? They are not consequences of our use of signs; instead they are non-functional and internal characters of the universe, by which potentiality can become to actuality.

But back to the absoluteness of space and time. C.S. Peirce has presented more of his ideas concerning Newton's physics. He has suggested, too, that Newton in his Principia maintains that time and space are substances, or in the jargon of French philosophers that they are entities. Newton and his contemporaries regarded that doctrine as a peculiar, definite and deliberate theory. That reason is that the laws of motion make velocity of rotation to be something absolute and not merely relative. Velocity is the ratio of the amount of time of a space displacement to the amount of time in which this displacement takes place, and therefore velocity is not merely relative; neither is a displacement in a space nor a lapse of time relative. And therefore space and time are not mere relations but are absolute subject or substances. C.S. Peirce thinks that this reasoning has been founded on positive facts of observation, and excellent hypothesis to account for the facts.

C.S. Peirce has studied Mach's conception, too:

"... Mach on the other hand lays it down as axiom that space and time are merely relative. No facts lend any support whatever to such assertion. The most that could be said, more than is really true, is that facts concerning the composition of motions of translation go show that space position has an element that is merely relative. Mach struggles to define angular motion as motion relative to the mean position of all the bodies in the universe that is not only struggling against all observation, and not only involve the absurdity that the centrifugal force of sling would be influenced by the angular motion of stars very away, and more influenced by more remote than by nearer stars, contrary to his own conception of space as an image of dynamical relations".

Let's take e.g. the concepts entity, observation, and positive facts, as well as centrifugal force, and absolute, and how they have been used there, and in other parts in C.S. Peirce's philosophy we might have some support to what Arthur W. Burks has written on the influences which C.S. Peirce has got from his work in empirical science e.g. to his concepts of laboratory mind and indeterminism, which we have discussed at an earlier stage in the current study.

We can state that C.S. Peirce advocated generally an indeterminism in his philosophy. John E. Smith has suggested to that he didn't accept those explanations where the probable state of things has been fixed before; that would mean that we have accepted beforehand what we will consider as truth and what we will reject as false; then we are going just to affirm certain model of explanation by our study but nothing more. So the models we have chosen will predetermine what we shall find out. But there are also certain nearly psychological states.

9. Positivism and empirism, idealism, rational realism, and naturalism in the development of pragmatism

9.1. Positivism and empirism

9.1.1. Positivism and empirism before 1913

On the early history of empirism and older positivism

We can trace the belief on the success of science and empirical methods almost to the beginning of the western philosophy. That belief was a reaction to Aristotle's axiomatic ideal of science he believed that every branch of science were rooted to certain axioms and universal truths. However, I suppose that Aristotle did not consider the reality as such as axioms but instead he wanted to describe what kind it should be if ever organized as systems and generally accepted as truth. I mean that if we ever want to explain something generally we must do it so that we don't prove every single sentence or every single claim as truth with empirical methods, because otherwise we certainly loose the view. Aristotle wanted to create a kind of method, or logical construction which were reliable in itself. An axiom in logic is such a sentence which we do not prove at all, and which is accepted as truth, and for that reason we can use it for deduction. What concerns science there we can claim that it would be perfect if the truly nature of it were axiomatic. That we cannot deny. But we cannot deny either that we have trusted our concepts and sentences as the carriers of truth during the centuries; that we have accepted the words of our languages reliable ones so that using them we can express truths.

But there is also another point of view. The reality in which we live is not at all axiomatic; it is vague and changing and we can also cause certain changes there. But the very nature of empirism is that we cannot strengthen our knowledge on the world only by its hypothetical formal structure; we must find out what kind are those things themselves we can reach. When we use the term positive we are very sure of it that there are real things in the world that our knowledge is dealing with. We shall return to the term positive, and how it has been used by pragmatists, later in the current study when discussing e.g. Auguste Comte's positivism.

Roger Bacon (1214-1292) was one of the predecessors of the new natural science, which was familiar with The Renaissance, and he anticipated those thoughts which were presented later by Francis Bacon and Leonard da Vinci. Roger Bacon has presented his ideas in his *Opus majus*, *Opus minus*, and *Opus tertium*. He has made several natural scientific experiments and he foretold e.g. that in future there would be constructed such mechanical things as aeroplanes and mechanical vaggons. He emphasized that there ought to use experimental knowledge and experimental study in the science, and he also emphasized that the knowledge achieved should help to master the nature. He got a lot of philosophical influences from his Oxfordian teacher Robert Grosstete (1175-1253) but also from that tradition which was developed by the Father of The Church Augustine Aurelius (354-430), for example.

But why we ought to regard Augustine so important? The answer is that his philosophy was a kind of mixture of Creek philosophy and Christianity, and because he has influenced strongly to them both. And seen as a whole; both of them have been, in a certain stage of history, as inseparable companions. We can say that Roger Bacon was at crossroads where on the other side of it were the thoughts of the ancients and on the other side the world of natural science which was just coming to existence.

Augustine got a lot of influence to his thoughts concerning neoplatonism which was a philosophical and religious system, chiefly consisting of a mixture of Platonic and Stoic ideas with Oriental mysticism which originated in Alexandria and are mainly represented in the works of Plotinus, (240-270) Porphyrius (233-305), and Proclus (410-485). Since 200 B.C. that school was influential, but the very originator of the school is considered Aristotle who was born in Stagira, and worked as a teacher in rhetoric in Carthage and later in Rome, from where he was invited to Milan in 384. There he became acquainted with neoplatonism by Bishop Ambrosius, and therefore he rejected also his earlier Manichaeism. But in Augustine's philosophy there are also influences from such Christian tradition which was not yet written clearly, and it was not fully developed which means that it was not canonized to which we know it now. We might say that neoplatonism has had a strong influence to the philosophy and mystics of The Middle-Ages. And what concerns philosophy during this age, we cannot talk about any pure influences. For example, Thomas Aquinas (1225-1274) who was the most famous of The Fathers of The Church, has got his neoplatonistic ideas just from Augustine, but he has derived some of his ideas also from Aristotle but not directly. Namely, Aristotle's writings had been known wholly by Arabic texts which says that only a part of them were previously known, as original Greek texts, or translations from those original texts.

But what kind was that neoplatonism. I will give a short example of it. Plotinus claimed that the eternal source of the all beingness is the infinite unity, from where all the variety emanates as light to an incompleteness and to indefinite. The very first source of that emanation is Nus which includes the infinite ideas; and it effects to the souls, and at last to the materia. The individual soul belongs in the same time to the spiritual and to the material world. These ideas which were presented by Plotinus became later a part of philosophy to many latter philosophers, and we can trace them also by C.S. Peirce in his synechism, where he has described e.g. carnal, social, and spiritual consciousness, and which we have discussed at an earlier stage in the current study.

Charles Hartshorne has appreciated Francis Bacon (1561-1626) one of the great names of empirism. We know that Francis Bacon has written a lot; there are such Francis Bacon's works as his Essays , and there is his The Advancement of Learning , his Novum Organum , and also his The New Atlantis . Francis Bacon stated as a goal of his literal and scientific work to advance the human knowledge and the restauration in science itself. He also thought that we can master the nature just obeying it, and that knowledge and power are quite the same thing. He believed that with science we can change better the poor conditions where people live, and he was in that sense the predecessor of Auguste Comte's positivism. We can say that Francis Bacon was also an advocate of meliorism which, as a term, has been used by Morris L. Bigge , too, when he described the essence of positive relativism, where he put also pragmatism.

Francis Bacon thought that we have certain idols (which as a word originally has signified, can be regarded as an image of god, and being used as an object of worship, because of the term idol also means false god (when seen e.g. from Christianity)). He presented several stubborn idols which prevent us to develop further. However, I think that the conception of false beliefs is as old as the whole mankind, at least since Gro Magnon was born and began to spread and shape his communities. Those ancient people must have make at least the difference between the false and real gods and accepted and denied habits. But if we discuss the civilized people we find Plato who had a different conception of false beliefs when he describes the human beings as the creatures who live in a cave and look changing shadows at the wall, which are reflection from the real world of ideas. It can be thought that there are also several other kind of false beliefs than which have been produced by gods, were those gods worshipped by own tribe, or by others. In fact, Plato's philosophy suggests to that all human knowledge is false one, not only what concerns gods.

Let us remind what it has been discussed at an earlier stage in the current study how C.S. Peirce has emphasized a portion of false beliefs, or stubborn habits in our knowledge, and how he has connected most fictions to an ignorance in the ordinary life, as well as in science, and to all the beliefs which were generally and without any doubt regarded as knowledge and as truth, notwithstanding that they were false. He seems to have emphasized the ignorance of the whole mankind, and argued for that most of its fictions are associated to those beliefs. It seems to me clear that there is the similar tendency between Francis Bacon and C.S. Peirce in this question.

Francis Bacon wanted to emphasize his inductive method. His theory on it has been said the theory of eliminative induction, and John Stuart Mill has been said to adopt Francis Bacon's theory to his rules concerning experimental study. But we won't consider the question of their relationship in detail just now. Francis Bacon said also that we cannot trust to our senses and make generalizations by them. In addition to this we cannot trust a such induction, too, where we list things at hands, which C.S. Peirce have described as rudimentary induction. Francis Bacon suggested further that we must step by step go on to more general arguments and to the right knowledge concerning the laws and the shape of phenomenons. He emphasized that we must classify, analyze and compare our observations and eliminate the competing hypotheses until we can get the right conclusion. C.S. Peirce has presented just similar ideas when describing induction and abduction, for instance. Obviously he seems to have considered those procedures Francis Bacon mentioned important ones.

But there are differences, too. But these are due of better mathematics and statistical theories, and especially due of the concept of probability, which were not know in Francis Bacon's age. C.S. Peirce has suggested that certain kinds of induction are statistical in their nature, that is, we cannot easily find any representative observation which in such were reliable one, and that we cannot rely on the predictions or verbal descriptions either - in spite of how logical they are, and how a compact system they seem to produce. He has emphasized in the third genus of induction that we must test a hypothesis by sampling the possible predictions that may be based upon it. But if we do not have any hypotheses in mind, or we cannot make any prediction, either, as we generally do by induction, we must use abduction, that is, we must find a hypothesis which explains the best way the surprising facts. I think that there are still some other features which must take account, for example that things may happen whether we make predictions or not, and if we have some consequences at hand they may be due of some other reasons we do not know. For these, and for other reasons, too, we must concentrate to the facts we can recognize, and try to see have them any consequences.

We can read at *Chance, Love and Logic* on the importance of practical bearings, or consequences of the predictions or descriptions we are able do formulate concerning the surprising facts we regard as such ones as C.S. Peirce has stated them in his famous pragmatic maxim. Shortly, it emphasized the I want to add to this that there must always be something which causes them to behave as they do, but we must reckon also that possibility that there might have become to existence quite new features into the world, due of the development of the mind and the universe, for instance. However, let us remind his letter to William James, which has been dated on the 13th March in 1897 and where C.S. Peirce criticized his earlier writings and their emphasis of practical results.

C.S. Peirce has regarded Francis Bacon as very scientific and experimental person who also died as a consequence of his last experiment. C.S. Peirce did not consider that very consequence very brilliant one but it proved the originality of Francis Bacon's intelligence. But what kind was that experiment. From the first *ENCY* we get to know that Francis Bacon studied how chicken would preserve in snow, and he died by the consequence of catching a cold during that experiment.

John Locke and pragmatism

Charles Hartshorne has regarded John Locke (1632-1704) as one of the great names of empiricism. Locke has written a lot of books which I discuss quite generally now. In *Two Treatises of Government* he has considered the philosophy of politics. There he has suggested e.g. that there is natural code of procedure which is independent of legislation. In his book *Some Thoughts of Education* he has discussed on education, and has emphasized that educators must take in account the natural development of a child. In *The Reasonableness of Christianity* he has discussed on the philosophy of religion. But the most important of his books is, however, his *Essay Concerning Human Understanding*, where Locke rejected philosophical speculation and tried to prove (against Rene Descartes) that we have no inborn ideas, when we are born, and for that reason our soul is then *tabula rasa*.

John Locke has made a difference between those things of outer world that we are not certain from all of provable things, such as mathematics, and he has put to this category also the knowledge of morals which we can prove to be truth. These thoughts suggest to Aristotelian differentiation between sciences. Aristotle considered the purpose of practical sciences to be as servant in human activities. Those practical sciences studied those things which could be in other way than they actually were. This suggest to the fact that things which those sciences are studying are not stable and they cannot be considered final ones. Aristotle suggested that this kind of sciences would be ethics and political science. If we think that axiomatic ideal of sciences Aristotle advocated for, we can clearly see that there is that element to prove something to be truth. And if we think that differentiation between theoretical and practical sciences we can catch something of it by that classification of Knight W. McMahon concerning C.S. Peirce's literal remains.

Another important remark from John Locke is that we can prove the existence of God but we cannot get a true knowledge on the characters of God. But at the same manner he seems to conclude that we cannot prove our mental images to be true because these are natural events which are covered by the natural laws. This could mean that mental images are inseparable part of the nature and for that reason we cannot force them to behave as mathematical creatures which have their own rules. Mental images are such as they are in a certain moment, and they are in this sense as given to us, and they can flow in a way they do as long as natural laws are in force. An interesting remark there might be a letter which has been dated on the 9th Juny in 1904 which C.S. Peirce mailed to John Dewey, and which dealt with the problems of normative science. There C.S. Peirce has suggested that it must be replaced by natural history. However, we must have there a logical context. And let us especially remind what we have discussed at an earlier stage in the current study C.S. Peirce's opinion on mathematics as a science, to which logic is not relevant, and that mathematics is quite different thing as logic, which in turn is experimental and positive in its nature, because it is common part of experience to all human beings. And further, logic tells us about the positive facts in the universe, and how they are organized in there.

This all could mean simply that the nature do not at all behave like mathematics, or it behaves so occasionally, but in addition to it also by innumerous other ways, too. This might be true because in mathematics we can produce only such mathematical creatures which are not in conflict with them which already exist and which can obey the rules. But this kind a situation is impossible in the nature; there is a continuous process where quite new beings come to existence with their new rules. Mathematics is something that is a kind of truth in itself, because its very nature is to be provable and create proofs. If there were no need to prove something to be true or valid, we should consider mathematics as a simple game, or as a special kind of world which has no external connections and interferences to our reality. But what seems to be sure is that the truths in mathematics are not something given, as many cases in nature are.

John Locke has considered the task of philosophy to study the origin of human knowledge, its character and extension, and he has emphasized there the natural reasoning. Natural reasoning is something which is just according to natural laws but still it can have something by which it can evaluate the target. And that means that there must be certain tendencies in the nature which makes it possible. There are some connections to C.S. Peirce in this questions, and we know that he also recognized quite well that influence from Locke.

From a letter which C.S. Peirce has mailed to Mario Calderoni approximately in 1905 we get to know that C.S. Peirce appreciated John Locke, to whom he referred in that letter, as well as to Locke's famous Essay - especially to its IV chapter. Let us remind what we have discussed at an earlier stage in the current study C.S. Peirce's thoughts concerning the decisive role of the human mind in the development of the whole universe. Let us remind C.S. Peirce's synechism, too, and that possibility in carnal,- social,- and spiritual consciousness which we have discussed on the 6th chapter in the current study, but also elsewhere.

Let us remind how Robert E. Grinker has described Aristotle's and Plato's conception of soul on the 8th chapter in the current study. It seems to me that John Locke, as well as Plato and Aristotle have suggested to the same thing when they described soul, and it is not probable that Locke did not recognize that soul must have some lower levels, too, which are prerequisites to the higher development of it, and which are present at birth. I think that when Locke described soul as tabula rasa, he referred to the absence of the higher levels of it at the beginning of the development of soul.

John Locke has emphasized that we can have an instant experience only of our mental images, and because of that we don't have certain knowledge on the creatures and beings of the outer world as such. Locke has claimed for that all of the mental images arise from either sensations or reflection. If we discuss reflection we are studying far developed phenomenon in comparison to sensation. Anyway, we have a good reason to ask how those mental images can arise into our soul which is quite empty at birth? How we get us reflection? Who is perceiving sensations, and how that somebody can develop from emptiness, and shall recognize those mental images as informative? And what kind a difficulty would arise on the question of meaning there, if we think that there can be any meanings in nature as such?

But what about natural law and the meaning? It might be true that the beings of the nature do not come to their existence for that reason that the nature is going to prove something, e.g. going to prove that it is capable to create different beings, and that it will be valid and reliable at the end. If we think the concept of natural law and the meaning we might to refer to those cases in which something takes place notwithstanding the presence of human beings. But if we think about human beings and their rationality we must conclude, however, that human beings belong to nature, and they are, as they are and become to more than they are, the essential part of nature. Without the aid of natural laws they could not be the beings of nature at all?

But is there in nature another similar rationalities, as known by human beings, then? Accepting that also human beings can be covered with natural laws we must decide if there is also some other kind of reason which is characteristic right to man, and can it be considered natural, or not. That is, are there certain tendencies which can be explained only by the existence of human reason, and are there some special mental equipments which only the human reason can use? There is the question on how natural laws will cause the expansive development of the whole nature.

Let us remind what C.S. Peirce has told in his letter to Christine Ladd-Franklin which has been dated on the 29th August in 1891 at earlier stage in the current study about the role of feelings at the beginning the whole development of the universe. There was no reason, and no laws, and in a way the whole quasi-world was empty which does not suggest to that there were nothing, just to that there were no other kind of natural causation but simple and temporary connections between similarities. Hence, at the beginning there have been only simple phenomenons, feelings, and at that time this has been quite natural, because these kind of things were tend to join to other similar things. But there were no meanings, yet. And no other kind of phenomenon was not at all possible, either. But these things have been natural at later stages; there have been simple

instincts, or tendencies, and in the course of the development the human mind, too? As we can remind C.S. Peirce has emphasized that point of view as true one, namely that science, for example, is an unavoidable consequence of certain physical, chemical, and biological prerequisites.

But right now, in our modern world, there are several cases where somebody is trying to prove and explain something, as well as there are still such phenomenons which seem to be purely given. It might be proposed for that these new features are as natural as the previous occurrences of simple phenomenons. And we might also suppose that there must be certain interference between both of them. But it is quite acceptable as an idea, too, that something, which can be considered the most developed being, as infinite and eternal soul, can never explain us himself or itself so that man, who is dying creature, could understand him or it clearly. We may dispute endlessly if God can be regarded as natural cause at all, or if God is only necessary hypothetic construction in philosophy or religion. We know that there are thousands of things which can be understood quite well by man, and that animals have some abilities and senses by which they can get that information from the world we never can have, as biological, unchanged, and natural beings, in that sense. But still the remaining question is what is the meaning of things, and how well things can be understood. Must we conclude that all the meanings are only the human words and ideas which have certain interference to natural cases? John Locke has tried to solve the problem of meaning saying that the use of words is to be sensible marks of ideas. He argued for that the ideas they stand for are their proper and immediate signification.

But does this indicate that whenever we use our words it refers to the presence of ideas, too? Are all of our words such that we can be convicted that they indicate to the true existence of some idea? Let us remind what Walker Percy has proposed for at an earlier stage in the current study: there two kinds of natural events in the world, namely dyadic and the other kind ones triadic. But there are also complexus of dyads used by animals. It seems to me that those complexus of dyads are predecessors of the more complicated triadic events. If we try to prove, as John Locke, that there are natural laws and natural events, we must connect the meaning to mental images which come from reflection or from our sensations. Locke has regarded both reflection and sensation as natural events. But there are still several questions as open. If we put reflection that something is going to organize itself in mind, and that there are also sensations present, we make no difference between animals and man. These connections may take place also when dealing with complexus of dyads which are used by animals.

In triad we must have an agent who uses certain symbols, namely man himself. The question of single mental images and sensations is not important, if we think those phenomena which can come to existence quite freely in the nature because both of them are connected to the two kinds of natural events which have been discussed by Walker Percy. But why? Because if we use that expression of natural, and accept that the meaning is something larger than an image, or a sensation, we are able to get the essence of nature, too.

However, in single triads they are just special kind of natural events, but because they are meanings, too, they are more than something right there. Hence, we can easily present certain images or ideas by an art, and by literature, for example, as well as we can discuss our experiences, thoughts and ideas, and get other people to understand them.

However, we do not have such mental images which can hold some meaning as the same notwithstanding of different situations and contexts which vary and change, or in spite of more general changes which explain that mental image to us, and which effect to the meaning, for sure. That is, if we have received our sensation in different contexts, how can we make such mental image which explain them all so that there is no doubt about the validity? We simply do not know what of our senses have been decisive when we have got a mental image to which we have given some meaning, and we do not know if it is right one at all? And what about our memories and dreams, then? The essence of natural events is just change, and if we use nothing but the simple mental images which are connected to simple natural events, we are not able to reach more universal structures of the universe, if they exist. Hence, there must be in the nature such more general principles, or tendencies which human reason can take advantage. But this means that mental images we have got are not like unchangeable entities but instead we must conclude that they cannot stay untouched, and that they must interact with each other somehow.

We can also say that we have in the same time one of the possible meanings in hand. But this does not suggest to that illusion that we had some meaning in itself, as an entity. We are approaching very Peircean view there, and his emphasizing to the sociability of the language and human beings as a whole, where no single mental image cannot as such contain some stable meaning. The decisive elements of stable meanings are such as e.g. ability to interference, habit taking, generalizing tendency, by which our senses are shaped to receive more selected and stable sensations. But what about the relationship between materia and its effects to us?

But what are the necessary conclusions of that? Mental images, if they are not like entities or if they are not something which has been given in predetermined way, are not able to contain the stable meanings, because they are something interpretant, and no signs. Thus, any kind of a meaning is not same as those complexus of dyads, as such, but instead in their expanding and changing relationships as triads. And this is the very essential character of the whole universe.

This kind a view of instant experience and the instant connection of the meaning to it, as discussed previously, is at certain points quite similar to the view C.S. Peirce advocated for. Namely, we cannot escape certain intimacy, instancy and presence of our experiences which can guide what we are able to understand and how we shall advance in our enterprise in knowledge. But there are no direct interpretations on experiences as such, and they do not contain as such any meanings, either. C.S. Peirce has argued for that we can make perceptual judgments if we are going to know something concerning our percepts. We can perceive different influences and that something resists our strivings, or that it is organized in certain way. We can see all that as totality, too. What he has written concerning perceptual judgments does not describe what we are actually perceiving. But this is not the whole story, because all we are perceiving is also a kind of totality which we can call the percipuum, which in turn means that there is something which forces that perceived something will take certain form which we cannot call into question. There are certain physiological processes to which we cannot do a much, as well as there are hallucinations and false percepts.

But what about William James? From Charles W. Morris we know that William James emphasized that in function there is thought as participant by that role which it is playing, and by that function percept has been differentiated from thought. We can think that thought has a task which explains it, and the concept of thought is a kind of percept, too, because it is explaining other percepts, but it can have to them also other relationships. However, the scope of thought is expanding when it is changing more and more abstract, and more and more general. But these general tendencies could not mean anything to us, if we were not able to build them meaningful ones as persons. William James has argued for, too, that always when we are intellectually dealing with a pure experience, we are doing so because we can get more pure experiences, and in the same time we can get more and more concrete levels of being.

William James has also written that knowledge and truth express themselves as those relationships which concepts and percepts have, as well as by those states of things which are born as results of our person-guided activities, and which are present, too, when we are studying those results. In this way percepts, which describe cases, are an essential part of a follow-up system, by which a concept-guiding apparatus can see causation in empirical world, and by them can guide itself further in personal manipulation of that reality.

I think that this William James' view emphasized the mutual dependence of concepts, percepts, thought, and person, and there are certain similarities to C.S. Peirce's percipuum. But I think that right there we find a certain link to Aristotle's concepts, namely to his Anima, as well as to his Sentient Appetite, especially where C.S. Peirce has discussed how we perceive and get percepts, especially when he presents purely physiological prerequisites to the formation of the percipuum. Let us also remind what has been said at an earlier stage in the current study concerning the role of those elementary prerequisites in the whole development of science and scientific passion which suggests to that there might be way out of percipuums, too. Later in the current study I will discuss in detail the different forms of percipuums, in regarding of time.

David Hume and pragmatism

As a rough estimate it have been proposed for that David Hume's philosophy is a modification of Lockean empirism. Charles Hartshorne has appreciated David Hume perhaps the most important of English empirists. But for what reason? We can find quite similar philosophical tendencies also elsewhere. Hume has regarded philosophy as science on the human nature, but so did also Plato, who has argued for that the most noblest of all things is the study of man. And there has also be found a tendency of skepticism in Hume's philosophy; his famous thesis is that skeptism is the only one of the right philosophical attitudes. And again, there is also René Descartes and his Cartesian scepsis which he has presented in his famous Discours de la méthode.

David Hume has influenced to other philosophers in certain other fields in philosophy, too. Namely, when he adopted an utilitarian orientation on the questions of ethics emphasizing the benefit of the society, which in turn influenced to Jeremy Bentham's (1748-1832) and John Stuart Mill's (1806-1873) philosophies and to Adam Smith's (1723-1790) economical theories. But these, and also another influences between those philosophers are nothing but a rough estimate by which I want to say that we cannot present all of their ideas as their own. There are a lot of fine-tuned nuances which I do not discuss right there closely. And there are also different interpretations of the question concerning originators of certain philosophical ideas. I want to take an example of this. From Henry Sidgwick we get to know that we cannot regard Hume as an originator of utilitarianism but instead Cumberland.

When David Hume considered induction he proposed that we believe in it by habit or routine. Why so? The possible answer is that he considered causal reasoning the very original form in thinking, because it has been connected to the ordinary life. But does this mean that the meanings have their origin with habits? If there are events which repeat themselves is the meaning of them connected with their recurrences? This is certainly not the case, because Hume argued against that the recurrence of events would be as the good explanation of them; this is the case also with the ordinary life and common sense. We must keep in mind that there are recurrences and habits also in the human mind, which are rather as barriers to the further development, especially when we try to understand something whose own habits are partially unknown. And we might also say that from old habits in the human mind will emerge the new habits and they will expand until there are new ones which overrun the old ones.

But what about skepticism? In general, there are several reasons for the skepticism if we maintain in our mind only those habits which can produce nothing but similarities. David Hume argued against the proposition that the reasoning by which we get causal laws were logical but he supposed that this reasoning would expand our knowledge to the things which we have not yet discovered. There we have similarities to C.S. Peirce's ideas concerning the expansive development of human thought. We might say, too, that there was an emphasis of agnosticism in C.S. Peirce's philosophy, as a whole. Let us remind what J.E. Smith has suggested for the reason of his indeterminism that he didn't accept those explanations where the probable state of things has been fixed before, and we must not accept beforehand what we shall regard as truth and what we shall reject as false. I think that this comes very near to Humean agnosticism and skepticism. Let us remind, too, what we have discussed at an earlier stage in the current study on C.S. Peirce's indeterminism. Hence, we can conclude that C.S. Peirce has derived his agnosticism from David Hume. I shall return to this question later in the current study e.g. when discussing Auguste Comte's indirect influence to William James' philosophy, and also elsewhere.

David Hume argued for that there are instant impressions and that other ideas in the mind can be reduced to them. But are there any similarities to C.S. Peirce's conception? Let us study the question more closely. C.S. Peirce has described experience by Kainopythagoran categories, where there are monad, dyad and triad. The category of monad includes such experiences which can be perceived without any inconsistency, notwithstanding that there did not exist any other perceivable things. The category of dyad includes both somebody who is perceiving, and perceived object in a direct observation. The category of triad suggests to understanding, and to experiences in which different experiences are joined together.

C.S. Peirce has described how we perceive e.g. purple, and how we experience that quality. There is no beginning and end when perceiving, or the continuity where we could experience both concept "purple" and pure color, and still that purple is that color what has been seen. But we cannot observe the quality of sensation, in its all pureness, because in our sensation there are several other elements present which modify our sensation and feelings. Because our sensation is restless, and there are several disturbances, it is clear that how we can qualify our sensation is all what we can know about it. This qualification of sensation is, in itself, simple, and it is not object, and it is not connected to any special object, either, but it is a state of consciousness. But the quality instead we have got, can be connected to objects, and we are able to give to it different meanings.

However, there are not present any generality, because we can make recognition both with good or less good knowledge, and these do not effect to our sensation by no way. There is a difference between mathematical hypotheses from whose qualifying elements we have no experience and ordinary experiences where our sensations are essential. We can use sensing e.g. some color as a part in our knowledge, as well as we can join its quality to objects which we can use, as characterized by this way, in our logical reasoning. By that way we are doing with mathematical hypotheses, notwithstanding that we have no sensations of them in the same way than we have sensations of colors, for instance.

Are there any similarities to John Locke's conception of mental images? I think that is more closer to C.S. Peirce's conception. Let us remind, too, what John Locke has claimed for that all of the mental images arise from either sensations or reflection. S.R. Vaughn puts it, that the expressions have certain meanings because of they indicate to definite ideas in the mind of speaker [ideational theory]. The word definite and also the words the mind of speaker suggest to similar tendency which we find, in another sense, however, in C.S. Peirce's philosophy when he has described our sensation and their qualification, and that we can use in our understanding only qualities not that we have just perceived as such. But we may also conclude that without impressions, which a term David Hume has used, and their continuous instancy we had not got any ideas of them. And we know, for sure, that we have now certain ideas, notwithstanding have we impressions of them right now, or not. We have also dreams and illusions which can refer to quite similar ideas as our actual impressions. However, we cannot speak about the meaning and the essence of them like entities or substances.

As we have seen, David Hume has presented that ideas can be reduced to impressions. From that version of Collected Papers which was edited by Hartshorne and Weiss we get to know that C.S. Peirce did not anchor his argument to the statement that abstractions must give an account to themselves, and that they must do it in terms of concrete experience to older empirism. In older empirism it has been considered that abstract generalities could be affirmed in terms of mere qualities of sensation and emotion. There seems to be no room for reduction in C.S. Peirce's philosophy. Let us remind what C.S. Peirce argued for: all that we can get are those qualities which are not the same as our restless sensations which are not connected to certain circumstances.

I think that this argument is not very Humean one, because we have that David Hume's sentence that there is no demarcation line between ideas and impressions. This kind a view also C.S. Peirce advocated for, in a measure, as we have seen at an earlier stage in the current study, when discussing e.g. his doctrine of synechism, but we also have become acquaintance with the fundamental difference between perceived things at an instant experience, and the synthesizing tendency of association, or consciousness, which a view he also advocated for.

David Hume has considered human individuals as a bundle of collection of different perception, which will succeed each other with an inconceivable rapidity, and they are in a perpetual flux and movement. He considered also the mind as a kind of theatre where several perceptions successively make their appearance, pass, re-pass, glide away, and mingle in an infinite variety of postures and situation, etc. William James has included this Hume's opinion into his Principles of Psychology. But what about James and Ludwig Wittgenstein? Let us remind a remark of M. Fairbanks who has proposed for that both James and Wittgenstein emphasized that we live in the world which is full of vagueness, which is a thoroughgoing epistemological state by all human experience.

But if we think these Humes sentences above, should we conclude that he was an evolution philosopher? J.C.A. Gaskin has suggested for that there are certain evolutionary tendencies in Humes philosophy, and he has cited also David Hume's book, namely Dialogues where there are quite similar ideas we have been discussing. Gaskin has emphasized that these ideas have been presented a nearly hundred years before Charles R. Darwin's famous The Origins of Species .

David Hume's certain themes can be connected to certain C.S. Peirce's views. C.S. Peirce has regarded the role of the human mind very important in the development of the universe, for its plasticity and for its fluidity, too. And there are certain evolutionary tendencies in C.S. Peirce's philosophy, which we have discussed at an earlier stage in the current study. But there are certain differences, too. If we are discussing human beings as actors in a kind of performance theatre, as David Hume has suggested for, from C.S. Peirce we get to know more positive, and melioristic conception of the drama of creation in his synechism, where "actors" are identifying by their rôle to "author". I think that these are rather cosmological characters of the human mind, and we have also some features which were present at the very beginning, too, namely feelings which have nowadays certain roles in the development of the human consciousness.

C.S. Peirce has given us also more special information, especially what concerns two kinds of intensity of feelings, and he has named the intensity of altersense to vividness which helps us e.g. to remember our recollections as real as they were, and that there is also a kind of changing perspective, when meeting again the things which have been remembered such and such. The intensity of consciousness "lays hold" of the feeling, which makes e.g. the ticking of a watch actually heard infinitely heard more vivid than a cannon shot remembered to have been heard a few minutes ago. But how is it possible "lay hold of the feeling" if feeling, in itself, does not have any specialty, or it cannot be recognized as a specialty? David Hume believed that instant impressions can, as such, produce more developed ideas in one or another way, and that ideas, when comprehended, must be in a continuous interaction with instant impressions. In addition to this David Hume has argued for that since all of our perceptions are different from each other, and from everything else in the universe, they are also distinct and separable, and may be considered as separately existent, and have no need of anything else to support their existences:

"... They are therefore substances, as far as this definition explains a substance".

David Hume can be regarded as an advocate of associative theory, and they have denied the existence of substantial mind, as we know from M.P. Ford. But for what this refers actually? I think that if we say that the mind is not substantial, we consider it something which is changing, and becoming to something, as well as our associations can vary a lot. There are any definite structures in them, in a sense that we had found the final explanations. According to the very nature both the mind and associations they cannot be explained by any distinct and separable perception, or referring to them but instead by ideas. But they must have some connections to instancy, too.

C.S. Peirce did not consider ideas as substances, or something like separate reality. We must return to his concept of feeling for explanation. C.S. Peirce has described feeling itself as continuous recollections which are inseparable until they shall be picked into pieces by reflection. C.S. Peirce has also discussed on vividness with abstraction, where one idea can have its vividness increased giving an upward impulse to number, or other ideas with which it is connected so that it forms one set with them. However, I do not think that C.S. Peirce has suggested for that there is nothing more, and that e.g. those sets were to be reducible to sensations by which they have been produced which a view he rejected. There must be considered future and its role as explaining and directing dimension, to where all things are oriented to.

But I want to emphasize once more what C.S. Peirce has argued for the different roles of feelings at an earlier stage in the current study. We must also remind what he argued for the original role of feelings in his cosmology in the current study; that originally just feelings began to interact and produce similarities, and gradually also dissimilarities, which much later become the targets to human understandings. Right there we have that total vividness and presence of the world. But there are some other important aspects, too, what concerns both vividness and doubt. Let us remind, again, what Charles W. Morris has written on C.S. Peirce's claim about the nature of objects; that we cannot know directly the objects but only the effects of them, and our concepts are due of those effects of the objects. I think that this means simply the fact that we are receiving those effects continuously, and we are not separated from them when we perceive and judge our perceptions.

C.S. Peirce have discussed the concept of continuity just by his concept of feeling, especially when he considered the role of it in his three states of mind. Feelings have a similar role as in the continuity of the world evolution, as a media which creates and keeps on continuity, but it has also certain new roles. For example, there is a sensation which is not a feeling but an element of it; when they have joined to each other we are able to be somewhere in the course of time and we can sense the assertiveness of feeling. We have discussed that role of feelings before but right now in the connection of continuity. It seem obvious that also ideas can take advance of that continuity. Let us study closely two sentences In Chance, Love and Logic . One of them is:

"... A Continuum of ... feeling, infinitesimal in duration, but still embracing innumerable parts, and also, though infinitesimal, entirely unlimited, is immediately present. And in its absence of boundedness a vague possibility of more than is present is directly felt".

But we find also another sentence in Chance, Love and Logic :

" ... in the presence of this continuity of feeling ... there /can no/ ... longer be any difficulty about one idea resembling another, when we pass along the continuous field of quality from one to the other and back again to the point which we have marked".

I think that this means that ideas has certain startpoint, or continuous birth, or being in continuity, and we can imagine that without that continuity they would not enlarge themselves at all.

I want to propose for that there are not much similarity to Hume's impressions, in spite of that there is that very moment what C.S. Peirce has emphasized, during which we can join to the world, as well as our ideas seem to take advantage with an instancy, too, but by qualities which are not same as monad experiences, and we must remind that those monad experiences are not restricted in any way.

Auguste Comte and pragmatism

Auguste Comte (1798-1854) has been regarded as the originator of positivism. The term positivism in turn has been originated from the name of his *Cours de Philosophie positive*. Comte believed that man, who has an autonomous reason, can develop himself and society without any restrictions. The first steps of the technical breakthrough which were taken at Comte's era seemed to offer reason enough for a kind of optimism; Comte supposed that if man knew the laws of nature, he should master it; knowing those laws he was going to be able to regulate nature better and better. Comte believed that there will be the final positive stage in the development of science, as a whole, and correspond to it there will be an industrial society, where scientists are as the clergy in The Middle-Ages.

Auguste Comte suggested that there are three main stages in history which he illustrated as teleological, metaphysical and positive. There are certain synthesizing tendencies in history which he considered the general ones. For example, he supposed that polytheistic religion will be replaced by monotheistic religion, and it will be, in turn, replaced by metaphysical philosophy, that is, by philosophical speculations. In the course of time those philosophical speculations will be replaced by science, and by scientific way to think. In addition to these tendencies Comte made a categorization of sciences: there are sciences from abstract to concrete, and they can be seen as a system, where the highest level is that positive one. He suggested for that mathematics can be seen as an example of those sciences which has achieved that highest positive level. He supposed that sociology will achieve that level lastly. All that indicates for that Comte's aim that it must be denied metaphysics and instead to create monistic system in epistemology.

There is a similar emphasizing, as by Auguste Comte, concerning the stages in the development of science and human knowledge in C.S. Peirce's philosophy. As we have seen at an earlier stage in the current study, C.S. Peirce has used that example of geological succession concerning the development of the branches of science in his lectures at Lowell-Institute during the years 1892-1893, as well as he has discussed the birth of the heart of science, and other similar themes which refer to Comtean philosophy.

But if we think pragmatism and its direct philosophical references to Auguste Comte's own positivism, we do not have much evidence of that influence. However, there is something. Let us remind how C.S. Peirce has regarded logic as positive, because it tells about positive facts and how they are organized in the universe, and how C.S. Peirce has used that term when discussing Newton's physics which we have discussed on the 8th chapter in the current study. C.S. Peirce has not always used the term positive when discussing methods used but facts, or surprising facts, which both lead to the new hypotheses; they can be regarded as positive ones, too, because of their experimentality. I think that this is the main orientation by C.S. Peirce, and much smaller question there is that are we dealing directly with those objects or with the effects of them. In addition to these, I think, there can be found several other references to positivism as a doctrine, or to the positive facts.

But what is important is that there are also references to those philosophers who have adopted Auguste Comte's ideas. We know much more about those influences and the influences which pragmatists have got from other Comte's counterparts. Thus, we can claim that there might have been those general influences. We can be sure of that pragmatists have known that idea of positive science, and that there are those positive facts which can be tested. But as it has been said, these influences were also inseparable part of other philosophical influences they got, and for that reason it is difficult to prove one philosopher as a main source of influence. Hence, I want to discuss the general influences between philosophers during Comte's era, and later.

First, there is the most evident fact that Auguste Comte influenced several philosophers during his lifetime, and has done so also later. From the most encyclopedias we know that one of his followers was John Stuart Mill, who was in his younger days an advocator of Jeremy Bentham's utilitarianism, too. Later Mill became an advocator of Comte's positivism, but he can be regarded still as a kind of phenomenalist and empiricist. If we want an evidence of the positivistic influences, or their interpretation in Mill's philosophy there is the fact that John Stuart Mill wrote a book which concerned Comte's positivism.

But what about John Stuart Mill, Jeremy Bentham and other philosophers? Henry Sidgwick has given a description that Mill has tried to establish a logical connection between the psychological and ethical principles, which a view he shared with Bentham. All of this was connected to the principle of universal hedonism. Henry Sidgwick has suggested, too, that notwithstanding that Mill has developed Bentham's doctrines he didn't accept them as such. However, there is the fact that in that time there was a large discussion concerning ethical and moral questions.

But we cannot say that these were the only influences that John Stuart Mill adapted from his contemporary philosophers, when developing his ethical, and other theories. Let us remind what I have said at an earlier stage in the current study about David Hume, whose utilitarian orientation on the questions of ethics influenced to Jeremy Bentham's, as well to Mill's philosophies, as to Adam Smith's economical theories. From Henry Sidgwick we know that Hume criticized Smith's certain conceptions. And there were other critics, too.

John Stuart Mill, who was employed The East-Indian Trading Company during 1832-1838 and 1843-1848, wrote in his *Principles of Political Economy* on Adam Smith's and Ricardo's economical views. But there is also his book *System of Logic* where he has emphasized the role of induction in scientific study. It seems to me that there have been a lot of philosophical interaction concerning the questions of economics, too. In general, there seem to have been a lot of discussions concerning society, economics, ethics with an utilitarian orientation during that time.

From John Dewey we get to know that William James has derived some of his ideas from John Stuart Mill which I shall discuss a little later. But James has got some of his influences from positivism by those philosophers who have been known as advocates of evolution philosophy. We know that James appreciated especially to evolution philosopher Herbert Spencer, who, in turn, has got a lot of influences from Auguste Comte's philosophy, and who has suited Comte's views into his own philosophy. From the first and seventh ENCY we get to know that Spencer has also derived some of his philosophical ideas from John Stuart Mill, as it has been proposed for, but also from Scottish philosopher Sir William Hamilton, as well as from David Hume and Immanuel Kant.

we know that William James has appreciated Herbert Spencer but he has rejected coarse-grained positivism as a doctrine. Thus, we can conclude that James was not an enthusiastic advocate of that positivism. From the first ENCY we know that James derived from Spencer three principles, namely, integration, differentiation and determination into his theory of the development of the knowledge. But are there other influences? Spencer's philosophy has been said agnostic which tendency may be Humean, as well as it may be derived from René Descartes. But the term in question can be traced till well into the hellenian world. From T.H. Huxley we know that the Creek word agnostos (Theos) means unknown. Anyway, I am inclined to conclude that there is quite clear Humean tendency both in James' and C.S. Peirce's philosophies, but we know it also from John Dewey, too. But what concerns agnostic tendencies we find them more in C.S. Peirce's philosophy. Let us only remind what Israel Scheffler has said at an earlier stage in the current study about C.S. Peirce's model of the doubt and the belief, and science as social context, that there are several things which we can doubt, as well as there are things which we ought not at all to doubt. For instance, we can doubt personal motives of scientists, and their scientific findings, as well as motives of those who give a permission to scientific programs as politicians and economists but we must believe to man himself, and to science, as a whole enterprise, which is aimed to make our life better. But nowadays, I think, there are several reasons to believe that we ought not to trust to the current motives of science, and there is no room for meliorism.

George Berkeley and pragmatism

Charles Hartshorne has considered George Berkeley (1685-1753) one of the most important empiricists. That may be due to that Berkeley criticized that law of causation, and preindicated the critics which was presented later especially by David Hume. But Berkeley was also one of the immaterialistic philosophers, which refers, as a term, to idealism. His famous sentence *Esse est percipi* states that objects we perceive exist only when perceived. This means that spiritual existence and its width are prerequisites for matter, and in what measure there can be matter. Berkeley's statement has been sometimes interpreted that simply that there would be anything if there were nobody perceiving. But this kind a situation could be possible only if there were no underlying spiritual principle at all. For that reason Berkeley stated the principle that there are potential existences. The actual reality where human beings perceive several things is due of that self-reflection by God. This means that there must be somebody who perceives himself continuously, and this kind an existence must be spiritual one. Berkeley wanted to deny that matter and abstract ideas would exist in themselves. George Berkeley has published *Treatise Concerning the Principles of Human Knowledge* , and also *Three Dialogues between Hylas and Philonous* , where he has presented his ideas.

From the first ENCY we know that George Berkeley visited also in the New World and he influenced to Samuel Johnson, who accepted his views but argued for that there are also abstract archetypes which can be conscious. Maybe this information is not essential for the purpose of current study but we get to know, at least, that Berkeley was known in the New World before C.S. Peirce's philosophical career. Let us remind that C.S. Peirce has used the term archetypal idea in his synechism, referring to spiritual consciousness of man.

From John Dewey we get to know that William James's philosophy has had a close contact with George Berkeley's philosophy. Commonly we can argue for, too, that there are some common features in Berkeley's and C.S. Peirce's philosophy. We get to know from a letter C.S. Peirce has mailed to Mario Calderoni approximately in 1905 that he appreciated George Berkeley as the one from whom he got the most brightest influences.

There are some indicators to this. For example, let us remind C.S. Peirce's letter to Christine-Ladd Franklin which is dated on the 29th August in 1891 which we have discussed at an earlier stage in the current study, and where he argued for that matter is a kind of dead mind. He suggested that we are living right now partly in spontaneity which resists laws which have not yet reached their full conformity, and only partly according fixed habits. Those habits and generalization shall grow and develop continuously from spontaneity; it can be said that they grow by our function, and gradually we have those more and more fixed groups of habits, notwithstanding that they have originally been derived from the world of pure chance.

This a view suggests to that the mind, when expanding and developing, produces such habit takings which are, in the course of development, more and more physical, or fixed ones, notwithstanding that they originally were fluid ones. In the course of time they will be merely spiritual, or like the human mind. But for certain, there will be another kind of physical nature we know right now, and, perhaps, another kind of physicality, too. But what is important is that there cannot be the whole spiritual being beforehand, and far before its becoming to existence, there must be complexity enough, as well as other prerequisites present. This suggests to that spirituality is, in its very essence, something that is continuously coming to existence - if there are certain stages in the development fulfilled, and that by it there shall be more and more stable habit takings, in other words, more physically measurable things which will behave in a predictable way.

But that spiritual element which is able to do this all is not material one. Let us remind again C.S. Peirce has suggested in his nomological psychology to that essence of mind and the law of final causation which are non-biological. Let us remind, too, what C.S. Peirce has presented at an earlier stage in the current study on the doctrine of synechism, as a whole, and especially that finally the whole universe will be formed to spiritual embodiment.

These, and some other arguments suggest to that there must be present both material and spiritual elements, and for that the further development that spiritual element is dependent of the state of material elements, where laws has reached their ultimate limits, and where they have got their fulfillment. But there is not a fundamental difference between George Berkeley and C.S. Peirce in a question, notwithstanding that the latter did not expect that presence of supernatural being from whom all is derived from. If we think that Berkeley's argument *Esse est percipi*, we can easily see that it emphasizes the human activity in quite the same way as C.S. Peirce has previously described the role of human function in the formation of habits and laws, and that there is always present that chance, too.

But, in general, it seems to me that C.S. Peirce has described the processes by which we get our signs, as well as he has emphasized that those processes are not important in regard of the signs we finally get. If we think William James' process psychology there, we can clearly see that he has described only those processes by which we get our signs, and when we are interpreting. There is nothing fixed, just the flow of our thoughts in our consciousness. James has described the development of self as a chain of past selves, or as series of experiences, or feelings and thoughts. He has emphasized such things as continuity, change, independence of objects, etc. when discussing thought. James has written that we ought to feel, as easy as we can feel "cold", such things as "and", "if" and "but". That is: we ought to have feelings also concerning our concepts.

I think that there are some very Peircean ideas. C.S. Peirce has emphasized the sociability of self arguing in his synechism for that synechist should not say that:

"... I am altogether myself, and not at all you",

and that kind of metaphysics of wickedness must be abjured, because, in the first place, because:

"... your neighbours are, in a measure, yourself, and in a far, greater measure than, without deep studies in psychology, you would believe! Really, the selfhood you like to attribute to yourself is, for the most part, the vulgarest delusion of vanity. In the second place, all men resemble you and are in analogous circumstances, in a measure, though not in the same way in which your neighbours are you".

It seems to me that George Herbert Mead had quite similar ideas when he described how we anticipate those social contexts where we shall use significant symbols, as well as those impacts which they shall cause in other people. And there may take place also such generalization in which different things can take also the roles which other things have within the same self. As an example he has referred to moral conflicts in which we have this kind of mutual conversation, where one part of it advocates for our hopes and wishes which an individual has, and where another part advocates for generalized others as social consciousness.

Charles W. Morris who has described some similarities between John Dewey and George Herbert Mead, has suggested, when describing their philosophical comradeship, that both of them have emphasized that we are continuously taking the roles of aliens, and that in that process symbols will express more and more their social nature, and that our understanding relationship is rather like drama than logical-relational in its nature. Let us remind what we have discussed at an earlier stage in the current study on what C.S. Peirce has suggested in his synechism, and which I want to repeat:

"... a man is capable to assign him a rôle in the drama of creation, and so far he shall lose himself to that drama, he shall identify himself with an author".

When C.S. Peirce has described continuity and suggestion, he has suggested that it might be derived by the nature of experience, and not thought itself, and also by the course of life. He has also described resemblance and suggestion, by which we get classes and sets, as well as potentialities. C.S. Peirce has also described in his experience and inference that experience is a sum of those ideas which irresistibly, emotionable and strong experientable have been born within our existence so that they overwhelm all freely playing thought accompanied by the tenor of our lives with chorus. This kind of suggestion belongs to the law of association with divide inference into inferences by continuity and inferences by resemblance. I think that those ideas which have been presented by Mead and Dewey are quite identical to those presented by C.S. Peirce, as ideas, or as principles, and what they actually express.

But what about the role of single persons especially when we are using signs? Let us remind what C.S. Morris has said on how C.S. Peirce has emphasized that the meaning of sign is only partly dependent of persons, and that object stands always before sign. We get to know further that the whole human nature is symbolic, and to that nature we cannot make any restrictions. But what is far more important is that the mind and thought are not results we get when using signs, because they are internal and non-functional characters of the universe.

But what about the role of metaphysics, and how it have been presented by C.S. Peirce? From Israel Scheffler we know that C.S. Peirce has argued for that we have a self which is not predetermined and which is not an entity, either, but which will be developed in social contexts and which will reach itself to the context and later outside of it. The spiritual development of the self needs a vision which is more than the self is at a certain moment in itself.

From Ingemund Gullvåg we have already got to know at an earlier stage in the current study that there is C.S. Peirce's article "Signs" in Baldwin's famous Dictionary of Philosophy and Psychology, which deal mainly with C.S. Peirce's thoughtsigntheory. I shall illustrate it with few words, and try to add to it his concepts of triad and dyad, which are two kinds of natural events. But this is not enough, and I shall introduce the concept of soul, too.

Let us remind first that also Charles W. Morris has referred to the article in question, and that we have already explained the theory through it during the current study. For C.S. Peirce sign was a fundamental category in human knowledge; it has three kind of characters, because, on the one hand, it is the result of the effects of object, and on the other hand their interpretations by person. And if they are interpreted by persons, they are interpretants. But actually object does not depend on any person, and the final meaning of sign does not depend either, on what kind of effects of objects persons have perceived. That is because, at last, interpretants become to signs ad infinitum, which an expression we can find at an article in question. And further at last sign becomes something which could be described man himself, because the whole human nature is symbolic, to which we cannot make any restrictions. There is also an emphasis that during the process there becomes gradually to existence expanding metaphysical spheres which will be created when human beings move to higher levels of understanding.

Morris has also referred to The Meaning of Meaning which have been written by C.K. Ogden and I.A. Richards . And in addition to this, he has cited C.S. Peirce's article "Questions Concerning Certain Faculties Claimed for Man", where C.S. Peirce has argued for that all that we can put to the category of thought, must also be expressed as signs. But what about dyad and triad? Let us remind what has been said about the two kind of natural events in the world, namely, dyadic and triadic by Walker Percy at an earlier stage in the current study. And what about the concept of soul, then? From Walker Percy we know that C.S. Peirce has used number of words to describe that entity which symballeins, or throw together word and thing; he has used e.g. such terms as interpreter, or interpretent, asserter, mind, "I", ego, and even soul. According to Percy they may or may not be semantically accurate.

What is interesting for us, is that the concepts of soul and interpretent have the same meaning. If we try to join it to what we know from Charles W. Morris of the symbolic nature of man, to what we have known from the doctrine of synechism, we have a creature who cannot have any fixed world before him. From that point the metaphysics which we have been discussing right now is not associated to that man is not quite well aware of what the world is like, but instead to that the world is becoming when there are any intentional activities.

But there are also other possible approaches to Berkeley, for example that rejection of dualism by William James and C.S. Peirce. James has argued for that mental and material are not in that kind of relationship that we could argue for dualism, and the difference between mental and material is not at all clear one. The mind is not such one that there must be certain world for it, which means that there cannot be any world in which there were no mind, and not struggle, by which we can apprehend the mind. Quite analogically C.S. Peirce has argued for that we are continuously reacting against the outer world, and our sensation consist of feeling but also of the sense of its assertiveness, or being compelled to have it; there is always present the compulsiveness of actual sensation. I think that he has described quite the same psychological aspects of the mind as William James has done previously.

But this is not so important, if we think C.S. Peirce's relationship to George Berkeley. This emphasizing of the role of will suggests rather to voluntary philosophy. From Charles W. Morris we know that Arthur Schopenhauer, as organistic functionalist, or instrumentalist, regarded intellect as a mean of organism, when organism is striving for something, or willing; will is something prius, and intellect, as its mean, is something a posterius. It seems to me, however, that both William James and C.S. Peirce has not been as advocates of that instrumentalism but they accepted the presence of will, as an important factor of the human mind. But pragmatists have believed, too, that there must be something more than that, too, as an example that social interaction of science and human concepts which C.S. Peirce, John Dewey and George Herbert Mead have especially emphasized, and that there are also other kind of tendencies present than struggle and pure willing.

What seems to me to be also important that both James and C.S. Peirce were inclined to deny dualism. C.S. Peirce has argued for that there must be always present an element of thirdness which Stoics wanted to deny, and that kind a view in turn prepared a way to dualism. He also presented some opinions on the nature of future and how we can reach it, and he argued for that we can use some kvasi-conjectures, or dreams when we are going to get future and when we use past as a kind of power. There is also present the process by which the ideas get larger extensions and deeper intensions:

"... There are the three elements of reality: that by which ideas spring up that have concealed within them accord with the mass of ideas; that by which one idea acts directly to another; that force from without that weeds out a part of the ideas and strengthen the rest".

If we think the sentence above, and all what we have said before, there are indicators to the view, which can be expressed with George Berkeley's sentence *Esse est Percipi*. There shall become more and more references in the course of time, by which we shall have new kind of existences, as well as new surroundings. And for that reason, we must also have a future orientation in our knowledge, and not derive our ideas from the past, or what we imagine to be present.

Jeremy Bentham and pragmatism

Let us remind few things which have been presented at an earlier stage in the current study. First, that John Stuart Mill was an advocator of Jeremy Bentham's utilitarianism, and that he developed it further. Secondly, that David Hume influenced Bentham. There is an utilitarian thesis by Bentham in *An Introduction to the Principles of Morals and Legislation*, which says that the ground of morals and legislation should be utility, and that governing principle there should be common pleasure and hedonism. From Henry Sidgwick we know that Bentham presented these ideas in question in his *Memoirs* but also something concerning individual pleasure. However, Bentham has not invented that principle. We know that the doctrine of hedonism has been derived originally from Epicurus, whose role in the development of atomistic philosophy have been discussed at an earlier stage in the current study by J.C.A. Gaskin .

In fact, I have not much to tell about those philosophical influences which C.S. Peirce adopted from Jeremy Bentham. Some of C.S. Peirce's commentators have suggested to that influence, however. As an example A.J. Ayer has proposed for that C.S. Peirce has got philosophical influences from Bentham, or that their philosophical strategies were similar ones. Both of them were willing to give several answers to an argument, and both of them were continuously seeking different points of views to any case they were studying. Let us remind how Arthur W. Burks has described at an earlier stage in the current study the whole edition process of *Collected Papers*, and how they found often several versions which dealt with the same theme, but any of them was not final, and it was not possible to imagine what kind a version should be the final one. Might it be due of the tendency what A.J. Ayer has just suggested for?

9.1.2. Positivism and empirism of the 20th century, and the demarcation line of 1913

On the beginning of logical empirism

There is a certain connection between behavioristic school and logical empirism, or logical positivism. Since in 1910 Wilhelm Wundt's pedantic study on sensations appeared to be as old-fashion one, and John B. Watson founded in the United States so called behavioristic school already in 1913. For the reason I have used it as a demarcation line between older and the new positivism. The other school, which was Max Wertheimer's school of gestalt psychology, was founded in 1910 whose other developers were Wolfgang Köhler and Kurt Koffka. Just that gestalt psychology has influenced strongly to the development of Austrian new school by Karl Bühler who was professor in Vienna, and who published *Geistige Entwicklung* which was a course book in the New Education institutes, from where also Wittgenstein qualified as teacher, and where he must read Bühler, too. From Ingemund Gullvåg we get to know that W.W. Bartley III has traced Wittgenstein's footsteps during his years as a teacher in Austria after the First World War, and that W.W. Bartley has suggested that:

"... the themes of the Austrian schoolreform movement, which were deeply opposed to Wittgenstein's early work, gradually and perhaps quite contrary to his intentions and expectations eroded his earlier beliefs and insinuated themselves in their place",

and Bartley mentions, too, that Bühler was the main source of Wittgenstein's change of outlook, although he also relates that Wittgenstein had no regard for Bühler but he called him a charlatan several times.

It is evident that Wittgenstein has studied also Köhler's and Koffka's gestalt psychology he referred to them in Philosophical Investigations, as we know from W.W. Bartley III who has pointed out that Wittgenstein used the examples of Koffka's, and that his certain ideas are similar as Bühler's.

But should we discuss now logical empirism, or logical positivism which seems to be another direction that gestalt psychology? The general aim of logical positivism was to get rid of metaphysics, because it has produced certain pseudo-problems. Logical positivists believed that if we can solve the principles of epistemology and logic we can succeed to overrun metaphysics. The epistemological monism would, in turn, produce that unity of science, and there would no longer be any room to the questions of value and metaphysics in science. From Morris L. Bigge we know that logical empirism, as Bigge calls the doctrine, the physical world which human beings experience by their senses, is a real one, and it has an existence, in spite of that there were no conscious human beings who will experience and apprehend it. Another claim of logical empirism is that in science, as a whole, there is a hierarchy, and on the top of it there are objective sciences, which are also, what concerns to their empirical methods, the most reliable ones. There is also a claim which says that if there is something we are also able to measure it. But there are other claims, too: that reality which goes on by natural laws, and which can be described by truth definitions, do not change, and in that sense laws are always evident ones.

Let us remind, as an introduction, what we have discussed Auguste Comte's philosophy at an earlier stage in the current study, because he has been considered as an predecessor of positivism. Let us remind, too, that interaction which took place between philosophers in Comte's age which suggests to the fact that most philosophers of his age tried to do a similar profound analyze and they tried to formulate a new method which they considered valid one. Hence, it is no wonder that also later logical positivism got lot of influences from such philosophers as David Hume, John Stuart Mill, and Ernst Mach (1838-1916).

Logical positivism got also influences from conventionalism which emphasizes that the meaning of things depends on conventions we have on those meanings, that is, meanings do not depend on supernatural, or natural sources. Conventionalism means also that we must have an agreement of what is truth, and that we must have common tools by which we prove things to be true ones. If we think conventionalism as a kind of theory which includes social relations, agreement concerning meanings, and that there must be interference between meanings, too, we can say that also pragmatism has adopted some features of conventionalism, and it is and advocator of it. From Ingemund Gullvåg we know that later Ludwig Wittgenstein has been considered as conventionalist by W.W. Bartley III. There is a similar emphasizing of the sociability of language, as well as the sociability of human knowledge, as most pragmatists had.

Logical positivism got also influences from those empirical methods which were in use on the both sides of the 19th and 20th centuries. From the fourth ENCY we know that it can be separated three emphases of the activities in positivism, and especially what concerns logical positivism, namely social,- evolutionary,- and critical positivism.

If we trace the other possible grandfathers of logical positivism we find also other schools which are oriented mathematically as logical empirism, and they can be in certain relationship to it. I will mention there one of them, namely, the school known also as Warsawan school, whose grandfather was Alfred Tarski, who worked in Warsaw as a professor from 1925 to 1929, when he immigrated to the United States. I refer Alfred Tarski's literal production only generally, because I do not study it in detail in the current study. But there is an idea, namely so called Banach-Tarski paradox which was presented in 1924. This paradox can vanish when we admit that such things as volume, mass and density can be applied only to certain mathematical entities because they are not physical objects. This kind a view concerning the essence of mathematics is similar one that C.S. Peirce has presented.

But what about other predecessors of logical positivism and pragmatism? From the first ENCY we know that Chauncey Wright, who has been known as evolution philosopher, presented in his writings such themes, where has been anticipated verification principle, pragmatic truth criterion, and naturalism. He also criticized those strivings, in which they tried to applicate evolution theory to the metaphysics explanations of the essence of the world. In addition to this we get to know, too, that Chauncey Wright was one of the members of William James' intellectual society, as we have seen at an earlier stage in the current study.

In some respects logical positivism seemed to have had same sources concerning philosophical influences as pragmatism. From John Dewey we know that e.g. William James had certain philosophical relationship to John Locke, David Hume and John Stuart Mill. And he had got influences also from Bain and Hodgson. He have had a close philosophical contact to English empirism e.g. when he was defining in a new way both the correspondence and coherence theories of truth by using, as his method, a pragmatic method.

Scottish Alexander Bain has insisted that psychological phenomenons can be reduced to brain functions. Bain has written on pleasure and pain in his Principles of Psychology:

"... Pleasure and pain, in the actual and real experience, are to be held as identical with motive power", and

Bain has also written them also in his Mental and Moral Science:

"... our pleasurable emotions are all liable to detain the mind unduly [trough the] atmosphere of excitement [with which they are surrounded, carrying the mind] beyond the estimate of pleasure and pain, to the state named passion [in which a man is not] moved solely by the strict value of pleasure [but also by] the encrossing power of the excitement".

Bain has also written in the same book:

"... acute pleasures and pains stimulate the will perhaps more strongly than an equivalent stimulation of the massive kind".

I think that there are certain similarities between C.S. Peirce and William James in the question of the role of the concepts we know as the passion and the will. But we know, at least, that William James has derived his association laws from Alexander Bain as well as from David Hartley, and that he has cited them in his famous *Principles of Psychology*. And from the first *ENCY* we have already known that in James' intellectual society there was also Sharworth Hodgson to whom Dewey has referred to in his article on pragmatism.

But there are also influences from John Stuart Mill and David Hume. We know that William James has used Mill's conception when considering together the concepts theism and materialism, and concluding that God has stated the absolute references to good and evil. As an illustrative example of this we can find in his *Pluralistic Universe* where he discussed e.g. the problem of the human suffering, as well as the role of evil in the world. William James has cited in his *Principles of Psychology* also some of David Hume's thoughts. But we must remember that these citations do not suggest to logical positivism as a doctrine, and that those influences James has got from Hume and Mill have been connected with a variety of contexts, and they are not aimed to be used as a supporting material to certain doctrine, such as pragmatic method, for instance. We may discuss rather certain strategy, e.g. skepticism, or a view to see, describe, or illustrate how things are in different situations, or how they can be perceived and apprehended in different levels, and that is exactly how their thoughts have been used by James.

Vienna Circle

The originator of modern logical positivism is considered Austrian Moritz Schlick who was as professor in Vienna; it is supposed that he was a founder of so called Vienna Circle. Schlick has a thesis that the truth is dependent of the equivalence between the facts and their descriptions. This suggests to the correspondence theory which, for example, was presented by Ludwig Wittgenstein in *Tractatus*. Bertrand Russell has written introduction to one of English translations of *Tractatus*. But there are also other important references, namely that Wittgenstein had owed *Tractatus* to his close friend, David Hume Pincent, who has died on the 8th March in 1918. Anyway, by the book in question Wittgenstein's name has been associated to Vienna Circle. We know that Wittgenstein started his studies in philosophy on the 18th October in 1911 when he became to Bertrand Russell's student at Cambridge, and that he had qualified as an engineer before. William James' *Pragmatism* has been translated in German by Wilhelm Jerusalem already in 1908, and during the same year there had been an international conference in philosophy in Heidelberg which concerned mainly pragmatism as we know from K. Oehler. But it seems to me plausible that Wittgenstein did not yet follow those conferences, because he was, perhaps, just planning to start his studies in philosophy.

But how we know that Vienna Circle ever existed? There are studies, for example *Werksausgabe* in 8 Bänden, where Friedrich Waismann (whose name has been associated to Vienna Circle) has explained Wittgenstein's role in Vienna Circle. I think that there is no need to discuss how decisive, or deep Wittgenstein's role was in the development of logical empirism, or doubt it in spite of that there are certain indicators that Wittgenstein didn't accept that his ideas were developed further in certain philosophical schools. And this was the case also what concerns his later philosophy. We know that later Wittgenstein's influence e.g. to the development of the philosophy of education was remarkable, which Ali Martin Allmaker, for instance, has described.

But back to logical positivism. Schick has suggested that physicalism would be the right solution of psychological problems. The most important task of philosophy was to analyze logically the propositions of science. There were as members of Vienna Circle also some mathematicians, for example Kurt Gödel who tried to prove (when he was just 25-years old) that the absolute truth in mathematics do not exist. Other members were G. Bergmann, H. Feigl, P. Frank, H. Hahn, O. Neurath and Friedrich Waissmann. In addition to these one of the members of Vienna Circle was Rudolf Carnap (1891-1970) who was an advocator of reductionism when he discussed phenomenal experience which is by him a start point when we outline the world for something. In classical atomism there had been an idea that reductivity but it didn't suggest to that there should be any explanation if e.g. cosmos were reduced totally to atoms. However, in existing cosmos there were quite possible to propose for that every cosmos will be die, and what will be left after that is, for its most simplicity, eternal. But what is important is that when reduction had taken place there were nothing conscious activities or reflection left which would understand what had taken place.

Rudolf Carnap has also presented the verification principle which says that the sentences are meaningful ones if they can be verified or falsified. This means that the form of the sentences must be such one that it can be used by logical operations, and if sentences used doesn't have that characteristic they cannot be proved as true, or as false. We know that Carnap formulated also so called antimetaphysical principle which says that every sentence in the natural language which cannot be translated to object sentence, according to logical syntax, cannot include cognitive meaning at all. But there took place a chance in his thinking when he studied language and its possibilities and its special characteristics. He tried to construct a very own language to physics as an example of those experiences which are not familiar ones, as some other own experiences of persons are. From Jerrold J. Katz we know that Carnap accepted that fact that in human contexts there are no object sentences, and because of that, there must take in advantage two forms of them. On the one hand there is that material form of sentences which refers to the things and objects which are experienced as actual, and to which we can give name pseudo-object sentences. On the other hand there is that formal one which refers to the linguistic constructions and relations.

From Jerrold J. Katz we get to know further that Carnap got his model originally to his syntactic from Hilbert's metamathematics but he wanted to expand it so that there must take two additional things in consideration. On the one hand there must be semantics which concerns the relations between linguistic entities and cases, and between things and objects in the world, where we must know the circumstances of their use, if we want to know if the sentences are true or not. On the other hand there is also pragmatics which includes such things as psychological motives and the reactions of hearers. There must be also syntactics, where we must get in use designation- and truth rules. But why this expansion, then? Because there is the fact that it is impossible to describe by the own terms of natural language, and what it may mean in every context. But what is important is that the situation does not get better if we succeed to describe the logical form of the sentences used.

The natural language is something larger and fluid one than syntactics, semantics, and pragmatics as such. I mean by this that the descriptions we are able to form, are systematic ones, and they emphasize that in sentences there must be systematic reason, and that there must be strivings for something, or motive. If we think syntactics, and its truth rules, our sentences may be true in that sense that they obviously seem refer to certain explanative circumstances, but in the same time they can be also false, because wish actually to refer by them to another kind of explanative circumstances, as we do when ironizing. We should have a rule which explain that tendency, and when we are making irony. Then there is also our "small talk" which seems to refer to certain circumstances, but actually does not that. What is the truth in "small talk"? Is it that our sentences do not mean anything more; that they refer only to this kind of nonsense pragmatic use?

9.2. Idealism and pragmatism

9.2.1. On the history and influence of idealism

Morris L. Bigge has described idealism, as a whole, that it considers the world as the universal consciousness, whose variants are substantial consciousnesses. But this says nothing about that how large the whole universal consciousness really is, or what kind are real and ultimate things, as they are themselves in the universe. Are they, as Plato says, ideas, or are they just simple atoms, as Democritus has argued for? The essence of atomistic philosophy is that there are two kinds of reality in the universe, namely chaos and cosmos, and that cosmos will exist only temporarily, and it is not as eternal as chaos and its smallest particles, atoms, which are eternal ones. In addition to this, let us remind our conversation on atomistic philosophy on the 6th chapter in the current study.

Objective, or absolute idealism, whose advocator is e.g. Hegel, and who has regarded the whole and objective reality as the reflection of Geist; there cannot be the larger objective reality behind that totality which we are able to apprehend right now and we can interact actively with it. Hence, some day we will become acquainted with things, as they are, because of their objectivity and their absolute nature. But there is also subjective idealism which considers the nature as the reflection of finite spiritual being who have no objective reality behind it, that it, behind the wholeness we know. George Berkeley and Immanuel Kant (in his critical stage) have been regarded as advocators of such idealism. Let us remind Berkeley's statement *Esse est percipi* which we have discussed at an earlier stage in the current study. But there is also German idealist Johan Gottlieb Fichte (1762-1814) who have been regarded as subjective idealist.

Idealistic personalism has an interesting relationship to idealism, because its variants describe how we can become acquainted with larger realities as persons. I will not discuss it in detail in the current study but instead refer for more information to the sixth ENCY .

Benedict (Baurd) de Spinoza, pragmatism and Wittgenstein

Benedict (Baurd) de Spinoza was a Dutch Jew of Portuguese origin, author of *Ethica Ordine*, in which he rejected Cartesian dualism of spirit and matter and saw only one infinite substance of which finite existences are modes or limitations. Further he urged in his *Ethica Ordine* for that there must be that basic concept the substance which implies to what has an self-existence and will be understood by that self-existence. This only one substance Spinoza called God, who has infinite number of characters, and who is the immanent cause of the universe and not the ruler outside it. But as human beings we do not know all of his characters but two of them, namely the thought and the dimension which are eternal and infinite in their nature, because they are the characters of God. In its individual form also soul is a kind of mode or limitation, because it can partly regarded as material one but there is no strict boundaries to that spiritual dimension of it. Hence, we can state that soul contains something of thought and something of dimension, as well as it has that finite essence.

But why our finite soul must contain both finite and infinite characters? Because one part of us must exist in finite collections or series of events, meanwhile that another part of us comes to existence to that spiritual dimension. There is the fact that Spinoza denied personal immortality and the transcendent distinction between evil and good. We cannot live forever as persons and as modes or limitations. Is there the fact that we cannot reach the essence of God at all, or that we cannot have any eternal life in heaven? We must reach in some or another way something of the reality of God because as persons, modes or limitations we cannot have any infinite existence. The substance of God must maintain his certain characters in finite existences,

notwithstanding that they are not such ones. Otherwise he could not exist at all in souls.

There are several competing things as the pleasure and egoistic strives between higher perfection which is the final goal of all souls. Henry Sidgwick have given some evidence to this. So, we cannot speak about our very own special personality any more if we consider our souls as the modifications of God.

C.S. Peirce appreciated Spinoza, as he wrote to Mario Calderoni approximately in 1905 . Let us remind, too, what we have discussed at an earlier stage in the current study C.S. Peirce's synechism which seems to me much alike as Spinoza's denial of Cartesian thought of difference between spirit and matter, and which emphasizes instead the unity of the world, and that we cannot reach the dimensions of infinite as persons but we must join to the wholeness of the world.

I think that C.S. Peirce has derived some of his main thoughts from Spinoza especially concerning the question of the larger cosmic nature of symbolic process and thus not only e.g. from Plato as we know from Charles W. Morris . From Charles W. Morris we know that C.S. Peirce has regarded symbolic process as a cosmic one, by which he meant that man is an inseparable part of that kind of symbolic process or teleology whose inner nature man will never be acknowledged.

Never be acknowledged? But why? C.S. Peirce has given some hints to them when describing icon, and he has referred to occult processes - which are deep in our being, as an essential parts of feeling, where we are directly confronted to the instancy, givenness and wholeness. One of our limitation is that we are not able to understand by analyzing the current wholeness to its parts. But afterwards, perhaps, when progression has reached its ultimate limits, we can make us clear those occult processes. But what about our concepts, then? Any concept which consciousness works out its experiences cannot be regarded the same by which a special consciousness seems to confront which it is knowing, and seems to explain it, but rather we must regard every concept as a living influence of diagram and icon to us. But icon cannot always be directly apprehended, notwithstanding that it were currently influencing with feeling-ideas.

Perhaps C.S. Peirce has referred to this when describing an occult nature of sets, especially when illustrating resemblance and suggestion and such classes as numbers, geometrical figures, etc., which we could call set whose name is mathematics. We cannot get experience from them but it could be supposed that they had their potential existence before calculation. Let us remind that Ludwig Wittgenstein has used quite similar concept, whose German name is Familienähnlichkeit which binds the components of concept to families of meanings. According to it, we can see manydimensional and complicated net of similarities regarding as well as big and little things.

C.S. Peirce argued for that we never get to know what that icon is, perhaps, but we can have a feeling for its presence, when we learn observe nature better. However, the plasticity of the mind is connected closely to the living influence of diagram and icon to us, and the mind is our way to join to the whole totality of living action of the world. And in general, the law of mind explains how feeling-ideas can be reached by the mind in the way that it can develop them to systems. Let us remind what it have been discussed at an earlier stage in the current study C.S. Peirce's cosmology and the plasticity of human mind. But let us also remind what Ludwig Wittgenstein has argued for the rock bottom and foundation of our concepts and different forms of life (Lebensformen) where any language game (Sprachspiel) is something which just is there as our life not as sensible or as proved to be something.

C.S. Peirce has argued for, too, that there is a larger cosmic process where the mentality and the mind are nothing but cases of it, and they do not overrun the rest of that all cosmic process. There are eternal forms and laws which make possible that potentiality can come to actuality, and revealed. Thought and mind shall be, and stay internal characters of the universe. But there are finalistic laws and causalities which in every time and age will favor certain existences and deny others. However, our mentality has its true existence in the world of final causality, and not in existences and strivings in such as they seem to appear and disappear, and change their appearance. Those single existences will only join to the flow of the river of causality and cases, and they do not stay as long as mentality and mind will do. We can say that mentality and mind, as cases in the phenomenon which can be called life, are cases in a larger processes.

Let us also remind what we have discussed at an earlier stage in the current study what C.S. Peirce has argued for in his nomological psychology and its general psychognosy that there are the laws which are not material ones. Let us also remind what C.S. Peirce suggested to the task of his grand cosmogony which he aimed to be as philosophy of creation. Charles W. Morris has argued for that C.S. Peirce regarded symbolic process also as something more than the means by which man will achieve the larger contexts of understandings. But there is also that conception of signs that they can develop further according to the laws of interference which is obviously linked to the association. Later I shall discuss in detail C.S. Peirce's concepts of the relationship between the laws of love and reason.

I think that in these, and in some other C.S. Peirce's ideas there are certain similarities to Spinoza's ideas. There are some lower levels in mans pursuit to the completeness of understanding. In that lower level the principle that the rational action follows is necessarily egoistic, and there is nothing but the impulse of self-preservation. From Henry Sidgwick we get to know that:

"... The individual mind, like everything else, strives so far as it is able to continue its state of being, and that effort is its very essence ... But the highest form of the self-realization or self-development consists in a clear comprehension of all things in their necessity order as modifications of the one divine being, and willing acceptance of all which springs from this comprehension ... This is the notion of self-realization as defined not only but for a philosopher".

William James has also emphasized that the whole cosmos might be something that we shall never know thoroughly:

"... The 'trough and trough' philosophy, as it actually exists, reminds many of us of that clergyman. It seems too buttoned up and whitechokered and clean shaved a thing to speak for the vast slowbreathing unconscious Kosmos with its dread abysses and its unknown tides".

As Spinoza has said to be urged for we do not know all of the characters of God but two of them, namely the thought and the dimension which are eternal and infinite. It seems to me that C.S. Peirce has tried to connect to each other the dimensions of thought and dimension and that he has derived them from Spinoza. Both of them suggest for that there must be present the thought and the dimension, if man wishes to expand his ideas somehow towards infinite, or his signs, as C.S. Peirce labels them. He has suggested that there are processes which are on the contrary position to each other.

C.S. Peirce has described the abstraction as a certain kind of an expansive process, or centrifugal tendency of thought. C.S. Peirce has also suggested for that there are also other kind of processes, and they are present when we deal with our ideas; that ideas must consist of large associations before they will be crystallized into the sets which remain such ones. In addition to these remarks C.S. Peirce has proposed to that associations, or sets of ideas are mainly something like inherited, spontaneously grown, and accidental ones. The rest of them depend upon the principle that ideas once brought together into a set so that they also remain that set.

There we have three different elements, namely that centrifugal tendency, associations and formation of sets, and that probably both of them function like natural forces, or according natural laws. But there is not yet the thought present as such, only the dimension, or some kind of expansion, or enlarging possibility. The thought is connected to the human mind which is participating to the whole progressive development of the universe. The thought is connected to human consciousness, too.

Hence, we can easily see that C.S. Peirce has described both the thought and the dimension, and that part of the function of the dimension which makes room to where our thought can expand itself, as well as the processes which make connections between ideas and creates the configurations of them, and by which we can have our consciousness and by which there will become to existence the human mind. But there is not, for certain, one and only principle, by which the whole reality shall be arranged but several ways by which to arrange. As the result of them we can get us something which is quite independent of the processes by which the result is produced. There must be the dimension which means the possibility of varieties, and in the same time there must be the thought which, in turn, means that between these enlarging varieties there can be developing and expanding triadic connections, as well as different levels, too.

Let us remind what it has been said in the version of Collected Papers which was edited by Charles Hartshorne and P. Weiss that abstractions must give an account to themselves, and must do it in terms of concrete experience. This argument, which has been advocated by C.S. Peirce, emphasized the concreteness of our abstractions, but did not do it by terms of older empirism. But does this suggest to that our thought is concrete in that way we can understand e.g. physical things right now? No, because it suggest only to that our abstractions must have consequences in empirical world. I think, too, that the answer to this depends on what we shall mean by concreteness in future. If we think that mutual interaction between our thought and experience have been, and will be inseparable during all the ages. We may conclude, too, that when we get advanced in our knowledge in future we will regard quite new things as concrete ones, and which may be as our hypotheses right now. The disagreement between C.S. Peirce and Spinoza associated to the question of the nature of the thought and the dimension, namely, that C.S. Peirce has regarded them inseparable, and that both of them are prerequisites to each other, and they are not as different categories.

Let us remind what we have got to know from Henry Sidgwick at this chapter that Spinoza's proposition that the highest form of the self-realization or self-development consists in a clear comprehension of all things in their necessity order as modifications of the one divine being, and willing acceptance of all things which springs from this comprehension. We get to know further that:

"... In this state the mind is purely active, without any admixture of passion or passivity; and thus its essential nature is realized or actualized to the greatest possible degree. We can see that man is forced to renounce the world which is accepted in the egoistic state and man must become an inseparable part of the totality".

Spinoza seems to have been thinking that there is one totality which we are willing to understand, and that the mind is purely active. Both that will and activity belong, as components, also to the three classes of mind which C.S. Peirce and some psychologists at his age, have described as consisting of feeling, cognition and volition (will). He referred to Immanuel Kant, as well as to Kant's philosophical grandfather Tetens, as well as to some ancient writers upon rhetoric who had described them before. For they instructed the orator to begin his discourse by creating a proper state of feeling in the minds of auditors, to follow this with whatever he was going to address to their understandings, that is, to produce cognitions, and finally, inflame them to action of will. For rhetoricians, therefore, the triad named those three states of mind. But no sharp line of demarcation can be drawn between different integral states of mind, and certainly not between such states as feeling, knowing and willing. It is obvious that these views can be linked to C.S. Peirce's doctrine of synechism, too, which I have described at an earlier stage in the current study. Let us especially remind how C.S. Peirce has emphasized in his synechism that man is becoming one of eternal verities by his spiritual consciousness. I think that this is quite the same as "inseparable part of totality", as Spinoza has it expressed.

But what about the nature of things, then, and what C.S. Peirce has thought about them? From Walker Percy we get to know that C.S. Peirce suggested for that there are real things out there whose characters are independent of our opinions of them. Let us remind what we have discussed at an earlier stage in the current study on C.S. Peirce's view concerning an occult nature of icon and diagram, which are also, in their way, independent and unknowable right now, and perhaps, will always remain that, too.

I think that this suggests both to that our knowledge is not something before those things, or icons, but it is consequence of them. We may suppose that, at least, things and icons have been in there before we have had any conception of them. This suggests to that our arguments are not necessarily same as things and icons are themselves.

It is no wonder indeed that Charles W. Morris has labelled C.S. Peirce to Platonic realist, who has believed that the nature is controlled by laws which are above existences. Those laws are that power by which make possible that there can be a space, where, in turn, the results of those laws can exist. That is, where organic existences and life can exist, as well as matter and causation. Those laws are eternal forms, and like mind, thought, or ideas. They are like distant goals, and belong to the final causation, and they are not counterparts in actual and sequential causation as such. Hence, the final mind, if it shall never exist, has nothing to do with operating with signs, because of sign is only a mean by which something is brought into the mind, meanwhile the object to which sign has referred to, has been left outside the mind. Hence, phenomenons have been only presented to the mind. But why Morris did not associate these thoughts to Spinoza?

There are several consequences from these arguments which there have been presented. I take some of them in consideration. Because of that we cannot bring objects, as such, into the mind, and because of we are using our signs as mediating tools, and because we ourselves are external and symbolic ones, and because of that man himself is the sign of signs, we cannot easily understand by signs those simple connections and simple rules, and the original role of feelings, which they have still now. We have only our complex, and well-developed signs concerning reality. The world we have by those signs, seems to be full of more complicated tendencies, and which, in turn, are easily accessible to our understandings, because they are inseparable parts of it, or some kind of fingerprints from objects we have already known. Let us remind, again, what we have discussed at an earlier stage in the current study by Charles W. Morris on the symbolic nature of man. Because every thought can be regarded as external sign, also man can be regarded as external sign, which a view C.S. Peirce advocated for, too. We may suppose that the mind, which has been produced by signs, is very complex in its nature, as well as man himself.

In addition to this, in the mind there can be large references, as well there are unities to which signs also refer to, and from that reason we tend to apprehend most things and objects as similar complexity and unities, and not as they are in their simplicity, or in those simple levels of feelings. This is the case especially when we are striving for something, for which things themselves are not oriented to. But there is the fact that these tendencies, and functioning according them, as well as producing more general tendencies, is the role of human mind in the development of the whole universe, which we have discussed at an earlier stage in the current study.

For all of those reasons it makes no sense to talk about e.g. substances, or given and staying features in the world, if we do not refer to icon and diagrams, which have been something developed to fill something potentiality, or law, especially what concerns the mind. But we are not connected with them, as they are, but as they are becoming to existence by feeling and immediacy. For that reason the whole human experience, and its altersensing and medisensing departments are continuously changing and vivid ones, were they recollected or directly experienced. But if we emphasize that our concepts must have consequences to be valid, we must admit that our arguments doesn't necessarily change the nature of things by no means, as they are in themselves. If we think e.g. mathematics, we cannot change its "eternal" prerequisites by no way, or if we do so, we have dealing with something else than mathematics - or interpreting it in a new way. Lets take an example of consequences of a hypothesis. When C.S. Peirce introduced his doctrine of synechism, he proposed for that one consequence of it is that we are not permitted to say that the sum of the angles of a triangle exactly equals two right angles but instead we can say that it equal that quantity plus or minus some quantity which we excessively small for all triangles can measure. Another consequence of the doctrine is that we are not allowed to claim that space has strict accurately three dimensions but instead that any movements of bodies out of three dimensions are at most exceedingly minute.

But are we dealing with truths of mathematics? The answer is no, because we are discussing on certain consequences of the doctrine of synechism. In a quite good reason we could make also a hypothesis that the Euclidean Geometry is valid, in its own and restricted context, which we can determine with some concepts, however. We could by them study, what consequences of them might to be into the doctrine of synechism, by which we must regard all as continuous. Hence, we cannot conclude from our principles not much what the world is like, but only their consequences, or what kind views we can get by them. But it might be true, however, that we cannot strictly speak about totally independent objects, for example, because we cannot even prove that such objects never exist, or will become to existence, if they were totally independent ones.

But what about the question concerning the relationship of love and reason?

From Henry Sidgwick we know that Spinoza's idea that the individual mind strives so far as it is able to continue its state of being but that the object of this impulse cannot be separated from pleasure or joy; because they are a passion in which the soul passes to higher perfection. The pleasure is not the goal that impulse primarily aims but at the mind's perfection, or at self-realization or self-development. I think that there is a similarity between Spinoza and C.S. Peirce concerning the diminishing role of personality for the mind's perfection. But there are another important similarity, too. In C.S. Peirce's epistemology there are also love and reason as the components of rational pursuit. From Israel Scheffler we get to know that C.S. Peirce insisted on that there are the laws of love and reason which shall join together in a very distant future. I suggest that this kind a view links C.S. Peirce also to Plato who suggested that counterpart of the human spirit is Eros, when we are striving for goodness and beauty.

Let us also remind the letter which we have discussed at an earlier stage in the current study which C.S. Peirce has mailed to William James and which has been dated on the 25th November in 1902 where he has illustrated his new view on logic saying that logic is anchored to ethics, and that in turn is anchored to aesthetics. But what does this mean, actually? I think that there is an emphasis the role of ethics and aesthetic nature of the whole knowledge, and that without that very nature we are not able to reach higher levels of knowledge at all. And this conception is, I think, due to Spinoza, as the doctrine of synechism, too.

Immanuel Kant and pragmatism

In Immanuel Kant's philosophy there are two stages, namely the pre-critical and critical ones. In the former stage he argued for that it is possible to get information which concerns substance by reason. He was convicted that it is possible to give an ontological proof of the existence of God. He got influences from Isaac Newton's physics to his studies in natural philosophy. In the latter stage he was influenced by John Locke's empirism which was the reason he rejected his earlier speculations, as well as he rejected the idea that we can get to know information of substances. But what kind of substances? Are there similarities to David Hume who has argued for that there are no substances at all outside our experience? But for what Hume referred by substances? Let us remind what David Hume has argued for when suggesting all of our perceptions are different from each other, and that they are different from everything else in the universe. He regarded them distinct and separable, and suggested that they may be considered as separately existent, and they have no need of anything else to support their existences. They are therefore substances, as far as this definition explains a substance.

Kant expressed his new epistemology in his *Kritik der reinen Vernunft* as a reaction to English empirism. But Kant was not a pure empiricist, because he believed that we can surely become acquainted with true knowledge just by knowing, and we can take advantage with the mind which can preserve and maintain that knowledge. Thus, the only thing he accepted from English empirism was that all our knowledge gets start from experience. But he emphasized that we cannot explain our knowledge by our experiences as such, notwithstanding that there is a kind of reality which is produced by phenomenons which our experiences concern. But by knowing that reality we cannot get *Die Dinge an sich*, or explain that knowledge which we get

from the mind, and which is apriori in its nature, and which is the source of our general knowledge. There are such things as mathematics which is apriori; it is derived from the mind, and not from experience. In his *Metaphysische Anfangsgrunde der Naturwissenschaft* Kant also dealt with knowing and its nature.

There are certain similarities, as well as dissimilarities between C.S. Peirce and Immanuel Kant which we shall discuss in detail now. From John Dewey we have known at an earlier stage in the current study that C.S. Peirce took the term pragmatism from Kantian epistemology. Kant made a difference between the terms pragmatic and practical, and we can find the differentiation in his *Metaphysics of Morals*. The term pragmatic refers to those rules of function and techniques which are common in human experience, and which we are able to change. The term practical refers to the moral laws and rules which are a priori in their nature, and which we cannot change by human activities but instead we must obey them, when they come in front of us, as a kind of omen. Let us remind that as an empiricist C.S. Peirce appreciated for the study of phenomena in given, or natural circumstances, and which cannot be repeated in any laboratory. Because C.S. Peirce emphasized those natural and living contexts, and wanted to suit his methods according to them, he didn't want to call his method practicalism, or emphasize that passive obeying of the eternal, never-born rules and laws, which had been given as a final explanation before, and obeying that kind of necessity. An interesting remark by Dewey is that William James didn't derive much of his ideas from Kant.

But we can also get a direct information on the question of those philosophical influences from C.S. Peirce himself, especially from his letter to Mario Calderoni which was written approximately in 1905. In that letter he pronounced that he has got philosophical influences from Kant, and he discussed especially on the essence of pragmatism which he didn't regard as system but as a method of thinking.

A.J. Ayer has emphasized that C.S. Peirce appreciated how Immanuel Kant linked knowing to the constitution of the human mind. C.S. Peirce also accepted the way by which Kant restricted the field of experience that is possible to man.

From Ingemund Gullvåg we know that in C.S. Peirce's later philosophy it has been an important point that time is continuum and (by virtue of its infinite divisibility) an infinity which we actually apprehend. Gullvåg has also referred to Chance, Love and Logic. However, he did not connect this C.S. Peirce's view to Kantian tendencies, to where it suggests for. I shall discuss this in detail right now.

C.S. Peirce has both criticized and interpreted Kant's conceptions on time and continuity. And there we find certain similarities, too. C.S. Peirce admitted that Kant was quite right when saying that every partitioning in time is time itself but he didn't understand quite well what he was proposing for, because he seemed to think that he was only saying that time, in itself, is infinite, and that it does not consist of infinitely divisible parts. That is, Kant did not make differentiation between how we apprehend time, and what is it in itself, in its infinite divisibility. Thought, Kant did not understand that there must take in consideration two different ideas concerning time. The one which says that time, as intuited (Kant translated his German *Anschauung* by Latin term *intuitus*), can never be divided so that parts were times themselves, and the another which says that in time there might be still something which e.g. can cause that we cannot reach all of its infinite divisible parts, as they are, notwithstanding that they might be existed. Thus, C.S. Peirce supposed that Kant has only argued for, when considered his proposition as a whole, that time, as intuited, has no separate parts, and did not refer to time as such. This a view C.S. Peirce accepted, and suggested that his own concept of *percipuum* were quite same as Kant's concept *Anschauung*.

And there is an interesting connection to Ludwig Wittgenstein in this question, too. From Ingemund Gullvåg we know that Wittgenstein has argued for that we do not grasp the infinity of time, or an infinitely divisible continuum, as a real extension, but only as a possibility, an intension. Gullvåg suggested for that this argument was a reaction to C.S. Peirce's opinion concerning continuity of time, and if it is, there seems to be connection to Kant's conception of time, too.

This sounds clear, if we think C.S. Peirce's conception of time, because in the human mind there are synthesizing tendencies, and that concerns also time. C.S. Peirce has emphasized, too, that there is not at all such thing as absolute immediacy, or something which were absolutely present, either accidentally or by confrontation. And there he took his doctrine of synechism which means that we cannot escape thirdness, where the classes of mind are synthesized together.

I think that this synthesizing tendency of the mind and thought is necessary because of that things, as well as time, which have been splitted over and over again, and still do so, cannot be apprehended by us, as they really are - because of our thought needs the presence of infinite continuums, from which we actually build the world, and according to that continuity we apprehend time, too. Let us also remind what I have discussed at an earlier stage in the current study on C.S. Peirce's doctrine of synechism, and his certain views on cosmology and such themes as the generalizing tendency, fulfillment of the laws and other counterpart activities to them, but also his criticism to Newtonian physics and that decisive role of future in the development of human knowledge.

I have already referred at an earlier stage in the current study to Karl-Otto Apel's works which are considering the question of C.S. Peirce's and Kant's similarities and dissimilarities, as well as I have referred to Ingemund Gullvåg and to his article "Wittgenstein and Peirce". And in addition, there is a work of John Howard Kepchar, Jr. which I have not included into the current study. I think that there are not so much to study any more.

Early American transcendentalism

Many critics and historians in philosophy have regarded transcendentalism as very essential philosophical movement in America during the 19th century. From the first ENCY we know that at the beginning the centrum of that movement was Boston, and its influence was as the most effective right before the civil war between Yankees and Confederation. American transcendentalists were interested in Immanuel Kant, Friedrich Hegel, von Schelling, and Victor Cousin but they also were acquainted with Platonian thoughts. Ralph Waldo Emerson have presented most clearly the characteristic traits of American transcendental metaphysics in his *Nature* which was published in 1836.

I shall not describe in detail all of American transcendentalists but take only few examples of them. From the first and eight ENCY we know that there has been e.g. Henry David Thoreau and his *Civil Disobedience* which has been published in 1849, and which was the model and the doctrine which Mahatma Gandhi used in India. Generally Thoreau emphasized that the most important relationship which an individual can have, is his relationship to nature, and by that relationship an individual is able to find the principles of morals, as well as to develop his imagination. Hence, we can talk about American transcendentalism because of these emphases.

But what about those philosophers who influenced to pragmatism, or who were in contact with it? I take two of the cases in consideration. From the first ENCY we know that one of those American transcendentalists was Paul Carus. In a letter which C.S. Peirce has mailed to Paul Carus and which has been written in 1910 there are C.S. Peirce's thoughts concerning the logic of science. Unfortunately part of the letter have been lost.

From the first ENCY we know that one of American transcendentalists has been also Henry James, Sr whose production has been considered to be full of mystics. But he has had an important role in the philosophical development of William James, at least.

From A.J. Ayer we know that William James has written in 1855 an introduction to The Literary Remains of the Late Henry James. And in addition to this, Henry James Sr. can be called to William's "spiritual father", who influenced strongly to his moral and intellectual orientation, as well as to the development of his religious attitudes.

Josiah Royce and pragmatism

From the first ENCY we get to know that the most famous of American transcendentalists was Josiah Royce who tried in his philosophy to find an absolute whose essence is just being in the universe. Royce began from fragmentary experiences and was to conclude that there is a larger self, but also that there is error. Despite the presence of that error he concluded that there might be the absolute truth. The mind is such an ultimate reality which no subjective consciousness can recognize, because of their subjectivity. There must be present an absolute experience because the mind is the total intellectual structure of the universe. In the absolute experience all the things are present, as well as we can understand every finite experience in that very moment.

C.S. Peirce was in correspondence with Josiah Royce, too, as we have seen at an earlier stage in the current study, when discussing C.S. Peirce's correspondence in general. But what about C.S. Peirce's attitudes towards Royce's philosophy, then? In the letter which C.S. Peirce has mailed to William James on the 12th June in 1902 he told being studied Royce's *The World and Individual*, and that he regarded its ideas as beautiful ones but that its logic seemed to him most execrable. I think that these opinions suggest to that C.S. Peirce didn't accept Royce's philosophy as such. From the fourth ENCY we have got to know at an earlier stage in the current study that Josiah Royce was a member of William James' intellectual society.

And what about that accepted influence from Royce to pragmatism? William James appreciated Josiah Royce's idea of the instant and infinite nature of God's consciousness which we find in *The Conception of God*. Let us remind, again, that John Dewey has derived some of his thoughts from Royce, as he says in his article which concerned G.H. Mead.

Friendrich Hegel, pragmatism and Wittgenstein

Georg Wilhelm Friendrich Hegel (1770-1831) was a German philosopher, in whose system of absolute idealism pure being is regarded as pure thought, the universe as its development, and philosophy as its dialectical explication. Hence, he named his whole doctrine to absolutic idealism, as a contrary to Kant's and Fichte's, and others subjective idealism. Hegel considered the universum as system which developed within one time system, too. Hence, the totality will give the whole meaning to its parts. Different ages follow each other in that one main system as a dialectic continuum. So the history, as a whole, can be considered as the manifestation of the eternal truth or Geist. But that manifestation takes time, and also ideas are at the beginning very dim ones. Hegel used as his tool the dialectical method which was used since by Plato and Zenon; they all considered that we can elevate to the true world of ideas by uncovering the contradictions of beings. Hegel derived some of his ideas from Kant, especially what concerned his idea of antinomies, to which the reason is continuously drifting. But Hegel considered those antinomies as existing in the objective reality. There are also things which are another kind as they appear to be, and for the problems which will arise from them he introduced his negative dialectics. His positive dialectics was for the purpose to synthesize the antinomies and conflict so that there would be quite new and harmony solution. Hence, there was the leading idea of a dialogical solution in Hegel's whole epistemology. But there are different dialogical solutions, on the one hand those which can be applied to the philosophy of nature, and on the other hand those which can be applied to the philosophy of Geist, because of the difference of their very nature. The kernel of Friendrich Hegel's philosophy can be found in mainly his *Wissenschaft der Logik*.

But there were also American Hegelian philosophy. From the first ENCY we know that the role of William T. Harris in the development of American Hegelian philosophy is considerable one. He argued for abstract philosophy emphasizing the superiority of speculative method in relation to the methods of empiricism, positivism and agnosticism. He, and his counterparts, too, thought that with pure reason it would be possible to get knowledge concerning an ultimate reality, and that Hegelian philosophy should offer a world view which is acceptable, and which can be applied to ethics, religion, arts, politics, law and pedagogy.

We can read at The third ENCY that William T. Harris studied at the first stage at Yale College Platonic philosophy but was not satisfied with the teaching style and level of that College, and soon he began his studying in St. Louis. There he met Henry C. Brockmeyer who was of Russian origin and who studied Hegel by Prose Writers of Germany which was published in 1874. Since 1858 Harris, Brockmeyer and some other philosophers began to meet each other in Kant Club, and Harris also got a copy from Hegel's study on logic and encouraged Brockmeyer to translate it into English but Brockmeyer made only some outlines. In 1886 it was founded St. Louis Philosophical Society, whose chairman was Brockmeyer and whose secretary was Harris. Members of that society were e.g. Denton J. Snider, George H. Howinson, Kroeger, and Thomas Davidson. From the first ENCY we get to know further that most of the members of that Society were emigrants who had escaped the rebels of 1848 in Europe.

From the third ENCY we know that William T. Harris used the parallel analysis and recognized three levels of knowing, and in the third level, he supposed, it will be achieved an individual independence, as well as it will be realized that all things are dependent from each other, and that there is the governing principle of relativity in that process where individual by self-reflection get that sight of infinitive. But why there must be an individual being? Without that individuality the causality is not able to produce certain causes and effects. Hence, the causality is dependent of those self-activities which are self-relative, independent, free, and creative. The only totally independent and original cause of all things is God, whose essence is just reason. As Hegel also Harris believed that philosophy approaches reason by the concept analysis along the first principles.

As we can read at the fourth ENCY there were also several other interpretations since the very beginning. For example, George H. Howinson is known as an advocate of personalism but he did not interpret individuals dependent from infinite person or creation, as B.P. Bowne, or rational theists and their predecessor Thomas Aquinas, for instance. Howinson emphasized the freedom of individuals which would be fulfilled if there were such a creator who has ruled all the things beforehand. From the third ENCY we know that in the year 1867 Harris began to publish, as a mouthpiece of Hegelians, *The Journal of Speculative Philosophy* for the reason that his article "The mere dry husk of Hegelianism" was not accepted by the publishers of *The North American Review*. There must be emphasized that they published in *The Journal of Speculative Philosophy* some William James', John Dewey's and C.S. Peirce's articles.

All of these remarks are essential in order to understand something about American philosophical climate, and that Hegelians were not making e.g. publishing difficult to pragmatists but more important for the current study is how those Hegelian tendencies have affected e.g. to Bertrand Russell, Wittgenstein and to pragmatists. Let us remind what Ingemund Gullvåg has argued for the originators of logical empirism, and Bertrand Russell's role in the development of it, as well as that Russell adopted from C.S. Peirce one part of his logical theory of relation, namely that part of external relations, and that he rejected the idea of internal relations - because it smacked too much of Hegel.

But there is not much of Hegel in C.S. Peirce's philosophy in spite of what we know from A.J. Ayer who has emphasized that C.S. Peirce respected Hegel's view on the nature of phenomenon, as well as Hegel's view on the nature of history we get to know that C.S. Peirce has regarded Hegel's logic poor one. However, there are several references to Hegel in C.S. Peirce's writings. One example of these we find where C.S. Peirce has used a similar example of Baccants as Hegel when describing e.g. association.

But can we, regarding these references, regard C.S. Peirce as Hegelian philosopher, and in what quantity, if he was that one? I shall take now in consideration of what C.S. Peirce has written to William T. Harris on the 30th November in 1868 in a letter, where he criticized Hegelians for that they considered philosophical doctrines which have been presented during different ages, as true ones, when presented in certain time and context, and in the letter in question he has criticized also Hegelians for their categorization of the knowledge of different ages. Is this right the critics on the nature of history, or not?

Further we get to know from C.S. Peirce's letter to William James which has been dated on the 7th March in 1904 that C.S. Peirce has regarded Hegel's philosophy as nominalistic, and suggested that only here and there was a taste of realism; he cannot be regarded as a realist. And we know how strongly C.S. Peirce attacked against nominalism, e.g. in his letter to William James which is dated on the 7th March in 1904 where he suggested for the one purpose of the pragmatistic doctrine that denying nominalism .

There seems to have been general negative attitudes against Hegel both by C.S. Peirce and Bertrand Russell. The latter argued strongly against Hegelian philosophical idealism in his Problems of Philosophy which was published in 1912, and suggested that there must be emphasized the role of experience and the philosophical tendency of classical empirism. From S.R. Vaughn we know, that there have been three different stages in John Dewey's philosophy which Lewis E. Hahn has described Scottish intuitionism, absolute idealism and instrumentalism. We get to know, too, that Dewey rejected his Hegelian tendencies at the later stage of his philosophical career. Dewey's interest to experimental psychology caused that he rejected Hegelian tendencies in his philosophy. Dewey became an advocate of Hegelian philosophy when he was continuing his studies at John Hopkins. At the same time he was also studying experimental psychology by G.S. Hall, and those studies can be regarded to be as the most influential to Dewey's philosophical development. I refer to E.G. Boring and his description of Dewey's work and role in the field of experimental psychology.

It seems to me that there were not much Hegelian tendencies left in John Dewey's thinking when he has influenced to Ludwig Wittgenstein because of his orientation to empirical psychology. From S.R. Vaughn we know that Dewey himself has said that Hegelian stage in his thinking didn't left any permanent effects. But I think there might have been still some. However, from Ingemund Gullvåg we know that the change in Ludwig Wittgenstein's philosophical view from his Tractatus to one of his later book, namely Investigations, has been considered by W.W. Bartley III as the movement from a Pre-Kantian objectivistic and rationalistic position to a post-Kantian one with affinities [sympathy] to Hegel without the benefit of Kant.

But what about Hegelian tendencies, and their criticizing, anyway, as well as their rejecting? A good question right there is if they ever studied the whole Hegel's huge literal remains. Are their arguments valid ones? I mean that it is easy to talk about certain philosophical tendencies without saying anything, and reject certain doctrines as well. As ordinary citizens we can reject the whole philosophy, as a science, or as an art of knowledge without knowing much about philosophy. Most common citizens actually do that, and their attitudes have been accepted generally. And we may propose that every man has his own philosophy, in a quite good reason. There are thousands of people who will accept that they have their own and valid philosophy. However, it is clear that we have not proved anything by that, or have not made serious arguments which philosophers would criticize or accept. We have just believed that philosophy is useless, and have believed that every man is able to philosophize, as they are, in a measure. But well-educated philosopher may argue for, in a quite good reason, and without any megalomania, that most common citizens and their tiny thoughts are useless, as their whole porsome life, if he thinks their role in the whole development of human knowledge.

9.2.2. C.S. Peirce's Scholastic realism and pragmatistic idealism

At an earlier stage in the current study we have discussed that there have been two ways in Scholastic tradition to explain the essence of our language: The one was the nominalistic way, which Wilhelm Occam advocated for, and the other was Scholastic realism by Johannes Duns Scotus, who was a philosopher from Scottish origin, teacher in Oxford university, and a monk. He criticized Thomas Aquinas, and emphasized that there is fundamental difference between faith and knowledge, that is, propositions for the existence of God, or for an immortal soul, are not at all provable by reason. Duns Scotus was an early voluntarist philosopher, because he thought that our will presences our understanding, and that our will determine what we are understanding.

There has been very early a kind of contrary view to e.g. English nominalism, namely such a realism which kept concepts as real as objects - which Johannes Duns Scotus and later also C.S. Peirce advocated for. From A.J. Ayer we get to know that C.S. Peirce appropriated Duns Scotus especially because of that Scholastic realism. Let us remind also the letter which C.S. Peirce has mailed to F.C.S. Schiller, and which has been dated on the 10th November in 1906 which we have discussed also at an earlier stage in the current study.

In the letter to F.C.S. Schiller C.S. Peirce referred to Charles Renouvier's *Essais De Critique Philosophique* when explaining that there are two kinds of concepts. First, there are technical concepts which are defined before they are actually used. As an example of those technical concepts he takes in consideration the concept real which have been produced by Duns Scotus. Secondly, there are also the concepts of common sense, which are mostly naturally born ones, and to which philosophers must give the exact meanings.

When we seek the ground to which C.S. Peirce wanted to base upon his pragmatic idealism we find several other arguments which support that view. C.S. Peirce has, on the one hand, assumed that the human mind were such a media where evolution and generalizing tendency is still at work. On the other hand, he has believed also that the laws of universe have been formed under a universal tendency of all things towards generalization and habit taking.

We might say that generalization is an expansive process, and habit taking tries to make the new areas of the reality stable; both those processes support each other. But what is important there is that there must be plasticity in the areas which are developing, and also that future is something which depends greatly on plasticity of the world. Let us remind what C.S. Peirce has argued for that plasticity of the mind when it is connected to the living influence of diagram and icon to us, and what role C.S. Peirce has put to the human mind, as a plastic unit in the development of the universe. Let us remind, too, that most laws in physics, as gravitation, has already reached its ultimate limit, and they cannot create as such a different and to more complex, and further developing future.

Let us remind also C.S. Peirce's doctrine of synechism which we have discussed at an earlier stage in the current study, and there especially the sentence which says that a man is capable of a spiritual consciousness, which constitutes him one of the eternal verities, which is embodied in the universe as a whole. And this in turn means that generalizing tendency to the eternal verities is connected to that spiritual consciousness. C.S. Peirce has considered the human mind really as a very important factor in the development of the universe, and in certain way the human concepts are byproducts of the mind, in spite of that the mind produces nothing. The concepts, or our signs, are here because of that there is also the human mind and its possibilities and potentialities, and we can expand our signs ad infinitum. Right there we have also a link to Benedict (Baurd) de Spinoza.

In a letter which C.S. Peirce has mailed to his friend William James, and which has been dated on the 28th September in 1904 he described pragmatic idealism in which the reality is experienced as future by mellonization. The term mellonization is derived from Creek where it has meant same as "intend to do something", "exist" or "suffer". In C.S. Peirce's epistemology it described that logical operation where something, which is considered as "has been" (parelythose), is in fact regarded as repeating and expansive infinite, from where we are going to what will always be. The mellonization states no marginal conditions - but at the same time it is a form to receive something. There are still writers, as C.S. Peirce continued, who want to restrict our consciousness to that we keep as past, and which they still consider as present. Those writers think that the problem is whether we say the external world alone as real one or call we the internal world as fiction. Just this kind of illusion vanishes, if we consider past as repeating and expanding infinity. In this kind of a process we also use the double consciousness, where we go from that part of it which causes compulsion to the part what is infinitive.

C.S. Peirce has also suggested that we are using force, and something is resisting our force, when we feel that something is effecting to us, and we have that very feeling that there is something outside us, as well as something which is right (our) inside. We have a kind of double consciousness, notwithstanding that they are inseparable from each other. In addition to this, we have such an ego which refers to what has already taken place, and we have also an ego which is referring to future. The latter one is not strictly speaking an ego at all, because we do not have yet personally what will be happen or understood in future, as we can have which has taken place. And we are understanding by changes, when e.g. colors change to other colors, when we can have a reaction which is a dyadic experience, in which we have given relationships.

It seems to me that the question of pragmatistic idealism associates to the essence of time and also to the mellonization. But what concerns time, let us remind what we have discussed the concept of percipuum at an earlier stage in the current study. Namely, if we think that mellonization and double consciousness, there must be quite similar restriction in human comprehension if we discuss in general, what is in present, in future, or in past. C.S. Peirce has argued for that our present percept is only once special case when we discuss perceived things and time. No principle should prevent us to talk about antecepts which mean things perceived in future, or to talk about ponecept which are things perceived in past. And there are corresponding continuities to them the percipuum, the antecipuum, and the ponecipuum, which all mean together the direct and uncontrolled interpretation of percept, antecept and ponecept. But what about the perception of time as a whole? Let us remind that C.S. Peirce has derived his concept of intuited time from Kant, as we have seen at an earlier stage in the current study, and that he also regarded his concept of percipuum as identical to intuited time.

If we think what we have presented right before, there seem to be different kind of continuities, but obviously ponecipuum, for example, will be seen in the process of mellonization, as "expansive infinite", and we do not apprehend time as different kind of percipuums, however. For the other explanation which have been presented during the current study I refer also to C.S. Peirce's nomological psychology, and there to general psychognosy, and there especially to the law of final causation, and to the laws which are the eternal forms, and to their role in the development of the whole universe. But I want also refer to his special psychognosy and there especially to the laws of the peculiar states of mind, which I have discussed at an earlier stage in the current study. Both of them explain together the dual role of mellonization.

9.3. Rational realism and pragmatism

There is the term rational which refers to the state which can be derived from reason or reasoning. Then there is the term realism which can refer to the practice, where things are regarded true ones in their true nature, and that it is possible to deal with them as they are. This sounds a little like materialism but we do not mean that kind a realism there, but instead I want to refer to Johannes Duns Scotus' Scholastic doctrine, where universal or general ideas, as well as the human mind, have been considered as having true and objective existence, and where matter has its real existence, too. Rational realism suggest to that there are both reason and matter, and that there is interactions between them. This is important to take in consideration because there is also that Scholastic doctrine which is nominalistic, and which says that our concepts in our language have not much to do with objects in the world, and to this interpretation we are not referring to - because of our emphasizing the true interactions between reason and matter. Morris L. Bigge has referred by rational realism to the fact that human life is a kind of form which makes us possible to reach absolutic concepts, and in the same time there can become to existence the standards for the good life. We can regard human beings as biological organisms, who have substantial minds. Bigge proposed for that we can regard absolutic concepts as ideal and ethical structure. Rational realism can also be associated to Christianity. But why? I we study closely the term substantial, we can see that it refers to that is essentially such as it is, and who is both virtual and practical. And if something is virtual, it is not real one, but may be in principle possible, or it owes, at least, potential existence. Let us remind that concept of the mind which has been discussed in a letter which C.S. Peirce has mailed to William T. Harris, and which has been dated on the 30th November in 1868 where the mind has been regarded as virtual, and not something whose essence would be solid at a given moment. I think that there is not much room for its substantiality.

Rational realism by William James

But there may be arisen several questions, however. When we discuss the things which are substantial, we may discuss the concepts of substance and entity, because of that very essence of God. If there is somebody who must be continuously such as is has always been, and shall always be, we must regard him as an entity or substance. But does man consist of substances or entities, too, notwithstanding that we know that man has some pragmatic dimensions? The answer which pragmatist offers is no.

From M.P. Ford we know that William James have used the term substantial when describing classical meaning of the substantial essence of soul. By the term substantial he referred to the self-existing being or one which needs no other subject in which to inhere. William James has explained in his Principles that spiritualists have argued for that the self can be regarded as immortal soul. This is quite the same as soul had been understood as simple spiritual substance, where different mental abilities, operations and affections can influence. Because of that simple substantiality our soul can be immortal, responsible and pure one. But was this also James' own philosophical attitude? James didn't accept mechanistic interpretation of man and the world, and he introduced instead the concept of mental atoms which can function because of the nature of man and animals. But these remarks does not refer to a kind of mental substance, however.

Let us remind there the letter which C.S. Peirce has mailed to William James, and which has been dated on the 23th July in 1905 and which we have discussed at an earlier stage in the current study. In the letter he referred to William James' article "La Notion" and criticized James's proposition that there cannot be such thing as consciousness at all. Hence, in consequence of this, we might suppose that James rejected the theory of soul, as well as the doctrine of substance, as well as he even doubted the existence of consciousness, when explaining the essence of self, and the mind.

But there is a question of entity, or something being in itself and that acceptance of that there are consciousness which are entities. This conception, in turn, refers to the acceptance of the Cristian conception of soul, which e.g. can be saved to the eternal life in heaven, or which can be condemned, because it has convicted to crimes against the laws, which says that man must keep out from sinn, which shall change soul to another kind, and make it more and more worse according to the laws of God, for instance. But there is still something left, or something in itself, because our soul can be cleaned from all sinn, and it can be pure again after forgiveness of God.

From Israel Scheffler we know that William James has described in his famous Principles the states of consciousness as entities; he also has stated that mental conditions were entities. However, this was only a transitional stage in Jame's philosophy, and the chance in his view took place in William James's article "Does Consciousness Exist".

There is also available an information by which that Israel Scheffler's opinion concerning the date of transition stage might be false one. There is the fact that William James mailed his article to C.S. Peirce who studied it very closely, and criticized just that conception of entity, as we can read at C.S. Peirce's letter to James which is dated on the 28th September in 1904 where C.S. Peirce told that he has got James' article on consciousness a propos, and that he was just writing on the same theme, and that he had studied the question as far as his poor library had allowed him to do. C.S. Peirce inquired in the letter especially, to which James has referred when saying that consciousness have been regarded as entity. As an critics, C.S. Peirce presented that there were not so many writers, who really have considered consciousness as entity, or were still doing so. In modern philosophy, as he said, this proposition should suggest to that a writer has imagined the group of opponents, and that group imagined has also accepted the ideas presented, notwithstanding that these ideas are too absurd that they could never accurately determined.

From A.J. Ayer we have got to know at an earlier stage in the current study that James was influenced strongly by Henry James Sr. so that he was during his life a deeply religious person. There were several consequences from his religious attitudes, and his acceptance of those proofs which he regarded acceptable almost without critics. But we have not this kind of question concerning the use of the concept of entity. From Collected Papers we know that James has answered to C.S. Peirce's letter saying that he used the term entity in the article in question as a constitutive principle to all experience, which is on the contrary position to the functions and relations of the single parts of experience.

We know that C.S. Peirce argued, mostly, against all kind of entities. From Israel Scheffler we know that C.S. Peirce has e.g. proposed for that we have a self which is not predetermined and which is not an entity, but it is developed in social contexts and will reach itself to the context and later outside of it.

However, if we think the information which we have got from the correspondence between C.S. Peirce and William James, we must conclude that the date of transition stage from entities into the doctrine of continuous processes in William James' philosophy must have occurred later than Israel Scheffler has suggested, and that when it took place, it has been due of that correspondence between C.S. Peirce and James.

But we ought not to forget that William James and C.S. Peirce dealt in their correspondence with religious themes. Let us remind e.g. that William James owed his *The Will to Believe* to C.S. Peirce. This indicates to the fact that he has derived some of his thoughts, which he has presented in the book in question, from C.S. Peirce.

From C.S. Peirce's letter which he mailed to James, and which has been dated on the 13th March in 1897 we know that he gave thanks to James's owing *The Will to Believe* to him. C.S. Peirce had gotten as present that book from James and told in the letter that he had also read it. C.S. Peirce told his friend that the book in question had given him pleasure more than James could ever imagine, and C.S. Peirce didn't consider that book so elementary than his friend had it ranked. But an interesting point is that C.S. Peirce and William James seemed to work in that time with the same problems, and their relationship was rather positive. In this letter C.S. Peirce wrote enthusiastically being encouraged about James's thoughts on tychism but he kept it as a part and corollary from the common principle of synechism which both themes we have discussed at an earlier stage in the current study.

But C.S. Peirce and James were in correspondence also later in the questions on religion. As an example of this is C.S. Peirce's letter to James which has been dated on 12th June in 1902 . In this letter C.S. Peirce discussed on consciousness, and the mechanism how new beliefs are born. He has also got James' *The Varieties of Religious Experience* at that time, and told that he was heartily in accord with James. In that letter C.S. Peirce proposed for, too, that we cannot derive any effects from the omnipotent God. This idea was later presented by James in his Pragmatism.

John Dewey on religious and religion

From John Childs we know that John Dewey had a concept of a common faith, and it had three elements which were aimed to replace the belief in supernaturalism in traditional religion - with a belief which we can have in ordinary experience, and we can believe its religious possibilities. First, we must believe in intelligence, and to method of intelligence, and there ought to be a belief in it. Whatever can cause that things appear to us in a right perspective is religious, and religion itself does not cause that. Dewey thought that if we have a belief that we can, by common effort, continuously reveal the truth, we have more religious qualities at hand, if we had the belief in the divine revelation which has given us all we need. Secondly, we must have a democratic respect to personality. This means that human groups are able to develop, by their common experiences and contexts, all those enacting principles which are necessary to execute those moral principles they have found and realized. Thirdly, there is a view of continuity of nature and the human mind. Dewey has emphasized that Darwinian view has made us clear that we are not strangers in a strange world but a part of it. In nature and human contexts there are such powers which produce and support those ideals on which we trust. John Dewey has emphasized that we are inseparable part of that humanity which has its root at a distant past, and we have a long time been in interaction with nature. Those things which we appreciate most in our civilization right now, are not actually due to us; they are there because of that continuous doing during the ages, and suffering for its consequences in our human contexts, to which we are connected for.

It seems to me that there are several similarities to certain C.S. Peirce's ideas, too. Let us remind e.g. his views on cosmology, nature, and his doctrine of synechism.

9.4 Naturalism and pragmatism

But now I will expand the views which Morris L. Bigge has presented in his book on positive relativism, because they can't as such describe the very essence of pragmatism, and if we will continue by them, we soon are on the edge of an abyss. For that reason I have added to them some other views which are as traditional as the views mentioned by Bigge.

We have several stages in the development of naturalism. From the first ENCY we know that there has been so called new realism, to which C.S. Peirce and William James gave their sympathies, and there was also Morris Raphael Cohen who was the editor of *Chance, Love, and Logic*. New realists rejected the epistemological subjectivism but they disagreed with the question of error. The next stage in that development there has been critical realism, whose one member was George Santayana. Critical realism developed towards epistemological dualism, because of that critical realists considered the arrangement of objects different as their explanations. There is, then, the question that Rene Descartes and John Locke had not been able to solve, namely that how we can be sure that those objects which are not given to us, really exist. If we think that question of epistemological dualism we can understand, at least, one reason for that C.S. Peirce tried to develop such doctrines as synechism, for instance, or that he tried to develop synthetic views concerning the relationships between objects, things, and thought.

In the year 1945, and twenty years after the centrum of American naturalism was New York, and there especially Columbia University. Before The Second World War the leaders of the movement were John Dewey and F.J.E. Woodbridge (1867-1940), as well as Morris R. Cohen (1880-1947) who was, as we have said already, an editor of *Chance, Love, and Logic*, and who worked at City College. George Santayana's *The Life of the Reason*, which has been published in 1905-1906, was also influential in the development of naturalistic movement.

From the first ENCY we get to know that Morris R. Cohen's and F.J. E. Woodbridge's attitudes to new realism was positive, and that John Dewey was one of the writers of *Naturalism and Human Spirit* which was published in 1944. Naturalism has been regarded as one of the most characteristic of The Golden Age, and that naturalism has been associated especially to Dewey and Santayana. In The Golden Age naturalism was strongly antireductivistic. For example, Ernst Nagel has suggested that there are in the nature as many characters as we have present in our human experience, and we cannot reduce the nature by the doctrine "nothing but" to its elements. To this argument can be associated the principle of contextualism which says that there is no separate reality behind context, and that context can be perceived by its own phenomenons. Nagel argued for that there cannot exist a context which were existing only for itself. Every quality and case is a genuine expression, and it owes references and functions which can be explained, too.

From Charles W. Morris we know that in John Dewey's conception of the mind there is that emphasizing of its contextual nature. But what is important here is that the mind can be regarded also as substantial and structural, and that it owns simultaneously stable relationships to those past and future dimensions - which means that there is no strict boundaries between them. Hence, the mind seems to have certain active relations simultaneously to past and to future. And there is something more, too. John Dewey has proposed for that time and the true change to the certain direction are both the one of more universal character which is independent of the current data.

After The War there was John Herman Randall, Jr., who has written an influential *The Career of Philosophy* which was published in 1960. He has got influences both from Dewey and Woodbridge. And there was also Ernest Nagel, who we just discussed. From the first *ENCY* we know that there were also Ralph Barton Berry by his *General Theory of Value* which was published in 1926, and there was also C.I. Lewis, who must count with by his *An Analysis of Knowledge and Valuation*. Many of naturalists have criticized G.E. Moore's *Principia Ethica*, where, in turn, have been criticized naturalistic fallacy. For example, when C.I. Lewis proposed for that we can confirm our sentences by which we express values, Moore suggested that our moral sentences have not only one and fixed meanings. In addition to these philosophers there can be also mentioned Herbert Schneider who wrote *History of American Philosophy* which was published in 1946 by Columbia University Press. But there have been some other naturalistic philosophers after those mentioned before, such as James E. Creighton, William E. Hocking, Willbur Urban, and personalistic philosopher Edgar S. Brightsman.

We can conclude that from pragmatists John Dewey's and George Santayana's role in the development of naturalism was more apparent than the role of other pragmatists. But we must not forget the role of Morris Raphael Cohen in the publishing process of C.S. Peirce's literary remains.

10. On personal characters, and philosophical influences within pragmatism and between pragmatism, Wittgenstein and Vaihinger

Personal characters of C.S. Peirce's and William James

From Walker Percy we know that C.S. Peirce was a difficult and eccentric man. We have also some other evidence of this, as well as its consequences especially via his correspondence e.g. in a letter which C.S. Peirce has mailed to William James on the 12th June in 1902 he complained of his lot that almost at every turn he must hear that all what he has said is incomprehensible, and nobody has taken a notice his careful and of long duration studies with language. He continued that James has autosuggested himself to believe, too, that:

"... all what C.S. Peirce says is unintelligible",

and in the letter C.S. Peirce has given a kind of explanation for this, namely, that he said that he knew quite well that expressions, which he has used, were gauche, but that his recluse life, which has lasted twenty years, has made them such ones. At the end of the letter he used an expression:

"... Forgive the garrulity that comes from my eremitical life, and God bless you".

There can be found quite similar information also by commentators what concerns C.S. Peirce's tendency to use his own terminology. For example, A.J. Ayer has described C.S. Peirce's style using an illustrative term crabbed, and he has also noticed his tendency to use his own terminology, too. But Ayer has not explained closely why C.S. Peirce had that tendency.

From R. Rorty we know that many philosophers have regarded pragmatism as muddleheaded step to positivism which those philosophers consider a prelude to the epos of man. However, Rorty has proposed for that we ought not name C.S. Peirce by that term if we think his work in logic. But if we use the term muddleheaded, we ought to call him schizophrenic, too. But from where is that expression muddleheaded from? An astonishing thing may be that we can find it from C.S. Peirce himself. From Ingemund Gullvåg and als from Chance, Love, and Logic we can read:

"... For an individual ... there can be no question that a few ideas are worth more than many confused ones. A young man would hardly be persuaded to sacrifice the greater part of his thoughts to save the rest; and the muddledhead is the least apt to see the necessity of such a sacrifice ... It is terrible to see how a single unclear idea, a single formula without meaning, lurking in a young man's head, will sometimes act like an obstruction of inert matter in an artery, hindering the nutrition of the brain, and condemning its victim to pine away in the fullness of his intellectual vigor and in the midst of intellectual plenty. Many a man has cherished for years as his hobby some vague shadow of an idea, too meaningless to be positively false; he has, nevertheless, passionately loved it, has made it his companion by day and night, and has given to it his strength and his life, leaving all other occupations for its sake, until it has become, as it were, flesh of his flesh and bone of his bone; and the he has waked up some bright morning to find it gone, clean vanished away like beautiful Melusina of the fable, and the essence of his life gone with it. I have myself known such a man; and who can tell how many histories of circlesquarers, metaphysicians, astrologers, and what not, may not be told in the old German story".

As an intereting detail I want to mention there that the forename of C.S. Peirce's wife was Melusina Fay .

But what about the characters of William James? A.J. Ayer has given to James a lot of positive attributes, and he has described James as a person who had a sense of humor, and whose lectures were vivid, and who had a lot of enthusiastic students, because of his sympathetic personal characters. Let us remind, too, that William James was a sociable person, and that he had a kind of intellectual society whose members were C.S. Peirce, John Dewey, and George Santayana, and others whom we have discussed at an earlier stage in the current study.

There are several indicators which suggest to that C.S. Peirce lived economically unstable life, and we can make a hypothesis that it has affected on it how much he has produced philosophical texts. This question is not at all that simple, since he had written really an enormous amount of texts - in spite of his poor economical conditions. The collectors of his writings found his writings all around but they were fortunately untouched. Let us remind to what has been said at an earlier stage in the current study about the edition and collection process of Collected Papers by Arthur W. Burks .

We know that C.S. Peirce got an economical support from his friends, and I want to mention there his letter to Paul Carus which has been written in 1910 where he gave thanks to money he has got. In the letter C.S. Peirce also told that his wife Melusina Fay Peirce was unhealthy, and that they tried to prepare their house. Let us remind how C.S. Peirce has used the forename of his wife in his writings, which is an interesting parallel to Melusina of the fable who we can meet at old (German?) story. Isn't this beautiful?

But there are also information concerning C.S. Peirce's poor socio-economical situation by John E. Smith . We can conclude that also indirectly from C.S. Peirce's letters, especially what concerns the among of his books. In a letter which we have discussed at an earlier stage in the current study, and which C.S. Peirce has mailed to William James, and which has been dated on the 28th September in 1904 he has used an exclamation mark when describing his "library".

But C.S. Peirce have probably had some dictionaries, which we know by the letter which he wrote to William James on the 23th July in 1905 where he told that he was forced to consult 23 books in order to answer the question of entity. And he told, too, that he didn't count to them Baldwin's dictionary and Eisler. From the bibliography of Collected Papers we know that C.S. Peirce sold to John Hopkins University Library several hundreds of his books, as well as that material which he had written. But that Library in question was not the only one to where he sold his books, and there were also some private collections to where his books were archived.

But could it be possible that C.S. Peirce's obvious poor economical situation should have affected to his productivity? I think no, but it may be true that if he had more resources he should be capable to collect his writings himself. John E. Smith have supposed that C.S. Peirce's spirit was quite free of his poor economical and other circumstances alike. But there are also other things which indicate that this may be true. Namely that C.S. Peirce referred quite seldom to his own economical situation in his letters. There are only few such references, and these are indirect ones - as an example the exclamation mark when he described his "library" which we have discussed during the current study.

But C.S. Peirce discussed the general themes of economics and effectiveness very often, also in his writings. C.S. Peirce has insisted that the true hypothesis is only one out of innumerable possible false ones, when he discussed with hypotheses and criterions by which we are choosing them. And there is always the consideration of economy, of enormous expensiveness of experimentation in money, time, energy and thought. He also suggested that economy, in general, depends upon three kinds of factors which are cost, the value of the thing proposed, in itself, and finally its effect upon other projects. But there is the principle of simplicity, too. As we advance further and further into science, the aid that we can derive from the natural light of reason becomes, no doubt, less and less; but still science will cease to progress if ever we shall reach the point where there is no longer an infinite saving of expense in experimentation to be effected by care that our hypotheses are such as naturally recommend themselves to the mind, and make us just the impression of simplicity, -which here means facility of comprehension by the human mind, -or aptness, or reasonableness, of good sense. Let us remind what I have said at an earlier stage in the current study about simplicity of the concepts, laws and rules.

This may sound to us as there were a businessman telling about his quite narrow visions. But we know that C.S. Peirce wasn't a such one, and for that reason he could mean only that, in general, there are certain boundaries around the human activities which can dictate how far the human beings can reach as individuals and groups, in spite of their extraordinary intelligence and effectiveness. And for certain, that simplicity does not mean that we can easily access those more advanced truths.

But there has been also a tendency in C.S. Peirce's philosophy where he emphasized variety. Israel Scheffler has emphasized that C.S. Peirce's urge for the larger education, and for developing the personalities of students, as English colleges, German universities, and the great universities in The Middle-Ages had done. He also insisted for that the economical utility itself must be banned and instead of it there must emphasize that students would find the truth. C.S. Peirce used the expression meagerness to describe the result which may be followed from the purely an utilitarian orientation.

But why he had these kind of opinions? Let us take in consideration that A.J. Ayer's emphasis concerning the free climate of European universities which William James's father appreciated, when he sent his both sons to study in Europe, and of them William twice, as we know from the fourth ENCY . And it is obvious, as A.J. Ayer has suggested for that James told about them to his close friend, C.S. Peirce, who never visited in Europe.

But we have also an article which was published in Science where C.S. Peirce attached strongly against the pure pragmatic view in education and criticized also the economical productivity as a reason for choosing professors to American colleges and suggested instead to aiming to the theoretical orientation and studies. He supposed that we should not to see reality only measuring it trough the economical wins. He argumented so that money, productivity and utilitarianism belong to the wrong pedagogic orientation and to its criterions when ranking succeeded educational enterprises.

An yet there is one comment on utility which we have discussed at an earlier stage in the current study and which is considering specially the very nature of science where C.S. Peirce has uttered that, in general, science should concentrate to those things which have no instant utility, because the useful ones are carried on much better without the consultation of the scientists. An finally, in a letter which C.S. Peirce has mailed to William James, and which has been dated on the 13th March 1904 he has told to James that in his former writings he emphasized too much that pragmatic view which wanted immediate results which can be linked to what he has argued for better education and pragmatism by Israel Scheffler . C.S. Peirce admitted, too, that in his younger days he made him quilt to that too pragmatic view, considering pragmatism and also the duty of science by an utilitarian way, but as an older he wanted instead to ask what usage and practical bearings themselves could mean. All of these previous remarks must be taken in consideration when we study his famous pragmatism maxim in Chance, Love and Logic .

We can see clearly now that there are certain discrepancies in C.S. Peirce's thoughts concerning the question of utility. But on what reason? Because of the philosophical development of C.S. Peirce and because of the different themes and contexts, too. In addition to this he emphasized in his younger days different things as older, and also for that reason there seems to be different seasons in his thinking. We must remind there what we have previously in the current study noted on that question, for example, on the development of his thoughts concerning logic, for example via C.S. Peirce's letter to William James, which has been dated on the 25th November in 1902 .

But what should we conclude of what has been said at this chapter, or at previous chapter on similarities and dissimilarities between C.S. Peirce's and William James' philosophies? There seem to have been as well as agreements, as disagreements, and also warm personal interaction, and, perhaps, some breaks in it. But we cannot conclude, yet, that there was no philosophical school called pragmatism.

Ludwig Wittgenstein and pragmatism

We have discussed on some topic of the philosophical influence between pragmatists and Ludwig Wittgenstein during the current study. But there are still some question which I want to discuss further.

Let us remind how Arthur W. Burks has written that C.S. Peirce has derived his pragmatist theory of meaning from his empirical studies in natural science. Ingemund Gullvåg has regarded C.S. Peirce as the original father of the pragmatist theory of meaning, as well as he has emphasized C.S. Peirce's decisive role in the development of Frank Plumpton Ramsey's philosophy. Ramsey has in his *Facts and Propositions*, which has been printed in 1927 alluded to the pragmatist theory of meaning but without mentioning C.S. Peirce. There is the fact that references to C.S. Peirce occur frequently in the later writings by Ramsey and there are even long passages which are expositions of ideas of C.S. Peirce. Moreover, C.S. Peirce's name is also mentioned in Ramsey's *Truth and Probability*.

Ingemund Gullvåg has doubted F.P. Ramsey's own references to Bertrand Russell in *Facts and Propositions* as the main source of his philosophical ideas concerning pragmatism. Also K.T. Fann has argued for that Ludwig Wittgenstein has got philosophical influences from Ramsey, and that Ramsey, in turn, got lot of influences from C.S. Peirce. And in addition to this, we know from R.B. Braithwaite who was the editor of Ramsey's papers that Ludwig Wittgenstein was one of Ramsey's friends who gave advice as to the selection of his papers after his death.

Ingemund Gullvåg has also strongly emphasized the personal philosophical influence between Ludwig Wittgenstein and Frank Plumpton Ramsey, and he has told that they met each other twice in Austria, namely in 1923 and 1925. He has referred to Ramsey's *Facts and Propositions* when describing, in turn, Ramsey's indebtedness to Wittgenstein. And we get to know, too, that Ludwig Wittgenstein has referred to Ramsey at the preface in his *Investigations*.

From K.T. Fann we know that Ludwig Wittgenstein has derived some of his ideas to his doctrine of language games from Piero Sraffa. According to N. Malcolm, Wittgenstein has told him that a Neapolitan gesture, performed by Sraffa, suddenly made him feel that picture theory and his account of the proposition in *Tractatus* were inadequate.

However, Ingemund Gullvåg has doubted the decisive role of Sraffa in the development of Wittgenstein. But there are certain similarities, however. Let us remark, however, that in his book *Piero Sraffa* has used, as a mean, simple and imagined society, to which he gradually added new features. By preface of the book we know that his central ideas have been formulated at the end of 1920's, that is, before Sraffa and Wittgenstein met each other.

But have there been interface between Bertrand Russell, C.K. Ogden and Ludwig Wittgenstein, too. But what kind? From S.S. Hilmy we know that Wittgenstein has met Bertrand Russell in Innsbruck in 1922, and that Wittgenstein has also visited in England in 1925. And then there is the influential *The Meaning of Meaning* by C.K. Ogden and I.A. Richards where they have presented 16 definitions of meaning. They have probably adopted the name of their book from a symposium whose name was quite identical, and where Bertrand Russell has presented his causal theory which Russell later completed in his *The Analysis of Mind*. Ogden's and Richards' theory was quite identical with Russell's theory, notwithstanding that they emphasized the role of images, and what is important is that their book influenced also to Ludwig Wittgenstein, who criticized its causal theory in his late philosophy. And there is an evidence, that he has become acquaintance with *The Meaning of Meaning*. Ludwig Wittgenstein has mailed a letter to C.K. Ogden, which has been dated March in 1923 where he wrote:

"... The meaning of meaning" reached me a few days ago. ... I have not yet been able to read your book thoroughly. I have however read in it and I think I ought to confess to you frankly that I believe you have not quite caught the problems which - for instance I was at in my book (whether or not I have given the correct solution)".

All of these remarks suggest to that Ludwig Wittgenstein might have got some influences also from other directions than from pragmatism in such, and that he was probably philosophically active in 1920's.

But there is an interesting question on when Ludwig Wittgenstein at the first time had become acquaintance with C.S. Peirce's ideas. I take one example of the possible early influences. Ingemund Gullvåg has presented two interesting points in Wittgenstein's philosophy concerning relations: The one is that he used this differentiation of internal and external relations in his *Tractatus* but did not there apply it to intentionality; while in *Bemerkungen* he precisely did that. The other is that Wittgenstein was acquainted with Bertrand Russell since the publication of *Principia Mathematica*. The very good question is: why Wittgenstein should not have some knowledge of C.S. Peirce already at this time.

In addition to those ideas which were presented in *Bemerkungen*, we can see connections between William James' *Principles of Psychology* and other Wittgenstein's later writings. There is the fact that Wittgenstein did not want get published a lot of his writings, because he was continuously developing his ideas, and did not want to fix his thoughts. Still we may say that *Bemerkungen* had more decisive role than other his writings, as a preparative stage.

Ingemund Gullvåg has written that *Philosophische Bemerkungen* in 1929-1930 can be seen as an early expression of his new thoughts in the transition stage from Ludwig Wittgenstein's *Tractatus* to the stage of his late philosophy, and to *Investigations*. There are, as Gullvåg said, carry-overs from *Tractatus*, and there are new elements, but some of the ideas central to *Investigations* are missing, especially the notion of language game. It is curiously natural to read parts of *Bemerkungen* as a dialogue with C.S. Peirce, or a continuation of his thinking on certain topics.

Ingemund Gullvåg has speculated that Wittgenstein had already some knowledge of the pragmatists' preoccupation with sign-use as activity rather than with abstract sign-systems, and this made, in fact, him feel that in *Tractatus* he had disregarded the action or activity-aspect of sign-use by concentrating on the proposition and presentation.

Ingemund Gullvåg has proposed for that in Ludwig Wittgenstein's preparative *Bemerkungen* there is a Peircean idea that thinking occurs in a mixture of symbols. This suggests to C.S. Peirce's thought-sign-theory which holds that thoughts are signs which was not properly presented e.g. in *Chance, Love and Logic* but was mentioned in its bibliography, and it was easily accessible, and presented in the article "Signs", which was in Baldwin's *Dictionary of Philosophy and Psychology* to which I have referred also at an earlier stage during the current study when discussing Charles W. Morris. We must keep in mind, too, that C.S. Peirce was one of the writers of Baldwin's *Dictionary*, as we can easily see from a letter which C.S. Peirce has mailed to William James, and which has been dated on the 10th November in 1900.

But what about the similar ideas between C.S. Peirce and William James? I take an illustrative example of them. A remark which Ludwig Wittgenstein presented in his later philosophy for example in his *Bemerkungen* was the idea that we cannot by the means of language get out of language. Ingemund Gullvåg thinks that this expressed very Peircean idea, that is, we cannot by means of signs get out of signs to something else, independent objects, or realities. In addition to this, we get to know that Wittgenstein's argument that any kind of *Verständlichmachen* of a language already presupposes a language, or how C.S. Peirce puts it, that any interpretation of signs is in terms of signs.

If we put all of these kind of remarks together, we must conclude that it is easy to reveal also more influences from pragmatism to Ludwig Wittgenstein. But we have, in addition to these remarks some personal references, too. From K.T. Fann we get to know that e.g. W. Mays, who was one of the students of Wittgenstein's lectures, has told that Wittgenstein has cited James' *Principles* repeatedly during his lectures, when lecturing on religion, and that he had often that book with him. Drury has given us an information that Wittgenstein valued James very high, and he suggested him *The Varieties of Religious Experience* to read. But these references are not only evidence we have, because Wittgenstein has referred to James in his *Investigation*, too. But we do not

have a much of references to C.S. Peirce, and those references we have, are indirect ones. Let us remind only that Ludwig Wittgenstein has referred to Ramsey at the preface in his Investigations.

William James' and late Ludwig Wittgenstein's epistemologies weren't idealistic or atomistic but instead something mixed, or between. For the reasons that it has been studied so much those similarities between William James and Ludwig Wittgenstein there, is no need to discuss it in detail and profoundly any more. However, I shall take in consideration two cases, namely the case of pluralistic rope and the case of metaphysics.

William James has described history as a pluralistic rope. Just at this point there are similarities to Ludwig Wittgenstein who has illustrated his concept of Familienähnlichkeit with this metaphor. Namely, he claimed that concepts in the family are as rope. But as we know from G.H. von Wright Wittgenstein did not derive his Familienähnlichkeit from James but Spengler and his concept of Ursymbol which is an ideal where all individual cultures have been derived from. Ludwig Wittgenstein has also referred to Spengler as one of his philosophical references. But there are also other possible influences, I think. It might be interesting there how Juho A. Hollo has described Eduard Spranger and his book, whose name is Lebensformen. I think that its name, as well as its meaning, comes very close to Wittgenstein's similar conception.

Both William James and C.S. Peirce have emphasized that there must be formed metaphysical spheres, but there are certain differences between them in the question. J.E. Smith has described C.S. Peirce as a scientist that he had certain metaphysical and cosmological reference, to which he mirrored his scientific knowledge. It seems to me that he has used much larger metaphysical spheres than William James when explaining science, and man, as a whole.

William James has strongly argued for that in the branches of science, for example, there ought not to be some universal metaphysical explanations. He didn't deny that metaphysics had any role in human understanding but he emphasized that apriori metaphysics is not good for any branch of science, and instead of it there ought to work descriptively with a posteriori metaphysics, and do it with a continuous movement with every branch science. Any branch of science must grow inside its metaphysics. But what is that role of metaphysics? It stands for the identification of every branch of science, and that metaphysics is merely psychological.

But what about the role of metaphysics in young Ludwig Wittgenstein's philosophy? From K.T. Fann we know that Wittgenstein regarded the sentences of ethics, religion and metaphysics as nonsensical, because they try to say something which cannot be expressed by language, and deal with something which is out there, if we think the boundaries of the world and language. But metaphysics belongs to the human mind, and it must be respected. Ludwig Wittgenstein has expressed e.g. in his "Lectures on Ethics" that positive attitude to metaphysics. We may say generally that in late Wittgenstein's philosophy metaphysics did not lose its explanative role regarding human development.

But what about fictions and C.S. Peirce and Ludwig Wittgenstein? They did agree e.g. with the question that fictions were originated from the misunderstandings of past, but that they have very important role, too. From *Yleisiä huomautuksia* we know that Wittgenstein considered very important to establish fictive conceptions, which in turn can teach us how to understand real conceptions. In the book he also made an assertion that it isn't quite right to say that we are not succeeded to understand better the meaning of reality than Plato, by which he referred to the fiction that people in past were alike us.

Quite analogically C.S. Peirce has suggested that we can infinitely speculate with the question if Jesus should sign the writings which those Christians in the later times have written, and if philosophers in ancient Greece could at all express in their writings just those thoughts they actually had and how much there is due of misunderstanding and illusion produced by cumbersome expression.

For further readings I want to say that similarities between William James and late Ludwig Wittgenstein have been studied e.g. by K.T. Fann, M. Fairbanks, S.K. Wertz, and S.R. Vaughn. I have mentioned them there, because I have used them as my references during the current study.

Similarities between C.S. Peirce, John Dewey, and William James and the role of experimental psychology, or physics in the development of their philosophies

Let us consider here that they are some kind of persistent habits which are not quite the same thing as for example the habit taking and the laws in the universe. We must remind what we have stated on them already in the current study. Now I want to sharpen the concept of habit. C.S. Peirce has presented in his philosophy there is a general tendency of habit taking, and generalizing tendency, if we discuss the development of the whole universe, and the laws, too, as we have seen at an earlier stage in the current study. But these positive habit takings are not the same thing that we also have those habits which prevent us to reach the truth, in spite of that they may be a part of our false beliefs. Those self-willed habits in question are inborn, as well as they have been learned, or trained, and maintained. There is something which must overcome and also something which must be created instead. The development is, in general, the process where we try to create the new habits and make them stable ones. Let us consider the last question in detail.

What we have already known something about John Dewey and his philosophical stages? From S.R. Vaughn we have got to know that Dewey had also Hegelian stage in his philosophy, and that Dewey has studied experimental psychology by G.S. Hall, and that probably for that reason he has rejected his previous Hegelian tendencies. In addition to this, from E.G. Boring we have got to know what kind a relationship there has been between Hall and Dewey, and what kind has been Dewey's role in the development of functionalistic psychology. But these are certain preparatory philosophical stages, anyway, if we think Dewey did his most influential philosophical work much later.

From S.R. Vaughn we know something about John Dewey's work school, and its organization: how subjects were replaced by occupations, and how teaching was task-oriented, etc. Vaughn has cited one of John Dewey's books, namely *The Early Work*, in which there was an emphasis of sociability in society.

Let us also study those later stages in Dewey's philosophy when he was influenced by some other philosophers, who emphasized social relations, as well as roles. When John Dewey wrote an article on G.H. Mead's philosophy in *Journal of Philosophy*, he clearly expressed his indebtedness to Mead due to the development of his own thinking. But he also told that his thinking has been derived mainly from C.S. Peirce and Josiah Royce, but only by and after G.H. Mead. We may call this stage in a very good reason an instrumentalistic and functionalistic stage. Charles W. Morris has proposed for, when discussing Dewey's and Mead's philosophical relationship, that they agreed with all central questions and he referred also to certain articles of George Herbert Mead.

Let us remind two important topics which we have discussed at an earlier stage in the current study. From the fourth *ENCY* we have got to know that William James went to Europe in 1867, and he has studied then psychology. And from A.J. Ayer we have already got to know during the current study that in the year 1872 William James was elected to an office of instructor in physiology at Harvard Medical School, but in addition to this we get to know that he was the leader of the first course on experimental psychology in the United States in 1875, and that later he made Harvard as an important center of psychology. We can be sure that both John Dewey and William James oriented to the direction of experimental psychology, but also that they did not produce the conception of habit from experiments. William James has emphasized that we can behave according to the law of habit because of we have body. A human being joins to the physical world because of it has that body, which is a kind of ground, where at later stages shall emerge more and more habits. Hence, we can also say that this is the case also with our physical movements. James suggested that the law of habit concerns also thought and feeling, and that there are also mental images which are able to join together according to the law of habit. In addition to these there are certain laws of associations which describe how consciousness strengthens itself as waves.

If we think there those waves which James described, we have found at an earlier stage in the current study quite similar idea presented by C.S. Peirce when he has described the formation of the sets of ideas, or association proper. That very process he called the law of association of ideas. Similarly C.S. Peirce has suggested, too, when discussing consciousness, that there is an influence by which when one idea has its vividness increased, it gives an upward impulse to number of other ideas with which it is connected so that it forms one set with them. This kind of opinion suggest to the view that there are continuously going on the formation of sets of ideas. Let us remind again what I have considered at an earlier stage in the current study those C.S. Peirce's conceptions on the physical nature of habits e.g. in his nomological psychology - that the great law of association is analogical to physical gravitation.

Hence, it seems to me that James's explanation of the essence of the law of habit and the nature of association is not very original one but instead it seems to have Peircean inheritance.

From Collected Papers we have got to know at an earlier stage in the current study that C.S. Peirce lectured in 1898 at Cambridge on the concept of habit, where he emphasized its physical nature and gave also some examples of it, and that he has referred to his father Benjamin Peirce's work *Analytic Mechanism* when explaining the nature of movement, and he referred to his father again, when explaining relative and absolute motion. But why? Because of his father has presented him with pendulums those instabilities with experiments. I we think the whole empirical work of C.S. Peirce, we can see this only as an example, which he has derived from his experiences in science. And there are several cases like them, in which he has used certain examples. But the main point is not in them, as such, but in the nature of habit, and that there are certain examples especially in physical reality.

But there is a question of the physical nature of associations, as well as to their resemblance to the ordinary life, to which William James has suggested for. C.S. Peirce has presented the law of association with divide inference into inferences by continuity and inferences by resemblance. There are two of categories in it, from which the one is connected to the ordinary life and the other to such phenomenons as mathematics. The former of them is connected directly to the physical reality, and the latter can be independent of it. C.S. Peirce has supposed, when describing association per se, that the law of the association of ideas explains everything - which is also physically measurable.

But there is the question of the essence of mathematics, and especially in relation to logic which we have discussed at an earlier stage in the current study. But what kind is that reality which is able to contain habits or associations, and maintain them. One possible answer may be there where C.S. Peirce has referred both to biological and sociological bases, as well as to principles: that a great many associations of ideas are inherited, and others can grow up spontaneously. But there is also the principle that ideas once brought together into a se remain in that set.

We may say that some of those "habits" are learned in the state where there is any kind of critics - as during childhood for example. Generation by generation they will be accepted as truth. This kind of view refers clearly to Francis Bacon's idolas which are quite similar concept of false beliefs. The only cure for this, as C.S. Peirce has suggested, is the better experience, by which he didn't suggest only to sensations we can have.

I think that there are obvious links to C.S. Peirce's philosophy, but also to Aristotle's conception of soul, as a function of body, which we have been discussed at an earlier stage in the current study. Let us remind, again, how Robert E. Grinder has described Aristotle's and Plato's conception of soul which we have discussed at an earlier stage in the current study.

If we think that large correspondence between C.S. Peirce and William James, and how important the former has regarded Aristotle, as we have got to know by Walker Percy and by A.J. Ayer it quite probable that some of Aristotle's ideas has been adopted unintentionally, or intentionally by James, too. But there has been also other philosophical influences. Let us remind, again, what we have got known from John Dewey that William James' philosophy has been close connection to British philosophy, too, as to John Locke, David Hume, John Stuart Mill, but also to the psychology of Bain and Hodgson whose role in the development of James' ideas we have discussed at an earlier stage in the current study. All of those philosophers, as well as empirical scientists, have influenced to James' conceptions of habit and the mind.

Hans Vaihinger and pragmatism

Juho A. Hollo has mentioned that the same kind of theories as American pragmatism were constructed in Europe by Henri Bergson (1859-1941), Hans Vaihinger (1852-1933) and George Simmel. Let us study that claim that Vaihinger had been an advocate of pragmatism. We can doubt his view, because Vaihinger's philosophy grounded on such kind of philosophical schools, whose general claims C.S. Peirce has, in turn, denied. But of course, it can be said that Vaihinger developed a theory which has certain similarities to pragmatism, too.

This is the state of affairs, especially where Hans Vaihinger has assumed, in his short description of the philosophy of 'as if', that science, morals, religion, etc. deal with fictions which are consciously made as false ones, but in the same time, they are quite necessary. Let me say generally right there, that also Jeremy Bentham was acquainted with fictions and he wrote a book which associated to them, as well as to the themes of general linguistics.

Hans Vaihinger has claimed that Francis Bacon, George Berkeley and David Hume didn't have a clear and acceptable conception on fictions. He referred in addition to them to John Locke and to his essay. On the opposition to this C.S. Peirce has, in turn, valued those philosophers rather high, and also in general such schools as English empirism and Scottish realism. He has written to Mario Carderone a letter in 1905 where he expressed his appreciation to those philosophers and schools. Let us remind, again, how Israel Scheffler has described C.S. Peirce's model of the doubt and belief, which refers generally to Humean skepticism. That is why it seems to me that C.S. Peirce and Vaihinger took their philosophical references from different soils.

Hans Vaihinger based his philosophy just on English nominalism which was also a part of Scholastic philosophy. namely, he argued for that there are signs that in English nominalism have been recognized the nature of fictions properly, and Vaihinger mentioned here specially Wilhelm Occam (1290-1349). Let us remark that by the nominalism of Occam the outside world of language and thought consisted of individual things. But if this is the case it certainly seems to me that in English nominalism fictions and their role will certainly have seen quite another way than in that Scholastic realism, which a view C.S. Peirce and Duns Scotus advocated which I shall discuss later in the current study in detail.

Hans Vaihinger has mentioned in his biography also Thomas Hobbes (1588-1679) who have described excellent the nature of fictions. But what kind a philosopher was Hobbes? Generally it can be argued that the methodic model in Hobbes was Galilean physics which he applied to the human behavior and individual psychology. Hobbes thought that suitable conceptions to this were gravitation and centrifugal force. Let us remind that also C.S. Peirce applied those natural forces to describe the nature of abstraction, which he expressed as the centrifugal tendency of thought, and to describe association as an analogy to the physical gravitation, as I have illustrated them at an earlier stage in the current study in C.S. Peirce's nomological psychology, and there especially in his Study of the Great law of Association.

But there are also certain differences between C.S. Peirce's and Hobbes' orientation, too. The general tendency in the Hobbes' philosophy was materialistic and deterministic, where the freedom meant something contingent, which kind a view C.S. Peirce did not advocate for. We must remind right there C.S. Peirce's synechism, which is as opposition both to materialism and idealism. We ought to remind also his indeterminism, as well as its reasons, which has been presented by J.E. Smith which I have discussed at an earlier stage in the current study.

But there is also Hobbes' nominalism, for also he considered universal concepts as products of human mind. Let us remind how C.S. Peirce attacked strongly against nominalism, e.g. in his letter to William James which is dated on the 7th March in 1904 where he suggested for the one purpose of the pragmatist doctrine that denying nominalism. In Another letter to James dated on the 13th March in 1904 C.S. Peirce considered nominalism a kind of test before a move to realism.

But what kind a philosophical doctrine was nominalism? By most philosophical encyclopedias nominalism was the doctrine in Scholastic philosophy, where general concepts were kept only as the names in language which do not correspond to any real things. This means that only the concepts can have references which are believed to exist between things, which things do not have. This view suggests implicitly to that the reality of objects, if ever realized as it is, is simpler than the reality of concepts. But it may suggest also to that we cannot know what kind is that reality which governs objects explained.

The approaches of Hans Vaihinger and C.S. Peirce to Immanuel Kant's philosophy is quite different. It might be said that the former emphasized philological analysis and accurate meanings of sentences which may be due of his nominalistic orientation. The latter took certain contents and transformed them to his own purposes.

Hans Vaihinger named Immanuel Kant the person who gave him considerable philosophical influences to his philosophy of fictions; he mentions especially his heuristic fictions which were presented a hundred year before they actually could be understood. Vaihinger has also quoted to Plato's Dialogs and Apology which he has read in 1868. We get to know that Vaihinger studied Latin and because of those studies and because of his excellent teacher he could make an accurate philological analysis on the texts he examined.

At the beginning of 1876 Vaihinger started to write his first version of his *Philosophie des Als Ob*, and concentrated first especially to Immanuel Kant. When he studied Kant's texts he also used philological method and discovered that certain pages in Kant's *Prolegomena* were in wrong order. It seems to me that Vaihinger was an accurate and strict person who wanted to make the perfect blueprint from the target. But it does not seem to me that C.S. Peirce was the same kind a person. However, let us remind that we know from several literal sources that he has appreciated Kant, as we have discussed at an earlier stage in the current study. There is e.g. C.S. Peirce's letter to Mario Calderoni which has been written approximately in 1905 where he expressed his indebtedness to Kant.

Hans Vaihinger read also Benedict (Baud) de Spinoza (1632-1677) when he matriculated to university, and especially at Spinoza's conceptions concerning the structure of the universe. Let us remind that also C.S. Peirce appreciated Spinoza and valued him very high.

Hans Vaihinger studied Aristotle's writings when he matriculated to university. However, here must be specified that obviously he had not opportunity to study all of the very original Aristotle's texts, because part of them has been totally lost. Let us remind, however, that we have only few of his original writings, and the rest of Aristotle's philosophy which was not known earlier in Europe, became from Arabian texts. I don't know whether Vaihinger had read those Arabian texts, or not, or has he studied those texts which became acquainted by Thomas Aquinas, or just the original Greek ones, or some translations, but this is a quite different story. But as we have seen at an earlier stage in the current study, by Walker Percy and by A.J. Ayer also C.S. Peirce has derived some of his ideas from Aristotle. And by Percy there was a reference to medieval language which C.S. Peirce has translated to the modern English.

William James and Hans Vaihinger had a similar attitude to the relationship of psychology and philosophy in certain questions. For example where Vaihinger supposed that without psychology philosophy and methodology would be just methodic abstraction. But he referred here to Avenarius, whose psychology became as a part of him, as he said. But he referred also to Johan Friedrich Herbart (1776-1841).

Herbart has proposed for that there are the laws of associations and certain rules, which control the way that mental images comes to consciousness. From that follows that pedagogic means the organization of the ways those mental images, and the meanings of them are learned, as K. Grue-Soerensen has presented them in his book whose Finnish translation which has been called *Kasvatuksen historia*, to which I refer here. In this book he claimed, too, that John Dewey emphasized the view that the thought is adaption to the outside world, and also changing it such as it is wished and hoped to be. We cannot learn what kind the outside world is like if we organize firmly that way the learning advances. Dewey supposed that also experiences must organize in a new way. But also James attacked against Herbartian pedagogic, to which attitude I will return later in detail, if possible.

Hans Vaihinger has referred as an influential figure to Adolf Horwitz whose *Psychologische Analysen auf physiologischer Grundlage* he got to know in 1872-1873. In the book Horwitz pointed out that psychology rests upon the responses of reflexive schemes and their study with stimulation. So Vaihinger got convicted that the human thought is only a mean by which we can fulfill our strives. This seems to me like a voluntaristic view. We can get some support to this from Charles W. Morris who has named Vaihinger as a voluntaristic philosopher. Let us remind what I have discussed at an earlier stage in the current study that C.S. Peirce has included to elementary level of his nomological psychology, namely into special psychognosy such things as psychophysics, physiology and biological volition.

Hans Vaihinger has written in his biography that he became in Leibzig to teacher in 1875, as the same time as Wilhelm Wundt began to teach philosophy in Leibzig. But is it strange that Hans Vaihinger does not emphasize Wilhelm Wundt very much in his biography, though he mentions that Wundt came to Leibzig September in 1875 and that his first lecture concerned on logic, which Vaihinger was very interested in, and for that reason he wished that he could stay in Leibzig. But he must go to Berlin where his first book was published which consisted of Academic Philosophical Society -lectures, and which was a critical essay on the history of philosophy in the 19th century. But why Vaihinger did not follow the development of Wundt's career more closely? Because of he was oriented in this stage to the metaphysics of E. von Hartmann, as well as to materialistic positivism of E. Dühring and studied Lange's Kantian tendencies. As an conclusion we can say that Vaihinger got his only influences from experimental psychology at very early stage in his philosophy, and later he was not much concerned with it. We must remind that at the beginning of 1876 Vaihinger started to write his first version of his *Philosophie des Als Ob*, and that he started from Kant. It can be mentioned here that from that very early version he wrote in 1877-1879 he later included to the second part of his book. But why this arrangement? Because Vaihinger was forced completely to stop writing his book of 'as if' temporarily in 1879 and he could continue it in 1906, and there were some lectures between.

From A.J. Ayer we have got to know that in the year 1872 William James was elected to an office of instructor in physiology at Harvard Medical School, and that he was the leader of the first course on experimental psychology in the United States in 1875, and that later he made Harvard as an important center of psychology. But what is important there is that William James has cited in his *Principles of Psychology* the scientific discoveries of Francis Galton, Gabriel Valentin and Wilhelm Wundt, too. In addition to this remark I want just remind that this book in question affected significantly later to Ludwig Wittgenstein, as we have seen at an earlier stage in the current study.

James had also made some critical remarks on Wundt in other contexts. From E.G. Boring we know that James did not accept elementarism, as well as Wundt's certain concepts. And as we can read at John R. Wilson in a serie which was published by The Time , that James considered the German psychological tradition very boring but that i would be very difficult to disprove for example Wundt's theories splitting them into smaller parts without that those parts of it still were alive like short pieces of a worm.

However, Wilhelm Wundt founded in 1879 the first laboratory of experimental psychology in Leibzig. This was just the time when Hans Vaihinger was finishing his first version of 'as if', and in 1875 James had lectured on experimental psychology in The United States, as we can remind. Anyway, Wundt aimed to develop a mean, by which describe the ideas which associate with sensations. He leaned philosophically on Rene Descartes and John Locke. But what does this mean, and what are its consequences? Let us remind how Walker Percy has described the difference between mental and physical which have been made at the age of Descartes, and emphasized there especially his categorization between res extensa and res cogitans. Let us also remind what has been said about Lockean empirism.

Wilhelm Wundt was criticized already during his life, and especially after his death. One of those opponents was Franz Brentano who asserts that sensation must not be described as an idea but function. I want to refer to Tuomo Aho's lecture on Brentano's relationship to phenomenology. Namely, Brentano considered psychical phenomens as experiences. But he also emphasized the role of intentionality and claimed, as Scholastic philosophers, that only psychical phenomens can be intentional and only them can concern something. This is known as Brentano's thesis which is also associated to his famous concept of intentional inexistence.

by Tuomo Aho there are two kind of theories which explain what he ment by intentionality. If we consider Brentano as an advocate of object theory, which says that intentional act is a relation between object and subject, and that an object determines what kind an act is in question. That kind a conception of Brentano's intentionalism have supported D.W. Smith and R. McIntyre . There seems to be as an opposition to C.S. Peirce, if we think what Charles W. Morris has written on C.S. Peirce's conception of object and its role namely that we interpret an object by its effects to us, and it depends on those effects how clear conception we can have about object. Hence, we determine ourselves, by our act to understand something about object, what kind a conception we have, and object we try to understand gives certain restrictions to us, by the effects it has to us but we cannot say that an object determines what kind an action is in question because there are several kinds of interactions between us and objects, and one of them is understanding of them. But by Tuomo Aho Brentano can be regarded as representative of the "content theory", too, which says that intentional act has as such a content which says to where act is directed for. Exponents of this view are, for example, A. Marras and R. Richardson in his writing on Brentano's intentional inexistence. I think that this a view is much closer to C.S. Peirce's view than former interpretation.

There might be a kind of link to C.S. Peirce's epistemology, if we accept Brentano as an advocate of "content theory". But in the same time we might to suppose that there is no such links to C.S. Peirce. The answer depends on the level, on which we consider that "content". By the doctrine of synechism there cannot be any meaning which is totally apart from things which we explain. Hence, the all elements of our consciousness must belong to "content". But they do it in different ways, however.

From Walker Percy we know that C.S. Peirce's argument:

"... there are real things out there whose characters are independent of our opinions of them".

C.S. Peirce has explained, too, that our sensations contain two radically different kinds of elements of consciousness; one part is feeling - and the other part is the consciousness of being compelled to feel upon that particular occasion. This consciousness of compulsion has, in turn, a general resemblance to the consciousness of willing, and in that process of willing there are present both self-consciousness and the consciousness of some exterior force, and the self and not-self are separated in this sort of consciousness. But this suggests only to that there might be a relatively simple contents in this process. There must be more developed structures, if we want more complete contents. Let us remind how C.S. Peirce has presented mediscense, where we form our ideas by certain centrifugal and associative processes.

On the one hand these ideas which we bring up by ideas are well-developed contents, but they are not final ones. On the other hand, those higher contents should not be possible at all, if there were not present those actions of willing. We may say that willing is quite the same as direction, or that there is a movement. The differentiation of self and not-self makes, in turn, room for "our" contents and "our" surroundings. But we must remind, too, that by Charles W. Morris C.S. Peirce has emphasized that there cannot be any final meanings in any of those processes, and that we cannot conclude what kind they should be, if we are considering only processes or developments. And there is the fact that we shall loose us as persons when we have signs ad infinitum at hands, as enlarged self.

11. Conclusions

We can conclude, at least, that isms are not real continuums, that is, they are not as a method to approach philosophies, notwithstanding that e.g. pragmatism has been called as a method of thinking. But we must regard philosophical traditions as continuums, anyway, because of the purpose for our studies, and as real things, too. But we must emphasize those interactions, which they have with other traditions. We can propose for that new, - and critical realism, and naturalism have certain contact surfaces to earlier voluntary philosophy, as well as to evolution philosophy and evolution theory, and also to pragmatism.

But what is quite strange in this context, especially how it is presented e.g. in The ENCYclopedia of Philosophy, that pragmatists have belonged to all of those mentioned views. There is a reason in it, however. If we think those schools of realism, they can be regarded as transitional stages to naturalism, and we might suppose that pragmatists have appreciated general tendency in them. But, as at earlier stages in the current study, the most important are certain persons, whose philosophical contacts to each others are far more important than the similarities and dissimilarities between abstract constructions. All of the philosophers have lived during certain ages, and in certain circumstances, too, and their attitudes have changed during their philosophical careers.

Always, when the world expresses the new features, we have new kind of experiences, and they cannot be reduced to the former stages, and to their experiences. I think that this is the kernel of C.S. Peirce's whole philosophy.

In General, it seems quite clear that C.S. Peirce's concepts seem to talk quite different language than concepts in many other philosophical schools. And, as we remember, C.S. Peirce was strongly against all isms, which are helpful means, perhaps, but they cannot be regarded as entities, or substances.

But using them, or similar concepts, it is possible to build a kind of landscape and a scenery, to where it will be arisen many dilemmas. We have a kind of place, where there are sentences against sentences, arguments and counterarguments, as well as philosophical goals. But still, I think, we may talk about some kind of an artificial reality we have, and for a good reason about a virtuality of the mind, and possibility. Let us remind once more that C.S. Peirce described in his letter to William T. Harris which has been dated on the 30th November in 1868 the mind just as virtual.

Anyway, there is something more that we can comprehend, and we are going to see it clearly at the end of all, but before that we have a kind of faint idea that there is something more. Let us remind what John Dewey Has argued for that we have more profound belief at hands when we are approaching something what has not been given to us just by divine elevation, but by something which does not exist, yet. But what about the role of chance? C.S. Peirce has written that chance is only a name for a cause that is unknown to us. Right there, let us remind that C.S. Peirce has argued for, too, that there are natural born icons and diagrams which suggest themselves, at first dimly, but later clearly to us. It seems to me that we are creating continuously a new kind of reality, as well as a new kind of the mind. Possibly we have certain role on the development of the universe, too, which we have already discussed. And let us remind, again, what C.S. Peirce has presented e.g. on his famous doctrine of synechism.

But in spite of the [possible] virtuality of the mind, our sentences are still real ones, and the can be regarded as arguments. Let us remind what have been discussed at an earlier stage in the current study on the essence of signs and man, as being presented by Charles W. Morris , and also by others. These remarks suggest to that had we only rough interpretations concerning objects, or were we using signs ad infinitum, we should regard our sentences such that they have certain origin and targets, and accept that nothing can exist totally apart from others.

Thus, anyone of pragmatists can be regarded as a single phenomenon in philosophy, and this is also the case with Ludwig Wittgenstein, too. Let us remind those comments which have been presented by commentators during the current study.

But C.S. Peirce has argued for, too, that there can exist (in future) finally undeniable opinions concerning objects, which are above them, but they are not as any special cognition which an individual can have. From Israel Scheffler we get to know further that C.S. Peirce has suggested for that the object of undeniable opinion can be dependent from an opinion in question. For that reason the whole reality is, in general, dependent from thought, but it is quite independent of what I, you, and innumerable other people can think about reality. But why this differentiation? Because the final mind is something which is coming to its existence, and this is the case concerning e.g. the mind of a branch of science, where it is not to which it has been described by the most talent specialists, but rather we can regard it as unknown.

If we think that future orientation, for general, the only thing we can say is that this might be case with the current study, too. It might be that there is some final mind in it, but also that there is none. I have tried to carry some themes trough the study, and put them to different contexts, which might have nothing to do with future knowing, but they should have that dimension the future orientation.

12. References