

Some features of the normative function of C. S. Peirce's pragmatic maxim

The kind of philosophy which interests me and must, I think, interest everybody is that philosophy, which uses the most rational methods it can devise, for finding out the little that can as yet be found out about the universe of mind and matter from those observations which every person can make in every hour of his waking life. (Charles S. Peirce; 1905)

Abstract

In order to gain the highest grade of clarity of his concepts, the polyhistor Charles S. Peirce (1839-1914) put forth a pragmatic maxim. We get a glimpse of a maxim which is to serve the self-controlled scientific drive for growth in the concrete reasonableness. It follows that the maxim is endowed with a special normative function; the maxim renders the meaning of clearly understood concepts as general normative rules of action, i.e. the meaning of a concept is directly assessed in the light of its contribution with which reactions it causes provides for the realization of the highest purpose of reasoning. These conditions always involve certain goals for action - goals which are founded on the general way in which actions contribute to the universal process of rationalization. Mankind can and should try to contribute to the aforesaid growth, and this e.g. by using the pragmatic maxim. But this requires that mankind relentlessly tries to cultivate not only his thinking and acting habits but also his habits of feeling in accordance with the highest purpose; these efforts of cultivation fall precisely within the three normative sciences: esthetics, ethics and logic.

KEYWORDS: CSP, pragmatism, the pragmatic maxim, summum bonum, the growth in the concrete reasonableness and the three normative sciences esthetics, ethics and logic.

Introduction

Charles S. Peirce's (1838-1914) pragmatism is an analytical method within the framework of a general theory of scientific knowledge (cf. Apel 1995: 21; Hookway 1985: 235; Kent in 1987: 178). Here the pragmatic maxim plays an important role as a maxim by which intellectual concepts can be endowed with the highest degree of clarity. The maxim is an account of meaning; it enables the identification of meaningful and useful sentences. Furthermore the maxim is related to Peirce's notions of truth and reality; to him truth is the limit of the scientific inquiry and reality means nothing more than what is represented in a true representation; the maxim is required in order to clarify which concepts/hypotheses are worthy of being made subject to closer inquiry and this knowledge contains the key to understanding where the best focus of scientific inquiry lies. If it is possible carefully to describe the conceivable practical consequences, which the confirmation or the denial of a concept may have, then we have achieved the highest degree of clarity. By practical consequences Peirce meant the experimental consequences which can affect rational, deliberate action. When the meaning of a concept is to be determined this has to happen in relation to an end; i.e. the purpose of reasoning, which is to regulate and put forth and make directions for human action. That is, the pragmatic maxim is endowed with a special normative function, and it is this function which we in the following will try to take a look at.

The pragmatic maxim is related to the concept of self-control, and it is placed within Peirce's normative logic. The normative logic rests on a number of conceptual conditions which stem from Peirce's normative ethics and esthetics and not least his teleological evolutionary metaphysics. In the latter disciplines: normative esthetics and metaphysics, Peirce suggested a concept for the highest purpose of self-controlled action to which reasoning belongs; according to Peirce, there is a "growth in the concrete reasonableness", i.e. a universal rationalization process in the universe, and this is the highest purpose - an esthetic ideal which is good - sui generis. Man kind can and should try to

contribute to the aforesaid growth, and this e.g. by using the pragmatic maxim. But this requires that mankind relentlessly tries to cultivate not only his thinking and acting habits but also his habits of feeling in accordance with the highest purpose; these efforts of cultivation fall precisely within the three normative sciences: esthetics, ethics and logic.

The article is set up in the following order: First, we must look at how Peirce identified the highest degree of clarity of conceptual understanding and related this to a particular form of goal oriented action to make a contribution to the "growth in the concrete reasonableness". Next, we look at how logical thinking to Peirce is linked to the possibility of esthetic self-control and self-criticism. Finally, we will have a look at the three normative sciences' close interrelatedness and make a comment on the pragmatic maxim regarding that.

The pragmatic maxim, conceptual understanding and the highest purpose for action

In his now legendary program article "How to Make Our Ideas Clear" (1878) from the series "Illustrations of the Logic Science" Peirce tried to present a new method for achieving conceptual understanding of the highest degree. This Peirce understood as the first important step in the direction of producing:

...those vital and procreative ideas which multiply into a thousand forms and diffuse themselves everywhere, advancing civilization and making the dignity of man, is an art not yet reduced to rules, but of the secret of which the history of science affords some hints. (CP: 5.410)

Thus, the method is part of the scientific study; first when a concept appears to be clear, it can be further explored whether this concept is true or false - that the scientist can achieve the highest degree of conceptual understanding is therefore an indispensable condition for the existence of scientific investigation (cf. Thompson in 1953: 79). Peirce took his point of departure in the rationalists

Descartes' and Leibniz' doctrines regarding clear and distinct ideas and he laid out the clear concept as follows:

A clear idea is defined as one which is so apprehended that it will be recognized wherever it is met with, and so that no other will be mistaken for it. If it fails of this clearness, it is said to be obscure. (CP: 5.389)

Thus, a concept is clear for the one having knowledge of it and can recognize it without any kind of hesitation in ordinary situations, he is quite ready to use the concept and interpret it; we can also add that this relationship requires the ability to be able to use a similar concept. Regarding a distinct concept Peirce defined this as follows:

A distinct idea is defined as one which contains nothing which is not clear. This is technical language; by the contents of an idea logicians understand whatever is contained in its definition. So that an idea is distinctly apprehended, according to them, when we can give a precise definition of it, in abstract terms. (CP: 5.390)

Thus, a concept is distinct to him who can produce a verbal and thus a general definition of it. However, why should the meaning of a concept be clear just because one can use a similar concept? It could for example be that this concept is taken for granted and has never been subject to a detailed analysis. Should we be able to make a verbal definition, it is not even sure that we are on the right track; it could be that we just correlate an empty concept with another empty concept (cf. Goudge 1950: 151 -52). Consequently, the perceptions regarding clear and distinct concepts can neither alone nor in community ensure that the highest level of conceptual understanding is achieved, according to Peirce (cf. Scheffler 1986:77). Indeed, Peirce pointed out that the very philosophies which had accepted the doctrine of the known used and abstract distinction were now

defunct, which was good, because this kind of thinking regarding conceptual understanding was one of the main reasons why philosophy often had had difficulty in making genuine progress and often ended up in conflicts because of the inability to agree on a certain conceptual view (cf. Goudge 1950: 152). Peirce wrote the following:

It is easy to show that the doctrine that familiar use and abstract distinctness make the perfection of apprehension has its only true place in philosophies which have long been extinct; and it is now time to formulate the method of attaining to a more perfect clearness of thought, such as we see and admire in the thinkers of our own time. (CP: 5.390)

No, it was according to Peirce time – however, starting with the old doctrines - to establish a methodology which could lead to the highest degree of clarity of conceptual understanding; the method Peirce suggested implies that the user of a concept must try to grasp the pragmatic meaning of it, and thus it is necessary that the concept user focuses on: "...the upshot of [his] concepts in order rightly to apprehend them." (CP: 5.4); by pragmatic view Peirce meant the Kantian word *pragmatisch*, consequently, experience-related or experimental (CP: 5412). Put another way, the method is simply the method by which all the successful sciences has reached a specific level of certainty and accuracy in their work (cf. CP: 5465; Gallie 1966: 20-21); If we participate in a discussion with an experimentalist we will learn how, as Peirce wrote in the article "What Is Pragmatism" (1905):

...whatever assertion you may make to him, he will either understand as meaning that if a given prescription for an experiment ever can be and ever is carried out in act, an experience of a given description will result, or else he will see no sense at all in what you say. (CP: 5.411)

A concept is a sign-relationship and understanding is a sign-process or semeiosis (cf. CP: 5 251, EP II: 402), and in connection to this we can, by aid of Peirce, semeiotize those steps in the process of understanding which creates the highest degree of conceptual understanding and this as follows (cf. Misak 1991): Firstly, the concept user may be able to identify the objects which represent the concept through its meaning; this is related to the concept denotation - the quantitative dimension of the concept. Secondly, the concept user has to be able to define the term, this being related to the concept connotation - the qualitative dimension of the concept, i.e. the number of features as the concept may be predicated in a general conventional definition. However, together the sum of denotations and connotations only gives the conceptual user a form of "verbal knowledge", as Peirce said in a manuscript from 1910:

I do not call the knowledge that a person known to be a woman is an adult, nor the knowledge that a corpse is not woman, by the name "information", because the word 'woman` means a living adult human being, having or having had, female. (MS 664: 20)

The relationship between denotation and connotation is mediated by information - thus a concept is representative since it has a connotation relative to a state of information, while the denotation of the concept can only be specified by aid of a representation relative to a state of information. (cf. Lizska 1996).

In order to achieve the highest possible degree of clarity of conceptual understanding the concept user must, thirdly, be able to coordinate the denotation and connotation of the concept so that he knows what would be expected if a hypothesis involving the concept holds true. These three steps in the process of understanding can be correlated with Peirce's later trichotomizing of the interpretant: the immediate interpretant, dynamic interpretant and final interpretant, respectively. Regarding these three types of interpretants, Peirce

wrote in a letter to James (1909) the following:

The Dynamical Interpretant is whatever interpretation any mind actually makes of a sign. This Interpretant derives its character from the Dyadic category, the category of Action...The Final Interpretant does not consist in the way in which any mind does act but in the way in which every mind would act. That is, it consists in a truth which might be expressed in a conditional proposition of this type: "If so and so were to happen to any mind this sign would determine that mind to such and such conduct." By "conduct" I mean action under an intention of self-control. No event that occurs to any mind, no action of any mind can constitute the truth of that conditional proposition. The Immediate Interpretant consists in the Quality of the Impression that a sign is fit to produce, not to any actual reaction. (8.315)

How aforesaid interpretants are related to the three steps in the process of understanding Peirce gave us a clue of when he noted the following in a longer undated manuscript:

In the Second Part of my Essay on Pragmatism, in The Popular Science Monthly of 1877 Nov. and 1878 Jan., I made three grades of clearness of Interpretation. The first was such familiarity as gave a person familiarity with a sign and readiness in using it or interpreting it. In his consciousness he seemed to himself to be quite at home with the Sign. In short, it is Interpretation in Feeling. The second was Logical Analysis = Lady Welby's Sense. The third, Pragmatistic Analysis, would seem to be a Dynamical Analysis, but [is] identified with the Final Interpretant. (CP: 8.185)

This means that the first degree of clarity of conceptual understanding is related to the dynamic interpretant; the concept user is able to use and interpret the

concept, he possesses an everyday knowledge of the concept. The second level of clarity of conceptual understanding is related to the immediate interpretant; the immediate interpretant is a general definitory understanding of the concept. This leads us finally to the third degree of clarity of conceptual understanding which is related to the final interpretant; this regards understanding of what the consequences might be expected to be if the concept holds true (cf. Atkin 2008: 67).

In addition, the final interpretant is a norm or standard to which current understandings of the concept can be judged (cf. Savan 1988: 62), which fits nicely with Peirce's later determination of the highest degree of clarity of conceptual understanding as being related to the consequences of deliberate, self-controlled action. But now we are getting ahead of ourselves - let us first take a brief look at Peirce's classic definition of the pragmatic maxim of "How To Make Our Ideas Clear" (1878):

Consider what effects, that might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object. (CP: 5.402)

The pragmatic meaning of a concept consists of its possible experiential consequences, which Peirce understood as: "effects, direct or indirect, upon our senses." (CP: 5.402). Being a mature and scholastic realist, Peirce meant that these possible experiential consequences (cf. CP: 1.16ff, 5.77, n.1; Boler 1963) would be in the form of a series of conjunctive phrases of conditions; e.g. if someone did A1, then would the experiential consequence B1 occur.

Since it is about what would happen, and not just what will happen when a certain number of events occur, there will at the same time be made room to make a judgement regarding what should happen – i.e. how we ought to act to be in accord with the highest purpose (cf Potter, 1996: 97). In "Lectures on Pragmatism" (1903) Peirce defined his pragmatic maxim in the following way:

The elements of every concept enter into logical thought at the gate of perception and make their exit at the gate of purposive action; and whatever cannot show its passports at both those two gates is to be arrested as unauthorized by reason. (CP: 5.212)

According to Peirce, experience is our main teacher - as he wrote, again from "How to Make Our Ideas Clear" (1878): "... the machinery of the mind can only transform knowledge, but never originate it, unless it be bold with the facts of observation". But when the meaning of a concept has to be determined it must take place according to a purpose, i.e. the purpose of human reasoning, consequently, to standardize and make instructions for human behavior (Potter, 1996: 97). However, what makes up the highest purpose? In "What Is Pragmatism" (1903) Peirce wrote:

...the pragmaticist does not make the summum bonum to consist in action, but makes it to consist in that process of evolution whereby the existent comes more and more to embody those generals which were just now said to be destined, which is what we strive to express in calling them reasonable. (CP: 5.433)

Thus, Peirce arrived at what V. G. Potter wrote in his pioneering work "Charles S. Peirce On Norms and Ideals" (1997):

...to acknowledge the embodiment of Reason as the summum bonum through a contemplation of the universe's structure. The interplay of modes of being bringing about the cosmos' development struck him as something admirable in itself. (Potter 1997: 203, n. 13).

To Peirce, evolution takes place between two forms of nothingness – nothingness as the total absence of regularity and nothingness as the total rule of regularity – where a tendency to habit formation, a tendency to generalization which emanates from pure chance, generates a more and more intelligible structure (cf. CP: 1.409). The universe becomes more and more subdued to the law of mind; it becomes more and more rational pure and simple (cf. CP: 6.33, 6.265; Wennerberg 1963, p. 165; Potter 1997, p. 201). As an extreme scholastic realist Peirce let the highest good be anchored in the order of the universe; he ascribed to it an objective reality, made it authentic and independent of man's (at times) arbitrary fiats. Seen in this light the highest purpose is as Peirce stressed it in the "Lowell Lectures" (1903):

...the ideal of conduct will be to execute our little function in the operation of the creation by giving a hand toward rendering the world more reasonable whenever, as the slang is, it is "up to us" to do so. In logic, it will be observed that knowledge is reasonableness; and the ideal of reasoning will be to follow such methods as must develop knowledge the most speedily. . . .(CP: 1.615)

The pragmatic maxim can contribute to reasonableness when the meaning of the concept is evaluated in its relation to Summum Bonum, as Peirce wrote in the article "Pragmatic and Pragmatism" (1902)— for Baldwin's *Dictionary of Philosophy and Psychology*—a fourth level of clearness of thought can in fact be obtained:

a still higher grade of clearness of thought can be attained by remembering that the only ultimate good which the practical facts to which it directs attention can subserve is to further the development of concrete reasonableness. (CP: 5.3)

Thus, Peirce referred explicitly to the teleological metaphysic's concept regarding *Summum Bonum* as a frame for the usage of the maxim. That is, the meaning of the concept is judged directly on the contributions which the reactions cause, grant to the realization of the ultimate purpose of reasoning. The earlier mentioned conditions always involve certain goals for actions, goals which on their side are founded on the general way in which actions contribute to the universal process of rationalization (cf. Apel 1995, p. 89). It is therefore not a surprise that Peirce in a draft to a review of Herbert Nichols's "A Treatise Wednesday Cosmology, Vol I" (c. 1904) could identify the meaning of a concept with the consequences of deliberate, self-controlled action through a confirmation or denial of the concept, as Peirce wrote:

The method prescribed in the maxim is to trace out in the imagination the conceivable practical consequences, -- that is, the consequences for deliberate, self-controlled conduct, -- of the affirmation or denial of the concept; and the assertion of the maxim is that herein lies the whole of the purport of the word, the entire concept. (CP: 8.191)

Reasoning is related to esthetic self-control and self-criticism

Logical reasoning is a kind of self-controlled action (cf. CP: 5.108) - but only if reasonableness as the highest good has been transformed into a habit of feeling can the action be intended (cf. Sheriff 1994, p. 81). With close affinity to this, Peirce draws attention to this in "Harvard Lectures" (1903):

A logical reasoner is a reasoner who exercises great self-control in his intellectual operations; and therefore the logically good is simply a particular species of the morally good. Ethics...is the normative science par excellence, because an end -- the essential object of normative science -- is germane to a voluntary act in a primary way in which it is germane to nothing else...On the other hand, an ultimate end of action deliberately

adopted -- that is to say, reasonably adopted -- must be a state of things that reasonably recommends itself in itself aside from any ulterior consideration. It must be an admirable ideal, having the only kind of goodness that such an ideal can have; namely, esthetic goodness. From this point of view the morally good appears as a particular species of the esthetically good. (CP: 5.130)

In other words, the highest good provides a telos, that is, an aim for self-controlled action and creates the possibility for the goodness of action, the truth of reason and the beauty of feeling (cf. Anderson 1995, p. 42) - it makes up the basis for reasoning; inquiry can move in a certain direction in accordance with the development of the universe - since logic is based on conclusions of ethics, while both are based on the conclusions of esthetics. The possibility for **mankind** to fully develop his rational nature is not just related to his ability to cultivate his habits of action and thought, but includes having his feeling habits be subject to efforts of cultivation, or he cannot pursue Summum Bonum (cf. Harris 1997: xxiii). In "Basis of Pragmatism" (1906) Peirce precisely noted:

If conduct is to be thoroughly deliberate, the ideal must be a habit of feeling which has grown up under the influence of a course of self-criticisms and of hetero-criticisms; and the theory of the deliberate formation of such habits of feeling is what ought to be meant by esthetics (CP: 1.574).

Esthetics is the science of the deliberate formation of habits of feeling which corresponds to Summum Bonum. According to Peirce, feeling is related to the category of Firstness; so it is what it is, in itself, by itself. As Peirce wrote in "The List of Categories: A Second Essay" (c.1894):

Imagine me to make and in a slumberous condition to have a vague, unobjectified, still less unsubjectified, sense of redness, or of salt taste, or of an ache, or of grief or joy, or of a prolonged musical note. That would be, as nearly as possible, a purely monadic state of feeling. (CP: 1.303)

Thus, feeling is simple and non compound, it has no beginning, middle or end, it is objectless and subjectless, it is a mere "maybe-existence". While a feeling is a predicate of things; e.g. if a man is angry, this means, according to Peirce, there is a thing or a relationship in the outer world which makes him so, and he says to himself: "this thing is shameful, abhorrent "(cf. EP I: 23).

Finally, in a Peircean perspective a habit of feeling is a generalizing tendency (cf. CP: 1.409, CP 6.204, CP 7.515). It is a law which prescribes quality to of a number of feelings; the feeling habit is not an event that has quality, but is triggered in feelings which have quality, although it cannot be reduced to the row of feelings. It is something else and something more (cf. CP: 2148) (cf. savan 1981: 319ff).

The habit of feeling has a general nature, it is a sign relation. Is the habit of feeling a sign relation, it must be intelligible (cf. W1: 324). Where there is intelligibleness, criticism can be made; criticism involves a desire for correction, and correction involves a degree of self-control (cf. Potter, 1997: 41). Mankind is thus not only able to criticize his actions and ideas but also his feelings, comparing them with a standard, able to examine whether these are consistent with an intention, whether they lead to a feeling of satisfaction or dissatisfaction, to learn by experience, make his standard subject to revision or even to completely abandon it, and as a result of all this, to take on a new habit (cf. Feibleman 1943: 104 ff; Misak 2004: 171; Hookway 2006: 223 ff). Thus, mankind can conduct self-control within three areas, i.e. "esthetical" self-control, which relates to thought's control over feeling, "ethical" self-control, which relates to thought's control over action and last "logical" self-control, which relates to reasoning's control over thought (cf. Short 1997: 301). These three forms follow

the same intricate development as Peirce described in the manuscript "Pragmatism" (c. 1903) - the phases of self-control:

...of course there are inhibitions and coördinations that entirely escape consciousness. There are, in the next place, modes of self-control which seem quite instinctive. Next, there is a kind of self-control which results from training. Next, a man can be his own training-master and thus control his self-control. When this point is reached much or all the training may be conducted in imagination. When a man trains himself, thus controlling control, he must have some moral rule in view, however special and irrational it may be. But next he may undertake to improve this rule; that is, to exercise a control over his control of control. To do this he must have in view something higher than an irrational rule. He must have some sort of moral principle. This, in turn, may be controlled by reference to an esthetic ideal of what is fine. (CP: 5.533)

Instead of investigating the rational consciousness as a kind of kernel, Peirce tried to understand self-control as a series of phases. Of course Peirce was aware – as the conscientious fallibilist he tried to be – that he hardly had found all phases. Still, there seems to appear an interesting continuum ranging from instinctive self-control to regulated self-control, where the most general law is controlled in accordance to an esthetic ideal. The continuum corresponds to the level of consciousness. According to Peirce, consciousness makes up a system of three – and only three, as his categorial logic prescribes – classes of elements, named feeling, alter-sense and medi-sense, respectively. In an unnamed manuscript (c. 1900) Peirce wrote:

There are no other forms of consciousness except...Feeling, Altersense, and Medisense. They form a sort of system. Feeling is the momentarily present contents of consciousness taken in its pristine simplicity, apart from

anything else. It is consciousness in its first state, and might be called primisense. Altersense is the consciousness of a directly present other or second, withstanding us. Medisense is the consciousness of a thirdness, or medium between primisense and altersense leading from the former to the latter. It is the consciousness of a process of bringing to mind. (CP: 7.551)

In what way this consciousness trichotomy more precisely can be correlated with the continuum is not easily determined. Thus, let us be content with giving a couple of hints. The highest level of self-control is connected with medi-sense and thereby with the form of self-consciousness where thoughts, actions, feelings, intentions, decisions and the single parts of the body become whole; the past is connected to the future, decisions are connected and form a plan; plans are connected and form a life. All this happens with reference to a certain unit, a sign-relation, the self - the self, who thinks these thoughts, who carries out actions, feels this or that and have these intentions, etc. (cf. Short 1997: 302). The lowest levels of self-control are connected to feeling and instinct; thus the ability for self-control and rational reasoning is not limited by these; feeling and instinct are rather a fundament for the higher levels of self-control, as Peirce stressed in the lecture "Detached Ideas on Vitally Important Topics," (1898):

It is the instincts, the sentiments, that make the substance of the soul. Cognition is only its surface, its locus of contact with what is external to it. (1.628).

Mankind is endowed with a form of emotional rationality; he has the ability to cognize from his disposition to feel; what is valuable seems to be immediately felt and known (cf. Harris 1997: xxii). The possibility for mankind to develop his full rational nature is not only connected to his ability to cultivate his habits of

thought and action but also his habits of feeling has to be made object for cultivation, or else he cannot pursue Summum Bonum.

The interconnectedness of the three normative sciences and a final comment regarding the pragmatic maxim

The cultivation of habits of feeling, action and reasoning is the object of Peirce's three normative sciences: esthetics, ethics and logic; together these can be understood as an attempt to formulate a unifying model regarding self-control and with close affinity to this: rationality (cf. Hookway 1997: 202). It took a while before Peirce reached the conclusion that there were three normative sciences and that these enter into a special conditional relation. However, he was never in doubt about logic – e.g. defined as the theory regarding the intended form of reasoning (EP II: 376) - being a normative science, against which ethics and esthetics not until the later part of Peirce's philosophy were deemed worthy of being labelled normative sciences. Peirce saw esthetics as being art or a practical science and that taste cannot be discussed. However in his fourth "Lecture on Pragmatism" (1903), Peirce concluded:

But when, beginning in 1883, I came to read the works of the great moralists, whose great fertility of thought I found in wonderful contrast to the sterility of the logicians -- I was forced to recognize the dependence of Logic upon Ethics; and then took refuge in the idea that there was no science of esthetics, that, because *de gustibus non est disputandum*, therefore there is no esthetic truth and falsity or generally valid goodness and badness. But I did not remain of this opinion long. I soon came to see that this whole objection rests upon a fundamental misconception. To say that morality, in the last resort, comes to an esthetic judgment is not hedonism

In this way, ethics became endowed with the predicate: normative science, and it was – according to Peirce – an unavoidable propaedeutic to logic. But this was not enough. Esthetics completed the normative sciences and was nothing less than the science upon which both logic and ethics conclusions must build (cf. Stuhr 1993: 5-6). In his Harvard lecture “On Phenomenology” (1903) Peirce put forth the following definition of the three normative sciences:

...the research into the theory of the distinction between what is good and what is bad; in the realm of cognition, in the realm of action, and in the realm of feeling. (EP II: 147).

The normative sciences rest upon the condition that feeling, action and reasoning can be made subject to self-control. Therefore, the task of the normative sciences consists in finding out how these ought to be controlled. In “Lowell Lectures” (1903), where Peirce discussed what the right reasoning and the right action consists in, he noted regarding the conditional relation between the normative sciences the following:

What does right reasoning consist in? It consists in such reasoning as shall be conducive to our ultimate aim. What, then, is our ultimate aim? Perhaps it is not necessary that the logician should answer this question. Perhaps it might be possible to deduce the correct rules of reasoning from the mere assumption that we have some ultimate aim. But I cannot see how this could be done. If we had, for example, no other aim than the pleasure of the moment, we should fall back into the same absence of any logic that the fallacious argument would lead to. We should have no ideal of reasoning, and consequently no norm. It seems to me that the logician ought to recognize what our ultimate aim is. It would seem to be the business of the moralist to find this out, and that the logician has to accept the teaching of ethics in this regard. But the moralist, as far as I can make it

out, merely tells us that we have a power of self-control, that no narrow or selfish aim can ever prove satisfactory, that the only satisfactory aim is the broadest, highest, and most general possible aim; and for any more definite information, as I conceive the matter, he has to refer us to the esthetician, whose business it is to say what is the state of things which is most admirable in itself regardless of any ulterior reason. (CP: 1.611)

Thus logic can be understood as the study of correct reasoning, and the correct reasoning consists in reasoning which pursues an ultimate goal. According to Peirce reasoning concerns the part of the inferential process which can be made subject to conscious control and thereby critique and correction. In “Minute Logic” (1901-02), Peirce wrote:

For reasoning is essentially a voluntary act, over which we exercise control. If it were not so, logic would be of no use at all. For logic is, in the main, criticism of reasoning as good or bad. Now it is idle so to criticize an operation which is beyond all control, correction, or improvement. (CP: 2.144)

If logic is to be able to articulate its normative function, it has to formulate a criteria for how one ought to reason; this is a question about validity: is one’s reasoning good or is it bad? However, this criteria rests upon a conclusion regarding the objective ideal for reasoning itself. These conclusions can only be localized within the normative sciences ethics and esthetics (cf. Curley 1969: 93). Regarding the object of ethics, Peirce stressed again in “Minute Logic” (1901-1902):

We are too apt to define ethics to ourselves as the science of right and wrong. That cannot be correct, for the reason that right and wrong are ethical conceptions which it is the business of that science to develop and

to justify. A science cannot have for its fundamental problem to distribute objects among categories of its own creation; for underlying that problem must be the task of establishing those categories. The fundamental problem of ethics is not, therefore, What is right, but, What am I prepared deliberately to accept as the statement of what I want to do, what am I to aim at, what am I after? To what is the force of my will to be directed? (CP: 2.198)

I.e. the normative ethics is not the science about what is right and what is wrong, rather it investigates what one ought to be ready to take on as an ideal for one's actions. In connection to this logic rests upon the normative ethics, since:

...logic is a study of the means of attaining the end of thought. It cannot solve that problem until it clearly knows what that end is. Life can have but one end. It is Ethics which defines that end. It is, therefore, impossible to be thoroughly and rationally logical except upon an ethical basis. (CP: 2.198)

But in what does the ultimate ideal of action consist – i.e. the ideal which reasonably should be intentionally assumed? According to Peirce, as he stressed in “Lectures in Pragmatism” (1903), this can only be:

...a state of things that reasonably recommends itself in itself aside from any ulterior consideration. It must be an admirable ideal, having the only kind of goodness that such an ideal can have; namely, esthetic goodness. From this point of view the morally good appears as a particular species of the esthetically good. (CP: 5.130)

In this way ethics depends on the normative esthetics since we – in Peirce's words from “Lectures on Pragmatism”: “cannot get any clue to the secrets of

ethics...until we first have made up our formula for what it is that we are prepared to admire." (CP: 5.36). Esthetics, which is the science about what is admirable in itself, identifies the ideal which the ethical action ought to follow; the means to reach the goal belongs to logic, which deals with self-controlled reasoning.

But if the ethical action and the logical goodness have to be completely intended, the ideal must be a habit of feeling which is developed under influence of self-critique and hetero-critique - a habit of feeling is general, it can be identified and thus controlled and criticized and thereby corrected; this is the most important task of esthetics, and in this way it articulates its normative function (cf. Potter 1997: 50-51).

Thus, the esthetic ideal is the foundation of the normative sciences. Let us therefore have a last look at the pragmatic maxim as the mature Peirce defined this in "Consequences of Pragmatism" (1906) in connection with the higher purpose of action, the esthetic ideal, and the conceivable consequences of our concepts:

Pragmatism makes thinking to consist in the living inferential metaboly of symbols whose purport lies in conditional general resolutions to act. As for the ultimate purpose of thought, which must be the purpose of everything, it is beyond human comprehension; but according to the stage of approach which my thought has made to it -- it is by the indefinite replication of self-control upon self-control that the vir is begotten, and by action, through thought, he grows an esthetic ideal, not for the behoof of his own poor noddle merely, but as the share which God permits him to have in the work of creation. This ideal, by modifying the rules of self-control modifies action, and so experience too -- both the man's own and that of others, and this centrifugal movement thus rebounds in a new centripetal movement, and so on; and the whole is a bit of what has been going on, we

may presume, for a time in comparison with which the sum of the geological ages is as the surface of an electron in comparison with that of a plane. (CP: 5.402, n.3)

Mankind can take on an esthetic ideal which he finds in the sign universe - the fact that there is a growth in the concrete reasonableness - the universe which he experiences and recognizes because he himself is a result of its creative processes and now has developed a special ability to be rational and in coherence hereby to show self-controlled behavior (cf. Potter, 1997: 202), so that he can cultivate his feelings, actions and thoughts in coherence with the ideal. Real generalities, universalities endow the universe with regularity and render it intelligible. The same generalities form the very basis of rationality and the normative principles of rationality (cf. Potter, 1996: 14). In a letter to the philosopher Calderoni Peirce stressed:

Man seems to himself to have some glimmer of co-understanding with... Nature. The fact that he has been able in some degree to predict how Nature will act, to formulate general "laws" to which future events conform, seems to furnish inductive proof that man really penetrates in some measure the ideas that govern creation. Now man cannot believe that creation has not some ideal purpose. If so, it is not mere action, but the development of an idea which is the purpose of thought. (CP: 8.212)

Conclusive thoughts

The actions of mankind is controlled by his purpose - the pragmatic maxim should enter into the service of the highest purpose since the maxim renders the meaning of concepts clearly understood as general normative rules of action, i.e. the meaning of a concept is directly assessed in the light of its contribution, with which reactions it causes provides for the realization of the highest purpose of reasoning. These conditions always involve certain goals for action - goals which

are founded on the general way in which actions contribute to the universal process of rationalization.

The more mankind knows about the relationships between actions and consequences which are related to his feelings, thoughts, needs, intentions and desires, the better he will be able to make a contribution to "the growth in the concrete reasonableness" - the goodness of action, the truth of reasoning and the admirability of feeling as those are articulated in the three interrelated normative sciences.

Acknowledgements

We would like to thank Professor Floyd Merrell for his valuable comments concerning this paper.

Literature

Anderson, Douglas.R. (1995). *Strands of System. The Philosophy of Charles Peirce*. West Lafayette: Purdue UP.

Apel, Karl O. (1995). *Charles S. Peirce: From Pragmatism to Pragmaticism*. Amherst: University of Massachusetts Press.

Atkin, Albert (2008). Peirce`s Final Account of Signs and and the Philosophy of Language. *Transactions of The Charles S. Peirce Society*. Vol. 44, no. 4, p. 63-86.

Boler, John F. (1963). *Charles S. Peirce and Scholastic Realism. A Study of Peirce`s Relation to John Duns Scotus*. Seattle: University of Washington Press.

Brunning, Jacqueline & Forster, Paul (eds.) (1997). *The Rule of Reason*. Toronto: Toronto UP.

Colapietro, Vincent M. (1997). The dynamical Object and the Deliberative Subject. In: Brunning, Jacqueline & Forster, Paul (eds.) *The rule of Reason.*, p. 262-289.

Curley, Thomas V. (1969). The relation of the normative sciences to Peirce`s theory of inquiry. *Transactions of The Charles S. Peirce Society*. Vol. 5, no. 2, p. 87-99.

- Feibleman James K. (1946). *An Introduction to Peirce`s Philosophy*. N.Y.: Harper.
- Gallie, Walter B. (1952). *Peirce and Pragmatism*. Harmondsworth: Penguin Books.
- Goudge, Thomas A. (1950). *The Thought of C. S. Peirce*. Toronto: University of Toronto Press.
- Harrison, Stanley M. (1997). Introduction. In: Potter, V.G. *Charles S. Peirce On Norms and Ideals*. N.Y.: Fordham UP.
- Hookway, Christopher (1985). *Peirce*. London: Routledge and Kegan Paul.
- Hookway, Christopher (1997). Sentiment and Self-control. In: Brunning, J. & Forster, P. (eds.) *The Rule of Reason*. Toronto: Toronto UP., p. 201-223.
- Kent, Beverly. E. (1987). *Charles s. Peirce: Logic and the Classification of the Science*. Montreal: McGill-Queens UP:
- Misak, Cheryl (ed.) (2004). *The Cambridge Companion to Peirce*. Cambridge: Cambridge UP.
- Misak, Cheryl (2004). C. S. Peirce on Vital Matters. In: Misak, Cheryl (ed.). *The Cambridge Companion to Peirce*. Cambridge: Cambridge UP., p. 150-175.
- Potter, Vincent G. (1996). *Peirce`s Philosophical Perspectives*. N.Y.: Fordham UP.
- Potter, Vincent G. (1997). *Charles S. Peirce On Norms and Ideals*. New York: Fordham University Press.
- Peirce, Charles S. (1931-58). *Collected Papers*, vol. 1-6 Hartshorne, C. & Weiss, P. (eds.); vol. 7-8 Burks, A. W. (ed.), Cambridge MA: Harvard UP.
- Peirce, Charles S. (1992) *Essential Peirce : Selected Philosophical Writings* Vol. 1-2, Nathan Houser & Christian Kloesel (eds.). Bloomington: Indiana UP.
- Reilly, Francis E. (1970). *Charles S. Peirce`s Theory of Scientific Method*. N.Y.: Fordham UP.
- Robin, R. (1967). *Annotated Catalogue of the Papers of Charles S. Peirce*. Amherst: University of Massachusetts Press.
- Savan, David (1988). *An Introduction to C. S. Peirce`s Full System of Semeiotic*. Toronto: Toronto Semiotic Circle.

- Scheffler, Israel (1974). *Four Pragmatists*. N.Y.: Humanities Press.
- Sheriff, John K. (1994). *Charles S. Peirce's Guess at the Riddle*. Bloomington: Indiana UP.
- Short, Thomas (1997). Hypostatic Abstraction in self-consciousness. In: Brunning, Jacqueline & Forster, Paul (eds.) *The Rule of Reason*. Toronto: Toronto UP., p. 289-309.
- Stuhr, John J. (1994). Rendering the world more reasonable. In: *Peirce and Value theory*, Parret, H. (ed.), Philadelphia: John Benjamins., p. 3-15.
- Thompson, Mary (1953). *The Pragmatic Philosophy of C. S. Peirce*. Chicago, Ill.: University of Chicago Press.