

Truth as a Phase of *Summum Bonum*: Theory and Practice – Can Pragmatic Philosophy Influence our Lives?

*Verdade Como uma Fase do Summum Bonum: Teoria e Prática – Pode a Filosofia
Pragmática Influenciar Nossas Vidas?*

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Abstract: This paper is primarily concerned with Peirce's arguments (logical, semiotic, and pragmatic) for unity of speculative and practical reason. However, I shall also discuss some philosophical problems to which this gives rise, in particular the question whether theory can be a guide for practice and whether philosophical results can be helpful in practical affairs.

Keywords: Theory. Practice. Reasoning. Conduct. Logic. Ethics. Pragmatism.

Resumo: *Este artigo trata principalmente dos argumentos peircianos (lógicos, semióticos e pragmáticos) para a unidade da razão especulativa e prática. No entanto, gostaria também de discutir alguns problemas filosóficos que deles se originam, em particular a questão de se a teoria pode ser um guia para a prática ou se resultados filosóficos podem ser úteis em casos práticos.*

Palavras-chave: *Teoria. Prática. Raciocínio. Conduta. Lógica. Ética. Pragmatismo.*

Peirce's pragmatic doctrine aims to overcome the dualistic character of modern philosophy, the most accomplished example of which is Kant's distinctions between speculative and practical uses of reason, and between phenomena and noumena. The fact that the dualistic approach only led to philosophical antinomies and cognitive skepticism calls for a turn to a triadic approach, as found specifically in Peirce's semiotic with its triadic conception of the sign. The philosophical utility of Peirce's triadic conception of the sign can be seen clearly in his pragmatic maxim¹, which also reveals the bonds that link theory and practice, thus making it a good example of Peirce's attempts to overcome the dualistic mode of thinking that characterize modern philosophy. However, Peirce's challenge to the theory-practice dualism is not a consequence only of his semiotic, but also of his analysis of the process of

¹ Peirce's pragmatic theory of meaning and his semeiotic are complementary, however – as T.L. Short argues – “it took 29 more years for that doctrine link hands with his semeiotic” (Short, 2004, p. 228). That is why we cannot talk about their complementariness but since 1907.

reasoning. This analysis showed him that reasoning is in effect a type of controlled conduct (CP 1.610, 1903), and that the logically good is a particular species of the morally good (CP 1.615, 1903; 5.130, 1903).²

The reunion of theory and practice in Peirce's philosophy can be seen as an antidote to the modern disintegration of the relation between them, and as the return to ancient Greek philosophy where this relation was well established, particularly in the philosophy of Plato. Peirce's philosophy is considered an inspiration (making it possible) to realize the philosophical enterprise of reuniting theory and practice (for example: Jürgen Habermas in "Knowledge and Human Interests"). This interpretation of Peirce's philosophy evokes the question of whether the concepts and arguments of Peirce's philosophy might be useful for the enterprise of reuniting theory and practice and whether this was also Peirce's aim.

Analysis of the Nature of Reasoning

One of the first papers where Peirce sought to identify the nature of logic and of reasoning is "The Fixation of Belief" of 1877. Later he explored this subject also in "Minute Logic" in the years 1902–1903, in the "Lectures on Pragmatism" delivered at Harvard in 1903, in the "Lowell Lectures of 1903", and in the "Basis of Pragmatism" of 1906. In "The Fixation of Belief", Peirce studies the nature of scientific logic, drawing inferences, and of scientific inquiry. In his papers from the beginning of the 20th century, he analyzes the nature of logic and reasoning with respect to the relation between three normative sciences and in particular between logic and ethics. However, in both cases, he sees logic as a theory of deliberate thinking, and it is from his analysis of deliberate thinking that he starts his theoretical investigation.

In the fifth lecture of the 1903 Lectures on Pragmatism titled "The Three Normative Sciences", Peirce defines logic as the science concerned with the classification and critique of arguments (EP 2.200). Arguments, like all signs in Peirce's semiotic, can exist only by being referred to other arguments (EP 1.23-24, 1868; EP 2.164, 2.204, 2.272-3, 1903). Apart from that, if an argument is to be valid, it has to make reference not just to any class of arguments, but to a special class of other arguments, that is to a class of analogous arguments. This follows from the fact that an act of inference is valid and an inferred conclusion is true only when in a given analogous case an analogous conclusion would be true. Thus, the process of inferring a true conclusion is always the process of following rules of reasoning, which we first have to approve. Peirce does not imply that an act of approval is a voluntary act, but he highlights

² I quote from: *Collected Papers of Charles Sanders Peirce*. Ed. by Ch. Hartshorne and P. Weiss (v. 1-6); A.W. Burks (vol. 7-8). Cambridge, MA: Harvard University Press, 1931-58, with the usual abbreviation "CP" followed by the volume and paragraph number; and from: *The Essential Peirce: Selected Philosophical Writings*. Ed. by N. Houser, C. Kloesel (v. 1); "Peirce Edition Project" (v. 2). Bloomington: Indiana University Press, 1992-8, as "EP" followed by volume and page number; and from: *The New Elements of Mathematics*. Ed. by C. Eisele. The Hague and Paris: Mouton; Atlantic Highlands, N.J.: Humanities Press, 1976, as "NEM" followed by volume and page number; and from *Writings of Charles S. Peirce: A Chronological Edition*. 7 vols. The Peirce Edition Project. Ed. by M. Fisch, C. Kloesel, N. Houser, C. de Waal, A. De Tienne. Bloomington: Indiana University Press, 1981.

the voluntary character of an act of inference. Hence, logic could be called not only the theory of deliberate thinking, but also the theory of some species of controlled conduct. Logic is thus a branch of ethics because “*the approval of a voluntary act*” is a “*moral*” approval where ethics “*is the study of what ends of action we are deliberately prepared to adopt*” (EP 2.200).

Later, in the *Basis of Pragmatism*, Peirce even indicates that any thinking is deliberate, simply because it is an active operation and as an active operation it is controlled with a view to its conformity to a purpose or an ideal (EP 2.376, 1906). Thus, thinking does not differ in its nature from any controlled action. As in the case of any deliberate conduct it is subject to the judgment of the actor (or in this case of the thinker) whether she or he wishes her or his future conduct to be the same or not. Like any type of conduct, thinking is thus subject to critique. Reasoning can be judged not only with respect to whether it follows defined rules, but also whether the defined rules are likely to be the right rules of reasoning, that is whether they are helpful in learning the truth. According to Peirce, there are no universal rules of correct reasoning, rules of our (human) logical thinking, or even rules of logical thinking in general. On the contrary, he declares that rules of reasoning are merely habits of mind. A passage from “The Fixation of Belief” reads:

That which determines us, from given premisses, to draw one inference rather than another, is some habit of mind, whether it be constitutional or acquired. The habit is good or otherwise, according as it produces true conclusions from true premisses or not; and an inference is regarded as valid or not, without reference to the truth or falsity of its conclusion specially, but according as the habit which determines it is such as to produce true conclusions in general or not. The particular habit of mind which governs this or that inference may be formulated in a proposition whose truth depends on the validity of the inferences which the habit determines; and such a formula is called a *guiding principle* of inference. (EP 1.112).

Though these habits of mind might be constitutional or acquired, they are always subject to critique as well as to changes. This changeability is even in the very nature of habits of reasoning as they are methods of “finding out, from the consideration of what we already know, something else which we do not know” (EP 1.111), methods which may be imperfect and may need improvement. According to Peirce logicity is one of our abilities but it does not automatically mean that we always reason correctly. From the point of view of natural selection knowledge has its value, but “mind filled with pleasing and encouraging visions, independently of their truth” (EP 1.112) has its value, too. This being the case in regard to practical matters we are apt to find out the truth, whereas in regard to unpractical subjects our instinct may promote values other than truth. However, after the examination of four methods of fixing beliefs Peirce is convinced that we are apt to choose a scientific method: “Everybody uses a scientific method about a great many things” (EP 1.120). Briefly speaking, these are a social impulse and an intuition that “there are realities”, which make us adopting and constantly improving a scientific method and methods of logical reasoning. For the scientific method is – as Peirce defines it – a method, which on the one hand presupposes existence of real things, and on the other: “scientific investigation has had the most wonderful triumphs in the way of settling opinion”

(EP 1.120). These triumphs are the strongest arguments for listening to the voice of reason, for following rules of logical reasoning, and for adopting a scientific method of settling opinions. Nonetheless, the logical validity and even efficiency of a scientific inquiry is itself a hypothesis.

The progress in the human learning of the truth is, as Peirce shows, always connected to the process of improving our methods for fixating beliefs. This being the case, reasoning might certainly be called a species of conduct, not only because it can be subjected to reflection, judged, and changed with a aim of achieving particular goals in the future, but also because past cases of reasoning (like past cases of conduct) may turn into a lesson; that is, past cases of reasoning may form the basis for improvements to future reasoning.

In the “Lowell Lectures of 1903,” Peirce studies the typical phenomena of controlled action more thoroughly. He first notices that every man has certain ideals of the general description of conduct, which can be divided into three groups according to three ways in which these ideals recommend themselves. First, some kinds of conduct have an esthetic quality. They are simply found to be fine with no special reason connected to this judgment. Second, ideals of conduct should be brought into consistency with each other. Third, what is also important for man’s conduct is the review of the consequences of fully carrying out her/his ideals. Apart from the foregoing ideals, every man formulates certain rules of conduct, however vaguely that may be in most cases. The result of reflection upon these rules and ideals is a disposition to act in the future or a modification of such a disposition. The disposition might become a determination as to how to act upon certain occasions. Determination is a mental event, though it influences human conduct. Peirce underlines the forecasting role of a determination: “If one knows what its special character is, one can *forecast* the man’s conduct on the special occasion” (CP 1.592, 1903). According to Peirce, this is the best proof for his true and real character. Peirce argues that the same phenomena that are characteristic of controlled conduct, are characteristic of deliberate thinking. In particular, the rules of reasoning are as real as the rules of any controlled conduct. The definitive test of their adequacy, as is the case with any rules of conduct, is whether following them helps in achieving a certain aim or not — an aim which usually involves non-mental elements.

Summarizing his investigations upon the relation between reasoning and deliberate conduct, Peirce argues that the phenomena of reasoning are, in their general features, parallel to those of moral conduct. Reasoning as well as moral conduct are actions carried out under self-control and partake in all of their essential features. First of all, as in any moral conduct, drawing inferences (reasoning) is the process of following certain rules: “We all have in our minds certain *norms*, or general patterns of right reasoning” (CP 1.606, 1903) (however they are not once for all fixed). This being the case, each act of reasoning is always treated by the actor (or the reasoner) as one of many analogous cases where similar conduct would be good or a similar inference would be valid. If drawing inferences lacks of the awareness of this similarity it cannot be subjected to any check or control, and thus it cannot be called reasoning. Similarly, conduct cannot be called moral unless the actor recognizes it as belonging to a certain class of analogous cases. The fact that examples or descriptions of analogous cases are used to establish rules of reasoning and rules of moral conduct,

makes it possible to check whether a certain act of drawing inferences follows the rules and to approve it deliberately. If the rules of right reasoning are considered to be satisfied, the drawn inference appears not only irresistible, but even unshakable by any doubt. Finally, Peirce says:

You see at once that we have here all the main elements of moral conduct; the general standard mentally conceived beforehand, the efficient agency in the inward nature, the act, the subsequent comparison of the act with the standard. Examining the phenomena more closely we shall find that *not a single element of moral conduct is unrepresented in reasoning*. (CP 1.607, 1903, emphasis added).

Peirce endeavors to enlighten the nature of the relation between logic and ethics, between reasoning, and moral conduct by analyzing also the relation between the goal of logic and the goal of ethics. The aim of logic is obviously to arrive at the truth. The aim is obvious from the logician's point of view because, as Peirce argues in "Minute Logic," the question of what is to be aimed at is not the matter of interest of such a proper normative science as logic. For the same reason, the question what constitutes the good cannot itself be considered an ethical question (CP 1.577). The purpose of logic is thus finding rules of reasoning which provide us with the truth and so is the purpose of ethics – to formulate rules of morally good conduct. But what exact aims you can reach if you follow these rules, whether they are accessible, whether they are worth of your effort these are neither logical nor ethical questions. However, no argument can be logically true and no behavior morally good without an intention to make them so. This being the case, any logical (or ethical) enterprise presupposes knowledge of what truth (or good) is. Hence, they each require an answer to the question of the ultimate aim.

In "Minute Logic" Peirce, referring to Kant, defines truth as "the conformity of representation to its object" (CP 1.578). Peirce is ready to accept the Kantian definition and calls it "nearly correct". The only weak point he finds in it is the reference to the "object". This is in reference to reality — to something that is in Peirce's terms "independent of representation". In order to say whether a sentence is true, you have to check whether the mentioned object possesses the mentioned characteristic. How can this be verified? Kant argues that you cannot describe the procedure of checking or even of pointing out an object in general, because particular cases are essentially different (KANT, 1996, p. 116). Peirce stresses the impossibility of explaining the phrase "a thing has a character" without referring to truth because we cannot have knowledge (of a thing) which would not be a representation expressed through signs, as thought is in and of its nature a sign (EP 1.23-24, 1868).

He explains this more clearly using semiotic analysis in the "Basis of Pragmatism." Considering the fact that truth belongs exclusively to propositions, to explain the nature of truth first requires an explanation of the nature of a proposition. A proposition is a union of a subject and a predicate, and each of them is a sign. Apart from that "the proposition is a sign that the predicate is a sign of that of which the subject is a sign" (EP 2.379, 1906) – this is because on the one hand propositions are signs, the same as words, and on the other propositions represent relations between signs which they are constituted of. A proposition is thus true if one of the signs constituting it refers to the same object as the other does, this being the case

if one of them is the interpretant of the other.³ For the purpose of checking whether a proposition is true, you have to, in semiotic terms, find out whether it is possible to transform one sign into another.

In that case, then, if we can find out the right method of thinking and can follow it out— the right method of transforming signs — then truth can be nothing more or less than the last result to which the following out of this method would ultimately carry us. In that case, that to which the representation should conform, is itself something in the nature of representation, or sign. (EP 2.380).

That to which the representation should conform can be said to be “independent of representation” in the sense that it is independent of any particular representation. What is represented may be independent from every single act of representation, but there is no cognition of it, which is not in the nature of representation. There is no other way of verifying whether “a thing has a character” than referring to signs, which is of course referring to reality, but in its sign aspect. This explains why Peirce, in “Minute Logic,” considers the idea of explaining the concept of truth through the concept of reality misleading (CP 1.578). Even after 1907 when Peirce distinguishes between a sign’s immediate and dynamical objects, the latter being “the Reality which by some means contrives to determine the Sign to its Representation” and the former being “the Object as the Sign itself represents it” (CP 4.536), he is convinced that there is no cognition without signs.

Truth is thus an ideal that influences our method of how we think. Ultimately we only choose those ways of reasoning which, when persistently carried out, lead to the truth. This choice is always the result of considering what would be the general effect of thoroughly carrying out our method of thinking. Researching in the Lowell Lectures of 1903, what the ultimate aim could be Peirce excludes any quality of feeling because the object that is admirable *per se* must, like any ideal, be a general unity. However, Peirce also excludes the general idea of pleasure on the ground that “in these days of evolutionary ideas” we cannot even pass the assumption that the admirable in itself is any stationary result (CP 1.614). Finally, Peirce shows that the only thing, which is not closed to future changes and to endless self-improvement, and which is admirable not due to an ulterior reason, is Reason itself. This particular status of Reason is a consequence of the fact that its essence is such that its being is never completely perfected. These considerations led Peirce to the conclusion that the ideal of conduct is, “to execute our little function in the operation of creation by giving a hand toward rendering the world more reasonable whenever, as the slang is, it is «up to us» to do so [...] and the ideal of reasoning will be to follow such methods as must develop knowledge the most speedily” (CP 1.615).

This intimate relation between truth and the ultimate aim leads Peirce to argue in “Minute Logic” that truth is nothing but a phase of the *summum bonum* (CP

³ In 1903 Peirce, introducing a new division of signs into sumisigns, dicisigns, and arguments, defines a proposition as “a Dicisign that is a symbol”, a subject as “an Index of a Second existing independently of its being represented”, and a predicate as “an Icon of a Firstness”. The matter of proposition’s being true or false is thus the matter of semiotic relation between the real Object of the Dicisign (a real being independent of the representation of it), the Index, and the Icon (EP 2. 275-285).

1.575), and that it is not possible to become either an accomplished logician, nor an accomplished student of ethics without perceiving that it is so.

The Maxim of Pragmatism

The mainspring of Peirce's philosophical doctrine is the pragmatic maxim whose different versions⁴ throw light on the bonds that link theory and practice in Peirce's pragmatism and pragmaticism. One of the earliest versions of the pragmatic maxim can be found in "How to Make Our Ideas Clear" of 1878:

The whole function of thought is to produce habits of action.[...] To develop its meaning, we have, therefore, simply to determine what habits it produces, for what a thing means is simply what habits it involves. Now, the identity of a habit depends on how it might lead us to act, not merely under circumstances as are likely to arise, but under such as might possibly occur, no matter how improbable they may be. (EP 1.131).

Consider what effects, which 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. (EP 1.132).

Later, in the Pragmatism Lectures of 1903, Peirce stated the core of pragmatism, as follows, giving in effect another version of the pragmatic maxim:

Pragmatism is the principle that every theoretical judgment expressible in a sentence in the indicative mood is a confused form of thought whose only meaning, if it has any, lies in tendency to enforce a corresponding practical maxim expressible as a conditional sentence having its apodosis in the imperative mood. (EP 2.134-5).

For the maxim of pragmatism is that a conception can have no logical effect or import differing from that of a second conception except so far, taken in connection with other conceptions and intentions, it might conceivably modify our practical conduct differently from that second conception. (EP 2.234).

The pragmatic maxim, in all its versions, is de facto an answer to the question of meaning. It states what the meaning of a thought is, however it considers only thoughts which are embodied in signs, and are conceptions, propositions, or even doctrines. A thought can exist only in signs, because without signs a thought cannot be known and an unknown thought does not exist. Peirce says that pragmatism is "a method for ascertaining the real meaning of any concept, doctrine, proposition, word, or other sign", but only for those signs which are intellectual concepts, meaning concepts upon which reasoning may turn.

In all versions of the pragmatic maxim, the meaning of a thought is closely related to practice, or in other words, to experience. However, experience might be of two kinds: "ideal" or "actual." Thus, the meaning of a thought might be related not only to sensory experience, but also to diagrammatic experiment or experiment within

⁴ The thorough study of Peirce's pragmatic maxim, its content, and different strategies to argue for it, is provided by Hookway (2005, 2008).

the imagination. Peirce does not find – from the cognitive point of view – an essential difference between sensory experience and experiment within the imagination. Unlike Kant, Peirce states that every science, including mathematics and philosophy, is observational.⁵ Mathematics “is observational, in so far as it makes constructions in the imagination according to abstract precepts, and then observes these imaginary objects, finding in them relations of parts not specified in the precept of construction” (CP 1.240). In 1902 Peirce calls this mathematical reasoning *theorematic*. He writes:

The peculiarity of *theorematic* reasoning is that it considers something not implied at all in the conceptions so far gained... Euclid, for example, will add lines to his diagram which are not at all required or suggested by any previous proposition, and which the conclusion he reaches by this means says nothing about it. I show that no considerable advance can be made in thought of any kind without *theorematic* reasoning. (NEM 1.49).

Therefore, Peirce, unlike Kant, does not differentiate between intellectual faculties: understanding and practical reason. The faculty of understanding, the same as the faculty of practical reasoning, benefits from what is imagined as well as from what is presented and so does not only in the case of mathematics, but of all deductive reasoning.

Peirce describes in many ways the relation between the meaning of a thought and practice. Sometimes he defines it as the meaning of the rules of conduct or practical rules that follow from asserting a proposition. From a grammatical point of view, a practical rule is a conditional sentence with its apodosis in the imperative mood. Therefore, the meaning of an asserted proposition is an indication of how to act under certain circumstances. Nevertheless, propositions do not refer (for the subject of cognition) to any kind of completely external reality, but to the realm of a person's own conduct. The conduct of the subject of cognition has at least three functions: First, it constitutes the reality. Second, the rules of conduct express knowledge and if the conduct turns out to be unsuccessful, it becomes a way of verification and initiates the progress of cognition. Third, conduct, which is the result of following rules, is moral conduct, and thus may become the object of moral judgment.

In some of its versions, the pragmatic maxim states the difference between propositions, theories, or concepts. They actually only differ from each other when they “modify our practical conduct differently.” Otherwise they are just various ways of expressing the same thought, or in other words the same meaning. The possible conduct is then also a way of methodological estimation of differences between concepts or theories.

There are also versions of the pragmatic maxim where Peirce states the meaning of thought as practical bearings or practical consequences following from an asserted proposition. Everything that modifies conduct has practical consequences, so it may seem that each asserted proposition also has them. Nonetheless, Peirce argues

⁵ “All knowledge whatever comes from observation; but different sciences are observational in such radically different ways that the kind of information derived from the observation of one department of science (say natural history) could not possibly afford the information required of observation by another branch (say mathematics)” (CP 1.238).

that there are propositions that have no practical consequences. As an example he points at the sentence: “The diagonal of the square is incommensurable with its side” (EP 2.141, see also: EP 2.238, CP 5.539). According to him, this sentence can in no way influence our conduct. This however, does not mean that there are sentences to which the pragmatic maxim is not applicable. On the contrary, it means that a sentence that does not have practical consequences, does not have meaning either. This version of the pragmatic maxim illustrates well that the relation between meaning and practical consequences is reciprocal. Not only are practical consequences the meaning of a sentence, but a sentence which does not have practical consequences, also has no meaning.⁶ It also expresses Peirce’s conviction that thoughts, or rather signs, actually influence reality, and thus shows the way in which modern dualistic thinking is defeated in Peirce’s doctrine.

The versions of the pragmatic maxim, which state the meaning of a thought as practical bearings or practical consequences, may on the surface seem ambiguous, but Peirce’s entire doctrine makes them clearer. If the phrases “practical consequences” and “practical bearings” were to be understood as referring to individual life, and individual decisions were to be used to establish them, then the meaning of a concept would be a sum of spontaneously occurring ideas and conduct stemming from them. However, the maxim of pragmatism interpreted in this way would become meaningless, for it would be useless in settling the inter-subjective meaning of concepts, sentences and theories, and in finding differences among them.

It would become useless as a methodological maxim as well. If meaning is to depend on conduct and experience, it cannot be based on individual conduct and individual experience, but must be based on the universally valid rule of conduct following from a certain belief by necessity. A rule of this kind refers *not* to a single case of conduct or individual experience, but to the sum of conduct and experience of the whole community. Peirce underlines the general logical character of the pragmatic maxim and remarks that it cannot be understood as a proposition in psychology (CP 5.196). Peirce also stresses the unreal character of everything that is subjective. Meaning is thus the sum of necessary consequences resulting from asserting a certain proposition in all possible circumstances by all subjects of conduct. The sum of consequences of this kind can be established only when it is possible to establish the sum of community experience. Peirce argues in “The Fixation of Belief” that this is the case by describing the process of cognition. Thus, the existence of an intellectual community (or in the case of the methodological version of the pragmatic maxim, the community of inquirers) is a necessary condition that gives the pragmatic maxim sense.

In the Pragmatism Lectures of 1903 Peirce argues that the core of his doctrine

⁶ But — as Robert ALMEDER remarks — “this should not be taken to imply that the adoption of the pragmatic maxim entails the view that all and only those sentences are meaningful which are empirically verifiable” (*The Philosophy of Ch.S. Peirce: A Critical Introduction*. Oxford: Blackwell, 1980, p. 19.) See also Peirce’s arguments about the role of incommensurable quantities in mathematics — Peirce does not deny meaning of sentences concerning irrational quantities because they cannot be empirically verified but because he cannot find out how they possibly could influence our mathematical inquiry, this is our mathematical experiments in the imagination (EP 2.238).

is “the necessary relation between the general and the singular” (EP 2.216). This connection is based on the probabilistic relation between past events and the entire universe of possible events, which makes it possible to gradually learn about reality and forecast future events. However, this is possible only when all members aim for the goodness of the community, and in particular for the extension of common knowledge. If individual experience is to become the basis for inductive inferences, formulating hypotheses, beliefs, and then rules of conduct, it first must become “the intellectual possession” of the entire community. Hence, acquiring knowledge is possible only through the action of the community. In “Some Consequences of Four Incapacities,” Peirce clearly illustrates this point: “We individually cannot reasonably hope to attain the ultimate philosophy which we pursue; we can only seek it, therefore, for the *community* of philosophers” (EP 1.29).

For the pragmatic maxim is an answer to the question of the meaning of signs, the semiotic analysis, in particular the analysis of the concept of interpretant may throw some further light on the theory-practice connection. This may be a fruitful lesson because the meaning of a sign and this sign always rests in semiotic relation of a representamen and its interpretant. The problem, of how to understand Peirce’s different descriptions of the meaning, is thus the problem which interpretant is logically valid, being valid with respect to cognition.

In a letter to William James (CP 8.315, 1905), Peirce distinguishes three types of interpretants: the immediate, dynamical, and final interpretant. The *immediate* interpretant is not an actual reaction of a cognitive subject to a sign, but just the ability of a sign to produce an impression or to be interpreted; it is the sum of all possible effects a particular sign correctly interpreted might produce on the mind.

The *dynamical* interpretant is the effect actually produced in the mind by the sign. It is thus a single unrepeatable event, each time different, and not of general character. However this does not mean that everybody who uses the sign may interpret it freely. Elsewhere (CP 5.475–87, 1906), Peirce further distinguishes emotional, energetic, and logical aspects of the interpretant.⁷ The emotional interpretant is a feeling produced by a sign (sometimes only a feeling of recognition, sometimes much more). This feeling is the first proper effect of a sign and something that makes each act of interpretation unrepeatable. There are signs that have only emotional interpretants, for example a piece of music that conveys only the composer’s ideas, which usually consist in a series of feelings. There are also signs which produce further effects which always involve some kind of effort: muscular or mental. Peirce calls these effects the energetic interpretant. Concepts are signs that have logical interpretants — interpretants that are of a general nature. Logical interpretants are mental, and as long as they are mental they can still be further interpreted. That is why, according to Peirce, the end of interpretation — which also has to be of a general nature — must be a change of habit (raising or lowering of its strength),

⁷ There is controversy among commentators whether these two classifications of interpretants: the emotional/energetic/logical trichotomy and the immediate/dynamical/final trichotomy, are distinct. That they are distinct is the point defended by T.L. Short (SHORT, 1996, 2004). Liszka and Lalor reject this stance. The view presented here is the same as Short’s that the former trichotomy expresses various ontological types and the latter different stages of semeiosis (SHORT, 2004, p. 235).

and this is a modification of a person's tendencies toward action. Thus, the ultimate logical interpretant must be in the form of a rule of conduct, which recommends similar behavior under similar circumstances in the future. From a grammatical point of view, the ultimate logical interpretant is thus always a proposition in the future tense and in the conditional mood, and as such it links thinking and acting, theory and practice. The logical interpretant, because of its general nature, is obviously of cognitive value, the opposite of the emotional interpretant and the immediate one, which provide no cognition. It is in point of fact that it is the only interpretant which can express human knowledge, however it can express at most, temporary knowledge which may turn out to be false.

Apart from the immediate and the dynamical interpretants, signs also have final interpretants that express not only temporary knowledge but also the truth. In 1868 Peirce is convinced that the truth about reality is apprehensible (at least in the long run), and that the end of inquiry is the state of mind in which "reasoning would finally result in". However he does not mean any particular mind, because the knowledge of reality is "independent of the vagaries of me and you" (EP 1.52). Moreover, Peirce defines the mind as "a sign developing according to the laws of inference", adding that "the man and the external sign are identical" (EP 1.53-54). Since signs are mutually connected in the process of semiosis, particular mind does not have its own completely distinct existence. This being the case the final interpretant can hardly be discovered and formulated by a single, even genius, mind. Rather than being the result of an individual inquiry, it is the result of (end-directed) semiosis.⁸

In 1908 Peirce calls this interpretant normal and defines it as "the effect that would be produced on the mind by the Sign after sufficient development of thought" (CP 8.343, 1908). As such, it does not consist of the way in which a mind acts but in the way in which every mind would act. The normal interpretant is of the most general nature and as such cannot become the object of thought. It is a regulative idea in Kant's terms. Nonetheless, as the end of the process of interpretation (the process of semiosis)⁹ the final interpretant also takes the form of a conditional proposition: "If so and so were to happen to any mind this sign would determine that mind to such and such conduct." Hence, it expresses a rule of conduct.

Both categories of interpretant: the ultimate one and the final one, establish the end of the process of interpretation, but each one in a different sense. It is worth quoting Short, commenting on these categories:

The ultimate logical interpretant clearly belongs to Peirce's theory of meaning, specifically, the meaning of what he calls "intellectual concepts": it is the semeiotic expression of his revised pragmatism. Whereas, the final logical interpretant, in

⁸ Peirce defines the action of sign (the triadic action) as follows: "event, A, produces a second event, B, *as a means* to the production of a third event, C" (CP 5. 472-3). The exhaustive study on end-directedness of sign interpretation is provided by Short, 1981, 1983, 2004, p. 230-5.

⁹ Peirce defines the concept of semiosis as follows: "by 'semiosis' I mean [...] an action, or influence, which is, or involves, a cooperation of *three* subjects, such as a sign, its object, and its interpretant, this tri-relative influence not being in any way resolvable into actions between pairs" (CP 5.484).

its narrower formulation, belongs to Peirce's theory of inquiry: it is the semeiotic formulation of his conception of truth as the final opinion or final fixation of belief. And in its broader formulation, it still refers to the ideal interpretant and not to the meaning of a concept. (SHORT, 1996, p. 521).

The ultimate interpretant, in particular in Peirce's late writings, establishes the end of interpretation as it is a degenerate sign without its own interpretant. Whereas the final interpretant is the state of mind when further inquiry is needless. Thus, the ultimate interpretant does not have to be the final one. A theory or conception may produce an ultimate interpretant in form of a rule of conduct or habit, but in the future it may turn out to be wrong, so it will not have its final interpretant at all.

The pragmatic maxim, as well as the closely related semiotic concepts of the interpretant and semiosis, raise questions about the limits of interpretation. First, are there signs whose objects are not signs? If signs are to say something about reality and semiosis is to be the process of extending our knowledge, not only of playing with signs, signs have to designate elements and aspects of that reality. How is this possible considering all elements of the sign relation (an object, a representamen, and an interpretant) must be signs? Peirce explains it by introducing the concepts of degenerate signs (index and icon): "The actual world cannot be distinguished from a world of imagination by any description. Hence the need of pronouns and indices..." (W 5.164). Index and icon are elements of reality that are only potential signs as long as they remain uninterpreted.¹⁰

Second, are there signs whose interpretants are not signs? Here the problem is the same: all elements of the sign relation have to be signs.¹¹ However, if the possibility that something uninterpretable may become an interpretant is to be excluded, then it is impossible to explain not only how signs influence reality, but also how theories and beliefs are verified because this exclusion deprives us of the possibility of understanding in categories of semiosis between the realm of signs-thoughts and the realm of what is external to the thought. To avoid these undesirable consequences, Peirce is apt to accept the broader concept of interpretant. In a letter to Lady Welby he writes:

Taking sign in its broadest sense, its interpretant is not necessarily a sign. Any concept is a sign, of course.[...] But we may take a sign in so broad a sense that the interpretant of it is not a thought, but an action or experience, or we may even so enlarge the meaning of sign that its interpretant is a mere quality of feeling. (CP 8.332).

¹⁰ Short argues that Peirce managed to solve the problem of infinite regressus from sign to sign, which object is never to be found, not earlier than in 1885, when he recognized a type of sign: the "index" (SHORT, 2004, p. 218-220). The interesting study of the role of concepts of icon and index in Peirce's theory of cognition is provided also by K.-O. Apel "Charles S. Peirce: From Pragmatism to Pragmaticism". Trans. J.M. Krois. Atlantic Highlands, 1995.

¹¹ Since 1907 the idea that the habit itself (not only the sign, for example the concept of a habit) may play the role of interpretant, in particular of the ultimate interpretant, started occurring in Peirce's writings. According to Short this was the moment when "Peirce first drew his pragmatism and his semeiotic together into one formulation" (SHORT, 2004, p. 229).

This passage shows the special role of rules of conduct in Peirce's doctrine. It might be disputable whether a rule of conduct is a sign, and not a degenerate sign (for its interpretant is not a sign). Nevertheless, owing to the fact that its interpretant does not belong to the realm of signs, a rule of conduct has the role of linking two realms: that of thought and that of conduct. This is the next step in Peirce's overcoming of modern dualistic thinking. The first step, as it has been noted, is his semeiotic conception of mind which identifies mind as the train of thought-signs and so it eliminates the modern distinction between reason and ideas.

The study of differing versions of the pragmatic maxim and the analysis of its proper (and intended by Peirce) meaning, not only show that the realm of thoughts and theories and the realm of non-mental elements and conduct are not separate but also that they influence each other. Signs denote elements and aspects of reality, owing to the borderline status of indexes and icons. For indexes and icons are representaments whose objects do not have to be signs themselves and the relation of denotation between indexes and icons on the one hand, and their objects on the other is not purely conventional, as in case of symbols. This gives degenerate signs (indexes and icons) the particular borderline status. Reality affects the realm of signs when conduct — as a consequence of asserted theories and beliefs — faces the realm of facts. The result of this confrontation is the change in strength of habit (raising or lowering it), in particular the rejection of the corresponding rule of conduct, and then of the corresponding belief, or the whole theory. Nonetheless, to avoid a possible misunderstanding of Peirce's view, it should be emphasized that the confrontation of conduct and facts can be of logical value only when this confrontation is not a singular event. With respect to the doctrine of cognition, which explains the possibility of learning reality by referring to the statistic relationship between human past experience and all possible events, individual experience is of no importance. Thus, the impact of reality on the realm of signs is not direct, but is mediated through the conduct of all members of a community, and through the rules of conduct established not individually but by the whole community as well. On the other hand, the very concept of reality is not something completely independent of the realm of signs, as it is constituted by the meaning of theories and beliefs asserted by the community.

The crucial role of the concept of conduct (as a self-controlled action subservient to a certain rule), and of the rules of conduct in Peirce's pragmatism, may not be missed. If the meaning of theories and beliefs is to be human conduct, it is essential to pose the question how scientific and philosophical theories can influence human conduct.

Theory and Practice

In his 1869 "Grounds of Validity of the Laws of Logic," Peirce already investigates the problem of the sentiment to act rationally. He argues that from the point of view of the perfection of knowledge of the community (and not of any private interest), the best conduct is a rational one and it is the only one that can result in the progress of cognition. Thus, the sentiment to act rationally is required by logic, in particular by the logic of induction. However it is not obvious that in matters of vital importance this sentiment would be taken into account by an actor. When analyzing the pro-

blem, Peirce refers to a mental experiment (EP 1.82, 1869; c. also EP 1.147-8, 1878): a man in a life and death struggle making up his mind on what action to choose to avoid death. It is apparent that each man would try to choose the action which would yield a greater probability of survival. Nonetheless, it is not clear that each man would rationally estimate the probability of success for each action and make the choice based on this estimation. It is not even clear whether acting rationally is the best strategy in this case.

In 1877 Peirce touches on the subject again in "The Fixation of Belief". In this paper he is even less certain whether the constitution of human nature is of the kind that rational conduct will be most successful in every circumstance. It is worth quoting him at length:

Logicality in regard to practical matters (if this be understood, not in the old sense, but as consisting in a wise union of security with fruitfulness of reasoning) is the most useful quality an animal can possess, and might, therefore, result from the action of natural selection; but outside of these it is probably of more advantage to the animal to have his mind filled with pleasing and encouraging visions, independently of their truth; and thus, upon unpractical subjects, natural selection might occasion a fallacious tendency of thought. (EP 1.112).

Peirce underlines clearly the difference between practical and theoretical matters which results in the fact that different ways of determining the will are suitable for practical and theoretical problems.

Now it is a corollary of this that, as Peirce remarks, theoretical science is a department of intellectual activity entirely distinct from practice. In the first lecture on "Detached Ideas on Vitally Important Topics," of 1898, Peirce argues that the ancient Greek philosophical conviction, whose most accomplished example was Plato's view, that philosophy has the power of affecting people's lives, in particular the power of improving the philosopher himself, is the result of misunderstanding the very nature of philosophy. In the discussion about the status of philosophy between Plato and Aristotle, Peirce takes Aristotle's side. He calls Aristotle a thorough-paced scientific man and remarks that it was his scientific training in the dissecting-room that enabled Aristotle to discover the scientific nature of philosophy, radically foreign from the nature of aesthetic studies and morals. In Peirce's opinion, this was why Aristotle managed to avoid Plato's mistake of merging philosophy and practice, and divided intellectual activity into three departments (CP 1.618).

In "Detached Ideas," Peirce throws light on the difference between science and practice. He remarks that in science, unlike in practice, belief has no place. Although in "The Fixation of Belief," Peirce also uses the word "belief" in the case of scientific investigation, it seems to be a sign neither of the radical change of Peirce's conception of science, nor of the limitation of the validity of the pragmatic maxim. On the contrary, Peirce defines belief in more detail in order to develop his theory of inquiry.¹²

¹² Christopher Hookway in "Belief, Confidence, and the Method of Science" shows that Peirce's theory of inquiry of the 1870s as well as of the 1890s contained an unresolved tension and as such required developing into "more sophisticated understanding of the 'practice of theoretical science'". He locates this tension in the issue of what can motivate us to sustain our commitment to scientific life: rational inquiry or sentiment and instinct.

He also, as opposed to in “The Fixation of Belief,” now takes into consideration the role of sentiment in settling opinions. In “Detached Ideas” he describes full belief as “willingness to act upon the proposition in vital crises” and forthwith remarks that pure science has nothing to do with action and that nothing can be vital for science (CP 1.635). The propositions which are accepted by scientists in a certain moment are provisional, they may be abandoned at any time when they turn out not to be in accordance with experimental data and then scientists will be glad to get rid of the error. What is even more important is that scientific experiment or observation does not have much in common with conduct in vitally important circumstances, particularly with respect to action. A scientist risks nothing on the propositions they accept and on the actions which follow as consequences from accepting those propositions. In contrast, a person in a life and death struggle acting upon a certain rule of conduct risks their life. However, the distinction between a theoretical assent and a practical belief seems to be one of the degree rather than one of kind. Scientists, carrying on their inquiry, have to assume truth of some of their assents (and call them “established truths”), at least of those which constitute a framework to interpret new data (c. COOKE, 2006, p. 68-73).

The contrast of what is risked in each of these cases makes Peirce recommend different strategies for deciding which proposition to accept in each case. Peirce is convinced that “pure theoretical knowledge, or science, has nothing directly to say concerning practical matters, and nothing even applicable at all to vital crises”; moreover he believes that the best tool of science, this is reasoning, can be helpful in no practical matters, either. This is the result of the very nature of reasoning which can provide us with propositions that are only probable — reason can never produce full belief. Although Peirce distinguishes three kinds of reasoning: necessary, probable, and *il lume naturale*, he argues that only the second kind is reasoning in its strict sense. The first one can be used exclusively to infer logical consequences from given propositions and not to formulate or strengthen hypothesis. The third one is *de facto* an appeal to instinct. However, the probable reasoning is of value only in these cases where probable knowledge might be useful, like in science where general propositions about all possible events of a certain kind are formulated or, to quote Peirce, “where we have, like an insurance company, an endless multitude of insignificant risks” (CP 1.630, 1898). In the case of practical affairs it is quite the opposite. There is no endless multitude of insignificant risks, but one singular, or at most a few, events of considerable risks. Thus, it is not safe to trust individual reasoning or propositions accepted by scientists or philosophers in important decisions. In a matter of fact, a man conducting scientific inquiry cannot expect to reach any final conclusion in his lifetime. Peirce argues that matters of vital importance must be left to sentiment or instinct and that even everyday business, meaning repetitive but not very numerous situations, can be done without the aid of theory as well as

He argues that providing choosing one’s life project is a vital matter, none of the possible answers is in accordance with Peirce’s view on the difference between theory and practice of the 1870s and of the 1890s. See HOOKWAY, Christopher. “Belief, Confidence, and the Method of Science”. In: *Truth, Rationality, and Pragmatism*. Themes from Peirce. Oxford, 2000.

with it. He even states that it is actually done in this manner, that practical reflection is mere rationalization: “Men many times fancy that they act from reason when, in point of fact, the reasons they attribute to themselves are nothing but excuses which unconscious instinct invents to satisfy the teasing ‘whys’ of the *ego*” (CP 1.631, 1898).

However, in theoretical matters sentiment or instinct is of no value. Scientists may try the suggestions of instinct, but they *de facto* only try them. None of the suggestions of this kind are to become even scientific hypothesis without the aid of experiment, observation, and reasoning. However as Christopher Hookway shows, sentiment or instinct are of no value in theoretical matters only in this sense that “we should not trust our instincts about the truth of particular claims and hypotheses” but “our practice of reasoning depends upon our membership of a community of inquirers bound together by these fundamental ‘logical sentiments’” (HOOKWAY, 2000, p. 230).¹³ The case of metaphysics is more difficult because there is actually no way in which metaphysical theories can be brought to the test of experience. Peirce argues that it results in the origin and character of metaphysical conceptions, that they are in fact adapted from those of formal logic. Thus, it is of crucial importance that a metaphysician be an accomplished logician, who is able to evaluate rules of reasoning critically and is able to distinguish them from hints of instinct. As Peirce remarks, “the metaphysician who adopts a metaphysical reasoning because he is impressed that it is sound, might just as well, or better, adopt his conclusions directly because he is impressed that they are true, in the good old style of Descartes and of Plato” (CP 1.624, 1898).

According to Peirce as reason can never produce full belief, a scientific hypothesis which is believed, is not anymore a scientific hypothesis in the strict sense. Hookway puts it in this way: “what is wrong with full belief, from a scientific point of view, is that it is not subject to my control.[...] Now it is a corollary of this that beliefs have causes which are not reasons for holding them, and for the most part we are not reflectively aware of what these causes actually are.”¹⁴

Peirce does not completely exclude the possibility that future philosophical science will be able to influence religion and/or morality in a way which would not only be considered reasonable (in a certain condition of philosophy), but would also be beneficial.¹⁵ Peirce remarks that this will be possible when philosophical cognition — which, like any cognition — is of probabilistic nature, attains a much greater degree of certitude than it has managed to attain today. Peirce considers the condition of the philosophy of his time infantile, and he finds any practical applications of it to religion or conduct “exceedingly dangerous.” He does not even feel like being a philosophical-advisor and thus he declares: “I have no philosophical wares to offer you which will make you either better or more successful men” (CP 1.621, 1898).

However this condition of philosophy and science in general cannot be attained through endeavors to find practical applications of its concepts and theories.

¹³ The role that Peirce assigns to sentiment and instinct in rationality is thoroughly discussed in chapters “Sentiment and Self-Control” and “Doubts” of *Truth, Rationality, and Pragmatism*.

¹⁴ *Ibidem*, p. 30-31.

¹⁵ Cheryl Misak argues that Peirce’s view of morals does not exclude the important role of reasoning and self control, that “vital matters are indeed matters for scientific inquiry” (MISAK, 2004, p. 159).

Peirce stresses the entire distinction of the interests of pure science and of utility. He is convinced that genuine scientists should completely ignore the point of view of the utility of his/her research, for utility is always a narrow point of view. Progress in science is actually made in spite of possible applications, because one is always more probable to succeed when one is devoted to only one aim. To quote Peirce, “the two masters, *theory* and *practice*, you cannot serve.” In “How to Make Our Ideas Clear,” Peirce remarks that, in practical as opposed to scientific matters, hesitation is always assumed either for mere amusement or for superior purpose (CP 5.394), as there is no genuine hesitation (and no genuine belief either) where there are no genuine interests concerning practical affairs.

However in “Detached Ideas” Peirce manages to defend his conception from “Ground of Validity of the Laws of Logic” that the progress of cognition and the moral progress of community are closely interconnected. He shows the way in which philosophy and mathematics actually influence our lives:

And just as reasoning springs from experience, so the development of sentiment arises from the soul’s Inward and Outward Experiences. Not only is it of the same nature as the development of cognition; but it chiefly takes place through the instrumentality of cognition. The soul’s deeper parts can only be reached through its surface. In this way the eternal forms, that mathematics and philosophy and the other sciences make us acquainted with, will by slow percolation gradually reach the very core of one’s being; and will come to influence our lives; and this they will do, not because they involve truths of merely vital importance, but because they are ideal and eternal verities. (CP 1.648, 1898).

The fact, that the pragmatic maxim is of logical and general character and that it establishes the connection between theory and practice as the connection between the meaning of propositions and the community’s (not the individual’s) rules of conduct, shows that Peirce’s aim is not the establishment of a relation between scientific or philosophical theories and individual decisions concerning particular conduct in particular circumstances. Peirce considers the establishment of this kind of relation neither sensible nor possible. What ultimately might make sense is the connection between a philosophical doctrine and ethical rules of conduct, which are also founded by whole community. However Peirce is convinced that the possibility of establishing a connection between philosophical doctrine and ethical rules is a matter of the future when philosophy finally attains its maturity. As long as this does not happen, the connection between the meaning of propositions and rules of conduct can have a mainly scientific sense. It enables to point out the differences between scientific theories or scientific hypotheses and to test them against reality to find out the meaning of propositions and theories.

Thus, it seems obvious that Peirce neither managed, nor even aimed to reunite theory and life using Plato’s approach. First of all, Peirce’s overcoming of theory-practice dualism has logical and methodological value. Peirce points to formulate the theory of cognition, and semiotics, which explains both: the endless progress of cognition and the possibility of refuting each scientific proposition already accepted. In this way he also manages to shed some light on the obscure (in philosophies of Descartes and Kant) relation between the realm of signs (language) and the realm of that which is not of the sign nature, this being the realm of facts and conduct.

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