

## Evolving Through Time: Peirce's Pragmatic Maxims

In this paper, I shall address Peirce's chronologization of rational *meaning* as stated and restated in his successive formulations of the *pragmatic maxim* (1878, 1902, 1905, 1907). Time has a dual role to play here. On the one hand, *semiosis*, the meaning-producing action of the *sign*, is a triadic process developing in time, because each *interpretant* is a new sign interpreting a previous sign by mediating between this sign and what it signifies, its *object*. On the other hand, Peirce defined and redefined his conception of meaning many times, thereby placing it within the framework of his own intellectual development and range of scientific concerns. In both cases, there is an arrow of time invariably pointing forward, wards to a *future*, and never turning back. This future-orientedness is a main characteristic of Peirce's *thirdness*, the category which he identified with rationality and logical meaning, and which he "locate[d] in future time" (CP: 5.427, 1905)<sup>1</sup>

One implication of this is that meaning is wholly an affair of logico-temporal progression. In Peirce's mature semiotic conception, signs are "sign-burdens" (CP: 5.467, 1907), evolutionary agents aimed at engendering interpretations (interpretant signs) which evolve, through time, their informational content, or "idea-potentiality" (MS 283:101, 1905-1906). Each following interpretant sign is endowed with a higher coefficient of objective truth, until there ideally remains nothing in the system to contradict it, and it is permitted to unfold all its functional consequences, on all possible levels (biological, social, and/or cultural).

In actual semiosis, the sign acts as a "first", the object as a "second", and the interpretant as a "third". But meaning is also threefold when viewed from other time-bound semiotic perspectives. Signs have effects that follow from their interaction with certain co-textual and contextual features and conditions. Therefore, the meaning of a concept, an utterance, or other symbolic sign cannot be fully established (i.e., under its aspect of thirdness, or attitude of mind) until the referential context (its secondness) has been established, and until the pure qualities of sensation or emotion (firstness) attached to it have been comprehended. To be sure, a sign of

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<sup>1</sup> For the ubiquity of time *apud* Peirce, see Braga 1992 and the references mentioned there. In addition, see Buczynska-Garewicz 1988: 62-63.

thirdness (which is objective, public) includes a second (intersubjective, half-public/half-private), which includes in its turn a first (subjective, private). Only thus can it be a general sign (i.e., apply to every purpose and every intention) and govern future action through the exercise of self-control. That is its "rational purport."

The processuality of meaning also implies that the latter can never be given once and for all, but needs to crystallize itself in increasingly firm and increasingly true beliefs about signs in a community of sign investigators, thereby establishing habits of thought (W:3:263, 1878). This growth of knowledge by "settlement of opinion" makes it possible to predict the future conduct of the sign under investigation. This is what Peirce, the mathematical logician and laboratory-man, meant by the (future) aim of the process of rational thought or *inquiry*: a struggle to overcome doubt, a search for truth by asking questions, which eventually leads the honest and serious inquirer from interrogation and doubt to certainty and truth<sup>2</sup>.

This may be illustrated by one example from the realm of chemistry, the experimental exact science to which Peirce was committed from the beginning of his career. As argued by Peirce (CP: 2.330, c. 1902)<sup>3</sup>, the whole spectrum of the meaning, or informational content, of the chemical element, lithium, cannot be given in its definitions, however numerous, varied, and detailed. The behavior of lithium under different circumstances may, of course, be described, thus approaching an informational continuum. But according to Peirce's *synechism* - his metaphysics of continuity, which he developed in tandem with his *pragmatism* - the *ultimate logical interpretant* - the thirdness of plenitude, no less - can only be achieved ideally, in some hypothetical future. Therefore, any definition, however encyclopedic, is destined to always remain incomplete. What is expressed in the pragmatic principles guiding all kinds of thought or inquiry, is the reality in it of the potential "would be", the meaning of which can never be exhausted by any bringing together of actual facts.

Peirce's 1878 pragmatic maxim heralds the advent of American pragmatism, of which Peirce must be considered the pioneering figure. Peirce's early exposition of the principle of pragmatism laid itself open to the quite different misunderstandings of making action the ultimate end of thought, which motivated Peirce's coinage of his

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<sup>2</sup> This is further discussed in Witschel 1978: 5 and Buczynska-Garewicz 1988: 61.

<sup>3</sup> This paragraph is also discussed in Eco 1979: 187-188 and Eco 1990: 238.

own concept, *pragmaticism*<sup>4</sup>. Thereby, Peirce came to distinguish a grade of "making ideas clear", which consisted, not merely in action (secondness) but in habits or rules of action (Thirdness):

. . . the only ultimate good which the practical facts to which [the pragmatic maxim] directs attention can subserve is to further the development of concrete reasonableness; so that the meaning of the concept does not lie in any individual reactions at all, but in the manner in which those reactions contribute to that development. (CP: 5.3, 1902)

By making a clear hierarchical distinction between (practical) action and (rational) thought, yet building the latter upon the former, Peirce was able to highlight, better than his fellow pragmatists, the function and purpose of thought, and to realize his synechistic ideas of continuity.

In Peirce's own discourse, which is the linguistic manifestation of his pragmatic ideas, the fact that meaning is truth-directed but non-truth-functional is expressed by the subjunctive formulation of the pragmatic maxims (Olshewsky 1983: 205). Meaning is typically negotiated in the *conditional* mode, if . . . then . . . , which is the expression of a logico-symbolic, proleptic attitude of mind - a uniquely human feature<sup>5</sup>:

Pragmatism is the principle that every theoretical judgment expressible in sentence in the indicative mood is a confused form of thought whose only meaning, if it has any, lies in its tendency to enforce a corresponding practical maxim expressible as a conditional sentence having its apodosis in the imperative mood. (CP: 5.18, 1903)

Conditional sentences not only express the juxtaposition of two time levels, an antecedent and a consequent, but also the consequence between them, their logical connection. This logico-linguistic device squares with Peirce's pragmatic view of

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<sup>4</sup> See also the section on "Peirce's pragmaticism" in Gorlée 1993: 43-46, and the references mentioned there.

<sup>5</sup> Braga's apothegmatic "Time is the stuff mankind is made of" (1992:309) is, in its future dimension, explained thus: "The capacity to catch a glimpse of the history of the future, to construct in the mind what is yet to be, the instinct for Utopias, a gift for conjugating in the conditional mood - it is these that distinguish mankind from all living species" (Braga 1992: 311).

meaning, where the emphasis is upon conditional futurity, and in which beliefs are temporally and locally fixed.

In following paragraphs this shall be shown by taking a closer look at the evolution of how Peirce expressed the pragmatic maxim in terms of language and discourse. Let us first turn to the early and best-known version.

Peirce formulated his famous pragmatic maxim in his 1878 paper on "How To Make Our Ideas Clear", thus:

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 = W:3:266, 1878).

On this pragmatic maxim, together with the three categories, Peirce's whole semiotic (or logical) system hinges.

Peirce must be interpreted to have meant here that thinking (as well as any other kind of inquiry) seeks to establish meaning; a mental action, it removes doubt by establishing a belief which is supposed to lead to a habit of thought. For Peirce, meaning is thus an affair of concepts producing logical "effects" (that is, interpretations) which lead from the first to the second and then to the third and last stage of clearness of thought, the objective truth. However, this early version of the pragmatic maxim, on the role of good reasoning in the removal of doubt, was composed prior to Peirce's development of pragmatism (and synechism), and still refers to these logical "effects" as having "practical bearings". That this maxim also precedes Peirce's mature semiotic thought, is further shown by his usage (twice) of "object" in the non-technical sense of "thing studied."

Note that Peirce used the expression "*conception*" (and other derivatives of Latin *concipere*: "*conceivable*", "*conceive*", "*conception*") continually in the pragmatic maxim. This reinforces the thirdness of the argument. By the same token, "*conceivably*" and "*conceivable*" returned in all versions except CP: 5.438, 1905. By a "*conception*", Peirce explained in a footnote, he was "speaking of meaning in no other sense than that of *intellectual purport*" (CP: 5.402, n. 3., 1878). The expression "*conception*" would return in later versions (1902, 1905; in 1907 "*concept*" is used). In the 1905 formulation, Peirce redefined "*conception*" as the "*rational purport* of a word or other expression" (CP: 5.412, 1905).

Also note the conditional use of the imperative mode, "*consider*", used in the first person plural by analogy with the "if"-phrase, which it is meant to replace. The imperative's reference to the future is meant here in a "soft" way, as an invitation or advice rather than as a command or obligation. As shall be shown in adjacent paragraphs, this synthetic verbal form is expressed more analytically and more strongly in the later statements.

In his middle period (starting some years before 1878), Peirce appeared to have become less committed to his work on logic and semiotics. In fact, the greater part of the 1870s, 1880s, and part of the 1890s were his most productive years as a professional mathematician and research scientist (chemist, astronomer, geodesist, metrologist, *inter alia*). Even though his sign-philosophical work was for many years marginal to these multiple pursuits, yet he was slowly developing what (in a letter dated 29 September 1891 to Christine Ladd-Franklin) he came to call

. . . my cosmology. This theory is that the evolution of the world is *hyperbolic*, that is, proceeds from one state of things in the infinite past, to a different state of things in the infinite future. The state of things in the infinite past is chaos, *tohu bohu*, the nothingness of which consists in total absence of regularity. The state of things in the infinite future is death, the nothingness of which consists in the complete triumph of law and absence of all spontaneity. (CP: 8.316, 1891)

This time-governed "cosmology", inspired by Darwinian ideas, was Peirce's synechism, or doctrine of experiential continuity, which, combined with his pragmatism, both rooted in his philosophy of signs, would result in a full-blown *theory of meaning*.

According to Fisch (1986:189), the pragmatic maxim is "a recipe for sign-interpretation; more exactly, for translating *certain kinds* of categorical propositions (or propositional functions) into *certain kinds* of conditional propositions (or functions)", and no more. In Olshewsky's words:

To construe it as a theory of meaning rather than a rule about meaning is to misconstrue Peirce's whole enterprise. The maxim is a tool for improving inquiry. It is a guide for how to make your ideas clear, for discriminating the significance of one conception from another. This does not mean that it is concerned with the meaning of *all* conceptions or that it is concerned with *all* of

meaning. He came to see it implying a theory of meaning, but that theory . . . is not equatable with the maxim itself. (Olshewsky 1983: 200, my emphasis).

Peirce was interested not so much in seconds as in thirds: not in "any particular event that did happen to somebody in the dead past", but in general kinds of experimental phenomena, in "what *surely will* happen to everybody in the living future who shall fulfill certain conditions" (CP: 5.425, 1905). What is conditionally true in *futuro* can only be a general description, or third, which is applicable to particular events, or seconds.

Significatively, therefore, what is de-emphasized in later versions of the pragmatic maxim, is the earlier limitation of significative "effects" to "actions"; and what is emphasized there, is the future dimension of semiosis.

In 1902, with American pragmatism (or rather William James's version of it) having gained popularity, Peirce rewrote the original pragmatic maxim thus:

In order to ascertain the meaning of an intellectual conception one should consider what practical consequences might conceivably result by necessity from the truth of that conception; and the sum of these consequences will constitute the entire meaning of the conception. (CP: 5.9, 1902)

To express the idea of conditional futurity, the original imperative has been changed into a persuasive construction: "*In order to . . . one should consider*"; note especially the modal auxiliary verb<sup>6</sup>, "*should*." The "*effects*" having "*practical bearings*" are rephrased as "*practical consequences*." Yet Peirce added here one important element: the "*truth*" or "*entire meaning of the conception*." This mention of the "*truth*" indicates that Peirce's pragmatic meaning has definitively reached beyond the practical (secondness) and is identical with rational purpose. The "*scientific procedure*" (Peirce's "*inquiry*") is no longer guided by personal, practical beliefs as in Peirce's early thought, but by theoretical, scientific beliefs, i.e., by experimentally verifiable judgments. The latter dimension is further elaborated by Peirce in his subsequent 1905 version of the pragmatic maxim.

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<sup>6</sup> "Modal auxiliary verb" is a recent grammatical term, which was never used by Peirce.

From April to October of the year 1905, Peirce published three essays in *The Monist*, in which he attempted to wed, so to speak, his categorial scheme (and hence his earlier logic in the form of the three modes of reasoning)<sup>7</sup> and his evolutionary cosmology, with his pragmatism. In its new formulation, pragmatism was to play a central role in his semiotics. Beginning with a very "soft" universe consisting of pure irregularity and chance, the pragmatist embarks upon a process of making such a universe ever "harder." This evolutionary process is nothing but experimental science itself; because science, for Peirce, the *laboratory-man*, consists in inquiry not in doctrine; and experimentation is "rational experimental logic" (CP: 5.430, 1905), the logic of inquiry.

In two of these essays in *The Monist*, Peirce proposed two successive restatements of his pragmatic maxim. Chronologically, the following (from "What Pragmatism Is") came first:

. . . the rational purport of a word or other expression, lies exclusively in its conceivable bearing upon the conduct of life; so that, since obviously nothing that might not result from experiment can have any direct bearing upon conduct, if one can define accurately all the conceivable experimental phenomena which the affirmation or denial of a concept could imply, one will have therein a complete definition of the concept, and *there is absolutely nothing more in it.* (CP: 5.412, 1905, Peirce's emphasis)

Here we have an emphatic verbal construct consisting of no less than two logically and grammatically consecutive sentences connected by a semicolon. The first is only conditional in an implicit way, because it is advanced as an indicative statement, in a non-subjunctive, rather peremptory form; while the second is phrased as conditional, but with a double main clause, which underscores certainty in the future at the expense of conditionality. Truth as the final result of inquiry is graphically represented in the emphasized finale.

The triple negation "*nothing*", "*not*", "*denial*" serves to enhance the validity of practical experiment as a scientific method to maximize knowledge of what is called first a "*word or other expression*", then twice a "*concept*"; in brief, a third. Indeed, the usage by Peirce of the key-term in this passage, "*experiment*" (repeated in the form of

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<sup>7</sup> See Goriée 1993: 36-43.

"*experimental phenomena*"), instead of the more neutral "test" or "trial", clearly indicates that here speaks the *laboratory-man*, the exact scientist. This is also shown by the terms "*accurately*" and "*conduct of life*".

Later in 1905, in his essay on "The Issues of Pragmaticism", Peirce rewrote the pragmatic maxim in *semiotic* terms, as follows:

The entire intellectual purport of any symbol consists in the total of all general modes of rational conduct which, conditionally upon all the possible different circumstances and desires, would ensue upon the acceptance of the symbol. (CP: 5.438, 1905)

What he had originally referred to as the "*object of our conception*" (1878), an "*intellectual conception*" (1902), and which, as stated above, he had called earlier that same year (1905) a "*word or other conception*" and a "*concept*", Peirce now called, in unreservedly semiotic terminology, a "*symbol*"<sup>8</sup>, that is, a sign of thirdness standing in an arbitrary relation to the (absent) dynamical object which it signifies. In order to function as the genuinely triadic sign<sup>9</sup> it is, the symbol needs "*acceptance*" by the community of its users; that is, it needs to be interpreted according to some previously agreed general rule. Beyond the emotional and the dynamical interpretants, the symbol then produces logical interpretants, "*general modes of rational conduct*" (in 1878 called, by contrast, "*effects*", in 1902, "*practical consequences*"). Logical interpretants, however, need to be built upon "*all the possible different circumstances and desires*", that is, upon "seconds" and "firsts".

With "*conditionally*" and "*would ensue*" taking central stage in this 1905 version of the pragmatic maxim, conditional futurity has definitively found a semiotic foundation as well as a semiotic formulation<sup>10</sup>. As opposed to earlier, semiotically still "underdeveloped" versions of the pragmatic maxim, the future dimension of infinite semiosis is now fully exploited.

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<sup>8</sup> Note that the Latin verb "concipere" (to take in/together) has its Greek counterpart in "symballein" (to throw together), of which the noun "symbol" is one derivate. Yet both "concept(ion)" and "symbol" underscore the aspect of thirdness.

<sup>9</sup> For a Peirce-based account of the genuine vs. the degenerate sign, see Gorrée 1990 and the references mentioned therein.

<sup>10</sup> See also Witschel 1978: 6-7.



Finally, let us briefly turn to Peirce's important MS 318 of 1907, "Pragmatism", which consists of several drafts, only parts of which have so far been published. In one published passage, Peirce once again described mainstream pragmatism as a "method of ascertaining the meanings of hard words and of abstract concepts" (CP: 5.464, 1907), whose experimental character follows the "older logical rule, 'By their fruits ye shall know them.'" (CP: 5.465, 1907). Two paragraphs later, Peirce rephrases this to suit "the pragmatistic ingredients of [his own] thoughts" (CP: 5.466, 1907), thus:

... the *total* meaning of the predication of an intellectual concept is contained in an affirmation that, under all conceivable circumstances of a given kind . . . the subject of the predication would behave in a certain general way - that is, it would be true under given experimental circumstances. . . (CP: 5.467, 1907)

One implication of this is that logical meaning is, like semiosis, by definition inexhaustible and open-ended; a "would be", which is never complete and can only make itself increasingly known by actual experience and experiment. Yet truth remains forever a matter of degree.

In this final version, the problem of the meaning of "thirds" is rephrased in semio-linguistic terms. Thus, the meaning of a linguistic utterance (in the text called the "*subject*") is determined by the different "*circumstances*" (or seconds) in which it may be successfully used. These circumstances are mentioned twice, as "*all conceivable circumstances of a given kind*" and as "*given experimental circumstances*". In modern parlance, one would say that the meaning of linguistic utterances is both performance-bound, and co-text- and context-functional.

However, in order to act as a genuine "third", the sign must be interpreted as standing for something else, its object. The requirement of signification through interpretation, of having "*effects*", "*practical bearings*" (1878), or "*practical consequences*" (1902), can also be interpreted to mean that not only "seconds" but also "firsts" can be attached to it<sup>11</sup>. As I understand Peirce's argument, this is exactly what he meant with "*predication*": namely, that a word or other linguistic utterance

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<sup>11</sup> This is discussed in Johansen 1993: 257, where this scholar concludes: "If the sign has any meaning at all, then it must be possible through semiotic regress at some point in the chain of interpretants to attach it to icons and indices; it must also be possible to trace these icons back to their foundation in perception, i.e., to point out the part played by firstness and secondness in the process of signification."

evokes similar images in the minds of its sender and of its receiver. These images result from the immediate object of the sign, but in actual communicative situations they refer back to the real quality of the dynamical object, - that is, to truth.

Let me wrap up my argument. In his 1878 pragmatic maxim, Peirce initiated pragmatism naively, almost unwittingly. Soon, it took an overly "practical" turn in the hands of his peers, whereupon Peirce, the logician and exact scientist, reformed it as "pragmaticism", which he developed into a theory showing how logical meaning is worked out. The 1902 version of the original pragmatic maxim shows that truth is the highest goal of inquiry. Under the label of his *semiotic*, he combined pragmatism with his categories and his views on cosmology. In 1905 he rewrote the pragmatic maxim to show its basis in the theory of signs; and in 1907 he gave it a semio-linguistic turn.

Time, in the guise of *semiosis*, is ubiquitous here. Not only does the threefold sign relation develop its meaning through time. Also, the intellectual development of Peirce, the polymath, reflects, and is reflected in, his successive statements and restatements of the pragmatic maxim, each one serving as an interpretant to the previous one, as well as being in its turn interpreted.

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