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# *The Criterion of Habit in Peirce's Definitions of the Symbol*

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***Abstract***

The paper examines the concept of habit and its relevance to Peirce's theory of the symbol. In contrast to other semioticians who defined symbols by using the criteria of conventionality, arbitrariness, and codedness, Peirce proposes a much broader concept when he defines the symbol as a sign having "the virtue of a growing habit." With this new and original criterion of habit, Peirce enriched the theory of the symbol with an evolutionary perspective that remained unnoticed by those who restricted the category of the symbol to signs characterized by codedness and arbitrariness. In particular, Peirce's evolutionary concept of the symbol is incompatible with Ernst Cassirer's *Philosophy of Symbolic Forms,* according to which the symbol is the unique characteristic of human culture, whereas nonhuman nature is a semiosphere devoid of symbols. In Peirce's broader perspective, the concept of habit serves as a synechistic bridge to overcome two dualisms that prevailed in the traditional definitions of the symbol, that between culture and nature and that between the conventional and the innate. Against the first Peirce proposes that a habit by which symbols are interpreted is "natural or conventional"; against the second, Peirce postulates that a habit which determines a symbol is a disposition "acquired or inborn."

*Keywords: Conventionality, Habit, Natural, Peirce, Semiotics, Sign, Symbol.*

## *1. Peirce's Definition of the Symbol against the Background of the History of Semiotics*

It is known that Charles Sanders Peirce was well acquainted with the history of semiotics since antiquity. In this tradition, those

signs which Peirce defined as symbols had mostly been studied as "arbitrary" or "conventional" *sign*, and Peirce himself once characterized his category of the symbol as the one of "the genuine sign" (EP 2:307, 1903). At the same time, he justified his terminological option for the term symbol with the remark that he was "following a use of the word not infrequent among logicians including Aristotle" (ibid.). In the medieval tradition, the signs which belonged to this class were the arbitrary *signa arbitraria* and the "given" or conventional *signa data* or *signa ad placitum*. All of these signs were fundamentally opposed to the class of natural signs, the *signa naturalia* (cf. Meier-Oeser 1997).

Against the background of this millenary tradition, Peirce's own definition of the symbol was radically new, insofar as it extended the category of the symbol in two directions: first, by postulating "habit" instead of "conventionality" as a new distinctive feature of this class of signs and secondly, by extending it from signs created by cultural conventions to signs which could have their origin in natural habits and dispositions.

In a definition of 1909, Peirce describes symbols as those signs which "represent their objects, independently alike of any resemblance or any real connection, because dispositions or factitious habits of their interpreters insure their being so understood" (EP 2:460f). This formulation characterizes the symbol in contrast to the icon, the sign "by resemblance," and the index, the sign with a "real connection" to its object. In accordance with the semiotic tradition, this negative characterization of what a symbol *is not* is an implicit formulation of the ancient criterion of arbitrariness, a semiotic criterion which Peirce rarely mentions explicitly (he does so, e.g., in 1895, W5:162). Instead of conventionality, however, which Peirce discusses more frequently as a criterion of the symbol, his definition of 1909 as well as many other later definitions of the symbol focus on the new criterion of habit.

Convention, the major traditional criterion of these signs, can certainly be circumscribed as a "regularity" or "general rule," since a convention typically comes about by a voluntary and intentional agreement between the members of a community. A convention may indeed become a law, but then it is not an "acquired" but a "stipulated" law and even less so is it a "habit," since a habit evolves in ontogeny or phylogeny but not by social agreement.

If Peirce, nevertheless, makes reference to the criterion of conventionality in several of his definitions of the symbol, it seems that he adopts this criterion rather as a "sop to Cerberus" (as Peirce writes in a similar context in his letter to Lady Welby of 1908 [EP 2:478])—that is, in order to make his definition better understood to those acquainted with the traditional notion of the conventional sign. In compliance with his ethics of terminology, Peirce also sets great store on linking his notion of symbol to its semiotic tradition, even at the risk of minimizing

the innovative element of his own definition. In 1894, he writes: "The word *Symbol* has so many meanings that it would be an injury to the language to add a new one. I do not think that the signification I attach to it, that of a conventional sign, or one depending upon habit (acquired or inborn), is so much a new meaning as a return to the original meaning" (CP 2.297, 1894; EP 2:9).

To associate "habit," even more so in its onto- and phylogenetic specification as an "acquired or inborn" disposition, to the traditional concept of convention is indeed a remarkable sop to Cerberus; it seems to be a rhetorical gesture which allows its author to trace the concept of symbol back to Greek antiquity (as also in CP 2.307, 1901) and to present further examples of symbols, which Peirce does in a historical excursus on the concept of symbol in continuation of the text of 1894 which introduces "habit" as a criterion of the symbolic sign:

> We do find symbol . . . early and often used to mean a convention or contract. Aristotle calls a noun a "symbol," that is, a conventional sign. In Greek, a watch-fire is a "symbol," that is, a signal agreed upon; a standard or ensign is a "symbol," a watch-word is a "symbol," a badge is a "symbol"; a church creed is called a "symbol," because it serves as a badge or shibboleth; a theatre-ticket is called a "symbol"; any ticket or check entitling one to receive anything is a "symbol." Moreover, any expression of sentiment was called a "symbol." Such were the principal meanings of the word in the original language. The reader will judge whether they suffice to establish my claim that I am not seriously wrenching the word in employing it as I propose to do. [EP 2:9; CP 2.297, 1894]

While all of these examples serve indeed to illustrate the symbol as a conventional sign, none of them really illustrates the extension of the category of symbol to signs that depend upon an "acquired or inborn" habit. At this point, at least, Peirce restricts his discussion of the symbol to its traditional definition, and it is this definition of symbols as arbitrary and conventional signs, which, despite Peirce's innovative definition of this class of signs, has prevailed in 20th century cultural semiotics philosophy from Ernst Cassirer to Umberto Eco.

### *2. Symbols as Habits*

In contrast to these latter theories, which postulate that the symbol is the "essence of man" and of human culture (Cassirer), and which thus establish a strict separation, a semiotic threshold, between culture and nature according to the presence or absence of symbols, Peirce's much broader perspective of the symbol as a sign guided by onto- and phylogenetic habit serves as a synechistic bridge to overcome two dualisms which have prevailed in the history of semiotics, the dualism of culture vs. nature and the dualism of the conventional vs. the innate, i.e., between

human signs culturally transmitted by teaching and learning and signs genetically inherited and interpreted by instinctive dispositions. Against the dualism culture vs. nature, Peirce proposes that the habit by which symbols are interpreted is conventional *or* natural. Against the dualism of the conventional vs. the innate, Peirce postulates that the habit which determines the symbol is an "acquired or inborn" disposition.

What Peirce meant by "habit" as a determining factor in the process of the interpretation of symbols becomes clearer in the following definition of 1902, in which "habit" is circumscribed by notions such as "regularity," "acquired law," or "general rule":

> A *Symbol* is a Representamen whose Representative character consists precisely in its being a rule that will determine its Interpretant. All words, sentences, books, and other conventional signs are Symbols. We speak of writing or pronouncing the word "man"; but it is only a *replica*, or embodiment of the word, that is pronounced or written. The word itself has no existence although it has a real being, *consisting in* the fact that existents *will* conform to it. It is a general mode of succession of three sounds or representamens of sounds, which becomes a sign only in the fact that a habit, or acquired law, will cause replicas of it to be interpreted as meaning a man or men. The word and its meaning are both general rules . . . . A Symbol is a law, or regularity of the indefinite future. . . . But a law necessarily governs, or "is embodied in" individuals, and prescribes some of their qualities. [CP 2.292f, 1902]

Thus, despite the necessary embodiment of a symbol in a particular sign token or replica, the essence of the symbol can neither be reduced to any particular instance nor to all instances of its embodiment. A symbol cannot be reduced to the actual occurrence of any of its occurrences nor is it a class of signs in the sense of some set containing the sum total of its members. This is what Peirce affirms when he states that "no agglomeration of actual happenings can ever completely fill up the meaning of a 'would be' " (CP 5.467, 1903).

The essence of a symbol, according to Peirce, can only be fully accounted for with reference to the process of semiosis, in which the symbol represents its object and creates its interpretant. In this process, the symbol, like the representamen of any other type of sign, together with its object and its interpretant, forms a triadic relation consisting "in a *power* of the representamen to determine *some* interpretant to being a representamen of [its] object" (CP 1.541f, 1903). More specifically, it is "a sign which is determined by its dynamic object only in the sense that it will be so interpreted" (CP 8.335, 1904). The determination of the symbol by its object is hence a potential whose effect is the one of a habit of interpretation. Peirce describes this potential by means of the metaphor of the grammatical categories of future tense and conditional mood: the logical

interpretant of a symbol belongs to "the species of future tense . . . , the conditional mood"; it acts as a "*would-be*" (CP 5.482, 1905). In contrast to the icon and the index, the symbol hence conveys more about its object "than any feeling . . . more, too, than any existential fact, namely, the 'would-acts', 'would-dos' of habitual behavior" (CP 5.467, 1903).

In this process of semiosis in which the symbolic sign is thus determined by its object, it is really the symbol, not its utterer, that has a purpose. The symbol evinces a final cause (cf. Santaella 1999), since it "has an interpretant in view. Its very meaning is intended. Indeed, a purpose is precisely the interpretant of a symbol" (EP 2:308, 1904). The purpose of a symbol is thus not determined by the minds of the symbol users and their intentionality; an interpreter's mind is only the vehicle in which the purpose of the symbol becomes embodied.

### *3. Are Symbols Organisms?*

The habit associated with a symbol, although implied in its dynamic object as the semiotic potential of representation, is a matter of the interpretant. This habit is not merely the interpreters' habit of complying with the conventions necessary to make themselves understood; it is not a "precept," nor does it describe the action of an interpreter "in obedience to a law" (CP 1.586, c. 1903). Instead, the one who interprets a symbol does so according to a general "rule of conduct, including thought under conduct" (CP 2.315, 1902) and in "conformity to [a] norm," as Peirce elaborates in the context of his "Attempted Classification of Ends" (CP 1.586, c. 1903), adding that he never uses "the word norm in the sense of a precept, but only in that of a pattern which is copied, this being the original metaphor."

Purpose and intentionality are defining criteria of life. The ultimate biological purpose of a living being is to survive individually and to reproduce its own species by procreation. Does this mean that Peirce imputes life to symbols? Is a symbol a living being?

Symbols have indeed several characteristics in common with living beings; metaphorically, they are "born" when they are first invented, they "grow" in age and meaning, and they can also "die" by falling into oblivion or by being substituted by new symbols that take their place. The analogies between words or languages on the one hand and biological organisms as well as species on the other have been given some attention in the framework of historical and evolutionary linguistics.

About 1895, Peirce comments on the life of symbols not only with the observation that "Symbols grow . . . , come into being by development out of other signs," that "a symbol, once in being, spreads among the peoples," and that "in use and in experience, its meaning grows," but also with the insight that only symbols procreate symbols, since "it is only out of symbols that a new symbol can grow. *Omne symbolum de symbolo*" (CP 2.302, c. 1895).

Hence, Peirce goes so far as to ascribe to the symbol not only the autonomy of a living being, which has purposes of its own, but also the capacity of procreating itself. In 1904, Peirce writes: "A symbol is something which has the power of reproducing itself, and that essentially, since it is constituted a symbol only by the interpretation" (EP 2:322). This argument concerning the survival of the life of symbols in new symbols goes beyond the commonplace metaphor of the life, growth, and death of symbols, which change and evolve in the history of cultures. Peirce's thesis is that it is not a Cassirerian *animal symbolicum* who produces the symbol, but that, instead, it is the very symbol which reproduces itself in the process of unlimited semiosis by determining other symbols to represent their object in the form of an interpretant. Such ideas have been the scandal of anthropocentric philosophers, who cannot accept the idea of the dethronement of the individual in the processes of semiosis. John Boler, in his paper on "Habits of Thought" of 1964, for example, recognized clearly, but objected to, Peirce's theses concerning the autonomy of the symbol in relation to its interpreter. According to his summary, "Peirce does not avail himself of the standard kind of argument: that an idea is an accident requiring substance, an event that must have a place, or a deed that must have a doer. He argues rather that a sign must be 'used' (CP 7.356, c. 1873) or 'received' (CP 3.433, 1896) . . . . What Peirce contends is that a sign signifies only if it is taken to signify" (ibid. 387). The "error" that Boler saw in Peirce's account of the autonomy of the sign was to go so far as to "dispense with the individual mind that functions as an interpreter" (ibid. 388) and that "in denying the interpreter any significant role, Peirce has placed an intolerable burden upon the series of interpretants" (ibid. 392). Almost half a century after this criticism, postmodern insights into the processes of evolution and the situatedness of the human subject in a semiotic *umwelt* restricting the autonomy of the individual, a revision of the anthropocentric position is on the semiotic agenda.

Peirce claims that symbols procreate in the form of their interpretants, which are new symbols that carry on and renew their messages. The habits by which symbols procreate are not the ones of their interpreters, in whom they are merely embodied. The purpose of the sign cannot be determined by its users since, independently of their individual intentions and purposes, the sign is determined by its object. This purpose, which is the final cause of the process of semiosis, is to create an interpretant. Since those who interpret the symbol are not free to endow it with any meaning they might wish to associate with it, but have to comply with the meanings associated with them through the habits that determine the interpretation of the symbol, they cannot themselves use the symbols as their mere instruments. Being determined by the habits of the symbols they use, the symbol users, in a way,

turn out to be the instruments of the symbols they believe to use and whose message they convey in the process of semiosis.

The phrase "in a way" must be underlined in this context, since the autonomy of the sign does not go as far as to make the sign user the blind agent of the sign. Ransdell (1992), in his paper on semiotic autonomy, sees very clearly that "to regard semiosis . . . as always due primarily to the agency of the sign itself rather than to the agency of an interpreter, human or otherwise, does not deny that human agency has an important role in the occurrence of meaning phenomena." The determination of the sign user by the sign does not exclude the partial determination of the sign by its sign user. After all, the sign users' minds, their memories, and their experiences are the loci of the embodiment of the objects of the sign, so that the sign users, are also co-agents in the process of semiosis. In this sense symbols and symbol users are intertwined in a cybernetic master-slave circularity which does not constitute a *circulus vitiosus* but a synechistic *circulus virtuosus* of mutual semiotic growth. Peirce's insight in this circularity dates back to 1868, when he wrote that:

> Man makes the word, and the word means nothing which the man has not made it mean, and that only to some man. But since man can think only by means of words or other external symbols, these might turn round and say: "You mean nothing which we have not taught you, and then only so far as you address some word as the interpretant of your thought." In fact, therefore, men and words reciprocally educate each other. [W2:241]

Peirce illustrates this semiotic circularity with the poetic image of a line from Emerson's poem *The Sphinx*, references to which occur no less than four times in the *Collected Papers*. In this poem, the Sphinx turns to the traveler whose task it was to interpret the enigma of her name and says: "Of thine eye I am eyebeam." In conclusion of his argument on the growth of symbols from symbols of 1895, Peirce alludes to this line conveying the idea of a beholder-beheld circularity. The parallel between the Sphinx addressing the traveler and the symbol that creates a symbol is: like the traveler whom the Sphinx tells that she is not really being interpreted *by* his eyes since she *is* the eyebeam of his own eye, the symbol may turn to its interpreter to remind him or her that it is not the interpreter as an autonomous semiotic being who interprets the symbol since what he or she interprets is nothing but the habit whose expression only becomes embodied in the interpreter. Peirce's words, in this context, are: "The symbol may, with Emerson's sphynx, say to man, 'Of thine eye I am eyebeam' " (CP 2.302, c. 1895); elsewhere, he uses the image of the Sphinx to convey the insight of this semiotic circularity by saying that an idea such as the mental image of the Sphinx is only "expressive of the impression

which has naturally been made upon our understandings" (CP 7.425, c. 1893).

### *4. Natural Symbols as Habits in Nature*

Let us now examine the natural symbols Peirce has in mind when he speaks of the sign determined by "acquired or inborn" habits (see above). That merely conventional signs are no longer the ones Peirce has in mind in his writings on the symbol becomes apparent in several of his later definitions.

As early as in 1885, Peirce calls the habit that determines the signs of the category of symbol a "general rule to which the organism has become subjected" (W5:162). The rule of conduct determining the interpretation of a symbol is hence not necessarily the habit embodied in a human interpreter; apparently, this habit can determine the sign production of any biological organism. In 1895, Peirce stated that it was an "error" to restrict the class of symbols to conventional signs (CP 2.340, c. 1895). In 1901, Peirce explicitly extends his class of symbols from conventional to natural signs, when he states that the habit by which a symbol is determined in the process of its interpretation may be "natural or conventional" (CP 2.307, 1901), and in 1906 he includes "natural dispositions" among the kinds of this habit (CP 4.531, 1906; cf. Nöth 2008).

Now, if symbols can be natural signs, but evidently not all natural signs are symbols, how can the symbol be distinguished from the other natural signs, and what kind of natural symbol does Peirce have in mind? Among the many examples which Peirce gives to illustrate the class of symbolic signs it is difficult to find concrete instances of natural symbols. It is true that in some of his grand visions, he presents the whole universe as an example of a symbolic sign, as in 1903, when he calls the world "a vast representamen, a great symbol of God's purpose, working out its conclusions in living realities" (CP 5.119, 1903) but such deliberations on the world as a symbol belong to metaphysics and not to semiotics.

Concrete examples of natural symbols can only be inferred from contexts in which Peirce discusses this class of sign, first of all when he opposes natural symbols to natural indices and icons, as in the definition of 1901, which goes on to specify that a sign is a symbol when it is guided by a natural habit "without regard to the motives which originally governed its selection" (CP 2.307, 1901). Hence, natural icons and natural indices are not symbols because, by definition, they are related to their objects by other kinds of motivation.

The characteristics by which Peirce describes the symbol as a sign guided by habit can easily be found in the signs of nonhuman animals. If "every symbol . . . consists in a habit, in a regularity," and "every regularity consists in the future conditional occurrence of facts

not themselves that regularity," as Peirce writes c. 1903 (CP 4.464), all signs by which animals communicate and which are not icons or indices are natural symbols. It is true that the signs in zoosemiosis are much more of the indexical and the iconic kind than the ones of humans, but among the signs of higher animals, there are certainly also signs which depend on learning, which is a form of habit acquisition, and all animals communicate by habits which are natural dispositions (cf. Nöth 2005). Such signs which constitute species-specific semiotic habits, whether genetically inherited or acquired by learning, are hence natural symbols. The so-called "languages" of animals, especially the well-known dialects by which some animal languages of one and the same species differ according to their geographical habitat, are thus as much symbolic systems as human languages are. The difference between anthroposemiosis and zoosemiosis is thus not the one between natural signs and conventional symbols, but it is a difference between degrees of symbolicity.

In addition to habit, there are two other significant features which human symbols share with biological organisms and their evolution. In the terminology of contemporary evolutionary theory, these characteristics, also described by Peirce, are self-replication and procreation or autopoietic creativity. A symbol is self-replicative because, as a *legisign*, it is "a general type or law" (CP 2.249, 1903) which acts as a "general rule" (CP 4.447, 1903), and it has existence only in its replication in the form of its replicas or tokens. The relevance of Peirce's type-token dichotomy to the theory of the symbol as a habit becomes evident in the following passage in which Peirce argues: "Take, for example, the word 'man'. . . . If the word 'man' occurs hundreds of times in a book of which myriads of copies are printed, all those millions of triplets of patches of ink are embodiments of one and the same word. I call each of those embodiments a replica of the symbol" (ibid.). The self-replicative power of the symbol *man* thus consists "in the fact that a habit, or acquired law, will cause replicas of it to be interpreted as meaning a man or men" (CP 2.292, 1902). In sum, the symbol is self-replicative since it has "the power of reproducing itself, and that essentially, since it is constituted as a symbol only by the interpretation" (EP 2:322, 1904, see above).

The second capacity which symbols have in common with biological organisms and their evolution is autopoietic creativity: symbols have the potential of growing by themselves by creating new symbols. Peirce describes this autopoietic potential of symbols as follows: "Perhaps the most marvelous faculty of humanity is one which it possesses in common with all animals and in one sense with all plants, I mean that of procreation. . . . If I write 'Let Kax denote a gas furnace', this sentence is a symbol which is creating another within itself" (CP 3.590, c. 1867).

Admittedly, the argument sounds daring, and it is likely to provoke the objection that it is not the symbol itself which creates a new symbol, but the symbol maker, in other words, the human being who invents the new word. However, the claim behind this argument is more complex and requires taking into account Peirce's theory of synechism which postulates gradual transitions between nature and culture, matter and life, rejecting also the dichotomy of the symbol maker vs. the symbol. According to the theory of semiosis introduced above, signs are neither mere products nor tools of the human mind, but to a certain degree, autonomous agents in sign processes, communication, and the evolution of signs. To the degree that it is true that humans create symbols, it is equally true that the human mind is not independent from, but determined by, symbols, semiotic systems, syntax and semantics, and the laws of logic which operate in thought, verbal expression, and communication. Hence, to the degree that the human mind, human thought, and symbolic expressions are molded by the laws and logic of its underlying symbolic systems, they are determined by symbols. In this sense, the symbols are, to a certain degree, co-authors and hence, semi-autonomous agents in the processes of semiosis in which humans believe to express "themselves," unaware of the fact that they cannot really claim to be fully autonomous agents expressing "themselves."

### *5. The Natural in the Habits of Culture*

The traditional study of natural signs oriented itself, and insofar as it still prevails, is still orienting itself, along the dualistic dividing line between human culture and nonhuman nature. Whereas symbols were the signs of human culture, natural signs were the ones of the remaining biological and physical world. This dualistic semiotic approach to signs that belong either to culture or to nature has obscured the semioticians' view of the natural ingredients of symbols. By contrast, Peirce's synechistic approach to the symbol as a sign guided by habit in both human and nonhuman sign processes can draw the semioticians' attention towards long neglected natural components of the symbols of cultural conventions.

Although Peirce never reflected explicitly on the semiotics of the dualism between culture and nature, his insights into the iconic and indexical elements of language and culture have brought important contributions to the study of natural ingredients in human culture. However, the study of nature in culture along the lines of Peirce's semiotic synechism does not only lead to the discovery of the biological heritage of human culture, it also brings to our attention ingredients in conventional signs which are natural in a different sense, not deriving from the semiotic behavior of animals, but from natural patterns and laws that have a reality independent of life.

In this context, it may be of interest to confront anthropocentric semiotics with a very different approach to the natural sign, which does not subscribe to the dualism between human and animal or physical semiosis. Such views can be found in medieval semiotics with which Peirce was so familiar. In Roger Bacon's treatise *De signis* (1276), for example, we find a typology of signs which classifies pictures and paintings (*imagines* and *picturae*) among the *natural signs* despite their conventional ingredients so much emphasized in modern pictorial semiotics. Bacon classifies them as natural signs because, in his semiotic framework, they are signs "by their own nature and not by the intention of a soul" (*De signis* I.4, quote from: Meier-Oeser 1997: 54). Of course, Bacon could not deny that a painter has intentions when producing a picture, but his argument was that the painter's intention "is not essential to the painting as a sign." Instead, the picture is a sign essentially because of its similarity with what it represents. "Whether the artist wants it or not," argues Bacon, "the picture always represents what it represents by means of a relation of similarity" (ibid. 68f). Bacon thus defends the position that iconic signs, as Peirce would call the pictures Bacon was talking about, are natural signs because of their iconicity irrespective of the intentions of their producer. In the subsequent history of semiotics, pictures became to be classified as artificial signs (*signum artificiale*), but even in this new classification as an artificial sign, the pictorial sign remained a natural sign, since artificial signs came to be considered as a subclass of natural signs (cf. ibid. 202).

What is of interest, in our context, is that the class of natural signs and that of the signs produced by the intention of human beings were by no means incompatible and that signs were not classified as natural according to their mode of production or interpretation in biological or physical nature. Instead, they were considered to be natural in themselves because of a quality naturally inherent in them which renders the icon naturally suitable to represent its object.

If we adopt this view of the naturalness of a natural sign, it becomes possible to see a natural feature in the symbol, too. Symbols share a characteristic with nature, which makes them in a way natural despite their conventionality. It is the characteristic of continuity which habits evince as long as they do not change and which they share with the laws of nature which constitute evolutionary habits. The habit that determines a symbol to function as a sign may be acquired or inborn, but the habit as such is a phenomenon of nature. After all, it is not a mere coincidence that human language, the prototype of a system of conventional symbols is called "natural language."

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