

Quality and Form in the philosophy of Charles Sanders Peirce

Qualidade e Forma na filosofia de Charles S. Peirce

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Abstract: The main objective of this paper is to present a possible identity between the concepts of *form* and *quality* in the philosophy of Charles Sanders Peirce (1839-1914), by means of his arguments in his Semiotics and in his Cosmology. In other words, our goal is to show that firstness consists in a *form*, constituting part of the nature of thirdness, inasmuch as the tendency to generalization or to the acquisition of habits was foreshadowed in the origin of the cosmos. Of an inductive nature, the step from the absolute nothing to a unity of qualities foreshadows an intelligible universe of a *formal nature*. This unity may already be considered a restriction of a potentiality of a greater strength present in that germinal nothing: the first category is configured, then, as being of a *qualitative* potential nature. The adjective “qualitative” presents the kind of restriction of potentiality to which we referred: such potential is of *this* or *that kind*. The second category, by its turn, arises from a *chaos of feelings*: it is not the interaction between those feelings that brings the second category to reality, but the mere manifestation of the feeling which is, by its turn, characterized as the momentary appearance of quality. This appearance is not potential, but actual. It is already a fact; it is already a restriction of the qualitative potentiality. Feeling while actuality and quality in its potential state foreshadow the origin of the *other* that presents itself: this other is, therefore, inscribed in the nature of quality and already presents the duality object (quality as potentiality) and represented object (depersonalized appearance of a quality). Finally, the tendency to generalization is recognized by means of the relations that the qualities establish among themselves: inasmuch as the appearance of one or more qualities was maintained *insistent*, such qualities began to establish relations among themselves, giving space to a logical structure that multiplies those relations themselves, allowing for the inductive formation of laws and more complex objects, but always indebted to the available material foreshadowed in the origin: *qualities*.

Keywords: Cosmology. Form. Information. Peirce. Quality. Representation. Semiotics.

Resumo: *O principal objetivo deste artigo é apresentar uma identidade possível entre os conceitos de forma e de qualidade na filosofia de Charles Sanders Peirce (1839-1914), por meio de seus argumentos em sua Semiótica e em sua Cosmologia. Em outras palavras, nosso objetivo é mostrar que a primeiridade consiste em uma forma, parte constitutiva da natureza da terceiridade, na medida em que a tendência à generalização ou à aquisição de hábitos estava prefigurada na origem do cosmos. De natureza indutiva, o passo do nada absoluto para uma unidade de qualidades prefigura um universo inteligível de natureza formal. Esta unidade já pode ser considerada uma restrição de uma potencialidade de força maior presente naquele nada germinal: a primeira categoria é configurada, então, como sendo de natureza potencial qualitativa. O adjetivo “qualitativa” apresenta uma espécie de restrição da potencialidade para a qual nos referimos: tal potencial é desta ou daquela espécie. A segunda categoria, por sua vez, surge de um caos de sentimentos: não é a interação entre tais sentimentos que traz a segunda categoria à realidade, mas a mera manifestação do sentimento que é, por sua vez, caracterizado como a aparência momentânea da qualidade. Esta aparência não é potencial, mas atual. Ela já é um fato; ela já é uma restrição da potencialidade qualitativa. Sentimento enquanto atualidade e qualidade em seu estado potencial prefiguram a origem do outro que se apresenta: este outro está, portanto, inscrito na natureza da qualidade e já apresenta a dualidade objeto (qualidade como potencialidade) e objeto representado (aparência despersonalizada de uma qualidade). Por fim, a tendência à generalização é reconhecida por meio das relações que as qualidades estabelecem entre si: na medida em que o aparecimento de uma ou mais qualidades se manteve insistente, tais qualidades começaram a estabelecer relações entre si, permitindo a formação indutiva de leis e objetos mais complexos, mas sempre devedores do material disponível prefigurado na origem: qualidades.*

Palavras-chave: *Cosmologia. Forma. Informação. Peirce. Qualidade. Representação. Semiótica.*

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1 Introduction

In recent studies, we have characterized *information*, according to Charles Sanders Peirce (1839-1914), from two approaches: the first one is related to what we name the *semiotic* aspect, which comprehends (i) the initial theory of information of Peirce, whose theoretical grounding is found in traditional logic, with the study of *quantities* of terms and, derivatively, of propositions and (ii) the semiotic theory of information, with the recognition that not only symbols, genuine signs, carry and transmit it, but also informative indexes or *dicisigns*, considerably broadening

the extension of the concept, since it, in this second stage, is not restricted to human language. The second approach, intrinsically related to the former, refers to the *metaphysical* character of information, and comprehends the relations between *form* and *matter* or *substance*. In this last case, information is considered objectively operative in reality, from a process of in-formation, that is, of a certain *connection* (or synthesis) between an undifferentiated substance and the form, which differentiates it. Our hypotheses suggest a relation between the notion of form, in the platonic sense, and the Peircean notion of quality.

Some philosophical perspectives consider that we cannot have access to the objects of the world directly, but only by means of their structures. To have “access to its structure” means that we “observe” the relations established between elements of a given set and its properties. For example, *epistemic structural realism* supposes that scientific theories tell us only about the *form* or structure of the unobservable world and not about its nature (LADYMAN, 1998; WORALL, 1989). Again, we only have access to the structure of the relations among *things*. On the other side, *ontic structural realism* raises the possibility that we only know the structure and not the things in themselves, because there are not such *things*; *structures* are all there is (VAN FRAASEN, 2006). However, when reading Steinle’s (2010) paper, we realized that Ladyman’s notion of structure was not clear; Steinle supposes, then, that it is possible that the notion of structure we are considering is the logical one.

Briefly, a structure is constituted by a set of individuals and a set of relations amongst the individuals. These relations are the *n*-ary predicates and *n*-ary functions of the structures (see SHOENFIELD, 1967). However, in this definition (not fully formalized here) it could be said that we have things, represented by “individuals” and, therefore, in this way we might not agree with what the ontic structural realism implies, that is, a world constituted only by structures.

There is a *formal* problem: how could one speak of structures in this perspective without considering the individuals that compose the universe of the said structure? There are many discussions on this topic, but we do not intend to talk about them in this text. What is really important here is that Alfred Tarski (1941) has already presented the paper *On the calculus of relations* and later, with collaboration of Givant, *A formalization of set theory without variables* (1987), and for Steinle this could be a way of solving the problem of individuals. In the paper of 1941, Tarski says that it was Peirce who “laid the foundations for the theory of relations as a deductive discipline; moreover, he initiated the discussion of more profound problems in this domain.” (see SUGUITANI and D’OTTAVIANO, 2015).

We immediately tried to comprehend Peirce’s *calculus of relatives*, especially, *Description of a notation for the logic of relatives, resulting from an amplification of the conceptions of Boole’s calculus of logic*, to provide some hypothesis to this debate. We could not fail to mention *Il concetto di relazione in Peirce* (FABBRICHESI, 1992), a work that has contributed to comprehend Peirce’s thoughts in this matter. Today we believe that structural notion is one of the best ways of observing the triadic semiotic process as presented by Peirce, if the correlate object, sign and interpretant are considered elements of the structure related by this triadic relation itself. This is important because it allows us to visualize the iconic aspect of an intelligible world constituted as a very complex network of triadic relations.

From those two perspectives, namely, the one of the study of the characterization of information according to Peirce, and the one of the structural conception of reality, this paper has the goal of analyzing and clarifying the nature of what Peirce denominates *quality*, from two perspectives that, although presented in different contexts in the author's system, maintain a strict relation between themselves: the semiotic character and the metaphysical/cosmogonic character, which lead us to the explanation of the origin of the universe for a better understanding of the nature of quality. Furthermore, we hope to make use of some hypotheses to consider quality, now thought of as form in the platonic sense, a fundamental logical structure, simple, with no parts, relations or elements: in this sense, thought could be conceived as a *continuous flow of feelings* which are, by their turn, *elementary logical structures* themselves.

In section two, we begin with a succinct presentation of the notion of the Peircean triadic relation of representation, emphasizing its eminently teleologic nature from the structural conception and seeking a better contextualization of the cosmogonic aspects of the universe, for the presentation of the advent of quality and feeling, in the next section. In section four, we present some of the characteristics of quality for the comprehension of its concept. The interrelations between the notions of quality and form, in section five, allow us to recuperate the conception of representation to the corroboration of the hypothesis of the present paper: quality *is*, for Peirce, the platonic form.

2 The teleologic concept of representation

Peirce defines:

A *Representamen* is the First Correlate of a triadic relation, the Second Correlate being termed its *Object*, and the possible Third Correlate being termed its *Interpretant*, by which triadic relation the possible Interpretant is determined to be the First Correlate of the same triadic relation to the same Object, and for some possible Interpretant (CP 2.242).

The definition above of the triadic and teleologic relation of representation, as we shall see, leads us to the understanding of an ordered process whose limits are logically determinable, although they cannot be actualized. *Representation* can be understood as a *structure* composed by a relation between three elements: *representamen* or *sign*, *object* and *interpretant*. To recognize such a process from a structural conception allows us to “visualize” its logical-diagrammatical underlying aspect: whatever the particular *genuine* representation, the triadic relation maintains as a structure this logical configuration which is proper to it. From the Peircean definition of the relation of representation, explained above, we can summarize some of its intrinsic characteristics:

- (1) Although many times treated as synonymous, in this paper we consider the terms *sign* and *representation* distinctly. With the term *representation*, Peirce (CP 2.273) means a *function*, namely, the one *of being in relation to the*

other, and what performs it is the triadic representamen or sign. Therefore, the term *to represent* refers to the *action of the triadic sign in itself* and not to the sign itself. In general, with the term *representamen*, we mean the *first correlate* the representative relation, which can be monadic, dyadic or triadic. In case the representamen has a monadic or dyadic character, its function is of *mediation*. A symbol is an eminently triadic representamen (sign) and, as such, is a *representative mediation*. In this sense, the notion of mediation as an action of the representamen is more general than that of representation, that, by its turn, is restricted to the triadic character. Yet, we do not consider the terms *symbol* and *representation* as synonymous: the last one refers to the action that the first one performs. The items below refer to the *action of the triadic representation*, of which can participate the monadic and dyadic representamens, as long as inserted in the triadic representative flow now analyzed. For this reason, we use the term *sign* for the first correlate, not because we simply consider it synonymous to representamen, but because we are defining the relation of representation itself, which is eminently triadic.

- (2) Such an action is performed by means of a *logical sequencing* of those elements. A sign, first correlate, is defined by its potentiality of being interpreted; an object is defined by its potentiality to be represented. As a consequence, it is not possible to consider the interpretant as dissociated from the sign and the object, just as it is not possible to consider the object dissociated from the sign. An object has, thus, in its own semiotic constitution, a sign that represents it, just as the interpretant has a sign that it interprets as representing an object. The sign, as first, may be considered independently of the other two correlates of the relation in its representative character.
- (3) We interpret the word *possible*, expressed in the definition, in two distinct ways, although intrinsically correlated. The first one refers to the consideration that the triadic teleologic process may degenerate, that is, expresses the possibility that interpretants are not generated from the relation of representation; there is a modalization of the interpretant from its possibility and not its necessity. In this context, the definition would encompass the degenerate processes of representation, where there is a “rupture” of the representative process *ad infinitum*; but this is secondary. On the second interpretation, the word *possible* indicates, mainly, that, for the relation to be triadic, it suffices that the interpretant be in potential mode: it is indispensable to notice that the interpretant does not need to be actualized for the sign to be apt to fulfill its significant character; the interpretant is mere potential, a being *in futuro*; in Peirce’s words: “It is not necessary that the Interpretant should actually exist. A being *in futuro* will suffice” (CP 2.92, *author’s emphasis*).

- (4) There is, in the definition, an indication that the representative process tends possibly towards the infinite. The relation of representation is a process that can *tend* to never be completed, as a limit in the infinity, in the mathematical sense, indicating that we can approximate to the object as much as we want, but its effective reach may always reside in the future, and, independently of any approximation that we make in its direction, there will always be a continuous interval, which will indicate to us the impossibility of its complete representation. It is possible to verify the veracity of such affirmation when, in the end of the definition, Peirce indicates that through the triadic relation, the possible interpretant, already determined by the determination of the sign by the object, takes on the logical role of first correlate of the same triadic relation to the same object and to a possible other interpretant. There is a tendency that the interpretant generates another interpretant, when that one takes on the logical role of sign to the last one; the successive representations belonging to this convergence are representations of the same object considered in the “beginning” of the process; this means that the representation of an object is a continuous flow of generation of other interpretants from a sign determined by that object. A definition of sign which emphasizes with yet more clarity this *ad infinitum* process refers to the sign as anything related to a second thing, its object, concerning a *quality* of it, in such a way as to emerge a third thing in relation to the same object, and this in a way to bring a fourth one to a relation to that same object, unendingly. The clarifying point is when Peirce continues: “If the series is broken off, the Sign, in so far, falls short of the perfect significant character.” (CP 2.92). There being a rupture of this sequence, the representative relation degenerates, since the continuous semiotic flow loses its teleologic integrity: first, it stops generating, by itself, objectively, its third correlate; because, there not being a third correlate, there is not a determination of this last one as the first one of the next series continuous to this one. In fact, Peirce (CP 2.303) emphasized that intelligent consciousnesses must be part of a series; in the case that this series of successive interpretants comes to an end, or the interpretant idea is determined in an individual consciousness, it will not determine any subsequent sign, becoming annihilated, since it loses all its signifying power.
- (5) If there is a process of determination tending infinitely towards the interpretant, that in a subsequent continuous relation will be the first correlate to the same object and to another possible interpretant, the natural question to ask in this moment is: would there be also an infinite flow to the past, that is, is there an object originating from the semiotic process? Peirce says (CP 1.339) the represented object cannot absolutely be something beyond the interpretant of a first relation; we could conceive of

an object on the limit of this sequence of representation, but, says Peirce, “The meaning of a representation can be nothing but a representation.” In the same paragraph, Peirce presents a metaphor saying that the object, in a limit state, would be “the representation itself conceived as stripped of irrelevant clothing. But this clothing never can be completely stripped off; it is only changed for something more diaphanous. So there is an infinite regression here.” On the side of the interpretant, the author says: “Finally, the interpretant is nothing but another representation to which the torch of truth is handed along; and as representation, it has its interpretant again. So, another infinite series.”

- (6) It is not necessary to conceive the teleologic process of representation as relative to the intentionality of a consciousness like the human one. What we were saying about a *tendency* of the process of representation *ad infinitum* is justified by Short (1982, p. 285-286) as being the *sign-interpretation* process, eminently teleologic, as an *end* to be achieved, as long as for each sign *there is a purpose* of being interpreted. We would say that this is a crucial point for understanding the semiotic structure, since there is always an interpretative goal when the elements of the triad are configured in a representative process. The function of the sign *is* that of being in the logical role of object and of generating another equivalent sign, or of distinct complexity. There is an intrinsic goal in the nature of each one of the correlates, constituting, from the actualization of each one of them, a general goal intrinsic to semiosis as such. Such a constitution is not given merely from the junction of the goals of the correlates, but from a common goal which aims at the continuity of the process of interpretation, enabling, moreover, the alteration of the degree of complexity with the consideration of new elements which arise from this new triadic relation. This *goal* or *objective*, intrinsic to the semiotic process, could allow for the interpretation of a consciousness (like the human one) interfering or even determining such a process. However, being consciousness a special kind of the sign-interpretation process, it is liable to be analyzed from the semiotic point of view; but this possibility does not imply that the representative process involves consciousness necessarily. A typical example is the consideration of the various dynamic interpretants which *tend* to the final interpretant, as a certain kind of common interpretative targeting of the object.
- (7) Although they seem to be on opposite sides, the object tending infinitely to the past and the interpretant to the future, it is necessary to reiterate the intrinsic relations of convergence or complementation of those two elements of the triadic relation. On this subject, we note that Silveira (2014, p. 8) says that the object, although it is the determinant element of the

representative process, completes it in its extreme, since it is incorporated into the habit in mutation, which is the final interpretant to which Thought, objectively considered, tends. This expresses, in a very beautiful way, Peircean realism, in which representations of the real are a part of this same universe which represents itself, since the object is incorporated into the habit that represents it. This “return” to the past leads us to the question about the existence of the original object of the representative flow. To, answer to this question, perhaps, it is appropriate to present succinctly the study of Peircean cosmogony, in which the author establishes how the universe came to be. From this study, we hope to better explain the origin of qualities, leading us in direction of the comprehension of its nature.

3 Cosmologic and cosmogonic conceptions

To explain Peirce’s cosmology, we use basically the texts: (i) *The Logic of Continuity*, more specifically in *The Logic of the Universe* (CP 6.189-209); (ii) *Objective Logic*, with the texts *The Origin of the Universe* and *Quale-Consciousness* (CP 6.214-237); (iii) *Letter to Christine Ladd-Franklin, on Cosmology* (CP 8.316-318); (iv) *The Architecture of Theories* (CP 6.7-34; EP 1:285-297); (v) *New Elements - Καθα στοιχεία* (EP 2:300-330); and (vi) *Abstracts Of 8 Lectures: Topological Basis Of Philosophy Of Continuity* (NEM 4:127-147).

The considerations concerning the representative process as being teleologic, although devoid of human intentionality, lead us to the formulation of the hypothesis concerning the existence of an object on the limit of the representative sequence. Some previous affirmations allowed us to consider impossible the complete determination of such an object. However, the study of Peirce’s cosmology and cosmogony, the first one related to the structure of the universe and the second one related to the explanation of its origin (*cf.* BRIOSCHI, 2016), allow us to create hypotheses about how the objects that compose the world and that are liable to representation themselves *would have* come into existence.

Let us note, initially, that Peirce was a laboratory man. The study of the scientific method conceived by him, and in part described in the beautifully written *The fixation of belief* (CP 5.358), lead him to the consideration of science as a *program for life conduct*, which is not disconnected from ethics, aesthetics and logic. This means that the *man of science* should maintain a dialogical attitude towards reality, learning with it and changing according to its solicitations. Since the intention is the search for truth in the comprehension of the phenomenon and the modification of conduct to better adjust to the real in direction to this truth, the scientific man should be exempt of preconceptions that might guide him to an anti-ethical attitude, which would move him away from the desired object. These considerations allow us to say that Peirce, all at once, at the junction of his objective realism, his pragmatism, his fallibilism and his semiotics, establishes the scientific (and philosophical) activity as inherent to ethical, aesthetical and logic conduct, in which the teleologic representative process is inscribed as a kind of motor which enables its working.

As a lab man, Peirce extended his conception of scientific method to philosophy, in the sense that the conclusions which he would come to by means

of his scientific method to philosophy would have to be conclusions reasonably comparable by every man capable of learning with experience, that is, by every scientific man. This means that, although the process of the advent of the universe cannot be observed in this present moment of its history, we can make use of some presently verifiable data to corroborate, in a logical manner, the reasonability of this explanation, although always allowing thought to dialogue with the phenomena that by any chance may deny the hypothesis and conclusion which it comes to.

When we address the history of the universe as a whole, we observe that the process of its evolution is translated in a movement whose motor transforms a state of undefinition into a state of definition or determination. It seems, then, reasonable to take such an affirmation as a hypothesis. As we know, this question is old: Aristotle's distinction between *potential* and *actual* is intrinsically related to this conception. A seed is potency of fruit; potential has a state of vagueness, which is gradually determined in the process of actualization or determination itself, becoming *this* or *that* fruit. Now, this paper, to the reader, is, until this phrase, determined, but the rest of its content remains potential, vague, indefinite. The existence, the act—actualization—, determines its being; in some cases, such an act of determination may have a reachable limit, in others it may not.

Peirce assumes that evolution passes from a state of vagueness to a state of determination when he incorporates it in the context of the explanation of the advent of the universe as an explanatory hypothesis: *Metaphysics has to account for the whole universe of being. It has, therefore, to do something like supposing a state of things in which that universe did not exist, and consider how it could have arisen* (CP 6.214). Now, to imagine the process of determination of the seed as fruit is not a task of the most complicated ones, once the seed is the potency of the fruit, in the sense that the fruit is foreshadowed in the seed. On the other hand, how can we imagine the potential state of the universe?

We could not speak of the origin of the universe without considering that it *came to be*; but saying that it came to be implies saying that, in a certain moment, it was non-existent, even if the word *moment* refers to a non-temporal logical state. What would be the non-existence of the universe? An empty space? An empty space, three-dimensionally conceived, already possesses a complex constitution which is the determination of a *locus*, even if general. The explanation of the origin of the universe demands, necessarily, a much more generic level of abstraction and, therefore, much vaguer than most of the abstractions we usually make, since such usual abstractions are performed by means of a logical diagram that expresses, reasonably, the structure of what is abstracted. How can we proceed, in the case of *a germinal nothing*, inasmuch as it is an abstraction of reality itself, of the form that we experience and conceive of the world itself?

Peirce supposes a moment in which the universe was a *pure, germinal nothing*: "The initial condition, before the universe existed, was not a state of pure abstract being. On the contrary it was a state of just nothing at all, not even a state of emptiness, for even emptiness is something." (CP 6.215). To think logically of this state of the *absolute nothing*, to which Philosophy has dedicated itself, leads us to the consideration of a moment in which *all possibilities were anticipated*. Now, differently from the seed that foreshadowed, in its being, the fruit as the only real logical possibility, with exceptions due to chance, something which is *nothing*,

like the germinal nothing, may become *anything*, that is, *nothing* announces the unrestricted, boundless possibility:

*We start, then, with nothing, pure zero. But this is not the nothing of negation. For **not** means **other than**, and **other** is merely a synonym of the ordinal numeral **second**. As such it implies a first; while the present pure zero is prior to every first. The nothing of negation is the nothing of death, which comes **second** to, or after, everything. But this pure zero is the nothing of not having been born. There is no individual thing, no compulsion, outward nor inward, no law. It is the germinal nothing, in which the whole universe is involved or foreshadowed. As such, it is absolutely undefined and unlimited possibility—boundless possibility. There is no compulsion and no law. It is boundless freedom (CP 6.217).*

We should imagine, as a logical possibility, a *nothing* in which the whole universe is anticipated. Potentiality, which characterizes this state of the universe, would be conceived in a purely abstract manner: in it, everything could be generated, any extension of space or none, any *n*-dimension, including or excluding time as we conceive it, etc.

But what would be the result of a state of absolute unrestricted possibility? Peirce says that the only sane answer would be that where freedom was boundless, nothing *necessarily* resulted. There is, thus, a noticeable logical characteristic in Peircean explanation on the origin of the universe. Peirce agrees with, for example, Hegel, when affirming that “[...] if there is any sense in philosophy at all, the whole universe and every feature of it, however minute, is rational, and was constrained to be as it is by the logic of events” and, therefore, the north-american author considers reason as an *operative force* on the real: “[...] so that there is no principle of action in the universe but reason.” (CP 6.218). Peirce concludes then that a logical step was performed at the origin of the universe, explaining what *kind* of step this was: experience has shown us that the logic of life “need[s] not be supposed to be of that wooden kind that absolutely constrains a given conclusion. The logic may be that of the inductive or hypothetic inference” (*idem*).

Peirce continues to affirm that nothing *necessarily* resulted from the nothing of boundless freedom. That is, “[...] nothing according to deductive logic” (CP 6.219). In this moment, the author leads the argument to the justification that the logic of freedom (or possibility) “is that it shall annul itself” (*idem*), since that, in case it does not occur like this, it will remain completely useless and a useless potentiality is a potentiality of nothing-making which is “annulled by its complete idleness” (*ibidem*).

Expecting any “deduction” from the absolute nothing to the next stage of evolution would lead us to the consideration of a law that explains, in its conclusion, the relations between the premises, presenting what was implicit on them. In this germinal nothing, there is no law that determines how the individuals will be which must conform to it. There is, neither, any determination in the form of the premises which present it. Therefore, the logical-scientific procedure leads us to the consideration of another kind of *step* in the restriction of the potentiality of the absolute nothing. What resulted, then? Peirce says:

Looking upon the course of logic as a whole we see that it proceeds from the question to the answer—from the vague to the definite. And so likewise all the evolution we know of proceeds from the vague to the definite. The indeterminate future becomes the irrevocable past. In Spencer's phrase the undifferentiated differentiates itself. The homogeneous puts on heterogeneity. However, it may be in special cases, then, we must suppose that as a rule the continuum has been derived from a more general continuum, a continuum of higher generality (CP 6.191).

Now, in that absolute nothingness there was not any kind of constriction, any kind of determination: as such, it is a *continuum* of the highest degree of *generality*. By general, following Aristotle, Peirce says it is “that which can be predicated of many.” In the citation above, Peirce announces two important concepts to the consideration of this state of the universe: the *continuum* and the *general*. In that initial state a homogeneous unity was made up, from which its indefinite general potentiality became heterogeneous. What resulted was, thus, an unlimited potentiality of *this* or *that kind*, that is, of some *quality*. The entrance of unity in the world is announced:

*Thus the zero of bare possibility, by evolutionary logic, leapt into the **unit** of some quality. This was hypothetical inference. Its form was:*

*Something is possible,
Red is something;
∴ Red is possible (CP 6.220).*

When considering the *arbitrary* passage from the absolute nothing to the *unlimited potentiality of some quality*, Peirce announces, simultaneously, (i) *chance* as an operative force of reality, which leads to novelty and determination; and (ii) the possibility of a strictly intelligible universe, whose intelligibility is foreshadowed in an infinite continuum of *undetermined* qualities. The hypothesis of the present paper seeks to present this qualitative *continuum* as constituted by qualities which are, in turn, *platonic forms* themselves, whose reality does not depend on the postulation of a transcendental world, or a perfect model of the imperfect copy which characterizes this reality we exist in; differently, it is in this reality that the platonic form itself has the possibility to evolve: intelligibility grows inasmuch as the real knows itself.

In this stage of its evolution, the universe is still *nonexistent*, since that, now, although the absolute potentiality has determined itself in a possibility of yet undetermined qualities, forming an undifferentiated continuum and foreshadowing an intelligible universe, it is necessary that qualities intersect, entering in conflict with one another for the appearance of a kind of “double-consciousness” to take effect, generating the existence and providing objects with a kind of differentiation of those foreshadowed qualities, making possible the attribution of specific characteristics to them, differentiating them as *this* which is not *that*. In this “next” stage Peirce says that “*The general indefinite potentiality became limited and heterogeneous.*” The qualitative *continuum* has “spread” in a chaos of feelings “*in reaction upon one another, and thus into a kind of existence*” (CP 6.199).

In the section *chaos and chance* of the text *A new causality for understanding of the living*, Santaella (1999, p. 506) makes a distinction between those terms. According to the author, *chance* is a mathematical term that Peirce uses to express with a certain precision the characters of spontaneity, of something whose working is not under the claws of law, generating diversity and multiplicity (see also CP 6.201); thus, the author says that Peirce “went back to a state of things more original than chance, namely, to chaos ‘so irregular that in strictness the word existence is not applicable to its merely germinal state of being.’” When we read that “Chaos is pure nothing.” (CP 5.431), and comparing such an expression to absolute nothing, we recognize that Peirce considers two “kinds” of nothing. Santaella (1992, p. 507) seems to agree:

Despite its incipient nature, Peirce did not stop at this nothingness and went further back to ‘a nothingness more rudimentary still, in which there is no variety but only an indefinite specifiability, which is not but a tendency to diversification of the nothing, while leaving it as nothing as it was before’. Peirce associated chaos to a state of ‘intensest feeling’: in the total absence of memory or habit it is sheer nothing still. Feeling ‘has existence only in so far as it is welded into feeling. Now the welding of this feeling to the great whole of feeling is accomplished only by the reflection of a later date. In itself, therefore, it is nothing; but in its relations to the end it is everything.’ (CP 6.612, CP 6.265). [Furthermore:] This shows that diversity or chance is born from a generalizing tendency, a generalizing of feeling, for it follows from Peirce’s definition of continuity that ‘when any particular kind of feeling is present, an infinitesimal continuum of feelings differing infinitesimally from that is present’ (CP 6132).

Although we have not yet spoke of the advent of a generalizing tendency, the citation above, beyond the consideration of two “kinds” of nothing, leads us to the comprehension of the genesis of chance in reality: it is the result of such a tendency, itself, inscribed in absolute nothing. As we shall see, this consideration anticipates an answer to the question of the operative order in the universe prior to temporal order. The complete answer resides in the consideration by Peirce that the absolute nothing is characterized as a germinal *symbol*.

In the text *Letter to Christine Ladd-Franklin, on Cosmology* (CP 8.316-318), Peirce presents a brief description of how such first steps relative to the origin of the universe took effect. The author says that the evolution of the world is *hyperbolic*, proceeding from a state of things in the infinite past, and tending to a different state of things which resides in the infinite future, although undetermined. We insist: *tending to (residing in) the infinite future means the impossibility of its actualization, yet such a state is mathematically determinable*. The state relative to the infinite past is conceived as pure *chaos*, whose origin was partially explained in the previous paragraph as force of chance; the chaos of feelings (qualities) is characterized by the absence of any regularity. Differently, the future is a state of complete regularity, of obedience to the law, inasmuch as the universe self-organizes, enabling a triumph of habit over spontaneity and novelty. As such a

state would be conceived as determined in a total way, there would not be a possibility of growth, of change, and, therefore, Peirce characterizes it as a state of death. Between this logical continuum limited by the infinite past and by the infinite future, there is this particular existence, which is partly the result of a law, partly the result of chance, which brings freedom and spontaneity that cannot be generated by regularity; such a spontaneity is giving place to organization and, therefore, to the restriction of potentiality from the force of habit, which is characterized as the *general law of mind*, similar to the generalizing tendency of mathematical thought, but which grows by its own action, hence the self-organization relative to the process which feeds back on itself in the form of a *habit to increase habit*.

The origin of the operation of this generalizing tendency is a *necessary* question. The answer, we think, resides in the explanation of the nature of quality itself. As we have seen, from an absolute potentiality resulted arbitrarily an unlimited qualitative potentiality, a state of determination in relation to the former one. Now, inasmuch as, by force of chance, from a qualitative potentiality, which formed a homogeneous continuum, was generated a chaos of feelings (qualities), those qualities began to bump into each other and to resist each other, generating existence: from the *natural tendency* to obey rules, such qualities in conflict continued during some time in this state of relation, generating habits. This means to say that the *tendency to generalization was inscribed in the nature of qualitative potentiality*. Let us revisit this discussion in order to describe the *logical sequence* of this initial state of the universe. Before, however, it is necessary to obtain a better understanding of the nature of feeling and its relation to quality.

According to Peirce (CP 1.306), *feeling* is “[...] that kind of consciousness which involves no analysis, comparison or any process whatsoever, nor consists in whole or in part of any act by which one stretch of consciousness is distinguished from another.” This consciousness possesses its own positive quality, which consists in nothing else beyond itself. This makes feeling, when present, a state of consciousness which lasts for a lapse of time, in which it is entirely and equally present in every instant of that time: *it is the incorporation of a quality in a consciousness* which is not distinguished from it. A typical example is that of human consciousness which feels an experience or quality, forming with it an integrative unity, a quality of feeling in which it is all it is, with nothing else. However, a parenthesis is necessary. Since feeling is a kind of consciousness in which everything present is itself, then it is characterized by Peirce as something objective in itself, ontologically *real*, in such a way that its concept should not be characterized as something psychological, but rather as expressing an intrinsic objectivity. It shares the nature of consciousness and, therefore, its being is independent from another consciousness that experiments it and it is not in any way subject to changes in the flow of time. It is what is independent of a *when*. It is a rupture in this flow. Peirce (CP 1.305) is referring not to a mind that feels, but to feeling itself. The quality of feeling considered from any other aspect beyond itself mischaracterizes it as such. To say, for example, that a quality of feeling is not eternal, since it has no permanence in time, is to mischaracterize it from its very nature of being first, unique, free, unconditioned, precise, complete, pure possibility (*may-be*).

By establishing a relation between feeling and quality, Nathan Houser, in his text *Peirce's General Taxonomy of Consciousness* (1983, p. 334), in a single

phrase, expresses well the nature of feeling: it is “usually described as unanalyzed (though not unanalyzable) momentary appearance of a quality.” The chaos of feeling generated by chance is a chaos of qualities that appeared spontaneously. Were they to stay for some time and bump and resist between each other, the restriction of potentiality would begin to manifest in the form of existence and of habit as the result of a *tendency towards generalization*, present in the feeling itself. In other words, in the moment a quality appears by means of a feeling, whose nature is similar to the state of a human consciousness that incorporates it, constituting with it a unity, there is a *germinal* tendency to the acquisition of habits, inscribed in it, which foreshadows the bases of the generalizing tendency by which the cosmos grows in organization. This means that the acquisition of habits was present since always in the origin of the universe, although in a purely embryonic state. Besides, the affirmation about feeling as the momentary appearance of a quality, named by Peirce as *quale-feeling*, makes it distinct from quality itself, in its purely potential state. This seems to be the embryo of the duality between the *world* and its *representation*: inasmuch as quality presents itself in the form of feeling, this last one actualizes it so it can, possibly, enter a theater of reactions that constitutes existence, in the case that it maintains itself “alive”, yet inside itself, in itself and for itself; the intensity with which it presents itself in its pure state is maximal; as long as it bumps into others, from a *flash* of chance, the intensity of one mixes with the intensity of the other, giving space to a configuration which constitutes an object in which qualities lose their intrinsic intensity by the tendency to acquire habits, organize themselves and combine with others. The *flash* that generated the chaos of feelings by force of chance is similar to the propagation of light for Peirce; in a beautiful phrase, he says: *Logic radiates like light* (NEM 4:128). If we think of light from an actual physical point of view, we soon refer to its propagation in one *direction*, by means of *infinite* senses—this single direction may be compared to the teleological nature of the representative process, although it presents a diversity of elements that compose the structure of the real.

When feelings are generalized, their intensity gets lost in a dark fog which characterizes abstraction as being practically opposed to the intensity relative to the appearance of quality by means of feeling. This means that quality can be represented in a continuous process, in which it is necessary to consider generality as possibility and as a consequence of this same representative logical continuum. For such, it must be *felt* by the mind that represents it. Peirce presents this conception of possibility of subsumption of a quality in itself, received by means of feeling, in a general *continuum*. This enables us to understand the loss of intensity of the feeling when represented, as well as the intrinsic relations between generality, continuity and the anticipation of duality:

But quality generalized, as it is in the continuum of quality, is essentially *represented*. Without being represented in something else, it cannot be what it is. There is that essential feature of duality in it. The quality, or tinge of consciousness, which *seems*, and the quale-consciousness, which *feels* that quality, are now two, because the quality, being generalized, and continuity we remember is generality, is capable of entering

different consciousnesses. Indeed, though it is distinguishable from consciousness by this very plurality, yet it cannot *be* in its generalized state without the possibility of being felt (NEM 4:133).

Ibri seems to agree to this:

If a quality is in itself and by itself, it can only be a part of *continuum* if represented, for only a consciousness that *feels* may guarantee the unity of the multiplicity of the possible that constitutes that *continuum* itself. This step, from the possibilities [...] is of the nature of generalization, for qualities are possible, and a *continuum* subsumes them as representation that guarantees the unity of a complex of qualities. This unity is also a quality, the hue of consciousness, *quale*-consciousness [and] finally the *continuum*-representation which makes up the generalization of that complex of possibilities (IBRI, 2015, p. 124).

However, we must remember that time is a *regularity* and, as such, a habit. When explaining the origin of the universe, which comes from an absolute nothing to a *continuum* of possible qualities, we must notice that this stage is “previous” to the constitution of time itself as we conceive it today. How, then, should we approach a logical order in the consideration of the evolution of the universe relative to *being*? Or yet, how to think of the sign as first, of the object as second and of the interpretant as third, from the consideration of the representative process as ordered? Before answering to this question, we present briefly the characterization of the formal categories of firstness, secondness and thirdness.

According to Peirce, the *being* has three states: (i) the qualitative potentiality, a unity that is in itself and to itself, responsible for freedom and for the advent of novelty in the universe, disregarding a totally deterministic conception and resulting from the force of law, called *firstness*; (ii) existence itself, defined from the idea of negation—to exist is to be *this* and not *that* and, therefore, is given by means of *two* involved actors and, because of this, is characterized by Peirce as the second category or *secondness*; (iii) and law or habit, which brings regularity and the possibility of scientific prediction, as a representative mediation, which constitutes the third element of the phenomenon and that is characterized as the category of *thirdness*.

In what sense do we conceive the logical order, prior to the temporal order itself, in the “advent” of the three categories presented above? Although part of this answer has already been anticipated previously, we move now to the contextualization of this non-temporal logical order, which describes the moment of the origin of the universe, prior to the constitution of *Time*, and a possible solution found in the text *New Elements -Καίνα στοιχεία* (EP 2:300-330).

Christopher Hookway, in his book *Peirce*, belonging to the series *The Arguments of the Philosophers* (2001, p. 273), presents, yet briefly, the discussion of this non-temporal logical order. Initially, he says: *Time does not appear on the scene until the generalizing tendency has been working for a while*. Such an assertion

is based, as the author himself exemplifies, on Peirce's (CP 6.214, *our emphasis*) consideration that "We have therefore to suppose a state of things before time was organized. Accordingly, when we speak of the universe as 'arising' we do not mean that literally. We mean to speak of some kind of sequence, say an *objective logical sequence* [...]". In an attempt to better understand what this means, even if Hookway (*idem*) admittedly affirms that "it is hard to know what to make of that", he presents an important element in Peirce's position in the papers of *The Monist*: the initial stage of the universe prior to any generality, or to time itself, is a state of "absolute conception", where the term comes, according Hookway, from the mathematical theory of measurement, and is introduced in relation to this question in the Peircean text *The Architecture of Theories* (CP 6.27). For Hookway, such a passage allows us to comprehend Peirce's consideration concerning what he meant by "infinitely remote," when dealing with the origin of the universe and of its logical order: the basic idea is that, inasmuch as we move to the past, in the history of the universe, what we will find each time is less organization. Evidently, we could never reach the initial chaos composed by the appearance of qualities in the form of feelings; however, we can vicariously come closer and closer to it if we go far enough. We can analyze this assertion, as we have said before in the case of the representative process, as cognitively (mathematically) determinable, but never actualized, characterized by this chaos of feelings.

Now, is it the case that the previous affirmations by Hookway allow us to better understand what Peirce means by *logical sequence*? The author himself says *no*. He, then, asserts that "I think that his claim that this is *logical* has to be taken seriously: habit-taking is a form of inference, and the appropriate notion of 'priority' is that of premises and conclusion, it is the kind of ordering that can be constructed from a study of the sign relation." (HOOKWAY, 2001, p. 273-274). In other words, the conception of a pure quality as representative *potentiality* leads us to a more or less trustworthy idea of what Peirce had in mind when he referred to a pure abstraction and a logical order prior to the temporal order.

However, in the *New elements* Peirce weaves comments concerning the origin of the Universe and provides us with indications that may lead us to a better explanation of this question. The author says:

If we are to explain the universe, we must assume that there was in the beginning a state of things in which there was nothing, no reaction and no quality, no matter, no consciousness, no space and no time, but just nothing at all. Not determinately nothing. For that which is determinately not *A* supposes the being of *A* in some mode. Utter indetermination. But a symbol alone is indeterminate. Therefore, *Nothing, the indeterminate of the absolute beginning, is a symbol.* [...] That is the way in which the beginning of things can alone be understood. What logically follows? We are not to content ourselves with our instinctive sense of logicity. That is logical which comes from the essential nature of a symbol. Now it is of the essential nature of a symbol that it determines an interpretant, which is itself a symbol. A symbol, therefore, produces an endless series of interpretants. Does anybody suspect all this of being

sheer nonsense? *Distinguo*. There can, it is true, be no positive information about what antedated the entire Universe of being; because, to begin with, there was nothing to have information about. But the universe is intelligible; and therefore it is possible to give a general account of it and its origin. This general account is a symbol; and from the nature of a symbol, it must begin with the formal assertion that there was an indeterminate nothing of the nature of a symbol. This would be false if it conveyed any information. But it is the correct and logical manner of beginning an account of the universe. As a symbol it produced its infinite series of interpretants, which in the beginning were absolutely vague like itself (EP 2:322, *our emphasis*).

In this moment there is a logical intermingling between Peirce's cosmology, semiotics and metaphysics, with the consideration of the absolute *nothing* as a symbol that foreshadows the essentially logical nature of this state of the universe prior to time. 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 characterization of the symbol refers to the potential property of the interpretant, present in the definition of representation as a genuine triad. The symbol is the triadic sign, whose concept is almost confused with the concept of representation, if it was not for our consideration that the representative process is the action that the triadic sign performs. The teleological process previously presented remits us to the comprehension of the character, still germinal, of this state of origin of the universe: a *symbol possesses a purpose of generating other symbols in an infinite chain*. The symbol, however, is triadic and, as such, possesses, in its constitution itself, a quality and an otherness, since its *purpose* is to represent reality: but in this state of *pure* potentiality, the nothing, as a symbol, possessed a potentiality: (i) qualitative; (ii) of germinal secondness; appearance of quality by means of a feeling that is a consciousness "centered" on itself; and (iii) with a tendency to generalization. It is foreshowed, then, the *embryo* of the intelligibility of the world, where the logical sequence implies the consideration of the omnipresence of the three categories in the grounding of reality. That is why, in the phenomenon, there is no possibility of distinction, implying that the three formal elements, which characterize the nature of being, are inscribed in it: in (i) there is the qualitative potentiality; in (ii) the foreshowing of the distinction between the elements of the world as reacting among themselves and of the duality between dynamic and immediate object, or world and representation, even if this is mere logical distinction and, therefore, does not imply in an ontological rupture, since there is no separation between quality and the feeling that feels it, or the quale-feeling; and in (iii) the anticipation of habit, which will form from its own tendency inscribed in quality itself, and that can be represented.

Summing up, the characterization of nothing as a symbol foreshows the cosmic intelligibility and the omnipresence of the three categories, even if in a germinal state. In quality, itself mere abstraction, there is the potentiality to present itself; in the origin, such a presentation is given in the form of a quale-feeling, moving from its potentiality to its actuality, implying embryonically the advent of a *second* element in the phenomenon; and the tendency to habit, inscribed in the

potentiality itself, which will afterwards form time, space, natural law, etc., by means of the habit to acquire habits. The logical order, in this moment of the universe, is a *logic that is centered on itself*, as we can verify in the Peircean text *Abstracts Of 8 Lectures - Topological Basis Of Philosophy Of Continuity*:

Let me say, by the way, that there is in the logical law this difference between the absolutely first antecedent and the absolutely last consequent, both of which are unattainable limits. The last consequent is the very reality itself. That is our very conception of reality, the essence of the word, namely, what we should believe if investigation was carried to its furthest limit where no change of belief further was possible. That is of the nature of an infinite, a true singularity of the logical continuum differing *toto caelo* from every intermediate step however near to it. I mean that it thus differs, not merely in its logical relations as leading to no consequent other than itself, but also and more particularly, as being a radically different kind of consciousness, a consciousness which is the very reality itself and no mere image seen *per speculum in aenigmate*. *But the absolutely first antecedent is simply the blank ignorance, the zero of knowledge, although in its logical relations it is singular in leading to nothing, as a needle precisely balanced on its point will never fall, yet as a state of mind it differs indefinitely little from other states near it.* Hence, though a limit as to the advance of logical development, it is not so as a mode of consciousness (NEM 4:127-147, *our emphasis*).

4 Quality and feeling

From the absolute nothing, a step was taken at the moment of the arbitrary determination of a quality continuum. As such, this continuum consisted in a *general* homogeneity, whose differentiation still resided in the world of possibility. Peirce conceives the possible in two modes: the ontological objective and the logical subjective. Each one of those can be subdivided in two senses: the possible as non-actual and the possible that, although actual, lacks a causal or rational necessity (i) The *ontological objective non-actual* refers to something not yet developed, since it is not presented in the actual objectivated form, but which is *capable of doing so in the future, when all conditions of its realization occur*: it is a *latent being, that is, which has a certain tendency to actuality that, if not hindered, leads to the final completeness of the being*; (ii) the *logical subjective non-actual* refers to the possibility of the existence of some grounding to affirm reality, but is not enough to justify a positive affirmation—Peirce exemplifies the situation considering the possibility of affirmation that tomorrow it will rain: such affirmation is grounded with a certain degree of certainty. Considering now the actual in opposition to the necessary, (i) the *ontological objective* refers to the contingent, to chance as an objective factor, which can, by its turn, be divided in two modes: a) chance, what equals causeless; or b) what is necessarily caused, but non teleological, unplannable—in this last

case, possible is that which, without waiting, hinders the realization of a precept or intention; (ii) the *logical subjective opposed to the necessary* refers to something whose existence cannot be derived from reason (as opposed to that which cannot be in other way: necessary)—in this case, the author's example is that of the rain, in which, although actual, can only be so in fact because it follows empirical antecedents and, as such, it is not necessary, but only a contingent possibility.

In another text, Peirce says that the possible is an ingredient of truth that, as a consequence of its imprecision, must *remain a thought and can never be more than an idea, except by assuming a definition that belongs to it in itself*. Now, the possibility of the germinal nothing is distinct from the possibility that constitutes the continuum of qualities: in the first case, there not being any determination, *all things* were anticipated; however, a potentiality of qualities is a potentiality restricted to the former and, as such, the characterization Peirce will make of it will be of an *idea*, whose definition puts it as a certain kind of *consciousness*: "A possibility, then, or potentiality, is a particular *tinge* of consciousness. I do not say the possibility is exactly a consciousness; but it is a *tinge* of consciousness, a potential consciousness." (CP 6.221, *author's emphasis*).

A quality is mere abstract potentiality (CP 1.422). This means to say that it is not dependent, in itself, on the mind that feels it or even on the thought that reflects on it. Neither is quality, in its being, dependent on its incorporation in material objects (CP 1.422). To comprehend what a quality is, we use the following example by Peirce:

If a man is blind to the **red** and **violet** elements of light and only sees the **green** element, then all things appear of one color to him, and that color is a green of colorific intensity beyond anything that we with normal eyes can see or imagine. Such is the color that all things look to him. Yet since all things look alike in this respect, it never attracts his attention in the least. He may be said to be dead to it. If the man is at the same time deaf, without smell and taste, and devoid of skin sensations, then it is probable the green will be still more chromatic; for I suppose colors are for us somewhat diluted by skin sensations. But for the very reason that it is his own kind of sensation, he will only be the more completely oblivious of its **quale**. Yet for all that, that **is** the way things look to him, more intensely green than any scarlet or magenta is red to us. This illustration puts into a high light the distinction between two kinds of consciousness, the **quale**-consciousness and that kind of consciousness which is intensified by attention, which objectively considered, I call **vividness**, and as a faculty we may call **liveliness** (CP 6.222).

There is, in this moment, a distinction between two kinds of consciousness: the first one, relative to quale-consciousness, which we discussed; the second one, relative to the "kind of consciousness that is intensified by attention", which would be relative to the second category and is not of our interest for now. A better analysis about the classification of the kinds of consciousness in Peirce is presented by Nathan Houser (1983) in the already cited *Peirce's General Taxonomy of Consciousness*.

The quale-consciousness cannot be restricted to *simple* sensations. Peirce gives the example of the color *purple*, by saying that, although it is a mix of the colors blue and red, and therefore complex, it has a peculiar *quale*. Thus, there is a distinct *quale* for every combination of sensations, inasmuch as they are really synthesized (CP 6.223).

Above, we presented the category of firstness as the element related to the ideas of freshness, life, freedom. “The free is that which has not another behind it, determining its actions.” (CP 1.302). If to the idea of Firstness is linked the idea that something which is free, in itself, first, immediate, present, then, objectively, such freedom can only be manifested in a variety and a multiplicity unlimited and uncontrolled; then, of incommensurable multiplicity and variety. However, the question, in this moment, is: how can we identify, in the phenomenon, that which is of the mode of being of this category? Peirce says:

Among phaneron there are certain qualities of feeling, such as the color of magenta, the odor of attar, the sound of a railway whistle, the taste of quinine, the quality of the emotion upon contemplating a fine mathematical demonstration, the quality of feeling of love, etc. I do not mean the sense of actually experiencing these feelings, whether primarily or in any memory or imagination. That is something that involves these qualities as an element of it. But I mean the qualities themselves which, in themselves, are mere may-bes, not necessarily realized. The reader may be inclined to deny that. If so, he has not fully grasped the point that we are not considering what is true, not even what truly appears. I ask him to note that the word **red** means something when I say that the precession of the equinoxes is no more red than it is blue, and that it means just what it means when I say that aniline red is red. That mere **quality**, or suchness, is not in itself an occurrence, as seeing a red object is; it is a mere may-be. Its only being consists in the fact that there **might be** such a peculiar, positive, suchness in a phaneron. When I say it is a quality, I do not mean that it “inheres” in [a] subject. That is, a phaneron peculiar to metaphysical thought, not involved in the sensation itself, and therefore not in the quality of feeling, which is entirely contained, or superseded, in the actual sensation (CP 1.304).

If we think of quality as an element in itself and for itself, we can connect it directly to the first phenomenological category: its main characteristic is unity, without parts, without relations. Logically, it is a *monad* and, as such, is first, in itself and to itself.

A very interesting example of quale-consciousness is presented by Peirce in *Forms of Consciousness* to express the complexity of the quale-consciousness and which may allude, however superficially, to the state of origin of the universe, if we abstract its determinations. This means to say that *the experience of firstness makes possible a certain return to the origin of the universe, a state which is manifested in an actuality without parts, without past or future, in which all qualities mix in a purely undifferentiated continuum, grasped only by means of feeling*:

[...] here we are in this pleasant room, sitting before the fire, listening to my reading. Now take what is in your consciousness at any one single moment. There is in the first place a general consciousness of life. Then, there is the collection of little skin-sensations of your clothes. Then, there is the sense of cheerfulness of the room. Then, there is a social consciousness, or feeling of sympathy with one another. Then, there is the light. Then, there is the warmth of the fire. Then, there is the sound of my voice, which in any one instant will merely be a note. In addition, there [are] a hundred things in the background of consciousness. This is the best way in which I can describe what is in your consciousness in a single moment. But it has taken me a considerable time to describe them (CP 7.540).

Each *quale* is in itself what it is to itself, with no reference to any other: “It is absurd to say that one *quale* in itself considered is like or unlike another. Nevertheless, comparing consciousness does pronounce them to be alike. (CP 6.224). But there is something that the comparing consciousness can assert about each qualia: “In so far as *qualia* can be said to have anything in common, that which belongs to one and all is *unity*” (CP 6.225, *author’s emphasis*).

The consideration of *qualia* in Peirce’s thought is, undoubtedly, of great importance, inasmuch as his philosophical system would lose part of the structure that keeps it coherent. Although Kant attributed to the operations of human mind the various synthetic unities, as well as the unities of logical consistency and the individual object, Peirce proposes the quale-consciousness to be exactly the basis of those unities upon which the human intellect operates. This means that *the grounding of the synthetic unity of the sensible multiplicity is of metaphysical nature, the quale-consciousness, which was already inscribed in the origin of the universe, as intelligible possibility and of which any possible conceptualization is supported*.

Peirce considers the possibility of two kinds of objections to this affirmation: (i) the first one, the logical objection, will say that the only unity that can be considered is that of non-contradiction; in this case, the Aristotelian principle would be considered a formal result: something can be *blue* and *hard*, since color and rigidity are not thought as united in quale-consciousness, whose experimentation relative to a characteristic is distinct from the other; on the other hand the same object cannot be blue *and* yellow, since those would mix and the resulting color would neither be one nor the other. Peirce concludes: “Thus, the positive truth in the principle of contradiction is that *quale-consciousness* has but one element.” (CP 6.231) and, therefore, “[...] *if the quality can be double, the principle of contradiction falls to the ground.*” (CP 6.232, *our emphasis*). (ii) The other, of a psychological order, will say that such a unity must depend on a construction by the nervous system and, therefore, cannot be transferred to a metaphysical consideration. Peirce (CP 6.226-227) then answers: the first objection assumes that logic is purely subjective in a pre-Kantian sense. On the other hand, all of those synthetic unities considered through the brain are only unities that appeared when channels of association are closed and the excitation of the flow of a part of the brain is repressed and intensified. Now, how is the synthetic unity conceived from a more general mode possible?

But it ought to be evident that no *unity* can *originate* in concentration. If there is no unity in a mass of gas, it cannot acquire unity merely by being condensed to half its volume. But any unity there was there already may, in that way, be many times intensified (CP 6.227).

How can we explain the fact that different synthetic operations give origin to one and the same character of *unity* without considering it metaphysical?

Peirce will say, on this matter, that it may be objected that the hypnotic phenomena show that subconscious feelings are not unified. However, the author maintains that such phenomena exhibit an opposed peculiarity. They are unified inasmuch as they are brought to a *quale*-consciousness and the formation of various personalities is due to this. The author says moreover that each consciousness is a bundle of habits, in the sense that a man is a bundle of habits. But such a bundle does not have unity of self-consciousness. That unity must be recognized as a center for the habits (CP 6.228). Thus, the author concludes: [t]he brain shows no central cell. The unity of consciousness is therefore not of physiological origin. It can only be metaphysical. So far as feelings have any continuity, it is the metaphysical nature of feeling to have a *unity*. (CP 6.229, *author's emphasis*).

Which is the nature of this unity?

This unity is *logical* and not *psychological*, in the sense that *feeling*, to be immediately conscious, as much as possible, without any action and reaction nor any reflection, logically supposes one consciousness and not two or three: “In *quale*-consciousness there is but one quality, but one element. It is entirely simple.” (CP 6.231). Consciousness, when contained in an instant of time, is an example of *quale*-consciousness: “Now a *quality* is a consciousness. I do not say a *waking* consciousness—but still, something of the nature of consciousness. A *sleeping* consciousness, perhaps” (CP 6.221).

Therefore, according to Peirce, every operation of the intellect consists in “taking photographs composed by *quale*-consciousness”, introducing the conflict that was not in the quality itself. Thus, “*Quale*-consciousness cannot mix without losing its identity” which is “everything that is in itself is to itself”. The unity that remains is only the unity and the simplicity of the *quale*-consciousness that persists albeit all this multiplication and diversity. (CP 6.233).

5 Quality as form

The concept of quality is a structuring concept in Peirce's philosophical system (see, for example, IBRI, 2009, p. 273-307). Due to its intrinsic complexity, this concept runs through, so to speak, the whole work of the author, from his phenomenology, epistemology, semiotics, ontology etc. and, not by chance, most authors of the various areas of scientific and philosophical knowledge that have dealt with Peirce's work had the necessary contact with the study of the nature of quality and, equally, with the concept of *form*.

As we know, the nature of quality seems to be linked to the first category and the nature of form to the third. The objective of this paper is to show that we can relate the concept of *form* to the first category and, consequently, to the notion of

quality. This relation, evidently, cannot be arbitrary. A solid grounding that justifies it must be put to debate. In general, the notion of quality—firstness—is presented together with the predicates of freedom, potentiality, feeling; the concept of form is drawn in a logical discourse, precisely because it seems to be related to the restriction of potentiality, due to the *insistence* of the phenomenon, according to its own nature, which presents itself *in this* and not *in that* way and, consequently, is passible of scientific prediction. This means that the identities of these two concepts seem almost contrary. However, a more accurate analysis will allow us to understand that it is only possible that the restriction of potentiality operates in a *qualitative potentiality*, that is, in a potentiality of *some kind* and, as such, has a certain logical “constraint”—its nature is, in itself, known and, as such, determined—it cannot be another thing but quality or a complex of qualities.

Of an inductive nature, the *step* in the determination from the absolute zero to a unity of qualities, as we have seen, was already inscribed in the origin of the cosmos and was presented by Peirce (CP 6.220): “Thus the zero of bare possibility, by evolutionary logic, leapt into the *unit* of some quality. This was hypothetic inference. Its form was: Something is possible, Red is something; ∴ Red is possible.” Now, the basic constitution of reality is quality, although Peirce considers existence and law as the other two natures of *being*, as we said before (see, for example, the text *New list*). But what are existence and law constituted by? By qualities. This does not mean reducing the triad to the first category, since without law and existence, qualities would not cease to be mere possibilities. Differently, this means that there would not be any other way but the way of thinking that, embryonically, the second and third categories were foreshadowed in the nature of quality as “necessary potentialities”—in the sense that, by this nature itself, another world could not have constituted itself but this one, which was already inscribed when the step from the absolute zero into a unity of qualities occurred. This paper shows, therefore, the categories embryonically inscribed in the nature of potentiality, or, in other words, *reality foreshadowed in the first category considered intelligible in itself (form)*. This category, then, predisposes the forms of reality, independently of how they complexify in the flow of time (third category).

Another important factor to be considered primarily concerns the character of feeling of quality, inasmuch as this can only be known when its logical nature—of potentiality—is incorporated in a *second*—an *other*—in a single totality that does not distinguish them. For example, a feeling of extreme pain: the consciousness that experiences this state, in a maximum level, if possible, would not be distinguished from the consciousness that is pain in itself, objectively considered. Now, once more the concepts of quality and form seem to distance themselves, inasmuch as *form* is linked to the third category and its representation is necessarily given by inductive generalization. However, in what other way could *pain* be represented if it was not, before, felt? In Section 2, we used such an argument, based on the sayings of Peirce, that it is possible to show that representation, the third category, is, also, inscribed in the nature of quality, which is intelligible in itself. A world not felt cannot be represented. An unintelligible world cannot be represented. Thus, intelligibility in itself and the feeling seem to be necessary conditions for representation. One can argue that intelligibility is due to the third category. And, in fact, thus we concur. However, it must be inscribed in the nature of firstness as potentiality.

This introduction allows us to better understand that the identification of quality with form cannot be made in a merely arbitrary way. Many scholars of Peirce's philosophy could, in a first moment, disagree with this identification, because they work from distinct perspectives, although not divergent among themselves, as we may analyze in future studies. An example of a distinct approach, although not entirely disagreeing, is the work of Ibri (2009; 2010; 2015), who has dealt with, among other subjects, the study of the nature of quality and form. In the beautiful essay *Reflections on a Poetic Ground in Peirce's Philosophy* (IBRI, 2009, p. 273-307), the author presents the *origin of the universe grounded in a unity of poetic nature*: the paper is based on the central hypothesis that Peirce builds a systemic philosophy (a complex theoretical edifice) beginning with the experience of *unity and that his mature work contains a poetic grounding*. Let us see:

- (1) This hypothesis may be given through the influence of Schelling in the thought of Peirce—in Schelling, the origin of reality is described by means of an aesthetic intuition in which resides the first identity with the Absolute and, thus, the possibility of transcendence of the finitude revealed as experience. Nature is the revelation of the Absolute—the revelation of the infinite in the finite, expressing its freedom. Those who know Peirce's philosophy quickly realize the identification of that freedom with the concept of *chance*. Another possible identification between Peirce and Schelling is the non-polarization of genesis between subject and object, so important to philosophy. The starting point of the world is not the duality of experience, but something that is in it. Let us remember that phenomena are complexes of qualities, forming an indicial, sensible logical network, which makes itself *other* to the experience. Schelling conceives *matter as effete mind*, recognizing reality as *ideal*, as Peirce will follow, for example, considering that “The one intelligible theory of the universe is that of objective idealism, that matter is effete mind, inveterate habits becoming physical laws” (CP 6.25). Both authors allow room for freedom, denying any kind of mechanicism or necessitarianism. As Ibri (2009, p. 281) will say, Schelling does not accept a pantheism in which the passage of the internal world to the external world, a kind of opening to presentation to make itself known, will make the Absolute submit to any and all limits of existence and to the determination of necessity. Freedom constitutes the nature of the Absolute and presents itself by means of the diversity and the multiplicity that constitutes the world [see Ibri (2009, p. 280-281)];
- (2) from there, Ibri (2009, p. 281) intends to show the *hypothesis of symmetry*, that is, “the conception of theories structured with a logical symmetry between subjective and objective worlds, arises in Peirce's work, under the influence of Emerson's Works, among others, and from an inspiration derived from contact with Schelling's ideas, taken mainly as starting points to constitute philosophy.” Thus, there is a similarity, presented by Ibri (2009,

p. 282), between Schelling's aesthetical intuition and Peirce's experience of firstness. Here we can see a different approach of the origin of the universe and of the nature of quality and form. However, in the end of our paper, we will show a relation between the intelligible and the sensible to show that both constitute, necessarily, the nature of quality. Thus, there is no problem when saying that quality is, at the same time, of a poetic/aesthetic nature and of a logical nature. Besides, Ibri says (*idem*): "A principle of unity, i.e., an original unity that can only be provided independently of theoretical models, consists in a pure experience not of reaction in the face of otherness, nor of mediation of judgment, but of an aesthetic nature." At this point, the author seems to associate the aesthetic unity to which he supposes to have been the origin of the universe with the first category, because not associated to the mediated judgement or by theoretical models that explicit the logical relations of the phenomena. At this point, there appears another factor that would justify the non-identity between the concepts of form and quality. However, let us suppose that a totally non-ordered phenomenon (order understood as a mathematical relation, like "smaller than", for example). When ordering the elements that compose phenomena, there is a law that makes explicit those relations, *but the possibility of ordering was foreshadowed in the elements themselves*, whose nature allows for ordering. The same happens with qualities: there is a tendency to generalization inscribed in their nature, otherwise, the intelligibility of the world would not be possible. And the cosmogenesis of the law will make explicit precisely that the physical law evolves by a generalizing principle that could only generalize that which is generalizable in itself.

- (3) When making explicit, in the fourth section of his text—*unity as a starting point in Peirce's philosophy*, the nature of firstness, Ibri (2009, p. 282-282, last emphasis ours) tells us that: "More than a category of spontaneity, of deviation in relation to law, of the diversity and multiplicity present in phenomena, Firstness genuinely houses the classical ideas of freedom and unconditionality, thanks to its appearing both on the internal and the external side of the mind, taken in general ontological sense. And the great predicate of unity is its being, essentially, internal. But by affirming this and, at the same time, by knowing that the experience that typifies Firstness in its pure state is one of non-differentiation between subjective and objective aspects of phenomena, one must conjecture that such unity does not differentiate two interiorities, making its nature essentially *eidetic*." Isn't *Eidos* one of the words Plato uses for *form*? In his own book, *Kōsmos Noetós* (2015, p. 87), on a footnote, Ibri says that he uses the term "eidetic" in the platonic sense of *eidōs*, which designates the structure of the Real and its intelligibility. This means that, although he considers the origin of the universe as a poetic unity, the author also considers that this unity, interior in itself, is not some

other thing but is of an eidetic nature, that is, formal, in the sense of form that we make explicit here. The reason by which the author considers the origin of the universe as being of a poetic nature is an invitation to the reading of his full paper. Inasmuch as poetry, like mathematics, build their possible worlds, from the lack of a *second* that determines their representation, the author supposes that the original unity of the universe is “poetic by nature, since it embodies in its indeterminations possibilities of existence [...]”. Now, if poetry and mathematics are identified by means of a construction of their possible worlds and the author thus considers that the unity is poetic because is constituted as having possibilities of existences, by what reason would the same argument not lead to consider this origin to be of a formal nature (as mathematics is)? Evidently, Ibri considers the importance of mathematics to the discussion of this poetic origin and, also, will go further: he considers that mathematics has a necessary *role* in the consideration of a Philosophy of Art from Peirce’s philosophical system. Of a vital importance, mathematics is the first seed considered by Ibri in the text *Peircean Seeds for a Philosophy of Art* (2010, p. 1-16). The role of mathematics is, then, according to the author, that of a “science of possible worlds”, which will train the human mind to *see* relations in the form of mental diagrams. Its role is, moreover, to train the human mind to generalize—that is, “to find universal forms under which all phenomena occur.” (IBRI, 2010, p. 2-3). In that same text, the author affirms: “it seems to me that it is Peirce who consummates a theoretical system that includes Schelling’s romantic ideal of conceiving Nature, on the one hand, as a living being with the same logical rights of man, and, on the other, as a work of art in its inexhaustible display of creative spontaneity. Peirce undertakes this task by virtue not only of his acute repertoire in logic and scientific training, but, equally of his extreme sensitivity to perceive the fresh face of the world that has no place in a logic of necessity and, thus, in a merely deductive rationality” (IBRI, 2010, p. 4-5, *author’s emphasis*). Now, it seems, once more, that the origin of the aesthetic nature is also of a formal nature. Another moment in which a similar assertion can be justified in the text of Ibri (2009, p. 293) is when the author presents excerpts of Peirce’s *Collected Papers* (CP 6.339) (CP 8.153) to emphasize that what we think is of the nature of thought: “What we think cannot possibly be of a different nature from thought itself” and “That which the truth represents is a reality. This reality being cognizable and comprehensive is of the nature of thought”. And all of this seems compatible with the identity between quality and form that we make here.

Aware of these possible distinct perspectives, let us see then how we can identify the concept of *form* with that of *quality*.

From the consideration that the sign is something directed to an interpretant and representing an object, Peirce continues:

It [the sign] stands for that object, not in all respects, but in reference to a sort of idea, which I have sometimes †1 called the **ground** of the representamen. "Idea" is here to be understood in a sort of Platonic sense, very familiar in everyday talk; I mean in that sense in which we say that one man catches another man's idea, in which we say that when a man recalls what he was thinking of at some previous time, he recalls the same idea, and in which when a man continues to think anything, say for a tenth of a second, in so far as the thought continues to agree with itself during that time, that is to have a **like** content, it is the same idea, and is not at each instant of the interval a new idea (CP 2.228).

As we can see in the definition presented, Peirce indicates that the sign, when representing its object, does not represent it in all of its aspects, but with reference to a certain kind of idea that he named *ground of the representamen*. Carl R. Hausman (1993), when discussing this definition, asserts that, in general, when Peirce presents the notion of representation, he does so by means of the trichotomy *sign*, *object* and *interpretant*, leaving aside its grounding, although "this apparently fourth condition is essential in Peirce's analysis" (p. 72). The natural question to be made, then, is: is there a fourth element in the representative process? The answer, given by Hausman is, obviously, *no*. This broad discussion presents the distinction between the terms *sign* and *representamen*, when the first become synonymous to the term *representation* and, as such, considers the term *sign* as triadic, composed by that which grounds it, by its object and by its possible interpretant: "[...] a sign is not thought of as one among three components or conditions for semeiotic processes. Rather, a sign is an instance of a semeiotic process." A deeper discussion of those relations would escape the scope of this text; the important thing to notice is that, although relations between the terms *sign* and *representamen* are, most of the time, neglected by the mere identification among them, the sign (conceived as synonymous to *representation*) has a grounding, which is its capacity to function as such.

Peirce affirms then that "Idea is here to be understood in a sort of Platonic sense, very familiar in everyday talk". *The idea is the grounding of representation, by definition*. This means a lot. The idea, in itself, is not a restriction of unlimited potentiality; its being is conceived as potentiality, inherent to the first category. However, once incorporated into an existence, differentiating as *this* and not *that*, the sign represents it by means of this quality incorporated in it (the object): it gives it the representative capacity and, therefore, the *possibility* of the idea is not characterized merely by the lack of actuality, but by its representative potentiality. It is in this sense that the character of quality, as a sign, resides in its potentiality of being logically in the place of the object it can represent.

In order to understand this, it is indispensable that we propose the consideration of the distinction between the *action* relative to the restriction of potentiality, *as force of chance or of law and the form resulting from this restriction, but which was, itself, foreshadowed in the world of the possible*. It is in this sense that we consider *information (in-formation) as the action responsible by the restriction of qualitative potentiality, attributing form or incorporating it in the substance. Form, or idea, is, for us, in this context, the firstness of a thirdness and, as such, is quality*. Ransdell seems to agree with this:

Anything whatsoever can be a sign, i.e. can function in that role; but in order to do so it must have some character in *virtue* of which it can so function. This character is what constitutes the *ground* or reason of its being *capable* of being a sign, though it is not actually a sign until it is interpreted as such. The notion of quality is, according to Peirce, the notion of reference to a *ground* (CP 1.551), i.e. the notion of having sign-potentiality. Hence, the first category, quality, *can* be identified with the notion of a sign in the sense of possession of sign-potentiality, but it is *not* equivalent to the notion of an *actual* sign. *And I take it that this would-be Peirce's version of traditional notion of form, quiddity, or essence.* (RANSDELL, 1966, p. 80, *our emphasis*).

Anything can work as a sign, that is, can have the logical action of being mediator between an object that presents itself and an interpretant “created” from this first relation. The question is: how can it do that? Ransdell, according to what we said, presents us an explanation concerning the *ground of the sign*. Of the logical nature of possibility, it will only work as a sign inasmuch as it is interpreted as such and, to be so, it must be incorporated into an existing object, becoming a part of this world and, thus, it *will be* a quality, or characteristic, of an object. Therefore, it is in relation to this quality which is incorporated in the object that the sign will be apt to represent it and, therefore, quality is the reference to the *ground of the sign*. Only working representatively when so interpreted, quality, as a sign, keeps open and in function of this quality itself, becoming evident its logical-interpretative modality: meaningful potentiality. An interesting part, finally, is emphasized in the citation: *And I take it that this would-be Peirce's version of traditional notion of form, quiddity, or essence.*

In the spring of 1906, Peirce (EP 2:477) says that he uses the word “Sign” in the widest sense for any medium for the communication or extension of a Form (or feature). [...] In order that a Form may be extended or communicated, it is necessary that it should have been really embodied in a Subject independently of the communication; and it is necessary to be another Subject in which the same Form is embodied only in consequence of the communication. The Form ([...] Object of the Sign), as it really determines the former Subject, is quite independent of the sign; yet we may (and indeed must) say that the object of a sign can be nothing but what that sign represents it to be, for it is indispensable to distinguish the *immediate* object from the *dynamic* object.

Silveira (2008, p. 308-309) says that we can, in this Peirce's text, distinguish form as constituted quality of the object from this same form as relation communicated through Sign to its Interpretant. By means of this distinction, we can effectively know the Object, without consuming it *ipso facto*. In this sense, we have all the information on this object, the Form that is communicated from it as a condition of truth for all posterior interpretation of that object.

When considering information as a certain system, action, movement, process, etc. De Tienne presents Peirce's mature definition of sign, presented above, when he considers it as a “medium for the communication of a form” (EP 2:477). In this case, according to what we said above, *information is a process of transmission of forms incorporated in the object*. We would say more: information is the *incorporation of*

the form in the object itself, or better, *to inform is to connect the form to the substance or matter*. In this sense, we prefer the use of the verb *to inform* to express the action of information and this, as a noun, to express the amount of comprehension or extension relative or resulting from the action.

When discussing the term *form*, De Tienne affirms that:

The forms that signs convey are not arbitrarily created out of nothing. Some of them are forms of firstness, and the type of sign that objects can determine in that regard are iconic. Others are forms of secondness, they are agents provocateurs, and bring other entities to react to them, turning them into indices. The third kind of forms, as Peirce puts it in R793, are truths of conditional propositions: “under certain favorable circumstances, this or that type of event would be bound to take place or be the case”; these are forms of thirdness, forms that can only be captured through symbols. (De TIENNE, 2005, p.162).

In order to understand what De Tienne means by “forms of firstness”, “forms of secondness”, “forms of thirdness”, let us notice, initially, that the first correlate, as stated in this our text, is in the *logical place* of a second, its object. This means that the sign represents the object through some respect that is already embodied in the sign: Peirce terms this as the ground of the sign. This ground is the sign-quality and this can be reached only by means of *abstraction*. This is a harbinger, result of a coherent philosophical system, of a certain realist conception of the world, implying logically the distinction between two notions of objects. There is a world that is independent of our opinions about it. The notion of abstraction related to this context is in Peirce’s words:

The conception of a pure abstraction is indispensable, because we cannot comprehend an agreement of two things, except as an agreement in some respect, and this respect is such a pure abstraction as blackness. Such a pure abstraction, reference to which constitutes a quality or general attribute, may be termed a ground (CP 1.551).

In the same text, we can find some other considerations about the way of representing a quality that is already embodied in its object or substance.

The conception of being arises upon the formation of a proposition. A proposition always has, besides a term to express the substance, another to express the quality of that substance; and the function of the conception of being is to unite the quality to the substance. Quality, therefore, in its very widest sense, is the first conception in order in passing from being to substance (CP 1.551).

Coming back to Ransdell’s text to identify the notion of quality with the notion of form, as we already said, the sign relation presupposes something which can play

the role of a sign, and it therefore presupposes that there is such a thing as sign-potentiality (form, essence, quality). Therefore, there is Peirce's division of three kinds of sign-potentiality or, according to Ransdell, three kinds of quality: "internal" quality, "relative" quality, and "imputed" quality. (CP 1.558). The first one is "whose relation to their objects is a mere community in some quality"; the second is that "whose relation to their objects consists in a correspondence in fact" and the last one is that in which "the ground of whose relation to their objects is an imputed character. We know that these three aspects of the sign-potentiality are the known *icon*, *index* and *symbol* and understand the notions of firstness, secondness and thirdness, presented by De Tienne, in this sense.

Now, considering the terms *quality* and *form* as synonymous leads us, as we have seen, to the comprehension of form as relative to the first category. In what sense such a conception is compatible with the above presented, by De Tienne? Equivalently, in the text *A Peircean Approach to 'Information' and its Relationship with Bateson's and Jablonka's Ideas* Queiroz, Emmeche, El-Hani affirm that:

In Peirce's works, *form* is defined as having the "being of predicate" (EP 2.544) and it is also pragmatically formulated as a "conditional proposition" stating that certain things would happen under specific circumstances (EP 2.388). Form is something that is embodied in the object (EP 2.544, n. 22) as a habit, a "rule of action" (CP 5.397, CP 2.643), a "disposition" (CP 5.495, CP 2.170), a "real potential" (EP 2.388) or, simply, a "permanence of some relation" (CP 1.415). Form can also be defined as potentiality ('real potential', EP 2.388). *We can say that Peirce follows a via media in which "form" has both the characters of firstness and thirdness.* This is in accordance with Bergman's (2000, p. 236) understanding of communicated form as a *First* of a *Third*. Thus, from the Peircean framework discussed in this section, we have derived the basic background for our account of *information* as *semiosis*. We will now expand upon that account. (QUEIROZ, EMECHE, EL-HANI, 2008, p. 79-80, *our emphasis*).

The assertion above already leads us to a certain compatibility between the considerations expressed in the present paper. How can we solve this apparent problem? Let us see.

- (1) When dealing with the terms *form* and *quality* as synonymous, we must notice that we are not dealing with specific qualities or forms, like *redness* or the *smell of a rose*. In fact, we are trying to better understand the meaning of the notion of quality and the notion of form, themselves: the *quality of quality* and the *form of form*, so to speak. Now, *quality of quality* expresses a purely potential being, just like form of form. Its being, as we have seen, is a latent being, with a (i) representative and (ii) non-actual potentiality.
- (2) When announcing the determination of an unlimited potentiality of the germinal nothing to a *qualitative potentiality*, Peirce *anticipates an*

eminently intelligible universe from its foundations, mainly because if quality is form, and form in the platonic sense, it is eminently intelligible, an idea that resided in the world of the possible, waiting to be incorporated into existence, even if arbitrarily, and to compose the phenomenal universe.

- (3) When saying that quality is form and, as such, form refers to the first category, we mean that *form is a firstness of a thirdness*.
- (4) Silveira (2007, p. 67, *our emphasis*) presents the following consideration: “Every complexification, ulterior in the semiotic process, is nothing more than a restriction to the free spontaneity of potentiality, consisting in choices made among everything that qualities can represent. It will result from this choice a growing degree of determination of the sign, but never a growth of its potency. It will also result a growing diversification of forms, since it is through them that choices are implemented. There will be then a growing evolution, but *its power of meaning will depend always on the qualities original from the semiotic process*.” This means that, although there is complexity in the determination of the sign, determination conceived as a kind of natural or conventional prediction (EP 2:115-132), the forms that are incorporated in existence, constituting substance or matter, create habits or laws that work in the interior of the phenomenon and in the logical structure of the object, attributing objectively characteristics differentiated in it. Inasmuch as such characteristics remain regular in time, even to generate new individuals via a certain heredity of the sign, such habits compose its essence and, as such, become *forms* of the object, which may even be represented. Because of that, according to the affirmation of De Tienne above, there are forms of firstness, of secondness and of thirdness. Furthermore, although the phenomenon is not reducible to the first category, by logical necessity, any thirdness is composed by firstness and secondness and any secondness is composed by firstness. This means that the phenomenon and its intrinsic intelligibility depend on the intelligible element inscribed in the origin of the universe: form or quality. And all of this appears to be in accordance with the last citation presented (QUEIROZ et. al. 2008, p. 79-80).
- (5) Let us remember that the real object complements its final interpretant, as long as, according to Silveira (2014, p. 8), the first one incorporates itself into the habit that represents it. Now, in the very sense that the general nature of an object (and of matter, in particular), is characterized by a “bundle” of habits, this “bundle” is nothing more than the habit to which the object is objectively incorporated; thus, the habit is the *form* of the object from an evolution of this form. This means, on the one hand and according to what we said previously, that the *platonic form complexifies and evolves in this real world*, not being necessary the postulation of an ideal world; on the other hand, the affirmation that the object incorporates itself to

the habit that represents it leads us to the consideration that matter is a bundle of habits, as we have said, and thus, Peircean realism is configured in the highest degree, in the sense that matter is a habit and, as such, the best denomination for it is, according to the present text, *material form*, a term that Peirce himself uses in his manuscripts (MS 339C, p.515, *apud* SANTAELLA, 2000, p. 44).

- (6) In the previous item, we have said that the platonic form evolves in this world. Going back to the text *The Logic of the Universe*, Peirce presents some considerations concerning this evolution of the form and in what sense thirdness would be composed, not additively, but systemically, by the laws that regulate it, being those laws, forms themselves:

From this point of view [that of the evolution from vague to definite] we must suppose that the existing universe, with all its arbitrary secondness, is an offshoot from, *or an arbitrary determination of, a world of ideas, a Platonic world*; not that our superior logic has enabled us to reach up to a world of forms to which the real universe, with its feeble logic, was inadequate (CP 6.192).

Peirce says then that, if this platonic hypothesis is correct, that is, that our superior logic will allow us to reach a perfect world of forms, then we should consider this process of derivation of the absolute imprecision and lack of dimension that characterizes the vague state inherent to potentiality, to a regular state that we are dealing with in this text. The process of evolution is, differently, as the facts show, not only an evolution of existence, but also of the platonic forms themselves (CP 6.194). In this sense, *this* existence is a special one and, for the forms to evolve, we must suppose that they must enter a *theater of reactions* that characterizes to perfection the second category. And, once more, Peirce presents how he supposes to have been (and continues to be) the evolution of the universe from the characterization of the evolution of the form:

The evolution of forms begins or, at any rate, has for an early stage of it, a vague potentiality; and that either is or is followed by a continuum of forms having a multitude of dimensions too great for the individual dimensions to be distinct. It must be by a contraction of the vagueness of that potentiality of everything in general, but of nothing in particular, that the world of forms comes about. (CP 6.196).

6 Final considerations

The identification of quality in Peirce as form, in the platonic sense, leads us to the explanation of a universe which is intelligible from its origins. It is important to stress, however, that it is the feeling, such as described by Peirce, which is the

condition for this intelligibility itself. This means that thought, inserted in time as genuine thirdness, is a continuous flow of infinite instants which are apprehended, by their turn, only by means of feeling, which is a kind of first consciousness, which does not have elements, parts or relations. This feeling, the appearance of a quality (form) in a phenomenal universe, is characterized as a logical structure whose state may be described as relative to that instant, when there is a vertical cut in the timeline. A better characterization of feeling as a logical structure relative to the platonic form will be destined to future works.

Although the inscription of quality as platonic form anticipates, from its bases, a strictly intelligible universe, the characterization of the appearance of form by means of feeling leads to the possibility of an interpretation that unifies, in its foundations, intelligibility and feeling. As we have said, a quality, to be represented in a *continuum* that characterizes representation, must be, before everything else, *felt*.

Such an interpretation makes possible an intrinsic relation between what is felt and what is intelligible. In order to be intelligible, the undifferentiated must differentiate, making itself *other*, and, when interpreting this other, a triple-consciousness is generated, which characterizes the representative process as eminently meditative. Objectively, quality is incorporated in the object, differentiating it and allowing for its cognitive apprehension. The habit incorporated by the object feeds back in this intelligibility itself, altering its complexity. This means that the platonic form evolves from a pure idea to a kind of *law* that typifies it as operative in reality. This dialog, relation between categories, which may be characterized as the motor of the universe by the action of the sign, allows the growth of the forms in the search for truth.

Finally, as we have seen, the possible identification of the concepts of *form* and *quality* may be contested by those who describe the origin of the universe, for example, as being of a poetic nature. Future works will show how those descriptions are not incompatible with the identification we now make: quality, of an aesthetic origin, is also logical for Peirce and, therefore, has a formal nature, since it is not possible to generalize that which is not generalizable in itself.

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