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Why sentiments can be logical[1]

Reflections by Vincent Colapietro[2]

in dialogue with Winfried Nöth[3]

edited by Guilherme Henrique de Oliveira Cestari[4] and Levy Henrique Bittencourt Neto[5]

W.N.: Today we are having our fourth and last encounter with the philosopher and Peirce scholar Vincent Colapietro in a series of dialogues on cognitive semiotics. The first was our "Dialogue on cognitive semiotics: Minds and machines" (TECCOGS 21). The second was on the question "What is the semiotic self?" (TECCOGS 22) and the third on "How can we change habits?" (TECCOGS 23). This time, we want to discuss whether or why sentiments may be logical.

"Logical Emotions" sounds like a contradiction in terms, a *contradictio in adjecto*. When we address this topic, we continue our first dialogue of this series, which was on cognition in general. For many scholars, emotion and rationality are separate. We are so used to thinking that logic admits no feeling, but Charles Sanders Peirce had some not so well-known ideas on how both are intimately connected. Peirce had a cognitive theory of emotion, which means that feeling and cognition are not be separated *a priori*. Of course, we know that the elaboration of a logical argument can bring about a feeling of satisfaction when we finally succeed in coming to a conclusion or a feeling of frustration in case we fail, but the details are still enigmatic. This is why we are awaiting, with feelings of curiosity, what professor Colapietro has to say about the logic of sentiments.

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1 The dialogue took place online on the channel @TIDDigitalyoutube.com/watch?v=sPi-jMys2qYg, on September 25, 2020.

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V.C.: Thank you, Winfried! Our question is, why sentiments can be logical. There is a way in which ultimately I will try to make this clear, but there is also a way in which we might turn the question around and ask, "Must logic be sentimental?" "Must logic itself be rooted in sentiment?" So, we can play with the question, but I think the formulation "Can sentiments be logical?" is a good one. Nevertheless, there are other questions very closely connected to our vocal concern which we might profitably pose.

Let me take a step back and pick up a thread of what you said. It is clearly the case that emotions are connected with physiological reactions. They are certainly psychological phenomena. However, from a Peircean perspective, physiological and psychological characterizations of emotion are not altogether sufficient. Yes, for a full account of human emotions, we would have to account for their physiological and psychological aspects. However, if we stop there, we have not yet given a semiotic account of emotion. Thus, we would have fallen crucially short of giving an adequate account of the issue. So, nothing short of a theory that is both emphatically cognitivist and formally semiotic would prove to be adequate. In part, this means that the theory of emotions needs to be spelled out in semiotic terms and, in my judgment, unmistakably Peircean terms. Emotions are in some manner and measure cognitive, while cognition is inherently semiotic. What I have to say on this occasion is an elaboration of this twofold thesis.

This brings us directly to our point. In the theory of emotions, the kind of theory Peirce is articulating and defending, is today called a "cognitive" or "cognitivist" theory,[6] so whatever an emotion is, it is not purely or simply a reaction at a physiological level. Whatever an emotion is, it is also not simply a phenomenon from a psychological perspective. An emotion is a cognition, among other things.[7] What this means is principally that emotion is a judgment, for the most part conjectural judgments, hence the result of abductive inferences, thought for the most part unconscious abductions). It is in its initial manifestation not a verbalized judgment, but rather a somatically felt and – to some extent – bodi-

6 In Anglophone philosophy, there is no more prominent and forceful defender of this position than Martha Nussbaum. See especially her *Upheavals of Thought: The Intelligence of Emotions* (Cambridge: Cambridge University Press, 2003) and the earlier book, *The Therapy of Desire* (Princeton: Princeton University Press, 1994).

7 Cf., e.g., Peirce, "A Guess at the Riddle" (c.1890): "Pleasure and pain can only be recognized as such in a judgment; they are general predicates which are attached to feelings rather than true feelings. [...] Every emotion, every burst of passion, every exercise of will, is like cognition", CP 1.376. – Peirce, Charles Sanders. 1931-58. *Collected Papers*, vols. 1-6, ed. Hartshorne, Charles & Paul Weiss, vols. 7-8, ed. Burks, Arthur W. Cambridge, MA: Harvard Univ. Press (quoted as CP, followed by volume and paragraph number).

ly-articulated judgment. The body itself is a medium of articulation. Our spontaneous expressions and gestures are indicative of this feature of the body. Fear *is*, for example, a series of physiological reactions, but it is simultaneously a sequence of "logical" interpretants in which experientially encountered objects are disclosed or mispresented.

Let me go slowly and carefully. The body, apart from language, is making judgments that may or may not lend themselves to linguistic articulation. There is no dualism here. It is not as if there were a somatic judgment and its linguistic formulation, the somatic and linguistic expressions being utterly incommensurable. An emotion is unified; it is a continuum. It is, moreover, a cognition by its very nature, and it is a judgment. In certain respects, our emotions are conjectural judgments since an emotion might also be an erroneous hypothesis. To take a very simple example: fear. Two factors must be made very explicit. First, there is the hypothetical character of human emotions, either of all or of most of them. A judgment, in the form of a hypothesis, also involves a predication: emotions are implicitly, in effect, predications. I am in effect (though not consciously) saying something of something when I am simply feeling something such as fear or anger. It is a predication, from the Latin, which means "to say of" – to repeat, I am saying something. I am not ordinarily or necessarily verbalizing the feeling. I am, in effect, saying something of something when I am feeling fear: what I am by implication saying of this object or event is that it is imminently injurious. My feeling embodies a conjecture: I am in the presence of something that can injure me (whether or not this is so remains to be determined – as a cognition, an emotion is not self-authenticating or self-justifying, for it might be erroneous). So, my very feeling is a judgment about being in the proximity of something imminently injurious or harmful, but that judgment might be wrong. Peirce's cognitivism is inseparably linked to his fallibilism (in identifying an emotion as cognitive, he is also identifying it as fallible). Take my judgment that predicates a danger of being attacked by a wild beast, when a lion walks into my room or the one of an accident when the car is traveling at excessive speed along the roads. My fear might be unjustified so that my predication may turn out to be a mere hypothesis. But, then it might also be warranted (what I feel to pose a danger might turn out actually to be dangerous).

The second and crucial point of clarification is the one of the unsettled terminology. "Passions", "feelings", "emotions", "sentiments" – and there are other words in the vocabulary of human affection, including

"affection" or "affects". As someone devoted to the ethics of terminology,[8] Peirce tended to use these words in a careful principled manner. However, he wrote a great deal and did not always use these terms in as careful a manner as we might like or as he might have aspired to. Not all of these words are necessarily synonyms – and, in fact, for the most part, they are not: "feeling", "emotion", "passion", "sentiment", "affection", and "affect" are not interchangeable. The ethics of terminology enjoins us to draw careful distinctions even among closely allied words. Let us focus upon three for the moment, "feeling", "emotion", and "sentiment".

"Feeling" is the phenomenon in which firstness is predominant. Feeling is ineffable. It is the most elusive notion of all, a term pointing to the most ephemeral of all dimensions of our affective life. When we get to emotions, we are getting to something much more readily identifiable, and when we get to sentiments, we are getting to something that is like emotion in being identifiable, in part because it is replicable, able to be replicated or repeated. You do not feel anger on one occasion. You feel anger on a multiplicity of occasions. However differently textured and differently colored your anger may be in a given context or situation, there is a commonality to all situations of anger so that using the same word to designate this emotion makes perfect sense. Sentiment has that, too. Feelings are much more difficult to pin down. Emotions are judgments, and many of them tend to be episodic. You feel anger upon an occasion. It is an episode. Now, it is the true that some people are angry by disposition. Choleric persons have anger simply as a defining characteristic of their personality, but when we think about the emotion of anger, we consider something, for the most part, which is episodic rather than dispositional.

Let me stop here and make a bibliographical point or two before I pick up what the issue of sentiment. The bibliographical point begins with David Savan.[9] Anybody who wants to do work on Peirce's theory of emotions needs to start with the essay written for a conference in Amsterdam in 1976. Savan's paper, "Peirce's semiotic theory of emotion", is certainly not the last word, but it is the first word or one of the first words, and to do work on Peirce's theory of emotions, one can do no better than beginning with this contribution to the Proceedings of the *C. S. Peirce Bicentennial International Congress*.

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8 "The Ethics of Terminology" is the title of a Peirce paper of 1903; CP 2.219-226.

9 David Savan. 1981. Peirce's semiotic theory of emotions. In Kenneth L. Ketner, Joseph M. Ransdell, Carolyn Eisele, Max H. Fisch, Charles S. Hardwick (eds.), *Proceedings of the C. S. Peirce Bicentennial International Congress*, 319–333. Lubbock, TX: Texas Tech University. – Online: ttu-ir.tdl.org/bitstream/handle/2346/72487/ttu_icasal_000210.pdf?sequence=1&isAllowed=y.

Look at Peirce's semiotic theory of emotion. You, Lucia Santaella, and, in fact, I, have very Peircean papers in a forthcoming book,[10] developing further what David Savan wrote 45 years ago. Furthermore, Thomas Lloyd Short has a wonderful piece on perception and sentiment.[11] Otherwise, there is not a vast secondary literature.[12]

Now let me pick up the thread that I interrupted to give that brief bibliographical note. Whereas the emotions tend to be episodic, though some of them are dispositional, the sentiments are – and I am using David's wonderful characterization of the sentiments – enduring, stable, and settled habits of feeling. Whereas most of the most characteristic emotions tend to be episodic and, therefore, transient – they come and go –, the sentiments tend to be stable characteristics, enduring traits of the semiotic self. For example, love, understood as a sentiment, is not a momentary feeling. As a sentiment, love is a more or less enduring or settled disposition to react in certain ways in certain contexts, which expresses itself on any number of occasions. It is a disposition to respond in certain ways, but the range of responses is wide, and, moreover, the very forms of response are extremely variable. We all know how love expresses itself concretely. In a specific situation, it might be very different from how it expresses itself in the same person to and up to that same person in another situation. Love as a sentiment, hope as a sentiment, and faith as a sentiment – which are most focal to Peirce's concern – are the ones that Peirce identifies as crucially linked to rationality.

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10 *In Exploring the Translatability of Emotions: Cross-cultural and Transdisciplinary Encounters*, Susan Petrilli & Meng Ji. Cham: Palgrave MacMillan, 2021.

11 Thomas L. Short. Robin on Perception and Sentiment in Peirce. *Transactions of the Charles S. Peirce Society*, v. 38, n. 1-2 (2002), p. 267–282.

12 Further studies, in chronological order, are:
Thomas A. Short. David Savan's Peirce Studies. *Transactions of the Charles S. Peirce Society* 22(2) (1986). 89-124.
Christopher Hookway. Sentiment and self-control. In: Jacqueline Bruning & Paul Forster (eds.). *The Rule of Reason*, 201–222. Toronto: Toronto University Press, 1997.
Robert J. Beeson. *Peirce on the Passions:* The role of instinct, emotion, and sentiment in inquiry and action. PhD dissertation, University of South Florida, 2008. Graduate theses and dissertations. scholarcommons.usf.edu/etc/134 (accessed February 2018).
In Portuguese, see also: Lauro Frederico Barbosa da Silveira; Jorge de Barros Pires. A concepção de emoção, segundo Peirce. In Etorre Bresciano Filho et al. (eds.). Auto-organização: Estudos interdisciplinares 5. Campinas: UNICAMP (= Coleção CLE UNICAMP 66), 2014. P. 229-262. Transl. The conception of emotion according to Peirce. academia.edu/29937343/ (accessed February 2018).

Peirce's understanding of rationality and of even logic in his revised sense turn out to encompass faith, hope, and love – love principally understood as *agapé*, the Greek word for a certain kind of love. To be sure, there are also erotic dimensions to many human attachments, and there are in addition dimensions of *philia* or friendship, to be sure. There is a sense in which dimensions of all three Greek words, *philia* (friendship), *eros* (erotic love), and *agape*, are intricately intertwined in the Peircean understanding of the sentiment of love.[13] Sentiments, in general, are stable and enduring dispositions to feel. In their feelings to act and imagine in certain ways under certain circumstances, lovers are especially attuned to what might be called *kairos*, the Greek word for the opportune moment. *Chronos* is one Greek word for time and *kairos* is another. The skillful musician has a sense of timing, the gifted athlete also has a sense of timing, the attentive friend and the lover have their appropriate sense of timing. Parents or teachers, if they are effective as such, have their sense of timing. You know when to back off your child and give your child space. You say, "Now is not the time", or you have the rather keen sense to say, "Now is the time, I need to go and comfort this child".

There is the ineluctably future-driven series of chronological time; however the temporal continuum is divided (seconds, minutes, hours, days, years, and far beyond). However, there are also those opportune moments, those timely occasions, when some actions are especially appropriate. There is, in brief, a sense of timing, not just time in the sense of chronos. Your very close friend loses a spouse or a parent. You do not wait a year to write a condolence. If so, your *kairotic* sense is really screwed up. You try to communicate your sadness for their loss in a prompt way, your *kairotic* sense – your sense of what is the best moment, the best time, the opportune time to communicate your sadness for the loss – prompts you to express your sympathy sooner rather than later.

These sentiments, in particular, faith, hope, and love, are either constitutive of rationality or very close to being constitutive of rationality. Being rational in the Peircean sense is not being simply or even perhaps primarily logical. Rationality is far more than logicality for Peirce, but why logical, and in which respect? The logical person is the one animated by the three logical sentiments, the sentiments of faith, hope, and love.[14] You are not truly logical in Peirce's judgment unless you are animated by these sentiments. There is a sense in which these are constitutive of reason according to Peirce. You have to identify with the infinite open-ended

13 See in particular Peirce's paper "Evolutionary Love" of 1891; CP 6.287-288.

14 "Three logical sentiments" is the title of a subchapter of Peirce's paper "The Doctrine of Chances" of 1878; CP 2.652-655. See also note 10.

community of inquirers, and that identification with the community of inquirers has to entail practically your willingness to sacrifice for that community, even though you will not be here to see what your contribution to that community has been. Peirce wrote, "The inquirer more or less vaguely identifies himself in sentiment with a Community of which he is a member, and which includes, for example, besides his momentary self, his self of ten years hence."[15] The argument is fundamentally important in his philosophy. We identify in sentiment with a community, indeed, some finite historical community. However, it is a finite historical community only because it is a representation or a segment of an infinite ongoing process. In a sense, – and this may be very dangerous to say – this is a trans-historical community. Of course, it is a community in time and in history, but it transcends its particular moment in time in its particular period in history. It is my thoroughgoing identification in sentiment with the infinite community, expressed in a willingness to sacrifice myself for what I can never see.

Here, the sentiment of faith comes in. This sentiment supplements knowledge. It can also encourage the search for discovery. If I know X, faith regarding X is superfluous. If there is some deficiency in my knowledge, faith however might be helpful. As Peirce understands it, I have faith in things unseen. He is drawing heavily upon Paul, the Apostle,[16] that is, upon Christian scripture, and upon some of the basic meanings of these sentiments, as they are articulated in the biblical tradition and in the religious writers on its tradition. Faith concerns things unseen. It is closely connected with courage. If I have faith, I have courage to stand by my beliefs, even though I cannot see. You and I are not going to see what contributions, if any – you, Winfried, or I have made, we have made to the community of inquirers. Our historical *locus* is such that we are not in the position to see, so we have to be animated by faith, which means being animated by courage, to go on and persevere, and that connects with hope. Our commitment to the boundless community of self-critical inquiries rests, in part upon our faith in things unseen, in part on our hope for a future beyond our imagining, and in part a love for the growth of this community.

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15 Review of Josiah Royce's book *The World and the Individual* in *The Nation* in 1900, CP 8.101.

16 In his "The Doctrine of Chances" (see note 8), Peirce wrote, "It may seem strange that I should put forward three sentiments, namely, interest in an indefinite community, recognition of the possibility of this interest being made supreme, and hope in the unlimited continuance of intellectual activity, as indispensable requirements of logic. [...] It interests me to notice that these three sentiments seem to be pretty much the same as that famous trio of Charity, Faith, and Hope, which, in the estimation of St. Paul, are the finest and greatest of spiritual gifts", CP 2.655.

The sentiment of hope deserves our attention. Despair, Peirce rather pointedly says, is suicide[17] – and he spoke as a person who was on more than one occasion on the brink of despair[18] – he felt existential despair of a profound order more than once in his life to the point of contemplating suicide – so when he asserts, Despair is suicide," that utterance carries great weight and substance. But his main focus is *heuristic* despair. If I, as an inquirer, think that it is hopeless to go on inquiring, then I have virtually killed off the inquiry, I have at the very least, annihilated myself as an inquirer. So, hope alone is rational for the inquirer.[19] If I lose my keys in despair of ever finding them, I will not find them. My despair guarantees that I cannot, to take a very trivial example. As an individual,[20] I must recognize this profound identification with the infinite community to the point of being willing to sacrifice my life, my time, my devotion to the realization of that community in whatever imperfect, valuable way I can do.

I will stop, but let me summarize. Emotions are, in Peirce's vocabulary, different from sentiments. Whereas emotions tend to be episodic, sentiments are enduring and stable characteristics of the semiotic self. The three sentiments on which Peirce focuses in connection with rationality and logic are faith, hope, and love. These sentiments are either constitutive of reason or very close to being so. That is what I wanted to say at the outset. I hope it gave you some points of entry and some places for interrogation.

W.N.: Certainly not only one, but many. Consider the example of the despair that some students feel in front of their blank page, when they cannot express their ideas and develop a coherent argument. Is it not another example of how emotion may exert a negative influence on scientific inquiry, a case where emotion "blocks the road of inquiry"?[21]

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17 For example, "Despair is insanity. [...] We must therefore be guided by the rule of hope. ("A Guess at the Riddle", c. 1890; CP 1.405).

18 For Peirce's biography, see Joseph Brent. *Charles Sanders Peirce*: a Life. Bloomington, IN: Indiana University Press, 1998. However, the book need to be read with a critical eye since "it fails to connect Peirce's life with his work and irresponsibly ascribes to Peirce personal and mental problems for which there is little or no evidence", as Cornelis de Waal (*Peirce:* A Guide for the Perplexed. London: Bloomsbury, 2013, p. 165) observes.

19 "It is a Postulate, – a hope, – of science and of all sound reasoning that any given fact to which our attention may be directed shall turn out to be intelligible. [...] It would be [...] monstrous for an inquirer to despair of the comprehensibility of his problem" ("Telepathy and Perception", 1903; CP 7.601).

20 "An individual soul with its petty agitations and calamities is a zero except as filling its infinitesimal place, and accepting his little futility as his entire treasure" ("A Neglected Argument for the Reality of God", 1908; CP 6.479).

21 "Do not block the way of inquiry" was Peirce's "first rule of reason", as formulated in his unpaginated ms "F. R. L.," c. 1899; CP 1.135.

V.C.: Let me back up and say that there is an extremely wide array of human sentiments. In several places, Peirce implies as much. So, I am focusing very narrowly on what Peirce identifies as the "logical sentiments" (the very expression would be an oxymoron in the ears of positivists and others who are committed to a dualism between reason and emotion). As important as these sentiments are, they are only a very small part of a very large spectrum of human affects. I should have been clearer on this point. Your question is a very important one, partly because it gives me an opportunity to clarify what I have said. There is an extremely wide array[22] and not all the sentiments are necessarily beneficial to the person who is animated by or possesses them. One might have the sentiment of worthlessness, which is closely connected to what you were talking about in reference to the despair in which a student can look at the blank page without the confidence to carry out the project, keeping on saying, "I cannot do this", plagued by self-doubts and crippled by a lack of self-worth. There is an enduring disposition to judge oneself not good enough or, even worse, worthless, and this is where it borders on the therapeutic, right? It seems to me that any humane form of therapy involves trying to identify those crippling sentiments, those self-destructive, self-nullifying, and self-stultifying sentiments. There is an extremely wide range of human sentiments. They all need to be brought into play and into the focus of critical consideration. Some of them are really quite destructive. Therefore, to be animated by such self-nullifying sentiments is to be complicit in one's own process of self-annihilation or self-limitation.[23] That is why re-narration is, in the context of therapy, how you come by that sentiment. You try to get the person in therapy to re-narrate their lives, not to tell themselves stories that keep on reinforcing their sentiment of worthlessness.

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22 Among the diverse phenomena, which Peirce discusses as involving "sentiments" besides the process of discovering the truth through research, are poetry, religion, and the experience of music. Three quotes to exemplify each of them are:
"Poetry is one sort of generalization of sentiment [...]. The complete regeneration of sentiment is religion, which is poetry, but poetry completed" ("On Detached Ideas in General and on Vitally Important Topics," 1898; CP 1.676).
"And what is religion? In each individual it is a sort of sentiment, or obscure perception, a deep recognition of a something in the circumambient" ("The Marriage of Religion and Science", 1893; CP 6.429).
"Such is [...] the sentiment excited by a piece of music considered as representing what the composer intended" (Letter to Lady Welby, Oct 12, 1904; CP 8.335).
– "The scientific man is deeply impressed with the majesty of truth. [...] From that sentiment springs his ardent desire to further the discovery of truth" ("Review of 'Pearson's Grammar of Science'", 1891; CP 8.136, note).

23 Closely related to such sentiments there are what Sianne Ngai and indeed others have identified as "ugly feelings" (e.g., envy, irritation, anxiety, disgust, and paranoia). See her *Ugly Feelings* (Cambridge: Harvard University Press, 2005).

There is a still wider range of sentiments: benevolence, sympathy, empathy, antipathy, viciousness, etc. For any minimally adequate account of sentiments, we would have to consider this wider array and leave open the possibility that there is always something important left out of our account. Human sentiments are that wide and various. My very narrow focus on the logical sentiments was not intended to preclude or to erase these other very important and legitimate instances of sentiment. Thank you for the question!

W.N.: Your answer has clarified very well what sentiments are in Peirce's philosophy of logical sentiments, thank you, but may we also hear a bit more about the attribute "logical" in the title of this theory? We all know, but perhaps you can underline this once more, that Peirce's understanding of logic is not the understanding of positivist formal logic. Peirce has a much broader conception of logic, but if you reduce logic to its narrowest formal sense, does anything remain from the Peircean perspective according to which the search for truth involves sentiments? In other words, if you reduce the meaning of logic to its narrowest sense, do you not arrive at a point where logical analysis is deprived of sentiment?

V.C.: Well, it seems to me that if one takes logic to be a purely formal, empty set of symbols that really are used as calculi, then it is devoid of feeling. However, even in the purely formal sense, logic is never purely formal. It is somewhat akin to mathematics. The mathematicians are going to say, "What an ugly proof that is!", and they will look for the more "elegant" proof. There is a deeply felt sense of symmetry, elegance, and beauty that is always implicitly guiding the mathematical and the logical mind. In several places, Peirce compares this to a sense of musicality.[24] Yes, we can put the notes down on the page. Yes, we can formalize it, but when the logician or the mathematician is especially trying to craft a new notation – existential graphs,[25] for example –,–or when they are simply using symbolic notation already crafted, though perhaps in a novel way, there has to be depth to their feeling for the mode of symbolization. Just as a musician brings a nuanced, subtle, and variable feeling for the medium of articulation, so too, the logician and the mathematician bring to the task of either the crafting of a novel notation or simply the use of some established notation such a feel for their distinctive medium.

24 "Powers of reasoning in any but the most rudimentary way are a somewhat uncommon gift, about as uncommon as a talent for music" ("First Lecture, "On Detached Ideas in General and on Vitally Important Topics", 1898; CP 1.657).

25 See Don D. Roberts. *The Existential Graphs of Charles S. Peirce*. The Hague: Mouton, 1973.

In short, they have to have a *feel* for the medium of reasoning.[26] Not even formal logic is a purely formal, emotionless activity. Inconsistency and just playing a crudely constructed proof hurts the sensibility of the logician or the mathematician. They have a visceral reaction, expressive of an emotional reaction to just how ugly that proof is: "This can be done much more much more beautifully – look..." – and then they produce an elegant proof. The elegance or beauty of the proof is felt by them to be part of its power, even part of its rational compulsion.

W.N.: We have now reached the point where we should open the floor for further questions. Here is the first. Lucia Santaella asks, "Peirce said that feeling is a rudimentary predicate.[27] You mentioned that. Could you elaborate?"

V.C.: Right, thank you. This is a very important question, but once again, it is an extremely difficult question. Let me dwell a little bit on the terminological difficulties here. Sometimes, Peirce will say we will identify consciousness and feeling.[28] Then he will go on to say that consciousness needs to be understood in at least a threefold sense,[29] of which only the first, the firstness of consciousness, is identifiable with feeling. Thus, we need to disambiguate at least two words – *feeling* and *consciousness*. In one, sharply delineated sense, consciousness is identifiable with feeling; in a wider or more inclusive sense, however, it encompasses secondness

26 "Mathematics is," Jacob Bronowski suggests in *Science and Human Values* (NY: Harper & Row, 1965), "in the first place a language in which we discuss parts of the real [or physical] world which can be described by numbers or by similar relations of order. But with the workaday business of translating the facts into this language there naturally goes, in those who are good at it, a pleasure in the activity itself. They find the language richer than its bare contents [or even what this mode of symbolization can convey about facts]; what comes to be translated comes to mean less to them than the logic and the style of saying it; and from these overtones comes language as a literature [a mode of articulation] in its own right. Mathematics in this sense, pure mathematics, is a form of poetry. ... This element of poetry, the delight in exploring the medium for its own sake, is an essential ingredient in the creative process" (pp. 21-22, note #4), a process as evident in mathematics and science as in poetry and music.

27 "There is no feeling which is not also a representation, a predicate of something determined logically by the feelings which precede it" ("Some Consequences of Four Incapacities", 1868; CP 5.292).

28 For example: "By a feeling, I mean an instance of 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, which has its own positive quality which consists in nothing else, and which is of itself all that it is" ("Phaneroscopy", ms. Jan. 1907; CP 1.306).

29 "It seems, then, that the true categories of consciousness are: first, feeling, the consciousness which can be included with an instant of time, passive consciousness of quality, without recognition or analysis; second, consciousness of an interruption into the field of consciousness, sense of resistance, of an external fact, of another something; third, synthetic consciousness, binding time together, sense of learning, thought" ("A Guess at the Riddle", c.1890; CP 1.377).

and thirdness as well as firstness. For consciousness is also a phenomenon in which secondness in the way of perception and exertion are central and definitive;[30] and then all of the various forms of consciousness in which mediation, learning, habit change, reasoning. If we back up and think about feeling, to be conscious is to feel, and consciousness in itself is feeling, but consciousness has evolved in us in such a way that it is more than simply feeling. What happens is, for reasons that might have to do with my innate or instinctual constitution, or which might have to do with my learning, I attribute feeling to objects and events; which is to say, I predicate. My feeling is a prompt to predicate something of something else.

"This knife sticking into my side is painful!" – I take the predicate of pain and attribute it to the object "knife", the knife as the cause of the pain. I have a feeling. It is something in itself,[31] but I predicate the feeling of something, so I say I am – this is just hypothetical – feeling nauseous and I predicate that off, I say it off, something I ate. Feeling in itself, in its firstness, exists, it simply is, but then we ordinarily attribute our feelings to objects and events. To say we attribute them to objects and events is to say we predicate them of something. There is always this strong impulse to rush beyond the firstness of feelings and to predicate them. This has greatly to do with biological evolution, if we were lost in the dreams generated by the feelings of firstness, we will be exposed to countless dangers, and we would not ascertain what phenomena could or could not harm us. So, we predicate them, and this is tremendous for survival and other kinds of value.

W.N.: Indeed, the predicative interpretation of an emotion makes it a cognitive theory. A cognition gives rise to a feeling, and when we have that feeling the cognition is believed to be its cause. This view of cognition is still today the characteristic of a major trend in the study of emotion, but it is also very common to hear that feeling and cognition are two different things that should neither be confounded nor mixed.

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30 "The waking state is a consciousness of reaction; and as the consciousness itself is two-sided, so it has also two varieties; namely, action [...], and perception. [...] The idea of other, of not, becomes a very pivot of thought. "Lowell Lecture III", 3d Draught, 1903; CP 1.324).

31 Concerning feeling in its suchness, Peirce writes, "So far as the sensation is a mere feeling of a particular sort, it is determined only by an inexplicable, occult power; and so far, it is not a representation, but only the material quality of a representation. For just as in reasoning from definition to definitum, it is indifferent to the logician how the defined word shall sound, or how many letters it shall contain, so in the case of this constitutional word, it is not determined by an inward law how it shall feel in itself. A feeling, therefore, as a feeling, is merely the material quality of a mental sign" ("Some Consequences and Four Incapacities", 1868; CP 5.291).

V.C.: Right, I realize that there is no universal or even altogether broad consensus within the community of inquirers devoted to the understanding of emotions. On the other hand, I have never seen a good argument to demonstrate that emotions are not, to some degree, cognitive. I think that the anticognitivists and the noncognitivists among the theorists of emotion are arguing against a straw man.

W.N.: I believe there is also some element of dualism in such positions. Dualists like to oppose emotion and logic.

V.C.: Right, surely the legacy of René Descartes is, after all this time, still alive and living in any number of corners of the intellectual and the cultural world. The various mind-body dualisms still haunt us to this day. In some cases, the anti-cognitivists also suppose that Peirce and other cognitivists are denying something (e.g., in claiming emotions are cognitive, they are denying that they are physiological or psychological) although they are not. Nobody can deny that emotions also involve physiological processes. Yes, emotions are also psychological, but they are more than that, and here is where Peirce is so important. He is an anti-reductionist. This is as evident in his account of emotions as it is elsewhere in his philosophy. Without trying to reduce emotion to semiosis (he is not endeavoring to show emotion is nothing but semiosis), he is rather trying simply to say that there is an irreducible semiotic dimension to human emotion. He is accordingly not denying physiology and psychology. He is simply adding to it by emphasizing the semiotic component.

W.N.: Well, this is certainly the point to ask for more questions. Ricardo Gazoni is asking, "Savan, in the text you mentioned, views an emotion as a sign. Do you agree? And, if so, could you give an example of such a sign. What is its representamen, its object, and its interpretant?"

V.C.: Thank you, Ricardo. This is a very good question. So the emotion itself is a sign, what the sign does is to generate interpretants. It does not ordinarily generate simply a single interpretant, but much rather a whole series of them. Very frequently, it generates an open-ended series of interpretants. What generates a sign, and what does the sign itself generate? If I answer that question, then I answer Ricardo's very good question.

Take, for example, a lion walking into my room. It generates the feeling of intense fear. The lion as perceived is the object of the emotion, the intense feeling is the initial sign generated by that perceived object. Felt fear mediates between the object and a series of interpretants. It is generated by an object and generative of a series of interpretants. You are not going to sit there and let the lion devour you, are you? One of

the things the emotional sign of fear is going to generate is an energetic interpretant. You are either going to sit perfectly still and hope the lion doesn't see or smell you; or you are going to try to move in such a fashion that you will escape the danger. The other thing the fear might do is to generate any number of reflections upon possible strategies. So, the sign, the feeling sign of fear, generates logical interpretants in the way of strategies to evade this animal that could cause your death.

So the object is the lion, the sign (the feeling generated upon perception of this object) is the initial factor generated by the object, and the sign is both generated and generative. It is generated by the object, and it is generative of interpretants. In the latter case, the feeling sign would obviously generate feelings, emotional interpretants, obviously energetic interpretants, and, quite possibly, logical interpretants. I hope that answered the question.

W.N.: While you were speaking, another thought crossed my mind. I was thinking about the difficulty of distinguishing between some emotions as signs and as interpretants. What is laughter, for example? Is it the sign of the emotion of happiness, or an interpretant of this emotion? Or is it perhaps both at the same time? However, if so, would it not be, so to speak, a tautology to consider the sign of happiness its own interpretant? Paul Ekman, for instance, believes there are five basic emotions that you can read from a face, fear, anger, sadness, disgust, and enjoyment.[32] Are these facial expressions the signs of emotions or their interpretants?

V.C.: Right, thank you. I like that question. The problem of tautology arises at the level of language, right? When we are talking about laughter and then we describe laughter in terms of joy, happiness, or whatever, that seems to me to be at the level of the meaning of the word. We are not saying very much, although it might not be purely tautological, for there might be some slight enhancement or increment of meaning.

If we don't talk about laughter as a word, but look at the phenomenon of laughter, we think about something that provoked the laughter, something generated it, and that would be the object of the sign whereas the laughter would be the sign. Then my laughter might cause me embarrassment. So I try to inhibit my laughter and that would be an energetic interpretant. Or I might continue laughing uncontrollably and the continuance of laughter would be another instance of an energetic interpretant. I might reflect upon, "Why did I think that was funny?", and

32 For example, Ekman, Paul; Wallace V. Friesen; Phoebe Ellsworth. *Emotion in the Human Face*. New York, NY: Pergamon, 1972.

that would be a logical interpretant. If we descend to the phenomenon and think about it as a provocation to laughter, that something provoked the laughter, and identify the object, then trace it through the sign, and then related to a series of interpretants, I think we have a basic semiotic understanding of laughter that avoids tautology.

W.N.: Thank you for clarifying this because it is another aspect of emotions as signs. Here is a further question by Soraya Ferreira: "What is nonsense? Is it of the order of firstness or thirdness? How can we define it in semiotic terms?"

V.C.: Soraya continues to ask very deep and difficult questions.

I think of nonsense in some ways as analogous to silence. Both are very, very different, are they not? However, there is not one kind of silence; there are various forms of silence. There is reverential silence. There is a silence borne of extreme anger. There is a silence of indifference. How is that relevant to the very fine question just posed? It seems to me that there is more than one genre of nonsense. We would have to explore what some of those more important genres of nonsense are. I am trying to think here about the relationship between the nonsensical and the irrational, sometimes we defeat our own purposes and when we engage in self-defeating endeavors or self-defeating activities, we are acting irrationally and possibly nonsensically. If you want to write that book, stop going out and spending all your time with friends playing music. Sit down in the solitude of your study and write it. I am just speaking hypothetically, but one seems to be avoiding the very activity that would alone accomplish the purpose.

There are various kinds of nonsense. Two fundamental varieties might be, that which is utterly beyond the possibility of meaning and, in contrast, that which arises in the context of meaning but in some sense violates the norms of intelligibility or the minimal requirements for meaningful discourse (though in this context it is not altogether insignificant or meaningless). I take there to be an extreme form of nonsense, which is beyond any possibility of meaning, and then there is the kind of nonsense that only meaningful speakers can lapse into (if that makes any sense). The nonsense that is a violation of the norms of intelligibility and meaning, as those norms have established themselves within some set of symbols, within some language. Just to relate it more directly to the question, meaning is inherently triadic and, therefore, it inescapably falls into the category of thirdness. In itself, both firstness and secondness are unintelligible. They get their intelligibility insofar as

they can be brought within spheres of mediation. That is where I fully agree with the questioner. *Nonsensical* can also be used as a synonym for *irrational*, and this opens another can of worms. To engage in self-defeating behavior can be irrational, but not utterly nonsensical (the person, with the aid of a psychoanalysts, might discover the "logic" or "meaning" being displayed in such conduct).

W.N.: Are there further questions? Yes, Alexandre Quaresma asks, "Bearing in mind that technologies are extensions of our own intelligence, is it possible to think about a genuine form of cyber-informational semiosis in the performance of a supercomputer? To put it in another way: Would machine semiosis be possible without overcoming the hard problem of consciousness?"

V.C.: I have thought long and hard about this question, but I don't think I have thought about it as long and as hard as gives me full confidence in what I am about to say. I am disposed to say I do not see any problem with machine semiosis. The hard problem in Marc Champagne's book, *Consciousness and the Philosophy of Signs*,[33] I think, is in his reflections on how qualia are part of consciousness. Consciousness is integral to certain forms of reasoning, but qualia and consciousness do not seem, to me at least, to be integral to all forms of logical operation. Some logical operations can be performed in a very sophisticated way by machines. So, I do not see any insurmountable problem in talking about machine intelligence or machine semiosis. Now, what are the limits? That is another question, but I think, the operation of what Peirce used to call logical machines[34] seems clearly to have crossed the threshold of what we would think of as very sophisticated, high-level forms of logical operations. Computers can beat humans at chess. Do the limits of formalization define those of rationality or does rationality go beyond what can be captured in even the most complex algorithms? Does rationality not need to go beyond logical and embrace in a "sentimental" manner human reasonable (does it not need to envision itself in terms of such sentiments as faith, hope, and love)?

W.N.: Further questions. Peter asks, "Do not all difficulties come from one only, namely that we do not have any set of words that embrace both the concept of logic and the one of sentiment?"

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33 Champagne, Marc. *Consciousness and the Philosophy of Signs*: How Peircean Semiotics Combine Phenomenal Qualia and Practical Effects. Cham: Springer, 2019.

34 Winfried Nöth; Guilherme Cestari; Ricardo Maciel Gazoni. Tradução comentada de "Máquinas Lógicas" de Charles S. Peirce. *TECCOGS: Revista digital de tecnologias cognitivas* 10 (2015), p. 20-48. Online: pucsp.br/pos/tidd/teccogs/edicoes-passadas.html.

V.C.: My initial reaction to such questions, not just this one, is to say "no". I tend to be a methodological pluralist. I am dubious or skeptical that all problems come down to one.

Having said that, I still need to answer Peter's question whether what he identifies is one of the most important questions concerning the roots of our problem. Now I would say emphatically, "Yes". However, is it the sole root of the problem? Here, I would hesitate. I would need to think longer and harder than I have done so far. It seems to me, we need to be careful in being appreciative of actually how much we have accomplished. We do not have a universally accepted language in which reason or logic and sentiment are most carefully and intimately integrated and in which the connections are much easier to see. However, we certainly have, in John Dewey's aesthetics, in Peirce's semiotics, or in any number of other theories, resources for exhibiting the very intimate connection. I do not think that our inherited language is so invincibly dualistic as to inhibit us entirely from doing so. To put it positively, I think we have made markedly positive strides in showing how sentiment and reason, including logic but not limiting ourselves to logic, are actually integrated, and not separate. While much of our language is dualistic and defeats our purpose, some of it is not.

W.N.: Just as a reminder, does not today's leading question, "Can Sentiments be Logical", testify to the possibility of bringing the two concepts of "logic" and "sentiments" together? You need two words, it is true, but is it always necessary to have one word only that covers both? But let us postpone this topic and see whether there are other questions. Fernanda Zanin Lopes asks, "Could you recommend us more reading to study this topic further?"

V.C.: Yes, there are several publications worthwhile reading. For one, there is the literature devoted to the philosophy of mind.[35] Then, in conjunction with the philosophy of mind, there is the literature on the philosophy and psychology of emotion.[36] This literature makes little or no reference to Peirce, but they are nonetheless immensely valuable resources to Peirceans interested in these questions. One philosopher of mind whom I cannot recommend more highly is the British Anthony

35 For ex., David J Chalmers. *Philosophy of Mind*: Classical and Contemporary Readings, 2. ed. New York, NY: Oxford University Press, 2021.

36 For ex., W. Lyons. *Emotion*. Cambridge: Cambridge University Press, 1980. – Peter Goldie. *The Oxford Handbook of Philosophy of Emotion*. Oxford: Oxford University Press, 2010. – Dylan Evans. *Emotion*: A Very Short Introduction, 2. ed. New York, NY: Oxford University Press, 2019.

Kenny. This author has a number of books on mind,[37] and he always takes up questions of emotion and feeling. Kenny is a very strong and subtle advocate of precisely the position we were talking about. He is a cognitivist in the field of emotion theory. Anthony Kenny is a very important resource; he has a very fine book on emotion.[38] It is an older publication but its arguments still stands up. It has not been superseded.

There are other people such as Irving Thalberg,[39] and if you go through the footnotes in David Savan's article, you will see a number of references to cognitivists upon whom Savan has drawn. They are not Peirceans. They are philosophers of mind who are arguing for cognitivism, so one part of the answer is: there is the literature from the philosophy of mind of those who make little or no reference to Peirce. Then there are the Peirceans who are conversant with philosophy of mind: Lynn Stevens[40], David Savan[41], Winfried Nöth[42], Lucia Santaella,[43] Thomas Short[44], and (I am blanking at the moment) there are others, to be sure. As a first stab off the top of my head, those are some of my recommendations.

W.N.: Well, it looks like there further questions, although we seem to be short of time. Ricardo asks: "Briefly, the object of the sign, according to Peirce, determines the sign.[45] The lion provokes fear. Imagine a person that does not know that a lion is dangerous and will not feel the fear. Does emotion then also depend on collateral knowledge? Furthermore, should it be correct to think of emotions also as habits and hence as legisigns?"

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37 For. ex., Anthony Kenny. *The Metaphysics of Mind*. Oxford: Clarendon, 1989. – Anthony Kenny. *Philosophy in the Modern World*: A New History of Western Philosophy, vol. 4. Oxford: Clarendon.

38 Anthony Kenny. *Action, Emotion and Will*, rev. ed. London: Routledge, 2003.

39 Irving Thalberg. *Perception, Emotion, and Action*: A Component Approach. Oxford: Blackwell, 1977.

40 G. Lynn Stephens. Cognition and Emotion in Peirce's Theory of Mental Activity. *Transactions of the Charles S. Peirce Society*, vol. 17, no. 2 (1981), p. 131-140.

41 See note 3.

42 Winfried Nöth. Why emotions translate, but feelings do not: Insights from Peirce. In Susan Petrilli; Meng Ji (eds.). *Exploring the Translatability of Emotions*: Cross-cultural and Transdisciplinary Encounters. Cham: Palgrave MacMillan, 2021.

43 Lucia Santaella. Feeling and its unfolding. In Susan Petrilli, Meng Ji (eds). *Translating Emotions:* Interdisciplinary and Intercultural Encounters, Cham: Palgrave MacMillan, 2021.

44 See notes 5 and 6.

45 "That thing which causes a sign as such is called the object (according to the usage of speech, the "real", but more accurately, the existent object) represented by the sign: the sign is determined to some species of correspondence with that object" ("Pragmatism", 1907; CP 5.473).

V.C.: Right, Ricardo. It works both ways, I might feel afraid of something that is not injurious, or I might lack the feeling of fear in the presence of something that is injurious. The beauty of cognitivism as a theory of emotion is that it captures the fact that my emotions might be inappropriate, they might be mistaken, so there is a deficiency or a lack in the person who does not feel fear. That person lacks an understanding of the situation, in which he or she is. Likewise, the person who feels tremendous fear and anxiety in the presence of what could never cause any harm is mistaken in judgment. So, the absence of fear is no argument against the semiotic and the cognitivist account of fear. It merely shows that emotions can be mistakes. They can be mistaken just as verbal or linguistic articulated judgments can be mistaken. I can say that this creature is not dangerous, or I cannot feel fear. In both cases, I am making a judgment about the lion, and in both cases, I am mistaken, whether a mistake is at the level of visceral, semiotic reaction that is not articulated in words or whether it is articulated in words.

W.N.: With this, I think we must come to the end of our dialogue. It remains, in a way, open-ended, but we must surrender to secondness here and cut off our discussion although we cannot say that we have reached an end. Thank you very much once more, Vincent. I pass the last word to you.

V.C.: Thank you so much, I have found these dialogues, these exchanges to be not merely enjoyable, but very provocative and worthwhile. It has been delightful to be take part in this, and I hope that, at some future time, there might be other occasions to pick up these and other threads of conversation. I wish you all the best. Be safe, and stay safe. Thank you.