A new aspect of sign and its implications for the theory of communication1

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resumo

The article argues that Peircean semiotic can offer both logical and epistemological basis for the pursuing of a general theory of communication. However, the development of a semiotic theory of communication depends, in the first place, on a better comprehension of the formal aspects of sign, a work Peirce attributed to grammar, the first branch of his semiotic. We present an analysis of the sign relations revealing another aspect of the sign not devised by Peirce, extending their number to eleven. This newfound aspect is the triadic relation among sign, dynamic object and dynamic interpretant (S-DO-DI). We defend that this relation is essential for the comprehension of communication as semiosis, for it accounts for repetition or redundancy of communicative sign, when information is created and transmitted. The article wants to be another step to show how Peirce´s semiotic can be related to the modern philosophy of the language in the way towards a truly universal theory of communication.

KEYWORDS: semiosis, communication, sign aspects, Peirce, solenoid

abstract

Este artigo propõe que a semiótica peirceana pode oferecer bases tanto lógicas quanto epistemológicas para a busca de uma teoria geral da comunicação. No entanto, o desenvolvimento de uma teoria semiótica da comunicação depende, em primeiro lugar, de uma melhor compreensão dos aspectos formais do signo, tarefa atribuída por Peirce à gramática, o primeiro ramo de sua semiótica. Nós apresentamos uma análise das relações do signo, revelando um aspecto não trabalhado por Peirce, ampliando seu número para onze. Este novo aspecto é a relação triádica entre signo, objeto dinâmico e interpretante dinâmico (S-OD-ID). Nós defendemos que esta relação é essencial para a compreensão da comunicação como semiose, por dar conta da repetição ou redundância do signo comunicativo, quando se cria ou transmite informação. O artigo pretende dar um passo a mais na direção de uma teoria da comunicação verdadeiramente universal, através do vínculo entre a semiótica peirceana e a moderna filosofia da linguagem.

PALAVRAS-CHAVE: *semiose, comunicação, aspectos do signo, Peirce, solenoide*

introduction

The development of a fully semiotic Theory of Communication depends primarily on a better comprehension of the formal aspects of the sign, a work Peirce attributed to Grammar, the first branch of his Semiotic. Only a complete classification of all possible classes of signs and their reciprocal relations will give us the necessary ground upon which we can bring to maturation first Logic, and then Rhetoric. Peirce certainly understood this, as he devoted a great amount of time in the last period of his life – a very precious one considering his personal situation – trying to reveal and classify all classes of signs.

Peirce did not finish the enterprise, though, and the lack of an exhaustive taxonomy has remained the greatest challenge to Peircean semioticians. It has also cost a lot to Peirce's Theory of Signs, since it remained a promise never completely fulfilled and could not influence the later developments of Logic and Communication. Note, for instance, the course taken by the Philosophy of Language during the 20th century, since its purely analytical phase until the new trend of the Philosophy of Ordinary Language opened by Wittgenstein and carried on by the philosophers of Oxford, Austin and Searle (MARCONDES, 2001).

There is a Peircean and pragmatic flavor in the Speech Act Theory and, at times, some great terminological resemblances – like the expressions interpretant and common ground used by Grice. It sounds strange that these authors would deny any direct Peircean influence in their theories. It is not that Austin and his followers had never heard of Peirce. On the contrary, Austin seems to have read Peirce carefully enough to affirm that he could not find in Peirce's classes of signs a principle that would enable us to differentiate between assertions and propositions (AUSTIN *apud* PIETARINEN, 2004), for instance. Habermas is another modern philosopher of language who read the later phase of Peirce's work but felt uncomfortable with the "metaphysical contamination" of his theory of communication (BERGMAN, 2000).

The focus of the Speech Act Theory has been on utterances, especially those made in ordinary conversational situations, but it can fairly be generalized to all sorts of communicative signs – those signs having what Peirce called, in 1906, cominterpretant or **commens**: "a determination of that mind into which the mind of an utterer and interpreter have to be fused in order that any communication should take place". It consists, as Peirce explains, "of all that is, and must be, well understood between utterer and interpreter at the outset, in order that the sign in question should fulfill its function" (EP 2: 478).

We could abstract this definition even further and say that the commens is simply the melting of the dynamic object (the utterer) and the interpretant (the interpreter) by a form that is transmitted through the sign. But let's remain in the face-to-face conversational field, since it will allow us to expose a possible Peircean version of the Speech Act Theory (see BROCK, 1981).

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from three correlates to ten aspects

After 1905 Peirce saw the need to expand his theory of signs in order to link it with the results obtained in his studies of perception, moving from a representationist to a more presentationist point of view (BERGMAN, 2007). For instance, he was led to distinguish two types of objects: the dynamic one, which is the object that determines the sign and remains always out of it; and the immediate one, which is the object immediately present within the sign.

But interpretant and interpretation are the real keywords in Peirce's late semiotic. It is clear that the expansion in the number of the aspects of the sign from three (as in the Syllabus, prepared in 1903) to ten (from 1905 on, as shown in the letters to Welby) indicates an analytical effort to include the relations in which the **interpretants** play important roles. These are the most straightly related with purpose, self-control and the efficacy of semiosis, all aspects closely connected to rhetoric and communication.

In this same period Peirce started to distinguish three types of interpretants, branded by him, most of the time, immediate, dynamic and final (CP 4.536). Actually, this terminology varied pretty much between 1905 and 1908, the period he was dedicating a lot of attention to the division of the interpretants, probably influenced by the exchange of letters with Lady Welby and the reading of her works on the nature of meaning.

I suggest that the introduction of the new trichotomies after 1905 opens the structure of the three correlates of 1903 to show their minute constitution. The classification based on three correlates seems to be rougher, while the 10-trichotomic one presents a thinner grain of salt. Maybe that is why the idea of **degeneration** and its associated concepts, such as the hypoicons, hyposemes and sub-indexes, all treated with some importance until 1903, disappear after 1905, probably turned out to be unnecessary after the new distinctions.

I will bring in here a short discussion about the ten aspects of the sign post-1905 and claim that Peirce missed one fundamental aspect – the one that put in a genuine triadic correlation of Sign, Dynamic Object and Dynamic Interpretant, which can be expressed as S – DO – DI. This aspect is closed related to the act of communication, in which a process of continuous interpretations of an utterance is put into action.

Actually, the correlation of S – DO – DI is the locus of the illocutionary force described by a speech act, to use Austin's terminology. The consideration of this new trichotomy will allow some important points of contact between Peirce's late semiotic and the modern Philosophy of Language.

the expansion of the trichotomies

Let us do a quick review, before we get into it, though. Peirce's mature

semiotic counts six elementary trichotomies, which can be arranged this way:

1) Sign (S)
2.1) Immediate Object (IO)
2.2) Dynamic Object (DO)
3.1) Immediate Interpretant (II)
3.2) Dynamic Interpretant (DI)
3.3) Final Interpretant (FI)

If we were to correlate freely these six basic trichotomies, the number of aspects would amount to 28 possible relations among the components of the sign, as Liszka has shown (1996: 127-131). Not all correlations are possible, though. First, Peirce says we must consider all the correlations in which the sign itself, or simply S, is a member. It means that a correlation between the dynamic and immediate objects of the sign (DO – IO) is nonsensical, for instance.

There is another rule that was not made explicit by Peirce during his analysis, but is repeated several times in his mature work: both the immediate object and the immediate interpretant are intrinsic to the sign. They have an internalized life and cannot correlate independently with the other aspects.

These two principles are evident in the list of ten trichotomies Peirce announced in 1908 (CP 8.344):

|	
1st, according to the mode of apprehension of the sign	S
2nd, according to the mode of presentation of the immediate object	IO
3rd, according to the mode of being of the dynamic object	DO
4th, according to the relation of the sign to its dynamic object	S-DO
5th, according to the mode of presentation of the immediate interpretant	II
6th, according to the mode of being of the dynamic interpretant	DI
7th, according to the relation of the sign to the dynamic interpretant	S-DI
8th, according to the nature of the normal interpretant	FI

9th, according to the relation of the sign to the normal interpretant	S-FI
10th, according to the triadic relation of the sign to the dynamic object for the normal interpretant	S-DO-FI

the formation of the 11 trichotomies

I will take a different road now. Instead of building up all possible correlations from the bottom to the top, I will start with the most complex sign correlation that could possible be present in any conceivable mind and proceed to an analysis of its components.

This is a phaneroscopic job. The phaneron, as we know, is formed by the collection of everything present in a mind at any given moment. And the most developed sign present in the phaneron is the argument, in which Thirdness dominates the relation between Sign, Dynamic Object and Final Interpretant (S-DO-FI).

Our work will be to "break" these relations in a way a chemist does with a substance, to arrive at its basic elements and constructive relations. When we apply the analytical tools supplied by phaneroscopy, we produce what we will call an **Analytical Cascade of the Phaneron**, the representation of this analysis being:
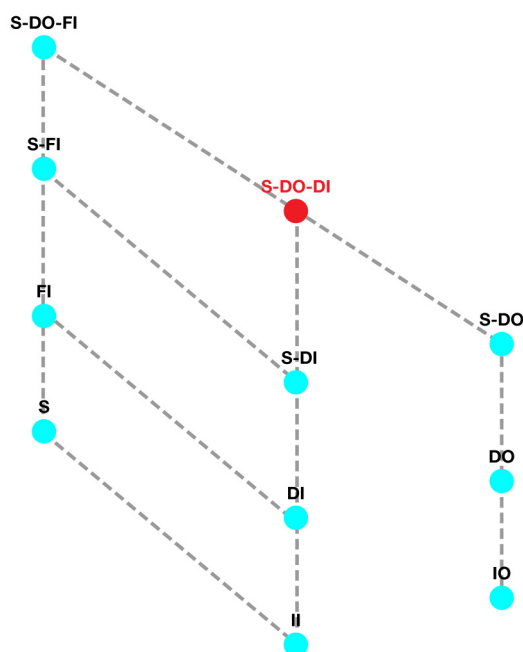
In the figure above, we actually count **eleven** trichotomies and not ten as Peirce insisted during all the mature phase of his research. The new trichotomy is precisely the relation among sign, dynamic object and dynamic interpretant (S – DO – DI).

This triadic relation perfectly obeys the two simple rules given above: it has the sign as a member, and it does not have any of the two immediate elements. It must be included among the valid trichotomies.

levels of the phaneron

The cascade brings us another interesting information, the presence of four levels or constitutive degrees of the phaneron:

Grounding (IO, II, S):
Presentation (DO, DI, FI)
Representation (S-DO, S-DI, S-FI)
Communication (S-DO-ID, S-DO-FI)

It also enables us to divide the three great axis of semiosis:

Objectivation (Ob)
IO --------DO--------S-DO---------S-DO-DI--------- S-DO-FI
Interpretation (In)
II----------DI----------S-DI----------S-DO-DI---- S-DO-FI
Signification (Si)
**S ----------FI------------S-FI-----------S-DO-FI**

This can be better observed in the figure bellow:
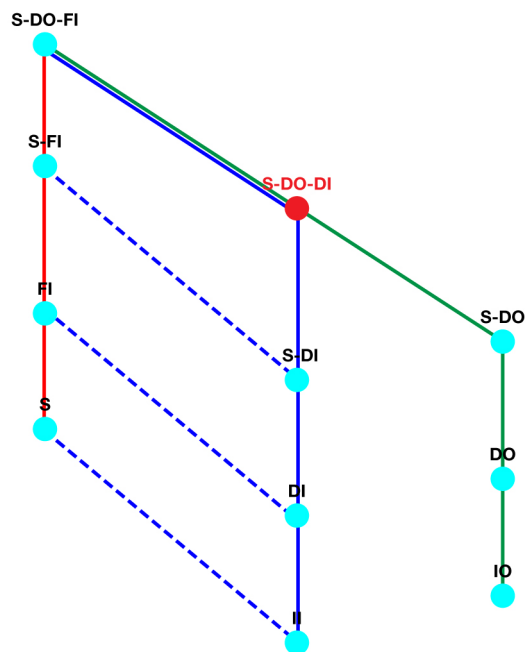
the solenoid of semeiosis

Having organized the three axis of semiosis above (Signification, Objectivation and Interpretation) into a figure, it is possible to represent the dynamic

action of the sign. The figure bellow shows that the Semiosis is made of dynamic processes organized in hierarchies: a flux of information that needs no structural components such as "energy", "matter" or a "channel". In fact, according to Collier (2003: 109), if all components of a particular system are processes, there is no need for any fundamental components. We call it Solenoid of Semeiosis.
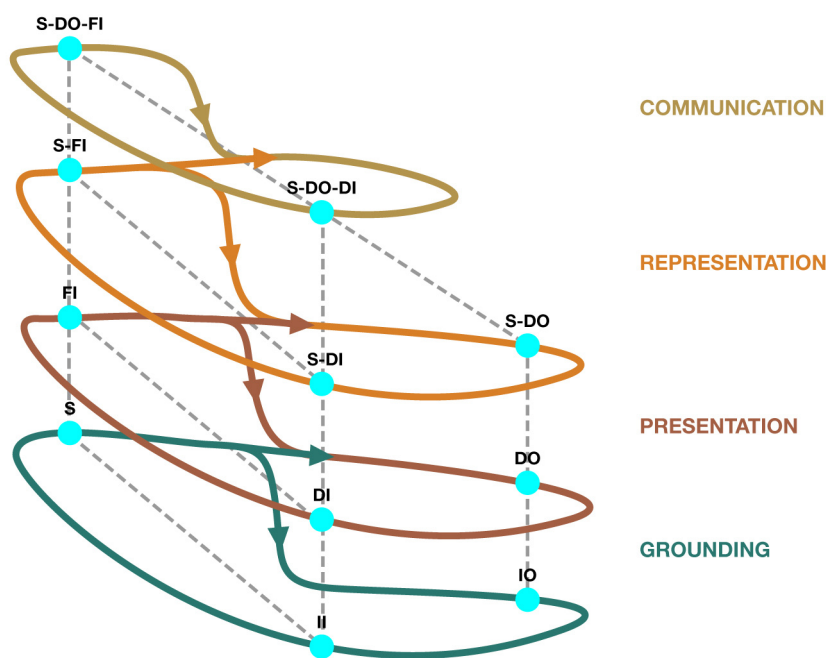
general properties of semiosis

Some important general properties of semiosis can be deduced from the figure above, although we cannot discuss them in detail in the scope of this work:

Dynamic: semiosis behaves like a dynamic system built from recursive interaction. The great system of semiosis can be divided into smaller sub-systems. This nesting of systems creates dynamical hierarchies (COLLIER, 1999: 111).

Periodic: semiosis shows a periodical flux. By periodicity we mean the phenomenon of repetition of a group of properties in steady intervals (SCERRI, 1998), although there is an increase of complexity in the whole.

Autopoietic: semiosis shows *autopoiesis* (MATURANA; VARELA, 1973: 78), that is, it produces itself from a fundamental complementarity between structure and function.

Ampliative: semiosis develops from the simple and goes towards the varied and complex, that is, it moves towards the increase of information.

All the aspects and properties above can be arranged into a periodic chart, as we have shown elsewhere (ROMANINI, unpublished).

the question of the interpretants

Peirce clearly distinguishes three types of interpretant, but there is a lot of controversy about their internal divisions. Some commentators, such as Fitzgerald (1966: 78), claim that only the dynamic interpretant should be trichotomized into emotional, energetic or logic.

Short (1981: 213) believes that each of the three interpretants must be divided according to the three categories, producing a set of nine subtypes. Liszka (1996: 120), in his turn, affirms that the division emotional/energetic/logic is merely a terminological variation from immediate/dynamic/final and, therefore, the total number of possible interpretants of the sign should remain being three.

We side with Short because his proposal seems to us closer to Peirce's own vision. In his late classificatory exercises, Peirce always put the three stages of interpretants (immediate, dynamic and final) among the ten trichotomies. In other words, Peirce always left implicit that each of the three interpretants should suffer internal triadic divisions. This is a strong argument favoring Short's position.

communicative trichotomies

The two communicative trichotomies (S-OD-ID an S-OD-IF) show how object, sign and interpretant merge in a genuine triadic relation, generating information and understanding (LISZKA, 1996: 81) as well as enabling self-control over the whole process of semiosis.

communication among sign, dynamic object and dynamic interpretant (S-DO-DI)

It is the effect really produced by the triadic communion among sign, dynamic object and dynamic interpretant, or the way of communication fluency. This new found relation accounts for repetition or redundancy of the communicative sign, when information is transmitted. It can be a mere communicative utterance (as when we say on the phone "Hello, hello" without knowing if we are being heard), an effective communication (an assertion such as "Hello, Charles speaking" that we get when someone answers the phone) or a habit of communication – routines that emerge in most communicative encounters, as Grice's conversational implicature ("I'll call you later" meaning implicitly, as everyone knows, that the person is busy or has some other reason not to talk at that moment).

communication among sign, dynamic object and final interpretant (S-DO-FI)

The trichotomy S-DO-FI expresses the final information the effective communicative flow of S-DO-DI is bound to transmit if communication were to come to its completion. It is the influence of communication. If it is a pure possibility, it can play the role of the predicate of a proposition, incorporating its information (the whole context involving a telephone call); if it is Secondness,

it can be either a proposition or an induction ("Let´s do something together tonight"). Should it be presented as Thirdness, it would be a complete argument. If the proposal given in the example above is recurrent, then there is an argument behind that can be expressed as "we are close friends" or "we are in love with each other". The non-acceptance of the proposal without any good excuse would be a denial of the premises that hold the argument, making it false.

the communicative trichotomies and the speech act theory

Austin identifies three levels of action involved in the act of utterance:

1) that of uttering something, or the **locutionary** force of the act

2) what the utterer does in saying it, or the **illocutionary** force of the act

3) what the utterer does by saying it, or the **perlocutionary** force of the act

That which Austin called the locutionary force embraces that which, in the scheme above, are called the grounding, the presentation and the representation of a sign. It can be summarized as the utterance of a sign that purposes to represent the form of its object: that is the business of the relation S – OD.

The new aspect S – DO – DI is related to the illocutionary force of an act of communication itself. In turn, the aspect of the triadic relation of sign, object and final interpretant (S-DO-FI) is narrowly linked to the perlocutionary force of the speech acts.

an example

Let us suppose that the chairman of this session raises a paper-sign with the expression "five minutes" written on it. That's an utterance. The words written on the paper and being held by the chairman can be taken as a sign representing his will that the session shall be closed in five minutes from the moment it is raised. Taken by its face value, it is a matter of representation only, which can be expressed by the relation of Sign and Dynamic Object (S – DO). Having the sign ready to be shown tell us about its potential locutionary force.

When the sign **is** shown to me, the locutionary possibility is actualized into an illocutionary act. Communicative dynamic interpretants (S – OD – ID) start to pop up dressed in emotions, actions and thoughts. I get nervous as an **emotional** communicative dynamic interpretant; then I start speeding up, jump over some sentences and smile to the public as if demanding excuses. All these are **energetic** communicative appeals from the dynamic interpretant. They express a pattern of behavior many times repeated in a conference – and this pattern, the habit of someone behaving in such a manner whenever similar situations arise, is precisely the **habitual** communicative dynamic interpretant. All these

manifestations express the illocutionary force of the sign "five minutes".

Until now, the final purpose of the mediator's paper sign – the success or failure to end the session in five minutes – has been kept in "suspense", or as a perlocutionary possibility. That is the **emotional** communicative final interpretant. My actually succeeding (or not) to end up my session in five minutes will be the **energetic** communicative final interpretant. The perlocutionary force was actualized.

But note that the success in an act of communication necessarily means that the utterance has been recognized by the interpreter as an instance of a habit, or a "would be". Now, this habit – the pattern that makes us expect that every speaker is bound to close his session within the time allowed – is the **logical** communicative final interpretant.

It is precisely for being logical that its energetic instances can be judged true or false. I will be in communicative falsehood if I failed to shut my mouth when the five minutes expire – and then I must be prepared to suffer the punishments according to the social habits and contexts in question. And I will be in communicative truth if I succeeded to do what the sign ordered, contributing for the habit of respecting the time given in the program, which is what we expect everyone to do in the future. That's what an argument does: it enlivens the perlocutionary habit, transforming it into a pragmatic habit of action.

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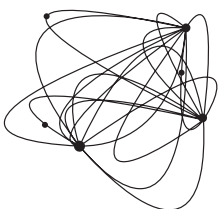SAVAN, David. Questions Concerning Certain Classifications Claimed for Signs. **Semiotica** (v. 19, n. 3-4), 1977. p. 179-195.

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