

## Chapter 2

# From signs to interpretants

In the previous chapter the most general properties of signs were introduced. In this chapter the focus will shift from presenting a list of the most general sign aspects to an analysis of what happens in the process of interpretation, that is, to what can be said about the process in which a sign brings an interpretant into the same relation to its object as the sign itself stands.

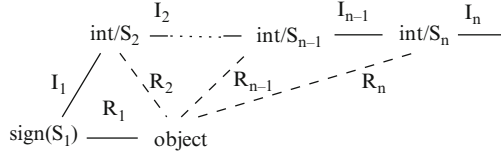
As a start the sign definition of the last chapter will be looked at in greater detail. We will ask what it may mean that the interpretant is brought into the *same* triadic relation with the object as the sign itself stands. It will be shown that, depending on the sense in which ‘same’ is taken –strong or weak– two interpretations of the definition are possible. The strong interpretation of sameness only covers the copying of the representamen into the receptive system; it is when we use the weak interpretation that we can deal with the information that is conveyed by the sign. This differentiation of possible effects of the sign calls for a differentiation of interpretants. The focus of this chapter is on the different interpretants distinguished by Peirce.

### 2.1 Strong and weak sameness

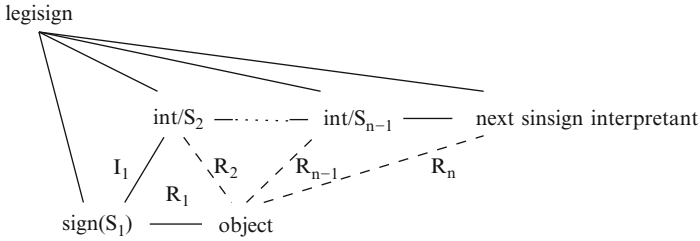
Now that we have at our disposal the sign aspects that can be discerned, the time has come to take a more detailed look at the sign definition provided in the last chapter (see also Fig. 2.1).

A *Sign*, or *Representamen*, is a First which stands in such a genuine triadic relation to a Second, called its *Object*, as to be capable of determining a Third, called its *Interpretant*, to assume the **same** triadic relation to its Object in which it stands itself to the same Object [...] (CP 2.274; bold added by the authors)

What, it may be asked, does the word *same* mean in the above definition? If same is taken in the strongest sense possible, the conclusion must be that a score of a sign and its resulting interpretant on all involved sign aspects remains



**Figure 2.1:** Diagram of the 1903 definition of a sign. As stated in Chapter 1, each instance of  $\text{int}/S_i$  ( $1 \leq i \leq n$ ) represents a sign as an interpretant-that-becomes-a-sign by actualizing its relational capability  $I_i$ ; and that, as a consequence, stands in a relation  $R_i$  to its object. That relation to the object is ‘the same’. So,  $R_1, R_2, \dots, R_n$  are the same, in short  $R$ , and  $I_1, I_2, \dots, I_n$  are the same, in short  $I$



**Figure 2.2:** All interpretants have the same relation to the object as the sign has. Note that in this figure, as opposed to Fig. 2.1, the emphasis is put on the sign in itself. This is expressed by a shift from sign (or  $\text{int}/S$ ) to sinsign interpretant. Qualisigns are assumed to be involved but not represented

the same in **form** and **content**. But then a sign can never grow in information and only the copy function is covered by the definition. If this is the case the diagram of Fig. 2.1 must imply that every interpretant becoming a sign for a new interpretant is a new sinsign (cf. instance) and that the whole range is governed by one legisign (cf. rule) in principle. This situation is depicted in Fig. 2.2.

In sign interpretation this copying must be involved, otherwise signs could not affect our life. Without copying the sign would not make any impression. In Sect. 2.2 this process of ‘taking in’ the sign (from  $S_i$  to  $S_{i+1}$ , in Fig. 2.2) is described in terms of different kinds of interpretants. But this copying of signs (which from the point of view of interpretation can be looked at as the apprehension of the sign as an object) alone does not go very far in explaining the ways in which signs work; they must be capable of having effects that exceed the transfer of instances, they must be able to reveal more than their own form and on top of that they must be able to grow in information. This calls for a weakening of the meaning of same. Is it to be taken as same in form, but not always in content? Or is it better to say that the relation must remain triadic, but that the form as well as the content may change in the process? In order to be better able to deal with this question we will have to study the way in which a sign achieves its informational effects. To that end Peirce distinguished still

more kinds of interpretants. These will be presented in Sect. 2.3. Note that the sign aspect – sign type distinction ought to re-emerge as a distinction between interpretant aspects and interpretant types.

## 2.2 The interpretation of the sign taken in itself

Let's concentrate on human sign interpretation and ask what it takes to be able to get a new instance of a sign without bothering about its meaning. Suppose you are a member of the personnel department that is part of the company Peter and Bernard work for. One day you find a note on your desk with the following sentence written on it:

Do we have to evaluate the model for the personnel administration?

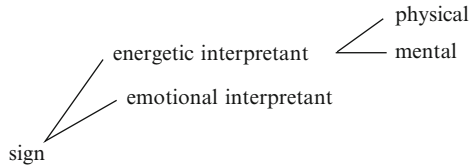
Our analysis starts at the moment you see the note, take it up and direct your eyes towards the surface the sentence is written upon. What happens in the split second before you have an idea of the meaning of the sentence, what modifications of mind occur? Note that the mind, as the domain we are working in, makes the question different from the same question from a neurological perspective. We are not following the tract of the sense involved (in this case the visual), we start at the moment the sign knocks at the door of the mind (cf. impression). It is also important to remark that the following analysis is not psychological. We do not investigate the workings of the human mind, we are not interested in response times, in effects of psychical pressures or personality traits on sign processing; we investigate the behavior of signs on the most general level possible.

When you have turned your eyes towards the note and look at the surface, your mind is affected by the qualities of the representamen you are facing. The sign produces an imprint that triggers a feeling in your mind. This feeling is aroused by the complexity of the manifold of impressions that arise in your mind when facing the sentence.<sup>1</sup> This feeling of complexity regarded in itself is the purely subjective accompaniment of being confronted with a manifold that asks for analysis (cf. a 'primordial soup'). It instigates us to try to make sense of what we are confronted with. This first significative effect of the sentence on the note Peirce termed an *emotional interpretant*.

If anything further follows from the sign this happens through the mediation of the emotional interpretant and it will involve an effort. The involvement of an effort is probably the reason why Peirce named those interpretants energetic. Two such interpretants follow from the emotional interpretant. Both are characterized by being of the nature of a single act. The first, the *mental energetic interpretant*, takes the emotional interpretant after its form. It is a one time occurrence (sinsign) of an iconic nature (the form of an imprint), with the emphasis on iconic. The second, the *physical energetic interpretant*, takes the form as an occurrence. It must be a single act and as such have a form, but here the

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<sup>1</sup>Cf. CP 1.554



**Figure 2.3:** Interpretant aspects governing strong sameness between sign and interpretant

emphasis is on the occurrence (temporal aspect of the imprint), not the form. So, the *sinsign* aspect is predominant in the physical energetic interpretant.<sup>2</sup>

In the model of cognitive information processing introduced in this book we differentiate both interpretants more sharply, leaving for the mental interpretant just the iconicity apart from its one time occurrence, and for the physical interpretant only the one time occurrence and we assume that both must be present simultaneously. Thus we arrive at the point that a copy of the sentence, without the recognition that it is a copy, is generated by your mind.

To summarize, in the first stage the feeling, aroused by a manifold of unanalyzed qualities that is knocking at the door of your mind, instigates you to seek a resolution for an experience of uneasiness. In the second stage that which caused the feeling appears as a one time form (mental energetic interpretant) that impresses itself as a single occurrence in your mind/brain (physical energetic interpretant).<sup>3</sup> In Fig. 2.3 and in Table 2.1 a schema is provided for the interpretant aspects dealt with thus far.

As remarked above, up until this point the sign revealed nothing but its own shape, still without the recognition that the shape present to the mind is similar to the instance of the form of the sentence on the note. Any further significative effect a sign may have falls within the range of the logical interpretant. Since the logical interpretant covers more than the apprehension of the sign as an object we will proceed to the next paragraph.

## 2.3 The interpretation of what a sign reveals

In Chapter 3 we will have to introduce three kinds of interpretant that were not recognized by Peirce. One of these is the interpretant counterpart of the *legisign*. Since it is in the interest of the reader to keep a clear distinction

<sup>2</sup>It must be noted that our interpretation does not follow fluently from the sources. In (Peirce, C.S., 1931-58) the *energetic interpretant* only occurs five times. These occurrences can very easily be interpreted in a different way. We are of the opinion that if Peirce had considered linking the different sign aspects with the interpretant aspects or, in other words, if he had been more specific with regard to the distinction between interpretant aspects and interpretant types, he would have been more specific with regard to the definition of the energetic interpretants.

<sup>3</sup>For those interested in support from a neurological perspective see (Ramachandran & Hirstein, 1997).

**Emotional Interpretant**

A subjective element of thought, a **feeling** as it occurs at a specific moment, indicating the presence of a manifold of impressions that need to be brought to unity.

**Energetic Interpretant**

The name for the class of interpretant aspects that rule the copying of the external sign into your mind.

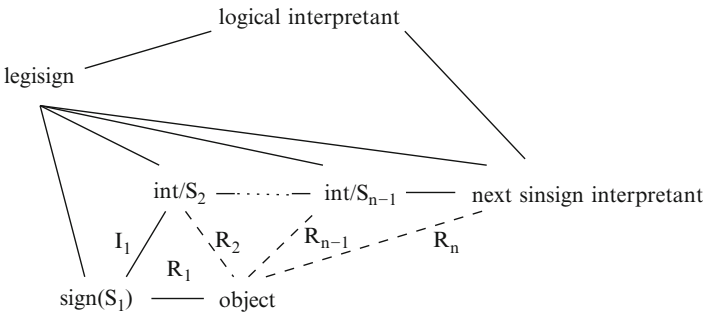
**Energetic Mental Interpretant**

The one time **form** the qualities appear in.

**Energetic Physical Interpretant**

The one time **imprint** of the form in the mind/nervous system. Or, to put it in other words, the recognition of the co-occurrence of the form and your mind.

**Table 2.1:** Interpretant aspects in the copy sign stage



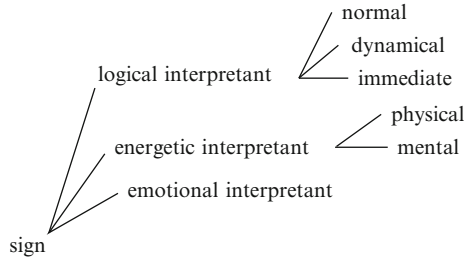
**Figure 2.4:** The logical interpretant and its relation to the iconic sinsign or energetic (mental and physical) interpretant on the one hand and the legisign on the other. The qualisign and emotional interpretant are assumed but not given

between what Peirce developed and what is added later, we will proceed as if the sentence written on the note already is recognized as an instance (sinsign) of a type (legisign) and thus can be meaningful to you as a sentence and not just as some erratic pattern of lines. Our starting point is depicted in Fig. 2.4.

What is the way in which the sentence, at this point consisting of the configuration of a mental and a physical interpretant and their associated legisign, develops its meaning in your mind? A first and very informal treatment is provided by the following quote taken from Peirce.<sup>4</sup>

In the next step of thought, those first *logical interpretants* stimulate us to various voluntary performances in the inner world. We imagine ourselves in various situations and animated by various motives; and we proceed to trace out the alternative lines of conduct which the conjectures would leave open to us. We are, moreover, led, by the same inward activity, to remark different ways in which

<sup>4</sup> Written around 1906–07.



**Figure 2.5:** Schema with Peircean interpretants and their class names

our conjectures could be slightly modified. The logical interpretant must, therefore, be in a relatively future tense. (CP 5.481; *italics added by the authors*).

The first logical interpretants, not specified in this quote, are concepts or general ideas; they consist in what we ordinarily call the ‘meaning’ of a term. In the social fabric it is what we find if we go to look up the meaning of a word in a dictionary, but in ordinary practice it will mostly consist in the dictionaries we have in our individual minds. In the context of the example sentence, *do we have to evaluate the model for the personnel administration?*, it comes down to your understanding of the sentence without bothering about the consequences of what is stated. You simply understand that there is a question in which someone asks whether the model made of the department must be validated. Elsewhere Peirce named this kind of interpretant the *immediate interpretant*.

Next you start doing what is stated in the quote above. You realize that the department meant is your department, that the question is directed to you and that an answer is expected. As a consequence you start thinking about the possible effects of the question on your working life. You start thinking about the real consequences of an affirmative answer and compare them with the effects of a negative. You are in short making up your mind in order to decide what this question means in your situation at this moment. Maybe you find it difficult to decide on your course of action. This may result in an evasive movement and a search for other types of response. You may even wonder why the note was delivered to your desk in the first place. Was it a recognition of ability and a honest question for approval or a law-inspired move in the process that leads to your dismissal? Or you may notice that no addressee is given and no sender indicated and decide first to find out what is the status of the message. However, whatever response you choose, you respond on the basis of the meaning the sentence on this occasion has for you and not on the basis of the meaning of the sentence in general. Both the specific response and the specific meaning the sentence has for you on this occasion are, ambiguously, named by Peirce the *dynamical interpretant*. In the next chapter we will disambiguate this term.

**Logical Interpretant**

The name for the class of interpretant types distinguished in the meaning evolution stage.

**Immediate Interpretant**

The **meaning** of the sign in general.

**Dynamical Interpretant**

- 1. The **meaning** that the sign gets **on a specific occasion** of sign interpretation in a specific interpreting system. Henceforth this interpretant is to be called a dynamical interpretant.
- 2 The **specific response** by an interpreting system triggered by the dynamical interpretant, but governed by the normal interpretant. Henceforth this interpretant is to be called a Dynamical Interpretant Response (DIR).

**Normal Interpretant**

The **dynamics that governs** the **response** to a sign on a special occasion and the **habit(s)** involved **as an evolving tendency**.

**Table 2.2:** Interpretant aspects and the resulting interpretant type in the meaning evolution stage

Now, suppose you have chosen a line of action and you responded in a certain way to the question. That response will probably have consequences and you will have to face the consequences. If the consequences are negative, you will probably choose a different response next time you face a similar question and if the consequences were according to or above expectations you will develop a propensity to act in the same way in future cases. Whatever the realized value, the response in combination with the reaction to it are part of a *process* in which a habit is formed that rules the way in which you will respond in future cases. In other words, your response tends to normalize in the long run. Peirce indicates this process with the term *normal interpretant*. Events of this process are approximations of the terminating normal interpretant also called the *final interpretant*. The Peircean interpretants and their class names are recapitulated in Fig. 2.5 and Table 2.2.

Knowledge in Formation

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