

## *Logical Interpretant*

1907 | Pragmatism | MS [R] 318:17-9

---

...there is a third interpretant, to which no object of the sign corresponds. It is what we commonly call the *meaning* of the sign; but I call it the logical interpretant, or logical meaning of the sign. [—] It is not, however, all signs that have logical interpretants...

1907 | Pragmatism | CP 5.475

---

[The energetic interpretant] never can be the meaning of an intellectual concept, since it is a single act, [while] such a concept is of a general nature. But what further kind of effect can there be?

In advance of ascertaining the nature of this effect, it will be convenient to adopt a designation for it, and I will call it the *logical interpretant*, without as yet determining whether this term shall extend to anything beside the meaning of a general concept, though certainly closely related to that, or not. Shall we say that this effect may be a thought, that is to say, a mental sign? No doubt, it may be so; only, if this sign be of an intellectual kind - as it would have to be - it must itself have a logical interpretant; so that it cannot be the *ultimate* logical interpretant of the concept. It can be proved that the only mental effect that can be so produced and that is not a sign but is of a general application is a *habit-change*; meaning by a habit-change a modification of a person's tendencies toward action, resulting from previous experiences or from previous exertions of his will or acts, or from a complexus of both kinds of cause. It excludes natural dispositions, as the term "habit" does, when it is accurately used; but it includes beside associations, what may be called "transsociations," or alterations of association, and even includes *dissociation*, which has usually been looked upon by psychologists (I believe mistakenly), as of deeply contrary nature to association.

1907 | Pragmatism | MS [R] 318:43

---

It is now necessary to point out that there are three kinds of interpretants. Our categories suggest them, and the suggestion is confirmed by careful examination. I terms them the Emotional, the Energetic, and Logical Interpretants. They consist respectively in feelings, in efforts, and in habit-changes.

1907 | Pragmatism | CP 5.480-6

---

Every concept, doubtless, first arises when upon a strong, but more or less vague, sense of need is superinduced some involuntary experience of a suggestive nature; that being suggestive which has a certain occult relation to the build of the mind. We may assume that it is the same with the instinctive

ideas of animals; and man's ideas are quite as miraculous as those of the bird, the beaver, and the ant. For a not insignificant percentage of them have turned out to be the keys of great secrets. With beasts, however, conditions are comparatively unchanging, and there is no further progress. With man these first concepts (first in the order of development, but emerging at all stages of mental life) take the form of conjectures, though they are by no means always recognized as such. Every concept, every general proposition of the great edifice of science, first came to us as a conjecture. These ideas are the *first logical interpretants* of the phenomena that suggest them, and which, as suggesting them, are signs, of which they are the (really conjectural) interpretants. But that they are no more than that is evidently an after-thought, the dash of cold doubt that awakens the sane judgment of the muser. Meantime, do not forget that every conjecture is equivalent to, or is expressive of, such a habit that having a certain desire one might accomplish it if one could perform a certain act. Thus, the primitive man must have been sometimes asked by his son whether the sun that rose in the morning was the same as the one that set the previous evening; and he may have replied, "I do not know, my boy; but I think that if I could put my brand on the evening sun, I should be able to see it on the morning sun again; and I once knew an old man who could look at the sun though he could hardly see anything else; and he told me that he had once seen a peculiarly shaped spot on the sun; and that it was to be recognized quite unmistakably for several days." [Readiness] to act in a certain way under given circumstances and when actuated by a given motive is a habit; and a deliberate, or self-controlled, habit is precisely a belief.

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 our conjectures could be slightly modified. The logical interpretant must, therefore, be in a relatively future tense.

To this may be added the consideration that it is not all signs that have logical interpretants, but only intellectual concepts and the like; and these are all either general or intimately connected with generals, as it seems to me. This shows that the species of future tense of the logical interpretant is that of the conditional mood, the "*would-be*."

At the time I was originally puzzling over the enigma of the nature of the logical interpretant, and had reached about the stage where the discussion now is, being in a quandary, it occurred to me that if I only could find a moderate number of concepts which should be at once highly abstract and abstruse, and yet the whole nature of whose meanings should be quite unquestionable, a study of them would go far toward showing me how and why the logical interpretant should in all cases be a conditional future. I had no sooner framed a definite wish for such concepts, than I perceived that in mathematics they are as plenty as blackberries. I at once began running through the explications of them, which I found all took the following form: Proceed according to such and such a general rule. Then, if such and such a concept is applicable to such and such an object, the operation will have such and such a general result; and conversely. Thus, to take an extremely simple case, if two geometrical figures of dimensionality  $N$  should be equal in all their parts, an easy rule of construction would determine, in a space of dimensionality  $N$  containing both figures, an axis of rotation, such that a rigid body that should fill not only that space but also a space of dimensionality  $N + 1$ , containing the former space, turning about that axis, and carrying one of the figures along with it while the other figure remained at rest, the rotation would bring the movable figure back into its original space of dimensionality,  $N$ , and when that event occurred, the movable figure would be in exact coincidence with the unmoved one, in all its parts; while if the two figures were not so equal, this would never happen.

Here was certainly a stride toward the solution of the enigma.

For the treatment of a score of intellectual concepts on that model, only a few of them being mathematical, seemed to me to be so refulgently successful as fully to convince me that to predicate any such concept of a real or imaginary object is equivalent to declaring that a certain operation, corresponding to the concept, if performed upon that object, would (certainly, or probably, or possibly, according to the mode of predication), be followed by a result of a definite general description.

Yet this does not quite tell us just what the nature is of the essential effect upon the interpreter, brought about by the semio'sis of the sign, which constitutes the logical interpretant. [...]

Although the definition does not require the logical interpretant (or, for that matter, either of the other two interpretants) to be a modification of consciousness, yet our lack of experience of any semiosis in which this is not the case, leaves us no alternative to beginning our inquiry into its general nature with a provisional assumption that the interpretant is, at least, in all cases, a sufficiently close analogue of a modification of consciousness to keep our conclusion pretty near to the general truth. We can only hope that, once that conclusion is reached, it may be susceptible of such a generalization as will eliminate any possible error due to the falsity of that assumption. The reader may well wonder why I do not simply confine my inquiry to psychical semiosis, since no other seems to be of much importance. My reason is that the too frequent practice, by those logicians who do not go to work [with] any method at all [or who follow] the method of basing propositions in the science of logic upon results of the science of psychology - as contradistinguished from common-sense observations concerning the workings of the mind, observations well-known even if little noticed, to all grown men and women, that are of sound minds - that practice is to my apprehension as unsound and insecure as was that bridge in the novel of "Kenilworth" that, being utterly without any sort of support, sent the poor Countess Amy to her destruction; seeing that, for the firm establishment of the truths of the science of psychology, almost incessant appeals to the results of the science of logic - as contradistinguished from natural perceptions that one relation evidently involves another - are peculiarly indispensable. Those logicians continually confound *psychical truths* with *psychological truths*, although the distinction between them is of that kind that takes precedence over all others as calling for the respect of anyone who would tread the strait and narrow road that leadeth unto exact truth.

Making that provisional assumption, then, I ask myself, since we have already seen that the logical interpretant is general in its possibilities of reference (i.e., refers or is related to whatever there may be of a certain description), what categories of mental facts there be that are of general reference. I can find only these four: conceptions, desires (including hopes, fears, etc.), expectations, and habits. I trust I have made no important omission. Now it is no explanation of the nature of the logical interpretant (which, we already know, is a concept) to say that it is a concept. This objection applies also to desire and expectation, as explanations of the same interpretant; since neither of these is general otherwise than through connection with a concept. Besides, as to desire, it would be easy to show (were it worth the space), that the logical interpretant is an effect of the energetic interpretant, in the sense in which the latter is an effect of the emotional interpretant. Desire, however, is cause, not effect, of effort. As to expectation, it is excluded by the fact that it is not conditional. For that which might be mistaken for a conditional expectation is nothing but a judgment that, under certain conditions, there would be an expectation: there is no conditionality in the expectation itself, such as there is in the logical interpretant after it is actually produced. Therefore, there remains only habit, as the essence of the logical interpretant.