WmK: Crane's Japanese Linen 1900

Size: 8 1/2 (w) X 7 in

Desc: 1 1/2 in margin, red, blue, red margin, 3/4 in blue line

Inti: black

Pencil: No

ACE
June 5, 1974
§1. Mathematics deals essentially with signs. All that we know or think is known or thought by signs, and our knowledge itself is a sign. The word and idea of a sign is familiar but it is indistinct. Let us endeavor to analyze it.

It is plain at the outset, first, that a sign is not any particular replica of it. If one casts one's eye down a printed page, every 'the' is the same word, and every e is the same letter. Secondly, a sign may be complex, and the parts of a sign, though they are signs, may not possess all the essential characteristics of a more complete sign. Thirdly, a sign sufficiently complete must be capable of determining an interpretant sign, and must be capable of ultimately...
Foundation

producing real results. For a proposition of metaphysics which could never contribute to the determination of conduct would be meaningless jargon. On the other hand, the cards which slipped into a Jacquard loom cause appropriate figures to be woven, may very properly be called signs although there is no conscious interpretation of them. If not it can only be because they are not interpreted by signs. In fact, in the present condition of philosophy, consciousness seems to be a mere quality of feeling with which a formal science need not do best to have no account. But a sign only functions as a sign when it is interpreted. It is therefore essential that it should be capable of determining an interpretant sign. Fourthly, a sign sufficient to complete must in some sense correspond to a real object. A sign cannot even be false unless it individuality definitely specifies the object.
Object of which it is false. That the sign itself is not a definite real object that has been pointed out under "firstly." It is only represented. Now either it must be that it is one thing to be and another to be represented, or else it must be that there is no such thing as falsity. This involves no denial that every real thing may be a representation, or sign, but merely that there must be something more in reality than mere representation. Since a sufficiently complete sign may be false, and also since it is not any replica or collection of replicas, it is not real. But it has a real object. Consequently, a sign cannot have a sign as its sole object, though it may refer to an object through a sign; as if one should say, "Whatever the Pope, as such, may declare will be true," or as a map may be a map of itself. But supposing the Pope not to declare anything, does not this pro-
position refer to any real object? Yes, to the Pope.

But, fifthly, even if there were no pope, still, like all other signs sufficiently complete, there is a single definite object to which it must refer, namely, to the "Truth," or the Absolute, or the entire Universe of real being. Sixthly, a sign may refer, in addition, and specially, to any number of parts of that universe. Seventhly, an interpretant of a sign need not refer to all the real objects to which the sign itself refers, but must, at least, refer to the Truth. Eighthly, an interpretant may refer to an object of its sign in an indefinite manner. Thus, given the sign, "Enoch was a man, and Enoch was translated," and interpretant of it might be "Some man was translated." Ninthly, a sign may refer to its interpretant in such a way that, in case the former sign is incomplete, the interpretant may refer to another being an interpretant of the complete sign (it may refer to a sign to
Translation

which the first sign does not specially refer, but only generally refers. Thus, the sign 'Any man is mortal' does not refer to any point real man, unless it so happens that it is a part of a sign which otherwise refers to some such a real thing. But if it be a part of a sign of which another part is 'Some man sings,' the sign 'Some man is mortal' becomes an interpretant of it. This may be more conveniently expressed by speaking of an 'utterer,' and an 'interpreter.' Then the utterer says to the interpreter, 'You are at liberty to consider me as referring to any man whom you can, and of him I say that he is mortal.' Verily, a sign sufficiently complete must signify some quality; and it is no more important to recognize that the real object of a sign is not a mere sign than to recognize that the quality it signifies is not a mere
sign. Take the quality of the odor of attar. There is no difficulty in imagining a being whose entire consciousness should consist in this alone, true. But, it may be objected, if it were contrasted with nothing could it be recognized? I reply, no; and besides, such recognition is excluded by the circumstance that a recognition of the smell would not be the pure smell itself. It may be doubted by some persons, however, whether the smell to feeling could exist alone. They are the persons whom I ought to be easiest for me to convince of my point. For they, at least, must admit that if such pure homogeneous quality of feeling could ever be exist alone, it would not be a sign. Everybody ought to admit it, because it would be alone, and therefore have no object different from itself. Besides, there would be no possible
...
Emphasized, it renders it vivid, perhaps slightly
confuses the feeling. But the red quality is all
germane positive and would remain if the blue were
not there. If every other idea were removed, there
would be no shock, and there would be sleep. But
the quality of that sleep would be red, in this sense, that
if it were taken away frequently and brought back
as if to wake the sleep up, the tension of his con
sciousness would be of that quality. A quality, in
itself, has no being at all; it is time. It must be
embodied in something that exists. But the quality
is as it is positively and in itself. That is not true
of a sign, which exists only by bringing up an
interpretant to refer to an object. A quality, then,
is not a sign. Elementary, this is as true of what,
we may assume that
is inaccurately called with excusable inaccuracy,
called a composite quality as of a simple one.
In itself, one quality is as simple as another. A person who should know he was acquainted with none but the spectral colors would get no idea of white by being told that it was the mixture of them all. One might as well tell him to make a mixture of water, patriotism, and the square root of minus one. Find a man whose had no idea of patriotism; and if you tell him that it is the love of one's country, if he knows what love is, and what a man's country is, and you connect these two ideas in his imagination, and nothing the feeling quality that arises upon their composition. Tell him this in the evening, and he will repeat the experiment several times during the night, and in the morning he will have a fair idea of what patriotism means. He will
have performed an experiment analogous to that
of mixing colored lights in order to get an idea
of white. If a treasure is buried in the midst of
a plain, and there are four signal poles, the place
of the treasure can be defined by means of
right triangles,
so that a person who can set up new poles can
find the treasure. In like manner any color
may be defined in terms of four color disks so that
a person with a colorwheel can produce and
experimentially
produce the color and thereafter be able to
use the name. Every definition presupposes an expert
as a
precept for experimentation. The imagination is
an apparatus for such experimentation that often
answers the purpose, although it often proves insuf-
ficient. No point on the plain where the treasure
is hid is more simple than another. Colors may
be defined by various systems of coordinates, and
we do not know that one quality, color is in itself simpler than another. It is only in a limited class of cases that we can define a quality as a mixture of two qualities. In most cases, it is necessary to introduce other relations. But even when that is the case, if a quality is defined as being at once $\alpha$ and $\xi$, there will always be another way of defining it as that which is at once $\alpha$ and $\xi$. Now relations is either $\alpha$ or $\xi$ will have a certain quality $\rho$, common and peculiar to such that class; the class of possible objects that are either $\alpha$ or $\xi$ will have a quality $\sigma$, common and peculiar to it; the class of possible objects that are either $\alpha$ or $\xi$ will be similarly related to a quality $\tau$, and the class of possible objects that are either $\alpha$ or $\xi$ will be similarly related to a quality $\xi$. Then that quality which was defined as just once $\alpha$ and $\xi$, can be more analytically defined as that which is at once $\rho$, $\sigma$, $\tau$, and $\xi$.}

and so on ad infinitum. We may not be able to make out
true qualities; but there is reason to believe that any
describable class of possible objects has some quality
common and peculiar to it. It is certain that a pure
quality, in its mode of being as a pure quality, does not
cause it to be because it is not embodied in anything. Every
situation in life appears to have its peculiar quality, flavor.
This flavor is what it is positively and in itself. The first
experiment by which it may be reproduced may be an
adequate prescription may be given; but the defini-
tion will not itself have that flavor. To say that a
flavor, or pure quality, is composed of two others, is simply
to say that on experimentally mixing these others in
a particular way, that first flavor will be reproduced.
Every sufficiently complete sign determines a sign
to the effect that on a certain occasion that is, in
a certain object a certain flavor or quality may be.
This attempt to begin an analysis of the nature of a sign may seem to be unnecessarily complicated, ill-fitting, unnatural, and strange. To that I reply that every man has his own fashion of thinking, and if such is the reader's impression let him draw up a statement for himself. If it is sufficiently full and accurate he will find that it differs from mine chiefly in its nomenclature and arrangement. He will find that in some shape he is brought to recognize the same three radically different elements that I do. Namely: he must recognize, first, a mode of being in itself—corresponding to my first quality; secondly, a mode of being constituted by opposition, corresponding to my second object; thirdly, a mode of being of which a branching line Y is an analogue, and which is of the general nature of a mean function corresponding to the sign.
§ 2. Partly in hopes of making reconciling the reader to my statement, and partly in order to bring out some other points that will be pertinent, I will review the matter in another order.

The reference of a sign to the quality which is its ground, reason, or meaning appears most prominently in a kind of sign called synecdoche of which any replica is fitted to be a sign by virtue of possessing in itself certain qualities which it would equally possess if the interpretant and the object did not exist at all. Of course, in such a case, the sign could not be a sign, but as far as the sign itself went, it would be all that would be with the object and interpretant. Such a sign whose significance lies in the qualities of its replicas in themselves is an icon, image, analogue, or copy. Its object is whatever resembles it, its interpretant takes it to be the sign of, and is as sign of that object in proportion as
it resembles it. An icon cannot be a complete sign, but it is the only sign which directly bring the intercipient to close quarters with the meaning; and for that reason, it is the kind of sign with which the mathematician works. For not only are geometrical figures icons, but even algebraical arrays of letters have relations analogous to those of the forms they represent, although these relations are not altogether iconically represented.

The reference of a sign to its object is brought into special prominence in a kind of sign whose fitness to be a sign is due to its being in a real reactive relation—generally, a physical or dynamical relation—with the object. Such a sign I term an index. As an example, take a weathercock. This is a sign of the wind because the wind actually moves it. It points in the direction from which the wind blows. In so far as it
does that, it involves an icon. The mind forces it to be an icon. A photograph which is compelled by optical laws to be an icon of its object which is before the camera is another example. It is in this way that these signs indeed convey assertions of information. They are propositions. That is, they separately indicate their objects; the weathercock because it turns with the wind and is known by its interpretation to do so; the photograph for the reason. If the weathercock sticks and fails to turn, it will be as if the camera lens is fog; the one or the other will be false. But if this is known to be the case, they will be once & mere icons, at best. It is not essential to an icon that it should thus involve an icon. Only if it does not, it will convey no information. A cry of "Oh!" may possibly be a direct reaction from a remarkable situation. But it will convey, perhaps, no further information. A demonstrative pronoun conveys
The letters on a geometrical figure are good illustrations of pure indices unconnected not involving any icon, that is, they do not force anything to be an icon of their object. The cry "Oh!" does to a slight degree; since it has the same startle quality as the situation that compels it. The index acts compulsively on the interpretant and puts it into a direct and real relation with the object, which is necessarily an individual event (or, more loosely, a thing) that is true of none, and single and definite.

A third kind of sign, which brings the reference to an interpretant into prominence is one which is fit to be a sign not at all because of any particular analogy with the qualities of its signified, nor because it stands in any receptive relation with the object, but simply and solely because it will be interpreted to be a sign. I call such a sign a symbol. This is an example of a symbol, Goethe's book on the Theory
Foundation of Colors will serve. This is made up of letters, words, cause of sentences, paragraphs etc., and the reason its referring to colors and attributing to colors the quality it does is that so it is understood by anybody who reads it. It not only determines an interpretant, but it shows very explicitly the special determinants (the beliefs the theory) which it is intended to determine. By virtue of showing its intended interpretant (out of thousands of possible interpretants of it) it is an argument. An index may be, in one sense, an argument; but not in the sense here meant, that of an argumentation. It produces such determinants as it may, without manifesting a special intention of determining a particular the interpretant. It is a perfection of a symbol, if it does this; but it is not essential to a symbol that it should do so. Cases, the conclusion of an argumentation and it becomes
a proposition (usually, a copulative proposition). Erase such a part of a proposition that is a proper name, or if several proper names were inserted in the blanks, or if several blanks were inserted in the several blanks, and it becomes a schema, or term. Thus, the following are schemata:

Guiteau assassinated

— assassinated

Logicalists generally would consider it quite wrong for me to call these terms, but I shall venture to do so.
Translation: producing real results. A system of mechanisms determining conduct in any case would be impossible. But if there were a medicine which, like a

script should never be capable of determining.
Position refer to any real object? Yes, to the Pope.

Every proposition refers to a single definite object; and furthermore, all signs refer to the same single definite object, the "Truth" or the Absolute, the entire universe of real being. Fifthly, the interpretant of a sign refers to the same object as the sign itself.
position refer to any real object? Yes to the Pope.

But what if there were no Pope? Still, like almost all
other signs of sufficiently complete, it must refer to
a certain single definite object, the “Truth,” or the
Absolute, or the entire Universe of real being. A
proper sign may, in addition, refer to some part of
that Universe.