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1865 | Logic of the Sciences | W 1:334

... if the ground determines the subject in itself, there will be no relation of the representation to its object in itself but only in the subject. No quality of the object will be implied by the representation, therefore, since that would be a ground of agreement in the object. The representation will therefore be unsusceptible of truth. An imperfect example of such a representation is a *proper name* the ground of which is a convention between the persons who use it. Such a representation may be called an index.

1866 | Lowell Lectures on The Logic of Science; or Induction and Hypothesis: Lecture IX | W 1:475

An index represents its object by a real correspondence with it - as a tally does quarts of milk, and a vane the wind. [—] An index is a representation whose relation to its object is prescindible and is a Disquiparence, so that its peculiar Quality is not prescindible but is relative.

1866 | Logic Chapter I | W 1:355

... the relation of a repraesentamen to its object (correlate) may be a real relation and, then, either an agreement or a difference, or it may be an ideal r[elati]on or one from which the reference to a correspondent (subject of representation) cannot be prescindible by position. [—] In the second case, there is a real difference of the repraesentamen from its object, that is to say not a mere difference in quality but also a bringing of them together in nature; in this case the representative character of the one will consist in constant accompaniment by the other, so that it *indicates* the existence of the latter without noting any characters of it. Such a representation may be termed an *index*.

1867 | On a New List of Categories | W 2:55-56

A reference to a ground may also be such that it cannot be prescindible from a reference to an interpretant. In this case it may be termed an *imputed* quality. If the reference of a relate to its ground can be prescindible from reference to an interpretant, its relation to its correlate is a mere concurrence or community in the possession of a quality, and therefore the reference to a correlate can be prescindible from reference to an interpretant. It follows that there are three kinds of representations.

1st. Those whose relation to their objects is a mere community in some quality, and these representations may be termed *Likenesses*.

2d. Those whose relation to their objects consists in a correspondence in fact, and these may be termed *Indices* or *Signs*.

3d. Those the ground of whose relation to their objects is an imputed character, which are the same as *general signs*, and these may be termed *Symbols*.

1885 | One, Two, Three: Fundamental Categories of Thought and of Nature | W 5:243

One very important triad is this: it has been found that there are three kinds of signs which are all indispensable in all reasoning; the first is the diagrammatic sign or *icon*, which exhibits a similarity or analogy to the subject of discourse; the second is the *index*, which like a pronoun demonstrative or relative, forces the attention to the particular object intended without describing it; the third is the general name or description which signifies its object by means of an association of ideas or habitual connection between the name and the character signified.

1885 | One, Two, Three: Fundamental Categories of Thought and of Nature | W 5:245

There may be a mere relation of reason between the sign and the thing signified; in that case the sign is an *icon*. Or there may be a direct physical connection; in that case, the sign is an *index*. Or there may be a relation which consists in the fact that the mind associates the sign with its object; in that case the sign is a *name*.

1885 | On the Algebra of Logic: A Contribution to the Philosophy of Notation | W 5:162-3

... if the triple relation between the sign, its object, and the mind, is degenerate, then of the three pairs

sign	object
sign	mind
object	mind

two at least are in dual relations which constitute the triple relation. One of the connected pairs must consist of the sign and its object, for if the sign were not related to its object except by the mind thinking of them separately, it would not fulfill the function of a sign at all. Supposing, then, the relation of the sign to its object does not lie in a mental association, there must be a direct dual relation of the sign to its object independent of the mind using the sign. In the second of the three cases just spoken of, this dual relation is not degenerate, and the sign signifies its object solely by virtue of being really connected with it. Of this nature are all natural signs and physical symptoms. I call such a sign an *index*, a pointing finger being the type of the class.

The index asserts nothing; it only says "There!" It takes hold of our eyes, as it were, and forcibly directs them to a particular object, and there it stops. Demonstrative and relative pronouns are nearly pure indices, because they denote things without describing them; so are the letters on a geometrical diagram, and the subscript numbers which in algebra distinguish one value from another without saying what those values are.

1886 | An Elementary Account of the Logic of Relatives | W 5:379

Signs, or representations, are of three kinds: Icons, Indices, and Tokens. [—]

Indices are signs which stand for their objects in consequence of a real relation to them. An index is a sign which stands for its object in consequence of having a real relation to it. A pointing finger is its type. Of this sort are all natural signs and physical symptoms. The index has no generality in itself. It does not depend on a mental association, but upon a real reaction between the mind and the external world at the moment when the index acts. The index asserts nothing; it only says "There!" It takes hold of our eyes, as it were, and forcibly directs them to a particular object, and there it stops.

1893-1895 [c.] | Division III. Substantial Study of Logic. Chapter VI. The Essence of Reasoning | CP 4.56

... a symbol, in itself, is a mere dream; it does not show what it is talking about. It needs to be connected with its object. For that purpose, an *index* is indispensable. No other kind of sign will answer the purpose. That a word cannot in strictness of speech be an index is evident from this, that a word is general - it occurs often, and every time it occurs, it is the same word, and if it has any meaning as a *word*, it has the same meaning every time it occurs; while an index is essentially an affair of here and now, its office being to bring the thought to a particular experience, or series of experiences connected by dynamical relations. A meaning is the associations of a word with images, its dream exciting power. An index has nothing to do with meanings; it has to bring the hearer to share the experience of the speaker by *showing* what he is talking about.

1894 [c.] | The Art of Reasoning. Chapter II. What is a Sign? | EP 2:9

The index is physically connected with its object; they make an organic pair, but the interpreting mind has nothing to do with this connection, except remarking it, after it is established.

1896 | The Regenerated Logic | CP 3.434

A sign which denotes a thing by forcing it upon the attention is called an *index*. An index does not describe the qualities of its object. An object, in so far as it is denoted by an index, having *thisness*, and distinguishing itself from other things by its continuous identity and forcefulness, but not by any distinguishing characters, may be called a *hecceity*.

1898 | On Existential Graphs | MS [R] 484:5

An index represents its object by forcibly bringing it before the senses, or before the attention, appealing to "association by contiguity." A pure index would present a pure sense-reaction. But again there is no such thing. Every index is considered as an individual sign; but this individuality will not bear cross-examination, but betrays more or less generality, because there is no pure index. Still we may call a proper name or demonstrative or personal pronoun an index. It appeals to individual recognition. Such words as yard which refer to individual prototypes have much of the index character.

"Indefinite" pronouns, *anything*, *something*, etc. which tells us how to proceed in order to experience the object intended,—better called *selective* pronouns,—are almost indices.

1899-1900 [c.] | Notes on Topical Geometry | MS [R] 142:3-4

Signs are of three kinds,

1st, the *icon*, which represents its object by virtue of a character which it would equally possess did the object and the interpreting mind not exist;

2nd, the *index*, which represents its object by virtue of a character which it could not possess did the object not exist, but which it would equally possess did the interpreting mind not operate;

3rd, the *symbol*, which represents its object by virtue of a character which is conferred upon it by an operation of the mind.

[—]

An *index* represents an object by virtue of its connection with it. It makes no difference whether the connection is natural, or artificial, or merely mental.

1901 | Index (in exact logic) | DPP1, 531-2; CP 2.305

Index (in exact logic). A sign, or representation, which refers to its object not so much because of any similarity or analogy with it, nor because it is associated with general characters which that object happens to possess, as because it is in dynamical (including spatial) connection both with the individual object, on the one hand, and with the senses or memory of the person for whom it serves as a sign, on the other hand.

[—]

Indices may be distinguished from other signs, or representations, by three characteristic marks: first, that they have no significant resemblance to their objects; second, that they refer to individuals, single units, single collections of units, or single continua; third, that they direct the attention to their objects by blind compulsion. But it would be difficult if not impossible, to instance an absolutely pure index, or to find any sign absolutely devoid of the indexical quality. Psychologically, the action of indices depends upon association by contiguity, and not upon association by resemblance or upon intellectual operations.

1901-1902 [c.] | Definitions for Baldwin's Dictionary [R] | MS [R] 1147

An index is a representamen which refers to its object in a quasi-physical way, independently of whether there is an interpretant or not.

1902 | Sign | DPP2, 527; CP 2.304

An *index* is a sign which would, at once, lose the character which makes it a sign if its object were removed, but would not lose that character if there were no interpretant. Such, for instance, is a piece of mould with a bullet-hole in it as sign of a shot; for without the shot there would have been no hole; but there is a hole there, whether anybody has the sense to attribute it to a shot or not.

1902 | Minute Logic: Chapter I. Intended Characters of this Treatise | CP 2.92

A Sign degenerate in the lesser degree, is an *Obsistent Sign*, or *Index*, which is a Sign whose significance of its Object is due to its having a genuine Relation to that Object, irrespective of the Interpretant. Such, for example, is the exclamation "Hi!" as *indicative* of present danger, or a rap at the door as indicative of a visitor.

1902 | Minute Logic: Chapter I. Intended Characters of this Treatise | MS [R] 425:116-117

...signs must be divided, first, into those which are signs by virtue of facts which be equally true even if their objects and interpretants were away and even non-existent, which are likenesses, or Icons; second, into those which are signs by virtue of facts which would subsist even if their interpretants were away, though not if their objects were away, which are indications, or Indices; and thirdly, into signs which are signs only by virtue of facts which would cease to be true if their interpretants were removed, which are intellectual signs, or Symbols.

From an earlier/discarded draft

1902 [c.] | Reason's Rules | MS [R] 599:39-43

An *Index* is a thing which having been forcibly affected by its object, forcibly affects its interpretant and causes that interpretant to be forcibly affected by the object, and to affect its interpretant in turn; and which, further, so far as it is a sign, becomes a sign in this way. So far as it is a sign in any other way or sense it belongs to one of the other types of sign and is not a pure Index.

[—]

[An] *Index* represents its object by virtue of a real relation with it and determines whatever interpretant may be in a real relation with it and the object.

1903 | Harvard Lectures on Pragmatism: Lecture III | CP 5.73

An *index* is a representamen which fulfills the function of a representamen by virtue of a character which it could not have if its object did not exist, but which it will continue to have just the same

whether it be interpreted as a representamen or not. For instance, an old-fashioned hygrometer is an *index*. For it is so contrived as to have a physical reaction with dryness and moisture in the air, so that the little man will come out if it is wet, and this would happen just the same if the use of the instrument should be entirely forgotten, so that it ceased actually to convey any information.

1903 | C.S.P.'s Lowell Lectures of 1903 2nd Draught of 3rd Lecture | MS [R] 462:87

The second class of signs consists of *Indices*, whose significant character which causes them to be used as signs lies in a matter of *positive fact*, the fact that they are really related, rerealed, to the objects they denote.

1903 | Syllabus: Syllabus of a course of Lectures at the Lowell Institute beginning 1903, Nov. 23. On Some Topics of Logic | EP 2:274

An *Index* or *Seme* is a Representamen whose Representative character consists in its being an individual second. If the Secondness is an existential relation, the Index is *genuine*. If the Secondness is a reference, the Index is *degenerate*. A genuine Index and its Object must be existent individuals (whether things or facts), and its immediate Interpretant must be of the same character. But since every individual must have characters, it follows that a genuine Index may contain a Firstness, and so an Icon as a constituent part of it. Any individual is a degenerate Index of its own characters. Examples of Indices are the hand of a clock, and the veering of a weathercock.

1903 | Syllabus: Nomenclature and Division of Triadic Relations, as far as they are determined | EP 2:291-292

An *Index* is a sign which refers to the Object that it denotes by virtue of being really affected by that Object. It cannot, therefore, be a Qualisign, because qualities are whatever they are independently of anything else. In so far as the Index is affected by the Object, it necessarily has some Quality in common with the Object, and it is in respect to these that it refers to the Object. It does, therefore, involve a sort of Icon, although an Icon of a peculiar kind; and it is not the mere resemblance of its Object, even in these respects which makes it a sign, but it is the actual modification of it by the Object.

1903 | Telepathy | CP 7.628

... what is an index, or true symptom? It is something which, without any rational necessitation, is forced by blind fact to correspond to its object.

1903 [c.] | Logical Tracts. No. 1. On Existential Graphs | MS [R] 491:3-4

An *index* is a representamen whose representative force depends upon its being factually connected with its object, and does not depend upon its being interpreted as a sign.

For example, the symptoms of disease are indices. For though they cannot serve as signs without being interpreted as such, yet that which renders them fit to be the signs they are is their factual connexion with the diseases, which would exist though nobody had remarked it.

An index must essentially be an individual existent fact or thing. *Strictissime*, therefore, it cannot function as an icon too, since an icon is only an appearance in consciousness. But an index must have some appearance connected with it; and according as that does or does not [...] contribute to its representative force, we have an important division of indices into those which give information and those which merely serve to identify individuals. Of identifying indices, the letters which are attached to the singular points of a geometrical diagram are examples. Remembering that an icon, – or, indeed, any appearance, – has its being only in consciousness, we can readily convince ourselves that any informing index has an icon connected psychologically with it. A symptom calls up in the iatrical mind certain memories of disease. A weather-cock calls up an image of a quarter of the horizon.

1903 [c.] | Logical Tracts. No. 1. On Existential Graphs | MS [R] 491:2-3

An *index* is a representamen whose special representative character depends upon its factual connection with its object and is independent of its being interpreted as a sign.

An index may be nearly or quite free from all iconic character; as Bunker Hill Monument, which was intended, as its designer said, merely to say “Here!” Or it may be predominantly iconic; as a photograph which resembles its object closely by virtue having been in physical connection with it. The iconic element may, as in this case, [...] be combined with the indexical element in the whole representamen, or these characters may belong to separate parts of the representamen; as one of those hygrosopes where a little woman comes out of the house when the air is dry and goes in when it is moist, as a real woman would. This latter kind of index which conveys definite information is a proposition.

From a possibly discarded variant [MB]

1903 [c.] | Logical Tracts. No. 2. On Existential Graphs, Euler's Diagrams, and Logical Algebra | CP 4.447

A pure icon can convey no positive or factual information; for it affords no assurance that there is any such thing in nature. But it is of the utmost value for enabling its interpreter to study what would be the character of such an object in case any such did exist. Geometry sufficiently illustrates that. Of a completely opposite nature is the kind of representamen termed an *index*. This is a real thing or fact which is a sign of its object by virtue of being connected with it as a matter of fact and by also forcibly intruding upon the mind, quite regardless of its being interpreted as a sign. It may simply serve to identify its object and assure us of its existence and presence. But very often the nature of the factual connexion of the index with its object is such as to excite in consciousness an image of some features

of the object, and in that way affords evidence from which positive assurance as to truth of fact may be drawn. A photograph, for example, not only excites an image, has an appearance, but, owing to its optical connexion with the object, is evidence that that appearance corresponds to a reality.

1904 | Letters to Lady Welby | SS 33

I define an Index as a sign determined by its dynamic object by virtue of being in a real relation to it. Such is a Proper Name (a legisign); such is the occurrence of a symptom of a disease (the symptom itself is a legisign, a general type of a definite character. The occurrence in a particular case is a sinsign).

1904 | On the Foundations of Mathematics | MS [R] 7:15

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 and dynamical relation, – with the object. Such a sign I term an *index*.

1904 | Firstness, Secondness, Thirdness, and the Reducibility of Fourthness [R] | MS [R] 914:7

...a sign may, in its secondness to the object as represented, [—] either, as an 'Icon,' be related to that object by virtue of a character which belongs to the sign in its own firstness, and which equally would belong to it though the object did not exist, or, as an 'Index,' [it] may be related to the object by a real secondness, such as a physical connection [...] to it, or it may, as a 'Symbol,' be related to its object only because it will be represented in its interpretant as so related, as is the case with any word or other conventional sign, or any general type of image regarded as a schema of a concept.

1904 [c.] | New Elements (Kaina stoiceia) | EP 2:306-7

The other form of degenerate sign is to be termed an *index*. It is defined as a sign which is fit to serve as such by virtue of being in a real reaction with its object. For example, a weathercock is such a sign. It is fit to be taken as an index of the wind for the reason that it is physically connected with the wind. A weathercock conveys information; but this it does because in facing the very quarter from which the wind blows, it resembles the wind in this respect, and thus has an icon connected with it. In this respect it is not a pure index. A pure index simply forces attention to the object with which it reacts and puts the interpreter into mediate reaction with that object, but conveys no information. As an example, take an exclamation "Oh!" The letters attached to a geometrical figure are another case. Absolutely unexceptionable examples of degenerate forms must not be expected. All that is possible is to give examples which tend sufficiently in towards those forms to make the mean suggest what is meant. [—]

An index is a sign fit to be used as such because it is in real reaction with the object denoted.

In their relation to their Dyadic Objects, Signs are, 1st, those which refer to their objects by virtue of their independent possession of some character of those objects, as a figure of a triangle used in a geometrical demonstration represents *any* triangle, because it has three rectilinear sides, which it would have, just the same, even if it were not considered as a sign and if there were no other possible triangle in the world for it to represent; 2nd, those signs which refer to their objects by virtue of being really related to them in existence, as a thermometer is a sign of the temperature of its environment; 3rd, those signs which refer to their objects not as resembling them, nor as being in fact actually connected with them, but simply by virtue of the circumstance that they will be interpreted as referring to those objects. I term these three kinds, *Icon*, *Index*, *Symbol*.

...*indices*, or those signs which represent their objects by virtue of being connected with them in fact, like a clock, or a barometer, a weathercock, a photograph, etc. (The photograph involves a *icon*, as indeed do very many *indices*, while on the other hand drawings, portraits in so far they afford information do so because it is known that they actually imitated the natural objects and as such they are *indices*, not *icons*. But if you draw a fancy picture of a man with certain physiognomical peculiarities in order to see what sort of an impression of such a man's disposition you will get in this way, or if you construct a geometrical diagram according to a certain precept and observe certain relations between its parts which appear to be consequences though they were not explicitly required by the precept construction, these things are signs of their objects merely, by virtue of the analogy, and are true *icons*).

The parenthetical remark is enclosed in square brackets in the original manuscript

... an analysis of the essence of a sign, (stretching that word to its widest limits, as *anything which, being determined by an object, determines an interpretation to determination, through it, by the same object*), leads to a proof that every sign is determined by its object, either first, by partaking in the characters of the object, when I call the sign an *Icon*; secondly, by being really and in its individual existence connected with the individual object, when I call the sign an *Index*; thirdly, by more or less approximate certainty that it will be interpreted as denoting the object, in consequence of a habit (which term I use as including a natural disposition), when I call the sign a *Symbol*.

[Indices are] signs which represent their objects by virtue of being connected with them in fact, although this fact be but the actual occurrence of a thought. [—] The denotation of an index is essentially singular.

1909 | A Sketch of Logical Critics | EP 2:460-461

... I had observed that the most frequently useful division of signs is by trichotomy into firstly Likenesses, or, as I prefer to say, *Icons*, which serve to represent their objects only in so far as they resemble them in themselves; secondly, *Indices*, which represent their objects independently of any resemblance to them, only by virtue of real connections with them, and thirdly *Symbols*, which represent their objects, independently alike of any resemblance or any real connection, because dispositions or factitious habits of their interpreters insure their being so understood.

1909 | Meaning Preface | MS [R] 637:33-34

...the mode of representation may be by likeness or analogy, in which case, the sign may be called an *Icon*; or it may be by a real connexion, as a certain kind of rapid pulse is symptom of a fever, in which case the sign may be called an indication or *Index*; or finally the only connexion may lie in the fact that the Sign (a word, for example) is sure to be interpreted as standing for the Object, in which case the Sign may be called a *Symbol*...

nd | Degrees of Degeneracy [R] | MS [R] 911

[A sign] may signify its object by forcibly directing the thought to that object, like a finger point[?], and this kind of sign I term an *index*...

nd | Miscellaneous Fragments [R] | MS [R] S104

An Index is a sign whose signative virtue resides in its factual relation to its object. Certainly, not everything that is in factual relation to another, or is seen to be so, is thereby an index of that other.