~~the middle ages, to use the anglicised form of the original expression, if not positively unsuitable, but only in its precise original sense.~~

~~Peirce: CP 2.226 Cross-Ref:††~~

~~Sixth. For philosophical conceptions which vary by a hair's breadth from those for which suitable terms exist, to invent terms with a due regard for the usages of philosophical terminology and those of the English language but yet with a distinctly technical appearance. Before proposing a term, notation, or other symbol, to consider maturely whether it perfectly suits the conception and will lend itself to every occasion, whether it interferes with any existing term, and whether it may not create an inconvenience by interfering with the expression of some conception that may hereafter be introduced into philosophy. Having once introduced a symbol, to consider myself almost as much bound by it as if it had been introduced by somebody else; and after others have accepted it, to consider myself more bound to it than anybody else.~~

~~Peirce: CP 2.226 Cross-Ref:††~~

~~Seventh. To regard it as needful to introduce new systems of expression when new connections of importance between conceptions come to be made out, or when such systems can, in any way, positively subserve the purposes of philosophical study.~~

Peirce: CP 2.227 Cross-Ref:††

CHAPTER 2

DIVISION OF SIGNS

§1. GROUND, OBJECT, AND INTERPRETANT †1

227. Logic, in its general sense, is, as I believe I have shown, only another name for ***semiotic*** ({sémeiötiké}), the quasi-necessary, or formal, doctrine of signs. By describing the doctrine as "quasi-necessary," or formal, I mean that we observe the characters of such signs as we know, and from such an observation, by a process which I will not object to naming Abstraction, we are led to statements, eminently fallible, and therefore in one sense by no means necessary, as to what ***must be*** the characters of all signs used by a "scientific" intelligence, that is to say, by an intelligence capable of learning by experience. As to that process of abstraction, it is itself a sort of observation. The faculty which I call abstractive observation is one which ordinary people perfectly recognize, but for which the theories of philosophers sometimes hardly leave room. It is a familiar experience to every human being to wish for something quite beyond his present means, and to follow that wish by the question, "Should I wish for that thing just the same, if I had ample means to gratify it?" To answer that question, he searches his heart, and in doing so makes what I term an abstractive observation. He makes in his imagination a sort of skeleton diagram, or outline sketch, of himself, considers what modifications the hypothetical state of

things would require to be made in that picture, and then examines it, that is, ***observes*** what he has imagined, to see whether the same ardent desire is there to be discerned. By such a process, which is at bottom very much like mathematical reasoning, we can reach conclusions as to what ***would be*** true of signs in all cases, so long as the intelligence using them was scientific. The modes of thought of a God, who should possess an intuitive omniscience superseding reason, are put out of the question. Now the whole process of development among the community of students of those formulations by abstractive observation and reasoning of the truths which ***must*** hold good of all signs used by a scientific intelligence is an observational science, like any other positive science, notwithstanding its strong contrast to all the special sciences which arises from its aiming to find out what ***must be*** and not merely what ***is*** in the actual world.

Peirce: CP 2.228 Cross-Ref:††

228. A sign, or ***representamen,*** is something which stands to somebody for something in some respect or capacity. It addresses somebody, that is, creates in the mind of that person an equivalent sign, or perhaps a more developed sign. That sign which it creates I call the ***interpretant*** of the first sign. The sign stands for something, its ***object.*** It stands for that object, not in all respects, but in reference to a sort of idea, which I have sometimes †1 called the ***ground*** of the representamen. "Idea" is here to be understood in a sort of Platonic sense, very familiar in everyday talk; I mean in that sense in which we say that one man catches another man's idea, in which we say that when a man recalls what he was thinking of at some previous time, he recalls the same idea, and in which when a man continues to think anything, say for a tenth of a second, in so far as the thought continues to agree with itself during that time, that is to have a ***like*** content, it is the same idea, and is not at each instant of the interval a new idea.

Peirce: CP 2.229 Cross-Ref:††

229. In consequence of every representamen being thus connected with three things, the ground, the object, and the interpretant, the science of semiotic has three branches. The first is called by Duns Scotus ***grammatica speculativa.*** We may term it ***pure grammar.*** It has for its task to ascertain what must be true of the representamen used by every scientific intelligence in order that they may embody any ***meaning.*** The second is logic proper. It is the science of what is quasi-necessarily true of the representamina of any scientific intelligence in order that they may hold good of any ***object,*** that is, may be true. Or say, logic proper is the formal science of the conditions of the truth of representations. The third, in imitation of Kant's fashion of preserving old associations of words in finding nomenclature for new conceptions, I call ***pure rhetoric.*** Its task is to ascertain the laws by which in every scientific intelligence one sign gives birth to another, and especially one thought brings forth another.

Peirce: CP 2.230 Cross-Ref:††

§2. SIGNS AND THEIR OBJECTS †1

230. The word Sign will be used to denote an Object perceptible, or only imaginable, or even unimaginable in one sense--for the word '***fast***," which is a Sign, is not imaginable, since it is not ***this word itself*** that can be set down on paper or pronounced, but only ***an instance*** of it, and since it is the very same word when it is

written as it is when it is pronounced, but is one word when it means "rapidly" and quite another when it means "immovable," and a third when it refers to abstinence. But in order that anything should be a Sign, it must "represent," as we say, something else, called its ***Object,*** although the condition that a Sign must be other than its Object is perhaps arbitrary, since, if we insist upon it we must at least make an exception in the case of a Sign that is a part of a Sign. Thus nothing prevents the actor who acts a character in an historical drama from carrying as a theatrical "property" the very relic that that article is supposed merely to represent, such as the crucifix that Bulwer's Richelieu holds up with such effect in his defiance. On a map of an island laid down upon the soil of that island there must, under all ordinary circumstances, be some position, some point, marked or not, that represents ***qua*** place on the map, the very same point ***qua*** place on the island. A sign may have more than one Object. Thus, the sentence "Cain killed Abel," which is a Sign, refers at least as much to Abel as to Cain, even if it be not regarded as it should, as having ***"a killing"*** as a third Object. But the set of objects may be regarded as making up one complex Object. In what follows and often elsewhere Signs will be treated as having but one object each for the sake of dividing difficulties of the study. If a Sign is other than its Object, there must exist, either in thought or in expression, some explanation or argument or other context, showing how--upon what system or for what reason the Sign represents the Object or set of Objects that it does. Now the Sign and the Explanation together make up another Sign, and since the explanation will be a Sign, it will probably require an additional explanation, which taken together with the already enlarged Sign will make up a still larger Sign; and proceeding in the same way, we shall, or should, ultimately reach a Sign of itself, containing its own explanation and those of all its significant parts; and according to this explanation each such part has some other part as its Object. According to this every Sign has, actually or virtually, what we may call a ***Precept*** of explanation according to which it is to be understood as a sort of emanation, so to speak, of its Object. (If the Sign be an Icon, a scholastic might say that the ***"species"*** of the Object emanating from it found its matter in the Icon. If the Sign be an Index, we may think of it as a fragment torn away from the Object, the two in their Existence being one whole or a part of such whole. If the Sign is a Symbol, we may think of it as embodying the ***"ratio,"*** or reason, of the Object that has emanated from it. These, of course, are mere figures of speech; but that does not render them useless.)

Peirce: CP 2.231 Cross-Ref:††

231. The Sign can only represent the Object and tell about it. It cannot furnish acquaintance with or recognition of that Object; for that is what is meant in this volume by the Object of a Sign; namely, that with which it presupposes an acquaintance in order to convey some further information concerning it. No doubt there will be readers who will say they cannot comprehend this. They think a Sign need not relate to anything otherwise known, and can make neither head nor tail of the statement that every Sign must relate to such an Object. But if there be anything that conveys information and yet has absolutely no relation nor reference to anything with which the person to whom it conveys the information has, when he comprehends that information, the slightest acquaintance, direct or indirect--and a very strange sort of information that would be--the vehicle of that sort of information is not, in this volume, called a Sign.

Peirce: CP 2.232 Cross-Ref:††

232. Two men are standing on the seashore looking out to sea. One of them says to the other, "That vessel there carries no freight at all, but only passengers."

Now, if the other, himself, sees no vessel, the first information he derives from the remark has for its Object the part of the sea that he does see, and informs him that a person with sharper eyes than his, or more trained in looking for such things, can see a vessel there; and then, that vessel having been thus introduced to his acquaintance, he is prepared to receive the information about it that it carries passengers exclusively. But the sentence as a whole has, for the person supposed, no other Object than that with which it finds him already acquainted. The Objects--for a Sign may have any number of them--may each be a single known existing thing or thing believed formerly to have existed or expected to exist, or a collection of such things, or a known quality or relation or fact, which single Object may be a collection, or whole of parts, or it may have some other mode of being, such as some act permitted whose being does not prevent its negation from being equally permitted, or something of a general nature desired, required, or invariably found under certain general circumstances.

Peirce: CP 2.233 Cross-Ref:††

§3. DIVISION OF TRIADIC RELATIONS †1

233. The principles and analogies of Phenomenology enable us to describe, in a distant way, what the divisions of triadic relations must be. But until we have met with the different kinds ***a posteriori,*** and have in that way been led to recognize their importance, the ***a priori*** descriptions mean little; not nothing at all, but little. Even after we seem to identify the varieties called for ***a priori*** with varieties which the experience of reflexion leads us to think important, no slight labour is required to make sure that the divisions we have found ***a posteriori*** are precisely those that have been predicted ***a priori.*** In most cases, we find that they are not precisely identical, owing to the narrowness of our reflexional experience. It is only after much further arduous analysis that we are able finally to place in the system the conceptions to which experience has led us. In the case of triadic relations, no part of this work has, as yet, been satisfactorily performed, except in some measure for the most important class of triadic relations, those of signs, or representamens, to their objects and interpretants.

Peirce: CP 2.234 Cross-Ref:††

234. Provisionally, we may make a rude division of triadic relations, which, we need not doubt, contains important truth, however imperfectly apprehended, into--

Triadic relations of comparison,

Triadic relations of performance, and

Triadic relations of thought.

Triadic relations of Comparison are those which are of the nature of logical possibilities.

Triadic relations of Performance are those which are of the nature of actual facts.

Triadic relations of Thought are those which are of the nature of laws.

Peirce: CP 2.235 Cross-Ref:††

235. We must distinguish between the First, Second, and Third Correlate of any triadic relation.

Peirce: CP 2.235 Cross-Ref:††

The First Correlate is that one of the three which is regarded as of the simplest nature, being a mere possibility if any one of the three is of that nature, and not being a law unless all three are of that nature.†1

Peirce: CP 2.236 Cross-Ref:††

236. The Third Correlate is that one of the three which is regarded as of the most complex nature, being a law if any one of the three is a law, and not being a mere possibility unless all three are of that nature.1

Peirce: CP 2.237 Cross-Ref:††

237. The Second Correlate is that one of the three which is regarded as of middling complexity, so that if any two are of the same nature, as to being either mere possibilities, actual existences, or laws, then the Second Correlate is of that same nature, while if the three are all of different natures, the Second Correlate is an actual existence.†1

Peirce: CP 2.238 Cross-Ref:††

238. Triadic relations are in three ways †2 divisible by trichotomy, according as the First, the Second, or the Third Correlate, respectively, is a mere possibility, an actual existent, or a law. These three trichotomies, taken together, divide all triadic relations into ten classes [see footnote to 235]. These ten classes will have certain subdivisions according as the existent correlates are individual subjects or individual facts, and according as the correlates that are laws are general subjects, general modes of fact, or general modes of law.

Peirce: CP 2.239 Cross-Ref:††

239. There will be besides a second similar division of triadic relations into ten classes, according as the dyadic relations which they constitute between either the First and Second Correlates, or the First and Third, or the Second and Third are of the nature of possibilities, facts, or laws; and these ten classes will be subdivided in different ways.†3

Peirce: CP 2.240 Cross-Ref:††

240. It may be convenient to collect the ten classes of either set of ten into three groups according as all three of the correlates or dyadic relations, as the case may be, are of different natures, or all are of the same nature, or two are of one nature while the third is of a different nature.†1

Peirce: CP 2.241 Cross-Ref:††

241. In every genuine Triadic Relation, the First Correlate may be regarded as determining the Third Correlate in some respect; and triadic relations may be divided according as that determination of the Third Correlate is to having some quality, or to being in some existential relation to the Second Correlate, or to being in some relation of thought to the Second for something †2.

Peirce: CP 2.242 Cross-Ref:††

242. A ***Representamen*** is the First Correlate of a triadic relation, the Second

Correlate being termed its ***Object,*** and the possible Third Correlate being termed its ***Interpretant,*** by which triadic relation the possible Interpretant is determined to be the First Correlate of the same triadic relation to the same Object, and for some possible Interpretant. A ***Sign*** is a representamen of which some interpretant is a cognition of a mind. Signs are the only representamens that have been much studied.

Peirce: CP 2.243 Cross-Ref:††

§4. ONE TRICHOTOMY OF SIGNS

243. Signs are divisible by three trichotomies;†1 first, according as the sign in itself is a mere quality, is an actual existent, or is a general law;†2 secondly, according as the relation of the sign to its object consists in the sign's having some character in itself, or in some existential relation to that object, or in its relation to an interpretant;†3 thirdly, according as its Interpretant represents it as a sign of possibility or as a sign of fact or a sign of reason.†4

Peirce: CP 2.244 Cross-Ref:††

244. According to the first division, a Sign may be termed a ***Qualisign,*** a ***Sinsign,*** or a ***Legisign.***

Peirce: CP 2.244 Cross-Ref:††

A ***Qualisign*** is a quality which is a Sign. It cannot actually act as a sign until it is embodied; but the embodiment has nothing to do with its character as a sign.

Peirce: CP 2.245 Cross-Ref:††

245. A ***Sinsign*** (where the syllable ***sin*** is taken as meaning "being only once," as in ***single, simple,*** Latin ***semel,*** etc.) is an actual existent thing or event which is a sign. It can only be so through its qualities; so that it involves a qualisign, or rather, several qualisigns. But these qualisigns are of a peculiar kind and only form a sign through being actually embodied.

Peirce: CP 2.246 Cross-Ref:††

246. A ***Legisign*** is a law that is a Sign. This law is usually established by men. Every conventional sign is a legisign [but not conversely]. It is not a single object, but a general type which, it has been agreed, shall be significant. Every legisign signifies through an instance of its application, which may be termed a ***Replica*** of it. Thus, the word "the" will usually occur from fifteen to twenty-five times on a page. It is in all these occurrences one and the same word, the same legisign. Each single instance of it is a Replica. The Replica is a Sinsign. Thus, every Legisign requires Sinsigns. But these are not ordinary Sinsigns, such as are peculiar occurrences that are regarded as significant. Nor would the Replica be significant if it were not for the law which renders it so.

Peirce: CP 2.247 Cross-Ref:††

§5. A SECOND TRICHOTOMY OF SIGNS

247. According to the second trichotomy, a Sign may be termed an ***Icon,*** an

Index, or a ***Symbol.***

Peirce: CP 2.247 Cross-Ref:††

An ***Icon*** is a sign which refers to the Object that it denotes merely by virtue of characters of its own, and which it possesses, just the same, whether any such Object actually exists or not. It is true that unless there really is such an Object, the Icon does not act as a sign; but this has nothing to do with its character as a sign. Anything whatever, be it quality, existent individual, or law, is an Icon of anything, in so far as it is like that thing and used as a sign of it.

Peirce: CP 2.248 Cross-Ref:††

248. 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.

Peirce: CP 2.249 Cross-Ref:††

249. A ***Symbol*** is a sign which refers to the Object that it denotes by virtue of a law, usually an association of general ideas, which operates to cause the Symbol to be interpreted as referring to that Object. It is thus itself a general type or law, that is, is a Legisign. As such it acts through a Replica. Not only is it general itself, but the Object to which it refers is of a general nature. Now that which is general has its being in the instances which it will determine. There must, therefore, be existent instances of what the Symbol denotes, although we must here understand by "existent," existent in the possibly imaginary universe to which the Symbol refers. The Symbol will indirectly, through the association or other law, be affected by those instances; and thus the Symbol will involve a sort of Index, although an Index of a peculiar kind. It will not, however, be by any means true that the slight effect upon the Symbol of those instances accounts for the significant character of the Symbol.

Peirce: CP 2.250 Cross-Ref:††

§6. A THIRD TRICHOTOMY OF SIGNS

250. According to the third trichotomy, a Sign may be termed a ***Rheme,*** a ***Dicisign*** or ***Dicent Sign*** (that is, a proposition or quasi-proposition), or an Argument.

Peirce: CP 2.250 Cross-Ref:††

A ***Rheme***†1 is a Sign which, for its Interpretant, is a Sign of qualitative Possibility, that is, is understood as representing such and such a kind of possible Object. Any Rheme, perhaps, will afford some information; but it is not interpreted as doing so.

Peirce: CP 2.251 Cross-Ref:††

251. A ***Dicent Sign*** is a Sign, which, for its Interpretant, is a Sign of actual existence. It cannot, therefore, be an Icon, which affords no ground for an interpretation of it as referring to actual existence. A Dicisign necessarily involves, as

a part of it, a Rheme, to describe the fact which it is interpreted as indicating. But this is a peculiar kind of Rheme; and while it is essential to the Dicisign, it by no means constitutes it.

Peirce: CP 2.252 Cross-Ref:††

252. An ***Argument*** is a Sign which, for its Interpretant, is a Sign of law. Or we may say that a Rheme is a sign which is understood to represent its object in its characters merely; that a Dicisign is a sign which is understood to represent its object in respect to actual existence; and that an Argument is a Sign which is understood to represent its Object in its character as Sign. Since these definitions touch upon points at this time much in dispute, a word may be added in defence of them. A question often put is: What is the essence of a Judgment? A judgment is the mental act by which the judger seeks to impress upon himself the truth of a proposition. It is much the same as an act of asserting the proposition, or going before a notary and assuming formal responsibility for its truth, except that those acts are intended to affect others, while the judgment is only intended to affect oneself. However, the logician, as such, cares not what the psychological nature of the act of judging may be. The question for him is: What is the nature of the sort of sign of which a principal variety is called a proposition, which is the matter upon which the act of judging is exercised? The proposition need not be asserted or judged. It may be contemplated as a sign capable of being asserted or denied. This sign itself retains its full meaning whether it be actually asserted or not.†1 The peculiarity of it, therefore, lies in its mode of meaning; and to say this is to say that its peculiarity lies in its relation to its interpretant. The proposition professes to be really affected by the actual existent or real law to which it refers. The argument makes the same pretension, but that is not the principal pretension of the argument. The rheme makes no such pretension.

Peirce: CP 2.253 Cross-Ref:††

253. The Interpretant of the Argument represents it as an instance of a general class of Arguments, which class on the whole will always tend to the truth. It is this law, in some shape, which the argument urges; and this "urging" is the mode of representation proper to Arguments. The Argument must, therefore, be a Symbol, or Sign whose Object is a General Law or Type. It must involve a Dicent Symbol, or Proposition, which is termed its ***Premiss;*** for the Argument can only urge the law by urging it in an instance. This Premiss is, however, quite different in force (***i.e.,*** in its relation to its interpretant) from a similar proposition merely asserted; and besides, this is far from being the whole Argument. As for another proposition, called the Conclusion, often stated and perhaps required to complete the Argument, it plainly represents the Interpretant, and likewise has a peculiar force, or relation to the Interpretant. There is a difference of opinion among logicians as to whether it forms a part of the Argument or not; and although such opinions have not resulted from an exact analysis of the essence of Argument, they are entitled to weight. The present writer, without being absolutely confident, is strongly inclined to think that the Conclusion, although it represents the Interpretant, is essential to the full expression of the Argument. It is usual with logicians to speak of the Premisses of an Argument, instead of the Premiss. But if there are more Premisses than one, the first step of the argumentation must be to colligate them into one Copulative Proposition: so that the only simple Argument of two Premisses is the Argument of Colligation. But even in this case, there are not properly two premisses. For whenever the mind is in a state ready to assert a proposition, ***P***, it is already in a state of asserting a proposition, ***O***, which the new proposition, ***P***, only further determines; so that it is not ***P***, merely, which comes to be asserted, but ***OP***. In this view of the matter, there is no such thing

as an Argument of Colligation. For to say that there is would make every judgment the conclusion of an argument. But if every judgment is to be regarded as the conclusion of an argument, which is, no doubt, an admissible conception, then it is the conclusion of a quite different kind of judgment from a mere Argument of Colligation. Thus, the Argument of Colligation is a form of Argument which is introduced into logic merely in order to avoid the necessity of considering the true nature of the Argument from which a Copulative Proposition has been derived. For that reason, it seems more proper in general to speak of the "Premiss" of an Argument than of its "Premisses." As to the word ***Premiss***--in Latin of the thirteenth century ***praemissa***--owing to its being so often used in the plural, it has become widely confounded with a totally different word of legal provenance, the "premisses," that is, the items of an inventory, etc., and hence buildings enumerated in a deed or lease. It is entirely contrary to good English usage to spell premiss, "premise," and this spelling (whose prevalence is due perhaps to Lord Brougham, or at least chiefly supported by his insistence), simply betrays ignorance of the history of logic, and even of such standard authors as Whateley, Watts, etc.†1

Peirce: CP 2.254 Cross-Ref:††

§7. TEN CLASSES OF SIGNS

254. The three trichotomies of Signs result together in dividing Signs into ***TEN CLASSES OF SIGNS,*** of which numerous subdivisions have to be considered. The ten classes are as follows:

Peirce: CP 2.254 Cross-Ref:††

First: A Qualisign [***e.g.,*** a feeling of "red"] is any quality in so far as it is a sign. Since a quality is whatever it is positively in itself, a quality can only denote an object by virtue of some common ingredient or similarity; so that a Qualisign is necessarily an Icon. Further, since a quality is a mere logical possibility, it can only be interpreted as a sign of essence, that is, as a Rheme.

Peirce: CP 2.255 Cross-Ref:††

255. Second: An Iconic Sinsign [***e.g.,*** an individual diagram] is any object of experience in so far as some quality of it makes it determine the idea of an object. Being an Icon, and thus a sign by likeness purely, of whatever it may be like, it can only be interpreted as a sign of essence, or Rheme. It will embody a Qualisign.

Peirce: CP 2.256 Cross-Ref:††

256. Third: A Rhematic Indexical Sinsign [***e.g.,*** a spontaneous cry] is any object of direct experience so far as it directs attention to an Object by which its presence is caused. It necessarily involves an Iconic Sinsign of a peculiar kind, yet is quite different since it brings the attention of the interpreter to the very Object denoted.

Peirce: CP 2.257 Cross-Ref:††

257. Fourth: A Dicent Sinsign [***e.g.,*** a weathercock] is any object of direct experience, in so far as it is a sign, and, as such, affords information concerning its Object. This it can only do by being really affected by its Object; so that it is necessarily an Index. The only information it can afford is of actual fact. Such a Sign must involve an Iconic Sinsign to embody the information and a Rhematic Indexical

Sinsign to indicate the Object to which the information refers. But the mode of combination, or ***Syntax,*** of these two must also be significant.

Peirce: CP 2.258 Cross-Ref:††

258. Fifth: An Iconic Legisign [***e.g.,*** a diagram, apart from its factual individuality] is any general law or type, in so far as it requires each instance of it to embody a definite quality which renders it fit to call up in the mind the idea of a like object. Being an Icon, it must be a Rheme. Being a Legisign, its mode of being is that of governing single Replicas, each of which will be an Iconic Sinsign of a peculiar kind.

Peirce: CP 2.259 Cross-Ref:††

259. Sixth: A Rhematic Indexical Legisign [***e.g.,*** a demonstrative pronoun] is any general type or law, however established, which requires each instance of it to be really affected by its Object in such a manner as merely to draw attention to that Object. Each Replica of it will be a Rhematic Indexical Sinsign of a peculiar kind. The Interpretant of a Rhematic Indexical Legisign represents it as an Iconic Legisign; and so it is, in a measure--but in a very small measure.

Peirce: CP 2.260 Cross-Ref:††

260. Seventh: A Dicent Indexical Legisign [***e.g.,*** a street cry] is any general type or law, however established, which requires each instance of it to be really affected by its Object in such a manner as to furnish definite information concerning that Object. It must involve an Iconic Legisign to signify the information and a Rhematic Indexical Legisign to denote the subject of that information. Each Replica of it will be a Dicent Sinsign of a peculiar kind.

Peirce: CP 2.261 Cross-Ref:††

261. Eighth: A Rhematic Symbol or Symbolic Rheme [***e.g.,*** a common noun] is a sign connected with its Object by an association of general ideas in such a way that its Replica calls up an image in the mind which image, owing to certain habits or dispositions of that mind, tends to produce a general concept, and the Replica is interpreted as a Sign of an Object that is an instance of that concept. Thus, the Rhematic Symbol either is, or is very like, what the logicians call a General Term. The Rhematic Symbol, like any Symbol, is necessarily itself of the nature of a general type, and is thus a Legisign. Its Replica, however, is a Rhematic Indexical Sinsign of a peculiar kind, in that the image it suggests to the mind acts upon a Symbol already in that mind to give rise to a General Concept. In this it differs from other Rhematic Indexical Sinsigns, including those which are Replicas of Rhematic Indexical Legisigns. Thus, the demonstrative pronoun "that" is a Legisign, being a general type; but it is not a Symbol, since it does not signify a general concept. Its Replica draws attention to a single Object, and is a Rhematic Indexical Sinsign. A Replica of the word "camel" is likewise a Rhematic Indexical Sinsign, being really affected, through the knowledge of camels, common to the speaker and auditor, by the real camel it denotes, even if this one is not individually known to the auditor; and it is through such real connection that the word "camel" calls up the idea of a camel. The same thing is true of the word "phoenix." For although no phoenix really exists, real descriptions of the phoenix are well known to the speaker and his auditor; and thus the word is really affected by the Object denoted. But not only are the Replicas of Rhematic Symbols very different from ordinary Rhematic Indexical Sinsigns, but so likewise are Replicas of Rhematic Indexical Legisigns. For the thing denoted by "that" has not affected the replica of the word in any such direct and simple manner as that in which, for example, the ring of a telephone-bell is affected by the person at the

other end who wants to make a communication. The Interpretant of the Rhematic Symbol often represents it as a Rhematic Indexical Legisign; at other times as an Iconic Legisign; and it does in a small measure partake of the nature of both.

Peirce: CP 2.262 Cross-Ref:††

262. Ninth: A Dicent Symbol, or ordinary Proposition, is a sign connected with its object by an association of general ideas, and acting like a Rhematic Symbol, except that its intended interpretant represents the Dicent Symbol as being, in respect to what it signifies, really affected by its Object, so that the existence or law which it calls to mind must be actually connected with the indicated Object. Thus, the intended Interpretant looks upon the Dicent Symbol as a Dicent Indexical Legisign; and if it be true, it does partake of this nature, although this does not represent its whole nature. Like the Rhematic Symbol, it is necessarily a Legisign. Like the Dicent Sinsign it is composite inasmuch as it necessarily involves a Rhematic Symbol (and thus is for its Interpretant an Iconic Legisign) to express its information and a Rhematic Indexical Legisign to indicate the subject of that information. But its Syntax of these is significant. The Replica of the Dicent Symbol is a Dicent Sinsign of a peculiar kind. This is easily seen to be true when the information the Dicent Symbol conveys is of actual fact. When that information is of a real law, it is not true in the same fullness. For a Dicent Sinsign cannot convey information of law. It is, therefore, true of the Replica of such a Dicent Symbol only in so far as the law has its being in instances.

Peirce: CP 2.263 Cross-Ref:††

263. Tenth: An Argument is a sign whose interpretant represents its object as being an ulterior sign through a law, namely, the law that the passage from all such premisses to such conclusions tends to the truth. Manifestly, then, its object must be general; that is, the Argument must be a Symbol. As a Symbol it must, further, be a Legisign. Its Replica is a Dicent Sinsign.

Peirce: CP 2.264 Cross-Ref:††

264. The affinities of the ten classes are exhibited by arranging their designations in the triangular table here shown, which has heavy boundaries between adjacent squares that are appropriated to classes alike in only one respect. All other adjacent squares pertain to classes alike in two respects. Squares not adjacent pertain to classes alike in one respect only, except that each of the three squares of the vertices of the triangle pertains to a class differing in all three respects from the classes to which the squares along the opposite side of the triangle are appropriated. The lightly printed designations are superfluous.

| (I)†1 | (V) | (VIII) | (X) || Rhematic | Rhematic | **Rhematic** | **Argument** |

| Iconic | **Iconic** | **Symbol** | Symbolic || **Qualisign** | **Legisign** | Legisign | Legisign |

| (II) | (VI) | (IX) |

| Rhematic | **Rhematic** | **Dicent** |

| **Iconic** | **Indexical** | **Symbol** |

| **Sinsign** | **Legisign** | Legisign |

| (III) | (VII) | | **Rhematic** | **Dicent** |

| **Indexical** | **Indexical** |

| **Sinsign** | **Legisign** |

| (IV) |

| **Dicent** |

| Indexical |

| **Sinsign** |

Peirce: CP 2.265 Cross-Ref:††

§8. DEGENERATE SIGNS

265. In the course of the above descriptions of the classes, certain subdivisions of some of them have been directly or indirectly referred to. Namely, beside the normal varieties of Sinsigns, Indices, and Dicisigns, there are others which are Replicas of Legisigns, Symbols, and Arguments, respectively. Beside the normal varieties of Qualisigns, Icons, and Rhemes, there are two series of others; to wit, those which are directly involved in Sinsigns, Indices, and Dicisigns, respectively, and also those which are indirectly involved in Legisigns, Symbols, and Arguments, respectively. Thus, the ordinary Dicent Sinsign is exemplified by a weathercock and its veering and by a photograph. The fact that the latter is known to be the effect of the radiations from the object renders it an index and highly informative. A second variety is a Replica of a Dicent Indexical Legisign. Thus any given street cry, since its tone and theme identifies the individual, is not a symbol, but an Indexical Legisign; and any individual instance of it is a Replica of it which is a Dicent Sinsign. A third variety is a Replica of a Proposition. A fourth variety is a Replica of an Argument. Beside the normal variety of the Dicent Indexical Legisign, of which a street cry is an example, there is a second variety, which is that sort of proposition which has the name of a well-known individual as its predicate; as if one is asked, "Whose statue is this?" the answer may be, "It is Farragut." The meaning of this answer is a Dicent Indexical Legisign. A third variety may be a premiss of an argument. A Dicent Symbol, or ordinary proposition, in so far as it is a premiss of an Argument, takes on a new force, and becomes a second variety of the Dicent Symbol. It would not be worth while to go through all the varieties; but it may be well to consider the varieties of one class more. We may take the Rhematic Indexical Legisign. ***The*** shout of "Hullo!" is an example of the ordinary variety--meaning, not an individual shout, but

this shout "Hullo!" in general--this type of shout. A second variety is a constituent of a Dicent Indexical Legisign; as the word "that" in the reply, "that is Farragut." A third variety is a particular application of a Rhematic Symbol; as the exclamation "Hark!" A fourth and fifth variety are in the peculiar force a general word may have in a proposition or argument. It is not impossible that some varieties are here overlooked. It is a nice problem to say to what class a given sign belongs; since all the circumstances of the case have to be considered. But it is seldom requisite to be very accurate; for if one does not locate the sign precisely, one will easily come near enough to its character for any ordinary purpose of logic.

Peirce: CP 2.266 Cross-Ref:††

§9. THE TRICHOTOMY OF ARGUMENTS

266. There are other subdivisions of some, at least, of the ten classes which are of greater logical importance. An Argument is always understood by its Interpretant to belong to a general class of analogous arguments, which class, as a whole, tends toward the truth. This may happen in three ways, giving rise to a trichotomy of all simple arguments into Deductions, Inductions, and Abductions.

Peirce: CP 2.267 Cross-Ref:††

267. A ***Deduction*** is an argument whose Interpretant represents that it belongs to a general class of possible arguments precisely analogous which are such that in the long run of experience the greater part of those whose premisses are true will have true conclusions. Deductions are either ***Necessary*** or ***Probable.*** Necessary Deductions are those which have nothing to do with any ratio of frequency, but profess (or their interpretants profess for them) that from true premisses they must invariably produce true conclusions. A Necessary Deduction is a method of producing Dicent Symbols by the study of a diagram. It is either ***Corollarial*** or ***Theorematic.*** A Corollarial Deduction is one which represents the conditions of the conclusion in a diagram and finds from the observation of this diagram, as it is, the truth of the conclusion. A Theorematic Deduction is one which, having represented the conditions of the conclusion in a diagram, performs an ingenious experiment upon the diagram, and by the observation of the diagram, so modified, ascertains the truth of the conclusion.

Peirce: CP 2.268 Cross-Ref:††

268. Probable Deductions, or more accurately, Deductions of Probability, are Deductions whose Interpretants represent them to be concerned with ratios of frequency. They are either ***Statistical Deductions*** or ***Probable Deductions Proper.*** A Statistical Deduction is a Deduction whose Interpretant represents it to reason concerning ratios of frequency, but to reason concerning them with absolute certainty. A Probable Deduction proper is a Deduction whose Interpretant does not represent that its conclusion is certain, but that precisely analogous reasonings would from true premisses produce true conclusions in the majority of cases, in the long run of experience.

Peirce: CP 2.269 Cross-Ref:††

269. An ***Induction*** is a method of forming Dicent Symbols concerning a definite question, of which method the Interpretant does not represent that from true premisses it will yield approximately true results in the majority of instances in the long run of experience, but does represent that if this method be persisted in, it will in

the long run yield the truth, or an indefinite approximation to the truth, in regard to every question. An Induction is either a ***Pooh-pooh Argument,*** or an ***Experimental Verification of a general Prediction,*** or an Argument from a ***Random Sample.*** A Pooh-pooh Argument is a method which consists in denying that a general kind of event ever will occur on the ground that it never has occurred. Its justification is that if it be persistently applied on every occasion, it must ultimately be corrected in case it should be wrong, and thus will ultimately reach the true conclusion. A verification of a general prediction is a method which consists in finding or making the conditions of the prediction and in concluding that it will be verified about as often as it is experimentally found to be verified. Its justification is that if the Prediction does not tend in the long run to be verified in any approximately determinate proportion of cases, experiment must, in the long run, ascertain this; while if the Prediction will, in the long run, be verified in any determinate, or approximately determinate, proportion of cases, experiment must in the long run, approximately ascertain what that proportion is. An Argument from a Random Sample, is a method of ascertaining what proportion of the members of a finite class possess a predesignate, or virtually predesignate, quality, by selecting instances from that class according to a method which will, in the long run, present any instance as often as any other, and concluding that the ratio found for such a sample will hold in the long run. Its justification is evident.

Peirce: CP 2.270 Cross-Ref:††

270. An ***Abduction*** is a method of forming a general prediction without any positive assurance that it will succeed either in the special case or usually, its justification being that it is the only possible hope of regulating our future conduct rationally, and that Induction from past experience gives us strong encouragement to hope that it will be successful in the future.

Peirce: CP 2.271 Cross-Ref:††

§10. KINDS OF PROPOSITIONS

271. A Dicent Symbol, or general proposition, is either ***Particular*** or ***Universal.*** A Particular Dicent Symbol is represented by its Interpretant to indicate fact of existence; as, "Some swan is black," ***i.e.,*** there exists a black swan. A Universal Dicent Symbol is represented by its Interpretant to indicate a real law; as "No swan is black," i.e., no amount of research will ever discover a black individual among swans. A Dicent Symbol is either ***Non-relative*** or ***Relative.*** A Non-relative Dicent Symbol is not concerned with the identity of more than one individual. But this must be understood in a particular way, the proposition being first expressed in an exemplar manner. Thus "No swan is black" seems to be concerned with the identity of all swans and all black objects. But it is to be understood that the proposition is to be considered under this form: Taking any one object in the universe you please, it is either not a swan or is not black. A Relative Dicent Symbol is concerned with the identity of more than one individual, or of what may be more than one, in an exemplar expression, as, "Take any individual, A, you please, and thereafter an individual, B, can be found, such that if A is a city of over a hundred thousand inhabitants, B will be a spot on this map corresponding to A." Whether a proposition is to be regarded as non-relative or relative depends on what use is to be made of it in argument. But it does not follow that the distinction is merely one of outward guise;

for the force of the proposition is different according to the application that is to be made of it. It may here be noted as a matter of correct terminology (according to the views set forth in the second part [of the published portion] of this syllabus),†1 that a ***Hypothetical Proposition*** is any proposition compounded of propositions. The old doctrine is that a hypothetical proposition is either conditional, copulative, or disjunctive. But a conditional is properly a disjunctive proposition. Some propositions may equally well be regarded as copulative or disjunctive. Thus, at once, either Tully or not Cicero and either Cicero or not Tully, is the same as, either at once, Tully and Cicero or not Tully and not Cicero. Any definition may be regarded as a proposition of this sort; and for this reason such propositions might be termed ***Definiform,*** or ***Definitory.*** A copulative proposition is naturally allied to a particular proposition, a disjunctive proposition to a universal proposition.

Peirce: CP 2.272 Cross-Ref:††

272. If parts of a proposition be erased so as to leave blanks in their places, and if these blanks are of such a nature that if each of them be filled by a proper name the result will be a proposition, then the blank form of proposition which was first produced by the erasures is termed a ***rheme.*** According as the number of blanks in a rheme is 0, 1, 2, 3, etc., it may be termed a ***medad*** (from {méden}, nothing), ***monad, dyad, triad,*** etc., rheme.

Peirce: CP 2.273 Cross-Ref:††

§11. REPRESENT †1

273. To stand for, that is, to be in such a relation to another that for certain purposes it is treated by some mind as if it were that other.

Peirce: CP 2.273 Cross-Ref:††

Thus a spokesman, deputy, attorney, agent, vicar, diagram, symptom, counter, description, concept, premiss, testimony, all represent something else, in their several ways, to minds who consider them in that way. See Sign.†2 When it is desired to distinguish between that which represents and the act or relation of representing, the former may be termed the "representamen," the latter the "representation."

Peirce: CP 2.274 Cross-Ref:††

CHAPTER 3

THE ICON, INDEX, AND SYMBOL

§1. ICONS AND HYPOICONS †1

274. 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. The triadic relation is ***genuine,*** that is its three members are bound together by it in a way that does not consist in any complexus of dyadic relations. That is the reason the Interpretant, or Third, cannot stand in a mere dyadic relation to the Object, but must stand in such a relation to it as the Representamen itself does. Nor can the triadic relation in which the Third stands be merely similar to that in which the First stands, for this would make the relation of the Third to the First a degenerate Secondness merely. The Third must indeed stand in such a relation, and thus must be capable of determining a Third of its own; but besides that, it must have a second triadic relation in which the Representamen, or rather the relation thereof to its Object, shall be its own (the Third's) Object, and must be capable of determining a Third to this relation. All this must equally be true of the Third's Thirds and so on endlessly; and this, and more, is involved in the familiar idea of a Sign; and as the term Representamen is here used, nothing more is implied. A ***Sign*** is a Representamen with a mental Interpretant. Possibly there may be Representamens that are not Signs. Thus, if a sunflower, in turning towards the sun, becomes by that very act fully capable, without further condition, of reproducing a sunflower which turns in precisely corresponding ways toward the sun, and of doing so with the same reproductive power, the sunflower would become a Representamen of the sun. But ***thought*** is the chief, if not the only, mode of representation.

Peirce: CP 2.275 Cross-Ref:††

275. . . . The most fundamental [division of signs] is into ***Icons, Indices,*** and ***Symbols.*** Namely, while no Representamen actually functions as such until it actually determines an Interpretant, yet it becomes a Representamen as soon as it is fully capable of doing this; and its Representative Quality is not necessarily dependent upon its ever actually determining an Interpretant, nor even upon its actually having an Object.

Peirce: CP 2.276 Cross-Ref:††

276. An ***Icon*** is a Representamen whose Representative Quality is a Firstness of it as a First. That is, a quality that it has ***qua*** thing renders it fit to be a representamen. Thus, anything is fit to be a ***Substitute*** for anything that it is like. (The conception of "substitute" involves that of a purpose, and thus of genuine thirdness.) Whether there are other kinds of substitutes or not we shall see. A Representamen by Firstness alone can only have a similar Object. Thus, a Sign by Contrast denotes its object only by virtue of a contrast, or Secondness, between two qualities. A sign by Firstness is an image of its object and, more strictly speaking, can only be an ***idea.*** For it must produce an Interpretant idea; and an external object excites an idea by a reaction upon the brain. But most strictly speaking, even an idea, except in the sense of a possibility, or Firstness, cannot be an Icon. A possibility alone is an Icon purely by virtue of its quality; and its object can only be a Firstness. But a sign may be ***iconic,*** that is, may represent its object mainly by its similarity, no matter what its mode of being. If a substantive be wanted, an iconic representamen may be termed a ***hypoicon.*** Any material image, as a painting, is largely conventional in its mode of representation; but in itself, without legend or label it may be called a ***hypoicon.***

Peirce: CP 2.277 Cross-Ref:††

277. Hypoicons may be roughly divided according to the mode of Firstness of which they partake. Those which partake of simple qualities, or First Firstnesses, are ***images;*** those which represent the relations, mainly dyadic, or so regarded, of the

parts of one thing by analogous relations in their own parts, are ***diagrams;*** those which represent the representative character of a representamen by representing a parallelism in something else, are ***metaphors.***

Peirce: CP 2.278 Cross-Ref:††

278. The only way of directly communicating an idea is by means of an icon; and every indirect method of communicating an idea must depend for its establishment upon the use of an icon. Hence, every assertion must contain an icon or set of icons, or else must contain signs whose meaning is only explicable by icons. The idea which the set of icons (or the equivalent of a set of icons) contained in an assertion signifies may be termed the ***predicate*** of the assertion.

Peirce: CP 2.279 Cross-Ref:††

279. Turning now to the rhetorical evidence, it is a familiar fact that there are such representations as icons. Every picture (however conventional its method) is essentially a representation of that kind. So is every diagram, even although there be no sensuous resemblance between it and its object, but only an analogy between the relations of the parts of each. Particularly deserving of notice are icons in which the likeness is aided by conventional rules. Thus, an algebraic formula is an icon, rendered such by the rules of commutation, association, and distribution of the symbols. It may seem at first glance that it is an arbitrary classification to call an algebraic expression an icon; that it might as well, or better, be regarded as a compound conventional sign. But it is not so. For a great distinguishing property of the icon is that by the direct observation of it other truths concerning its object can be discovered than those which suffice to determine its construction. Thus, by means of two photographs a map can be drawn, etc. Given a conventional or other general sign of an object, to deduce any other truth than that which it explicitly signifies, it is necessary, in all cases, to replace that sign by an icon. This capacity of revealing unexpected truth is precisely that wherein the utility of algebraical formulae consists, so that the iconic character is the prevailing one.

Peirce: CP 2.280 Cross-Ref:††

280. That icons of the algebraic kind, though usually very simple ones, exist in all ordinary grammatical propositions is one of the philosophic truths that the Boolean logic brings to light. In all primitive writing, such as the Egyptian hieroglyphics, there are icons of a non-logical kind, the ideographs. In the earliest form of speech, there probably was a large element of mimicry. But in all languages known, such representations have been replaced by conventional auditory signs. These, however, are such that they can only be explained by icons. But in the syntax of every language there are logical icons of the kind that are aided by conventional rules. . . .

Peirce: CP 2.281 Cross-Ref:††

281. Photographs, especially instantaneous photographs, are very instructive, because we know that they are in certain respects exactly like the objects they represent. But this resemblance is due to the photographs having been produced under such circumstances that they were physically forced to correspond point by point to nature. In that aspect, then, they belong to the second class of signs, those by physical connection. The case is different if I surmise that zebras are likely to be obstinate, or otherwise disagreeable animals, because they seem to have a general resemblance to donkeys, and donkeys are self-willed. Here the donkey serves precisely as a probable likeness of the zebra. It is true we suppose that resemblance has a physical cause in heredity; but then, this hereditary affinity is itself only an inference from the likeness between the two animals, and we have not (as in the case of the photograph) any

independent knowledge of the circumstances of the production of the two species. Another example of the use of a likeness is the design an artist draws of a statue, pictorial composition, architectural elevation, or piece of decoration, by the contemplation of which he can ascertain whether what he proposes will be beautiful and satisfactory. The question asked is thus answered almost with certainty because it relates to how the artist will himself be affected. The reasoning of mathematicians will be found to turn chiefly upon the use of likenesses, which are the very hinges of the gates of their science. The utility of likenesses to mathematicians consists in their suggesting in a very precise way, new aspects of supposed states of things. . . .

Peirce: CP 2.282 Cross-Ref:††

282. Many diagrams resemble their objects not at all in looks; it is only in respect to the relations of their parts that their likeness consists. Thus, we may show the relation between the different kinds of signs by a brace, thus:

Signs: { Icons,
{ Indices,
{ Symbols.

This is an icon. But the only respect in which it resembles its object is that the brace shows the classes of ***icons, indices,*** and ***symbols*** to be related to one another and to the general class of signs, as they really are, in a general way. When, in algebra, we write equations under one another in a regular array, especially when we put resembling letters for corresponding coefficients, the array is an icon. Here is an example:

$$\boldsymbol{a}[1]\boldsymbol{x} + \boldsymbol{b}[1]\boldsymbol{y} = \boldsymbol{n}[1],$$
$$\boldsymbol{a}[2]\boldsymbol{x} + \boldsymbol{b}[2]\boldsymbol{y} = \boldsymbol{n}[2].$$

This is an icon, in that it makes quantities look alike which are in analogous relations to the problem. In fact, every algebraical equation is an icon, in so far as it ***exhibits,*** by means of the algebraical signs (which are not themselves icons), the relations of the quantities concerned.

Peirce: CP 2.282 Cross-Ref:††

It may be questioned whether all icons are likenesses or not. For example, if a drunken man is exhibited in order to show, by contrast, the excellence of temperance, this is certainly an icon, but whether it is a likeness or not may be doubted. The question seems somewhat trivial.

Peirce: CP 2.283 Cross-Ref:††

§2. GENUINE AND DEGENERATE INDICES

283. An ***Index*** or ***Seme***†1 ({séma}) 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.

Peirce: CP 2.284 Cross-Ref:††

284. ***Subindices*** or ***Hyposemes*** are signs which are rendered such principally by an actual connection with their objects. Thus a proper name, personal demonstrative, or relative pronoun or the letter attached to a diagram, denotes what it does owing to a real connection with its object but none of these is an Index, since it is not an individual.

Peirce: CP 2.285 Cross-Ref:††

285. Let us examine some examples of indices. I see a man with a rolling gait. This is a probable indication that he is a sailor. I see a bowlegged man in corduroys, gaiters, and a jacket. These are probable indications that he is a jockey or something of the sort. A sundial or a clock ***indicates*** the time of day. Geometricians mark letters against the different parts of their diagrams and then use these letters to indicate those parts. Letters are similarly used by lawyers and others. Thus, we may say: If A and B are married to one another and C is their child while D is brother of A, then D is uncle of C. Here A, B, C, and D fulfill the office of relative pronouns, but are more convenient since they require no special collocation of words. A rap on the door is an index. Anything which focusses the attention is an index. Anything which startles us is an index, in so far as it marks the junction between two portions of experience. Thus a tremendous thunderbolt indicates that ***something*** considerable happened, though we may not know precisely what the event was. But it may be expected to connect itself with some other experience.

Peirce: CP 2.286 Cross-Ref:††

286. . . . A low barometer with a moist air is an index of rain; that is we suppose that the forces of nature establish a probable connection between the low barometer with moist air and coming rain. A weathercock is an index of the direction of the wind; because in the first place it really takes the self-same direction as the wind, so that there is a real connection between them, and in the second place we are so constituted that when we see a weathercock pointing in a certain direction it draws our attention to that direction, and when we see the weathercock veering with the wind, we are forced by the law of mind to think that direction is connected with the wind. The pole star is an index, or pointing finger, to show us which way is north. A spirit-level, or a plumb bob, is an index of the vertical direction. A yard-stick might seem, at first sight, to be an icon of a yard; and so it would be, if it were merely intended to show a yard as near as it can be seen and estimated to be a yard. But the very purpose of a yard-stick is to show a yard nearer than it can be estimated by its appearance. This it does in consequence of an accurate mechanical comparison made with the bar in London called the yard. Thus it is a real connection which gives the yard-stick its value as a representamen; and thus it is an ***index,*** not a mere ***icon.***

Peirce: CP 2.287 Cross-Ref:††

287. When a driver to attract the attention of a foot passenger and cause him to

save himself, calls out "Hi!" so far as this is a significant word, it is, as will be seen below, something more than an index; but so far as it is simply in tended to act upon the hearer's nervous system and to rouse him to get out of the way, it is an index, because it is meant to put him in real connection with the object, which is his situation relative to the approaching horse. Suppose two men meet upon a country road and one of them says to the other, "The chimney of that house is on fire." The other looks about him and descries a house with green blinds and a verandah having a smoking chimney. He walks on a few miles and meets a second traveller. Like a Simple Simon he says, "The chimney of that house is on fire." "What house?" asks the other. "Oh, a house with green blinds and a verandah," replies the simpleton. "Where is the house?" asks the stranger. He desires some ***index*** which shall connect his apprehension with the house meant. Words alone cannot do this. The demonstrative pronouns, "this" and "that," are indices. For they call upon the hearer to use his powers of observation, and so establish a real connection between his mind and the object; and if the demonstrative pronoun does that--without which its meaning is not understood--it goes to establish such a connection; and so is an index. The relative pronouns, ***who*** and ***which,*** demand observational activity in much the same way, only with them the observation has to be directed to the words that have gone before. Lawyers use A, B, C, practically as very effective relative pronouns. To show how effective they are, we may note that Messrs. Allen and Greenough, in their admirable (though in the edition of 1877 [?], too small) Latin Grammar, declare that no conceivable syntax could wholly remove the ambiguity of the following sentence, "A replied to B that he thought C (his brother) more unjust to himself than to his own friend."†1 Now, any lawyer would state that with perfect clearness, by using A, B, C, as relatives, thus:

(A)

A replied to B that he (B), thought C

(A's) (A)

(his (B's), brother) more unjust to himself, (B) than to his

(C)

(A's)

(B's) own friend.†P1 The terminations which in any inflected

(C's)

language are attached to words "governed" by other words, and which serve to show which the governing word is, by repeating what is elsewhere expressed in the same form, are likewise ***indices*** of the same relative pronoun character. Any bit of Latin poetry illustrates this, such as the twelve-line sentence beginning, "***Jam satis terris.***" Both in these terminations and in the A, B, C, a likeness is relied upon to carry the attention to the right object. But this does not make them icons, in any important way; for it is of no consequence how the letters A, B, C, are shaped or what the terminations are. It is not merely that one occurrence of an A is like a previous

occurrence that is the important circumstance, but that ***there is an understanding that like letters shall stand for the same thing,*** and this acts as a force carrying the attention from one occurrence of A to the previous one. A possessive pronoun is two ways an index: first it indicates the possessor, and, second, it has a modification which syntactically carries the attention to the word denoting the thing possessed.

Peirce: CP 2.288 Cross-Ref:††

288. Some indices are more or less detailed directions for what the hearer is to do in order to place himself in direct experiential or other connection with the thing meant. Thus, the Coast Survey issues "Notices to Mariners," giving the latitude and longitude, four or five bearings of prominent objects, etc., and saying ***there*** is a rock, or shoal, or buoy, or lightship. Although there will be other elements in such directions, yet in the main they are indices.

Peirce: CP 2.289 Cross-Ref:††

289. Along with such indexical directions of what to do to find the object meant, ought to be classed those pronouns which should be entitled ***selective*** pronouns [or quantifiers] because they inform the hearer how he is to pick out one of the objects intended, but which grammarians call by the very indefinite designation of ***indefinite*** pronouns. Two varieties of these are particularly important in logic, the ***universal selectives,*** such as ***quivis, quilibet, quisquam, ullus, nullus, nemo, quisque, uterque,*** and in English, ***any, every, all, no, none, whatever, whoever, everybody, anybody, nobody.*** These mean that the hearer is at liberty to select any instance he likes within limits expressed or understood, and the assertion is intended to apply to that one. The other logically important variety consists of the ***particular selectives, quis, quispiam, nescio quis, aliquis, quidam,*** and in English, ***some, something, somebody, a, a certain, some or other, a suitable, one.***

Peirce: CP 2.289 Cross-Ref:††

Allied to the above pronouns are such expressions as ***all but one, one or two, a few, nearly all, every other one,*** etc. Along with pronouns are to be classed adverbs of place and time, etc.

Peirce: CP 2.289 Cross-Ref:††

Not very unlike these are, ***the first, the last, the seventh, two-thirds of, thousands of,*** etc.

Peirce: CP 2.290 Cross-Ref:††

290. Other indexical words are prepositions, and prepositional phrases, such as, "on the right (or left) of." Right and left cannot be distinguished by any general description. Other prepositions signify relations which may, perhaps, be described; but when they refer, as they do oftener than would be supposed, to a situation relative to the observed, or assumed to be experientially known, place and attitude of the speaker relatively to that of the hearer, then the indexical element is the dominant element.†P1

Peirce: CP 2.291 Cross-Ref:††

291. Icons and indices assert nothing. If an icon could be interpreted by a sentence, that sentence must be in a "potential mood," that is, it would merely say, "Suppose a figure has three sides," etc. Were an index so interpreted, the mood must be imperative, or exclamatory, as "See there!" or "Look out!" But the kind of signs which we are now coming to consider are, by nature, in the "indicative," or, as it should be called, the ***declarative*** mood.†P1 Of course, they can go to the expression

of any other mood, since we may declare assertions to be doubtful, or mere interrogations, or imperatively requisite.

Peirce: CP 2.292 Cross-Ref:††

§3. THE NATURE OF SYMBOLS

292. A ***Symbol*** is a Representamen whose Representative character consists precisely in its being a rule that will determine its Interpretant. All words, sentences, books, and other conventional signs are Symbols. We speak of writing or pronouncing the word "man"; but it is only a ***replica,*** or embodiment of the word, that is pronounced or written. The word itself has no existence although it has a real being, ***consisting in*** the fact that existents ***will*** conform to it. It is a general mode of succession of three sounds or representamens of sounds, which becomes a sign only in the fact that a habit, or acquired law, will cause replicas of it to be interpreted as meaning a man or men. The word and its meaning are both general rules; but the word alone of the two prescribes the qualities of its replicas in themselves. Otherwise the "word" and its "meaning" do not differ, unless some special sense be attached to "meaning."

Peirce: CP 2.293 Cross-Ref:††

293. A Symbol is a law, or regularity of the indefinite future. Its Interpretant must be of the same description; and so must be also the complete immediate Object, or meaning.†P1 But a law necessarily governs, or "is embodied in" individuals, and prescribes some of their qualities. Consequently, a constituent of a Symbol may be an Index, and a constituent may be an Icon. A man walking with a child points his arm up into the air and says, "There is a balloon." The pointing arm is an essential part of the symbol without which the latter would convey no information. But if the child asks, "What is a balloon," and the man replies, "It is something like a great big soap bubble," he makes the image a part of the symbol. Thus, while the complete object of a symbol, that is to say, its meaning, is of the nature of a law, it must ***denote*** an individual, and must ***signify*** a character. A ***genuine*** symbol is a symbol that has a general meaning. There are two kinds of degenerate symbols, the ***Singular Symbol*** whose Object is an existent individual, and which signifies only such characters as that individual may realize; and the ***Abstract Symbol,*** whose only Object is a character.

Peirce: CP 2.294 Cross-Ref:††

294. Although the immediate Interpretant of an Index must be an Index, yet since its Object may be the Object of an Individual [Singular] Symbol, the Index may have such a Symbol for its indirect Interpretant. Even a genuine Symbol may be an imperfect Interpretant of it. So an ***icon*** may have a degenerate Index, or an Abstract Symbol, for an indirect Interpretant, and a genuine Index or Symbol for an imperfect Interpretant.

Peirce: CP 2.295 Cross-Ref:††

295. A ***Symbol*** is a sign naturally fit to declare that the set of objects which is denoted by whatever set of indices may be in certain ways attached to it is represented by an icon associated with it. To show what this complicated definition means, let us take as an example of a symbol the word "loveth." Associated with this word is an

idea, which is the mental icon of one person loving another. Now we are to understand that "loveth" occurs in a sentence; for what it may mean by itself, if it means anything, is not the question. Let the sentence, then, be "Ezekiel loveth Huldah." Ezekiel and Huldah must, then, be or contain indices; for without indices it is impossible to designate what one is talking about. Any mere description would leave it uncertain whether they were not mere characters in a ballad; but whether they be so or not, indices can designate them. Now the effect of the word "loveth" is that the pair of objects denoted by the pair of indices Ezekiel and Huldah is represented by the icon, or the image we have in our minds of a lover and his beloved.

Peirce: CP 2.296 Cross-Ref:††

296. The same thing is equally true of every verb in the declarative mood; and indeed of every verb, for the other moods are merely declarations of a fact somewhat different from that expressed by the declarative mood. As for a noun, considering the meaning which it has in the sentence, and not as standing by itself, it is most conveniently regarded as a portion of a symbol. Thus the sentence, "every man loves a woman" is equivalent to "whatever is a man loves something that is a woman." Here "whatever" is a universal selective index, "is a man" is a symbol, "loves" is a symbol, "something that" is a particular selective index, and "is a woman" is a symbol. . . .

Peirce: CP 2.297 Cross-Ref:††

297. The word ***Symbol*** has so many meanings that it would be an injury to the language to add a new one. I do not think that the signification I attach to it, that of a conventional sign, or one depending upon habit (acquired or inborn), is so much a new meaning as a return to the original meaning. Etymologically, it should mean a thing thrown together, just as {embolon} (embolum) is a thing thrown into something, a bolt, and {parabolon} (parabolum) is a thing thrown besides, collateral security, and {hypobolon} (hypobolum) is a thing thrown underneath, an antenuptial gift. It is usually said that in the word ***symbol*** the throwing together is to be understood in the sense of "to conjecture"; but were that the case, we ought to find that ***sometimes*** at least it meant a conjecture, a meaning for which literature may be searched in vain. But the Greeks used "throw together" ({symballein}) very frequently to signify the making of a contract or convention. Now, we do find symbol ({symbolon}) early and often used to mean a convention or contract. Aristotle calls a noun a "symbol," that is, a conventional sign.†1 In Greek, watch-fire is a "symbol," that is, a signal agreed upon; a standard or ensign is a "symbol," a watchword is a "symbol," a badge is a "symbol"; a church creed is called a "symbol," because it serves as a badge or shibboleth; a theatre ticket is called a "symbol"; any ticket or check entitling one to receive anything is a "symbol." Moreover, any expression of sentiment was called a "symbol." Such were the principal meanings of the word in the original language. The reader will judge whether they suffice to establish my claim that I am not seriously wrenching the word in employing it as I propose to do.

Peirce: CP 2.298 Cross-Ref:††

298. Any ordinary word, as "give," "bird," "marriage," is an example of a symbol. It is ***applicable to whatever may be found to realize the idea connected with the word;*** it does not, in itself, identify those things. It does not show us a bird, nor enact before our eyes a giving or a marriage, but supposes that we are able to imagine those things, and have associated the word with them.

Peirce: CP 2.299 Cross-Ref:††

299. A regular progression of one, two, three may be remarked in the three orders of signs, Icon, Index, Symbol. The Icon has no dynamical connection with the

object it represents; it simply happens that its qualities resemble those of that object, and excite analogous sensations in the mind for which it is a likeness. But it really stands unconnected with them. 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. The symbol is connected with its object by virtue of the idea of the symbol-using mind, without which no such connection would exist.

Peirce: CP 2.300 Cross-Ref:††

300. Every physical force reacts between a pair of particles, either of which may serve as an index of the other. On the other hand, we shall find that every intellectual operation involves a triad of symbols.

Peirce: CP 2.301 Cross-Ref:††

301. A symbol, as we have seen, cannot indicate any particular thing; it denotes a kind of thing. Not only that, but it is itself a kind and not a single thing. You can write down the word "star," but that does not make you the creator of the word, nor if you erase it have you destroyed the word. The word lives in the minds of those who use it. Even if they are all asleep, it exists in their memory. So we may admit, if there be reason to do so, that generals are mere words without at all saying, as Ockham †1 supposed, that they are really individuals.

Peirce: CP 2.302 Cross-Ref:††

302. Symbols grow. They come into being by development out of other signs, particularly from icons, or from mixed signs partaking of the nature of icons and symbols. We think only in signs. These mental signs are of mixed nature; the symbol-parts of them are called concepts. If a man makes a new symbol, it is by thoughts involving concepts. So it is only out of symbols that a new symbol can grow. ***Omne symbolum de symbolo.*** A symbol, once in being, spreads among the peoples. In use and in experience, its meaning grows. Such words as ***force, law, wealth, marriage,*** bear for us very different meanings from those they bore to our barbarous ancestors. The symbol may, with Emerson's sphynx, say to man,

> Of thine eye I am eyebeam.

Peirce: CP 2.303 Cross-Ref:††

§4. SIGN †2

303. Anything which determines something else (its ***interpretant***) to refer to an object to which itself refers (its ***object***) in the same way, the interpretant becoming in turn a sign, and so on ***ad infinitum.***

Peirce: CP 2.303 Cross-Ref:††

No doubt, intelligent consciousness must enter into the series. If the series of successive interpretants comes to an end, the sign is thereby rendered imperfect, at least. If, an interpretant idea having been determined in an individual consciousness, it determines no outward sign, but that consciousness becomes annihilated, or otherwise loses all memory or other significant effect of the sign, it becomes absolutely undiscoverable that there ever was such an idea in that consciousness; and in that case it is difficult to see how it could have any meaning to say that that

consciousness ever had the idea, since the saying so would be an interpretant of that idea.

Peirce: CP 2.304 Cross-Ref:††

304. A sign is either an ***icon,*** an ***index,*** or a ***symbol.*** An ***icon*** is a sign which would possess the character which renders it significant, even though its object had no existence; such as a lead-pencil streak as representing a geometrical line. 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. A ***symbol*** is a sign which would lose the character which renders it a sign if there were no interpretant. Such is any utterance of speech which signifies what it does only by virtue of its being understood to have that signification.

Peirce: CP 2.305 Cross-Ref:††

§5. INDEX †1

305. 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.

Peirce: CP 2.305 Cross-Ref:††

No matter of fact can be stated without the use of some sign serving as an index. If ***A*** says to ***B***, "There is a fire," ***B*** will ask, "Where?" Thereupon ***A*** is forced to resort to an index, even if he only means somewhere in the real universe, past and future. Otherwise, he has only said that there is such an idea as fire, which would give no information, since unless it were known already, the word "fire" would be unintelligible. If ***A*** points his finger to the fire, his finger is dynamically connected with the fire, as much as if a self-acting fire-alarm had directly turned it in that direction; while it also forces the eyes of ***B*** to turn that way, his attention to be riveted upon it, and his understanding to recognize that his question is answered. If ***A***'s reply is, "Within a thousand yards of here," the word "here" is an index; for it has precisely the same force as if he had pointed energetically to the ground between him and ***B***. Moreover, the word "yard," though it stands for an object of a general class, is indirectly indexical, since the yard-sticks themselves are signs of the Parliamentary Standard, and that, not because they have similar qualities, for all the pertinent properties of a small bar are, as far as we can perceive, the same as those of a large one, but because each of them has been, actually or virtually, carried to the prototype and subjected to certain dynamical operations, while the associational compulsion calls up in our minds, when we see one of them, various experiences, and brings us to regard them as related to something fixed in length, though we may not have reflected that that standard is a material bar. The above considerations might lead the reader to suppose that indices have exclusive reference to objects of experience, and that there would be no use for them in pure mathematics, dealing, as it does, with ideal

creations, without regard to whether they are anywhere realized or not. But the imaginary constructions of the mathematician, and even dreams, so far approximate to reality as to have a certain degree of fixity, in consequence of which they can be recognized and identified as individuals. In short, there is a degenerate form of observation which is directed to the creations of our own minds--using the word observation in its full sense as implying some degree of fixity and quasi-reality in the object to which it endeavours to conform. Accordingly, we find that indices are absolutely indispensable in mathematics; and until this truth was comprehended, all efforts to reduce to rule the logic of triadic and higher relations failed; while as soon as it was once grasped the problem was solved. The ordinary letters of algebra that present no peculiarities are indices. So also are the letters ***A***, ***B***, ***C***, etc., attached to a geometrical figure. Lawyers and others who have to state a complicated affair with precision have recourse to letters to distinguish individuals. Letters so used are merely improved relative pronouns. Thus, while demonstrative and personal pronouns are, as ordinarily used, "genuine indices," relative pronouns are "degenerate indices"; for though they may, accidentally and indirectly, refer to existing things, they directly refer, and need only refer, to the images in the mind which previous words have created.

Peirce: CP 2.306 Cross-Ref:††

306. 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. See 1.558.

Peirce: CP 2.307 Cross-Ref:††

§6. SYMBOL †1

307. A Sign (q.v.) which is constituted a sign merely or mainly by the fact that it is used and understood as such, whether the habit is natural or conventional, and without regard to the motives which originally governed its selection.

Peirce: CP 2.307 Cross-Ref:††

{Symbolon} is used in this sense by Aristotle several times in the ***Peri hermeneias,*** in the ***Sophistici Elenchi,*** and elsewhere.

Peirce: CP 2.308 Cross-Ref:††

308. THEMA:†2 A word proposed in 1635 by Burgersdicius [Burgersdyk] in his ***Logic*** (I., ii., §1), for that "quod intellectui cognoscendum proponi potest"; but what he seems to mean is what Aristotle sometimes vaguely expresses by {logos}, the immediate object of a thought, a meaning.

Peirce: CP 2.308 Cross-Ref:††

It is of the nature of a sign, and in particular of a sign which is rendered significant by a character which lies in the fact that it will be interpreted as a sign. Of course, nothing is a sign unless it is interpreted as a sign; but the character which

causes it to be interpreted as referring to its object may be one which might belong to it irrespective of its object and though that object had never existed, or it may be in a relation to its object which it would have just the same whether it were interpreted as a sign or not. But the ***thema*** of Burgersdicius seems to be a sign which, like a word, is connected with its object by a convention that it shall be so understood, or else by a natural instinct or intellectual act which takes it as a representative of its object without any action necessarily taking place which could establish a factual connection between sign and object. If this was the meaning of Burgersdicius, his ***thema*** is the same as the present writer's "symbol." (See Sign.)

Peirce: CP 2.309 Cross-Ref:††

CHAPTER 4

PROPOSITIONS†1

§1. THE CHARACTERISTICS OF DICISIGNS

309. Of the three classes of the [third] trichotomy of representamens--the simple or substitutive signs, or ***sumisigns*** [***rhemes***]; the double or informational signs, quasi-propositions, or ***dicisigns;*** the triple or rationally persuasive signs, or ***arguments,*** or ***suadisigns***--the one whose nature is, by all odds, the easiest to comprehend, is the second, that of quasi-propositions, despite the fact that the question of the essential nature of the "judgment" is today quite the most vexed of all questions of logic. The truth is that ***all*** these classes are of very intricate natures; but the problem of the day is needlessly complicated by the attention of most logicians, instead of extending to propositions in general, being confined to "judgments," or acts of mental acceptance of propositions, which not only involve characters, additional to those of propositions in general--characters required to differentiate them as propositions of a particular kind--but which further involve, beside the mental proposition itself, the peculiar act of assent. The problem is difficult enough, when we merely seek to analyze the essential nature of the ***Dicisign,*** in general, that is, the kind of sign that ***conveys*** information, in contradistinction to a sign [such as an icon] from which information may be derived.†P1

Peirce: CP 2.310 Cross-Ref:††

310. The readiest characteristic test showing whether a sign is a Dicisign or not is that a Dicisign is either true or false, but does not directly furnish reasons for its being so. This shows that a Dicisign must profess to refer or relate to something as having a real being independently of the representation of it as such, and further that this reference or relation must not be shown as rational, but must appear as a blind Secondness. But the only kind of sign whose object is necessarily existent is the genuine Index. This Index might, indeed, be a part of a Symbol; but in that case the relation would appear as rational. Consequently a Dicisign necessarily represents itself to be a genuine Index, and to be nothing more. At this point let us discard all