CHAPTER 2

The Theory of Signs

The first purpose of this chapter is to introduce and to explain the theory of signs as put forth by C. S. Peirce. The second purpose is to show how language fits into the theory of signs. The third purpose is to show how the theory of signs predicts and explains the duplicity of language.

It is important to introduce the theory of signs into this argument because the theory of signs provides hospitable frame of reference in which to ground the new point of view I am trying to establish here. And this frame of reference is particularly valuable because it is an absolutely primitive frame of reference, which is to say that it is independent of both the conventional ordinary point of view and independent of the conventional scientific point of view. That is, the theory of signs does not rest on the premises of the science of physics, and it does not rest on any of the conventional metaphysical premises, and it does not rest on the conventional conceptualization of logic and mathematics and geometry. The theory of signs comes at the problem from a new point of view. Thus the theory of signs provides fresh new ground, ground that has not been carved up and trampled over by centuries of trench warfare, and ground from which our fresh new point of view in regard to language and the human situation happens to evolve naturally.

And it is necessary to explain Peirce’s theory of signs, in spite of the fact that it has been in the market place of ideas for many years, because it has not been commonly understood. Or rather, to be more precise, because it has been commonly misunderstood. The fact that it is commonly misunderstood can be attributed in part to Peirce’s obtuse and fragmentary style and in part to the inherent complexity of the subject. And in part to the fact that it is not the conventional point of view. But for whatever reason the fact is that the theory of signs has commonly been misunderstood and misrepresented and misused, and thus it has produced very little in the way of understanding and much in the way of confusion, and thus, in the linguistic universe of discourse at least, Peirce’s theory of signs is generally considered to be incoherent and useless. So the first purpose of this chapter is to exhume the theory of signs from the layers of sedimented conventional confusion under which it has been buried and to bring it back to life.

Given the theory of signs then, the second purpose of this chapter is to explain how language, which is a system of signs, of course, is situated in the framework of the theory of signs. And the third purpose is to explain how the duplicity of language follows from the theory of signs.
Let me be a little more specific about this last point, as it is the crux of the argument. I will explain in this chapter that Peirce posits as the primitive generative element of the realm of signs a certain predicate, namely, “the cut.” To put it another way, in the theory of signs all signs are generated by the cut. In generating a sign what the cut cuts is the situation. It cuts the situation into two frames of reference, two conceptual layers, and thus gives rise to the two-layered frame of reference in which the sign has its being. Thus, as a function of the cut, all signs are essentially duplicitous. And, since language is a system of signs, it follows that language is essentially duplicitous.

Turning now to consider the theory of signs, I think we should begin by noting the ironic situation of Peirce in the modern world view. Peirce was something of a tragic figure. He was a brilliant logician, and yet very few of his contemporaries appreciated his thinking, so he spent most of his adult life unemployed or underemployed living in a remote village in Pennsylvania. His most constant benefactor and friend was William James, who seemed to appreciate Peirce’s ideas in some vague and mystical way, but who admitted that he never understood what Peirce was talking about. And yet Peirce’s theory of logic and the theory of signs which follows from his theory of logic have had a profound influence on the thinking of scholars in a wide variety of disciplines, especially in Europe. Peirce’s theory of signs has become very influential as a widely accepted framework for the study of communication in the most general sense, a pan-discipline discipline of study called “semiotics”1, although it is of much greater currency in Europe than in America. So, in spite of the fact that Peirce was, as Roman Jakobson said, in his “Quest for the Essence of Language” (1971, p. 346), perhaps the most inventive and versatile among American thinkers he is almost entirely unknown among both among laymen and scholars in the United States. And what is perhaps most ironic is that this “most inventive and versatile” thinker about logic and language is a virtual non entity in the world view of formal logicians and linguists, especially in the United States.

Jakobson was one of the few exceptions, though one could maintain that he was not really and exception because he was essentially a European scholar. But in any case Jakobson’s praise was not just lip service. As he makes clear in the above mentioned essay, from the time he first became acquainted with Peirce’s theory of signs he took it over as the basis of his own thinking about language. And since Jakobson was and still is one of the most respected linguists in the history of linguistics, one might have supposed that the theory of signs would have played a significant role in the development of modern linguistic theory, but the fact is that it hasn’t. So from the point of view of the modern linguistic universe of discourse, the most salient characteristic of Peirce’s theory of signs is that it is not understood, and thus it is almost entirely ignored.

Against this background, the first point I want to make in this chapter is that I agree with Jakobson that Peirce’s theory of signs provides exactly the framework that is needed for an adequate theory of language. Second, I want to suggest that the reason that most linguists, and others, have so much trouble understanding Peirce’s theory of signs is that they are trying to do so in terms of rational

1. Peirce’s seminal thinking has given rise to mountains of publication in disparate fields of inquiry, so it is impossible to cite any central comprehensive reference. I have focused on Peirce’s Collected Papers, and I have also found Eco’s Semiotics and the Philosophy of Language, and Murphey’s The Development of Peirce’s Philosophy to be useful. See also the recent biography, Brent 1993.
logic, whereas the theory of signs is based on the much deeper logic of duplicity. So in these terms the purpose of this chapter is to kill two birds with one stone: to explain how Peirce’s theory of signs evolves from the logic of duplicity, and thereby to try to make it clear to linguists that in order to understand the theory of signs as the basis of a theory of language and to understand language itself one must look in terms of the logic of duplicity.

**Natural Logic**

Peirce’s thinking in regard to both logic and the theory of signs is based on the premise that there is a natural and inherent logic of categories. Peirce holds that the natural logic of categories underlies and governs the realm of signs. And since language is a system of signs, the natural logic of categories underlies and governs language. And thus the natural logic of categories also governs all the other symbolic systems, which are conceptually downstream, such as symbolic logic and mathematics.

Peirce holds that one can observe the logic of categories at work in every symbolic system including ordinary language, formal symbolic logic, set theory, and mathematics. And from this it follows that one can learn how the logic of categories works by studying the way it works in any of these symbolic systems. I will briefly cite a few of the more obvious examples from ordinary language in a moment, but Peirce did not take this approach to the natural logic of categories. He developed the basic framework of natural logic of categories in terms of the internal logic of the first three numbers, taken not as elements in the endless sequence of numbers, but as the most primitive types of categories, or equivalently, the most primitive types of relationships. Thus he talks about the tripartite logic of categories in terms of the concepts of frostiness, scantness, and thirteens. It would take us too far afield to fully explain the natural logic of categories here, but in as much as this logic is basic to Peirce’s way of thinking, it might be useful to try to convey some idea of what he has in mind. For a fuller understanding I refer the reader to Peirce’s own explanations.

The idea is really very simple, but it is so simple that it is hard to think about. One has to adopt a simplistic, child-like, very unanalytical frame of mind. When you begin to count, for example, you begin with “one.” And in the beginning there is only one thing. Then comes another thing, and so there are two things. Then comes another other thing, and so there are three things. And as Peirce argued, and as logicians in general have argued, those three basic concepts comprise the foundation of all logic. In terms of symbolic logic the three basic concepts are called identity, negation, and conjunction. But, as we will see, Peirce frames the logical situation in a different way.

So let us put conventional symbolic logic aside for the moment and look at the qualitative characteristics of the three categories as Peirce does. Obviously the first type of category in the system of categories is firstness. The essential characteristic of firstness is its rank of firstness and its quality of oneness. The first category has one member and thus it is the category of oneness and relations of oneness, such as unity, identity, and, using Jakobson’s term, similarity. The dynamic of firstness is centripetal, that is, thrusting in toward the center, gathering together into one. In other words, if the only verb you could use to categorize things was “similar”, then everything would belong to one category because in one way or another, everything is similar.

The second type of category is secondness. The essential characteristic of secondness is otherness or difference. The second category contains another element, a second element, the essential
characteristic of which is that it is different from the first. So the second element, which is the essential characteristic of secondness, presupposes and derives from the first by virtue of the logic of opposition. The second is other-than-the-first. The dynamic of secondness is thus centrifugal, that is, thrusting out away from the center by means of the force of opposition. So in terms of the metaphor of our physical universe, we live on the earth, where down is first and up is second. In terms of chronological priority, one is first, two is second. In terms of the dimension of veracity, truth, which is one, is first, and false, which is many, is second. Putting the dynamic and conceptual types together we can say that the false arises from the true, the false struggles to sustain its difference against the natural gravitational force of oneness, and eventually the false collapses back to the true.

The third type of category is thirdness. The essential characteristic of thirdness is reunion. And it is crucial to realize that the re-union of thirdness is not the same as the original union of firstness. The type of unity of thirdness is categorically different from the type of unity of firstness. The unity of thirdness is merely synthetic unity, or mediated unity, or representational unity. It is symbolic unity. The dynamic of thirdness is substitution. To be specific, thirdness involves the substitution of the representation of unity for the reality of unity. And this substitution entails the sacrifice of the third element, which is the essence of thirdness, in the process of mediating between the first and the second. So the third element in the logic of thirdness is that which represents the reunification of the second with the first. But of course, in representing reunification, the third necessarily presupposes that there is a second and a first, and thus presupposes that there is no real unity. For if the second were really united with the first, then there would be no possibility of mediation and thus no third.

I realize that these brief characterizations are merely suggestive, and perhaps even more confusing than enlightening, but rather than trying to explain the idea discursively, I think it would be more useful to try to illustrate this tripartite system of categories through our discussion of the tripartite systems of signs, because the system of signs follows from the underlying system of natural logic. And, as I said above, the tripartite logic of categories can be seen in every system of language.

For example, every language has exactly three basic pronominal categories. And these categories have traditionally been called first person, second person, and third person. I am suggesting that it is not an accident that the grammar of every language has the same tripartite categorization of persons in their pronoun system. This is a universal fact about language, which follows from the natural logic of categories which underlies and governs language. Of course, the pronoun systems of languages vary as to whether they obligatorily distinguish other categories, such as number, or gender, or animateness, etc., but the pronoun system of every human language has a system of categories of persons which consists of exactly three persons, no more and no less, and these three have traditionally been called first, second, and third person.

Another example. All languages have three basic categories of noun phrases, or nominal roles, in relation to the verb of a sentence. These nominal roles are subject, object, and indirect object. And the grammar of these nominal categories is structured in various ways as a function of the natural logic of categories. For one thing the nominal types are ordered: subject is first, object is second, and indirect object is third. This ordering is manifest in many different ways in the grammar and semantics of language. For example, this ordering governs the logically possible types of verbs: there are verbs that take three arguments, two arguments, or one argument, but there are no verbs that take no argument, and there are no verbs that take four or more arguments. Further, just as it is necessarily true that if there is a set of three things then that set also contains two things, so too it is necessarily
true that if a verb has an indirect object then it must have a subject and an object. That is, a sentence with an indirect object and no direct object would be logically impossible. Likewise, if a set contains two things then it also contains one thing. Thus, since the object is second, it follows that if a verb has an object, then it must have a subject. But the reverse does not hold. That is, a verb can have a subject with no object or indirect object, e.g., “Bob died”. And a verb can have a subject and an object with no indirect object, e.g., “Bob killed Jim”. But the natural logic of categories governs the semantic possibilities of language such that there can be no verb that has an object which does not also have a subject, and there can be no verb with an indirect object which does not also have an object and subject. These possibilities simply do not occur in natural language because they are logically impossible. It would be as incomprehensible as the idea of basket which contains three oranges, but not two oranges, or a basket which contains two oranges, but not one orange. Thus the semantic and grammatical structuring of verbs and their nominal arguments is governed by the underlying natural logic of categories such that subjects are first, objects are second, and indirect objects are third.

Another example. It is well known that all of the laws of logic can be derived from three primitive logical elements: identity, negation, and conjunction (or disjunction). These three elements correspond to the three categories. The first is identity. The second is difference. And the third is conjunction (or disjunction). Note that difference necessarily follows identity, because you cannot have something different until you have something to be different from. And note that conjunction necessarily follow difference, because conjunction is a relation between two things, and the second is derived from the first by difference. Thus the three fundamental operations in logic are a function of the natural logic of the tripartite system of categories.

We could go on discussing such examples indefinitely, but this is enough to illustrate the idea of the natural logic of categories which underlies Peirce's theory of signs. Let us go on now to look at how the realm of signs is structured in accord with this logic of categories.

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**The Definition of a Sign**

Peirce defined the sign thus: A sign is something that represents something to someone. Or, to put it in the form of a simple (non cleft) sentence:

**A SIGN REPRESENTS SOMETHING TO SOMEONE.**

Note that in this statement of the sign function, “represent” is the verb of the function of a sign, and note that this verb requires all three types of nominals - subject, object, and indirect object. Each of the nominals in this defining sentence characterizes one of the three fundamental elements in the grammar of the sign.

1. The sign, which is the subject of the defining sentence above, functions as the subject in the grammar of the sign relationship.
2. The something, which is the object of the defining sentence above, functions as the object in the grammar of the sign relationship.
3. The someone, also known as the interpreter, the one to whom the sign represents its object, the one who is the indirect object of the defining sentence above, functions as the indirect object in the grammar of the sign relationship.
So we could describe the situation implicit in the sign relationship thus: A first party (the sign) represents the second party (the referent) to the third party (the interpreter).

Because of the fundamental role of the sign in human functioning, the implications of this defining sentence are very far reaching, and Peirce’s voluminous writings attempted to pursue some of these implications. But one direction of implication which he did not pursue is this: as we mentioned above, the grammar of personal pronouns is implicit in the logic of categories, and because we conceptualize our selves and our relations in terms of pronouns, the grammar of personal identity, and the grammar of social structure, is implicit in this sentence. In short, the structure of self and society is governed by the logic of signs.

For example I point out in passing the very important and very enigmatic fact that the subject of the sentence which defines the sign function is the sign itself, not the living being that transacts in the sign. And correspondingly, the living being in the grammar of the sign occupies the position of the indirect object. This implies that, whereas we think of our selves as being the subject in our relations and we think of signs as being objects which we manipulate, the fact is that in the realm of signs the sign is the subject and we living beings are the indirect objects, the audience to which signs represent things, including our selves. So the grammar of the sign implies that the first and most basic element of human identity is not the lived experience of a human being, but the role of the subject of a sentence. Of course this seems like a strange way to talk about identity, but one must bear in mind that the point of view from which it seems strange is the conventional point of view. If one looks at the way identity works in reality, it becomes apparent that this bizarre reversal of positions from what is conventionally supposed to be the case is exactly what happens. This seemingly strange inverse logic of persons explains many well known fact which have hitherto remained anomalous.

For example, it is common knowledge that a child does not refer to himself from the beginning in terms of the pronoun “I”, as one would expect from the conventional way of looking at identity. When a child begins to interact in the medium of language he does not use any pronouns, but rather he first refers to himself in terms of the name others use to refer to him. In the beginning the child says of himself, “Bobby fall down”, not, “I fall down.” In other words, he begins to conceptualize himself as seen from the point of view of the other, and in terms of the names given to him by others. And when the child subsequently does begin to use pronouns, he masters them in a fixed order, but he begins with the third person not the first person. So at a certain stage in his development a child is capable of structuring his world in terms of names, of you’s and he’s, but not “I”. The first person pronoun is the last to be mastered.

Unfortunately we cannot explore the fascinating and very important implications of the grammar of personal identity and the grammar of collective social structure further here; we must go on to explore the place of the duplicity of language in the theory of signs, although this issue is obviously not irrelevant to the duplicity of the human situation. In fact, Jacques Lacan and his students have explored the implications of this peculiar reversal of priorities in great detail. Lacan explained the reversal of priorities in the roots of human ontogeny as a function of a stage of development which takes place at about six months of age which he called the mirror stage. (See “The mirror stage as formative of the function of the I as revealed in psychoanalytic experience” in Lacan (1977).) The connection here is that the reversal of polarity that occurs in the mirror stage of infantile development is the manifestation of the duplicity of the realm of signs in the logic of personal identity.
The Typology of Signs

Now let us consider the theory of signs in terms of the three basic types of signs. When we consider the types of signs what we are looking at is the different types of relationships of representation between subject and object. That is, signs represent referents to interpreters in three different ways. And the three types of signs are a function of the natural tripartite logic of categories. Peirce called these three types of signs “icons”, “indexes”, and “symbols”. And they are ordered respectively as the first type, the second type, and the third type. We will discuss them in this order.

The first type of sign is the “icon”, which is a sign that refers to its referent by virtue of a relationship of similarity or identity. As Peirce said, “A sign by Firstness is an image” (2.275), so we might think of the visual image as the prototype of this most basic kind of sign, the iconic sign.

To take a specific example, let us consider the situation which we would ordinarily describe thus: “I see the moon”. The point we want to focus on is that this is an elliptical way of speaking, because as we all know, we do not really see the moon itself, but rather we see an image of the moon which is conveyed to our eyes by light which has been reflected from the moon. The fact is that the image of the moon and the moon itself are totally different things in totally different places. The image of the moon is in my eye, the moon itself is thousands of miles away. In terms of sign theory, we would say that an image of the moon is an iconic sign of the moon.

When we stop to analyze this situation which we normally describe as, “I see the moon”, we realize that we really should say, “I see an image of the moon”. But in ordinary language we do not normally bother to mention the intermediary stage of the perception process, the part of our relation to the moon that is mediated by the sign, because we are normally interested in the referent of the sign, not in the sign. That is, we are interested in the moon, not in the sign of the moon. And in accord with the fact that we do not ordinarily talk about the intermediary role of the sign, we don't ordinarily think about the intermediary role of the sign either. Our attention jumps right over the sign of the thing to the thing itself so that in our talking and thinking we slide inadvertently into the error of confusing (literally, fusing together, making two into one) the sign and the thing which the sign represents.

1. There has been considerable confusion about the relation between the concepts of similarity and identity, and opposition as well. As these concepts are basic to Peirce’s theory, a note of clarification is in order. Two things can be judged to be similar in varying degrees. Identity is the limiting type of similarity, where the two things are considered to be totally similar, or in other words, the same thing. However, in terms of symbolic logic, with the law of the excluded middle, identity is a logically impossible relationship because two things cannot be one thing. You cannot step in the same river twice. In fact, you cannot step into the same river once. Thus one can only make sense of the relation of identity in a duplicitous frame of reference where two things that are judged to be different on one level are judged to be the same on another level. Or in other words, judgements of identity only make sense in the context of some independent standard of reference governing substitutability, such as a game or some other game-like context. As for the relation of opposition, two things are opposite if they are identical in every respect except one. Thus in the English system of orthography the letters “d” and “b” are opposite because they are the same in every respect except their left-right orientation. But “d” and “d” are the same letter notwithstanding the fact that they are different.

2. I will use this notation in reference to the Collected Papers of Charles Sanders Peirce. “2.275” refers to volume 2, paragraph number 275.
This confusion is an instance of the error upon which we are trying to focus attention here. This is the classical error of thinking that the sign is what it represents. It is the error of thinking that what you see is what you get. It is the error committed by the little fish we met in Chapter 1, which led to his becoming a victim of the angler fish. And this error is the root of the generic human problem which arises as a function of the duplicity of language. And as we are beginning to see, it is an error that arises as a function of the duplicity of signs in general.

Here as we look into the anatomy of the iconic sign we can see that even the most basic kind of sign is necessarily duplicitous in the most literal possible sense: the image of the moon is a likeness of the moon which appears to be the moon, but it is not the moon. So while it might be convenient to omit the sign in our ordinary everyday talking and thinking, when we do so we move onto the slope of confusion, which slides into error. Thus if we want to develop a framework in terms of which we can unravel the confusions of language, and the human situation in general, and our personal situation in particular, then we must take care to predicate our thinking on the realization that our interaction with the world is mediated by perceptual images and other kinds of signs. As I have said, the perceptual image is the most basic kind of sign and is thus the building block of the perceptual realm in which we, and other living beings, play out our lives. So let us note that it is not only human language that is duplicitous, but that even the most elementary of signs is duplicitous. All signs are duplicitous, and so we must relate to them accordingly, as deceptive, as alluring, and as dangerous. We must slow down our talking and thinking so that we can carefully investigate what is going on so that we can stop our automatic and unconscious inclination to confuse the image with the thing it represents.

Let us move on now to consider a somewhat more complex situation: “I see the moon in the water”. Once again this ordinary expression is elliptical. What is really going on here is that I am seeing an image of an image of the moon. In terms of sign theory we would say that I am seeing a sign of a sign of the moon. Although this sort of situation is still quite simple, it shows that sign relations can become elaborated by means of iterative replications of the basic sign relation to generate chains of signs, to which there is in principle no limit. The possibility of iteration in the realm of signs is like the possibility of addition in mathematics: One is not obliged to keep on adding just because it is possible, but there is no limit to the possibilities, except the pragmatic limits of exhaustion and confusion.

For example, consider the slightly different kind of iteration implicit in the following. If one wanted to go to the trouble of arranging three bowls of water in the proper way, one could create a situation about which one could say, “I can see three moons in the water at the same time”. Or, if you are one of three people who are looking at the moon, you could say, “We see three moons”, meaning that each of us is seeing a different image of the same moon. These examples of iteration in the iconic

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1. That the sign is duplicitous is implicit in the underlying meaning of the word “sign”. The word was borrowed into English from Latin *signum*, which came from the Proto-Indoeuropean root *sekʷ-, meaning “to follow”. It has cognates “sequel” and “sequence” borrowed from Latin *sequi*, and “second” from Latin *secundus*. Thus “sign” means “the second thing” or “that which follows”, as a shadow follows the real thing. The word “social” comes from the same root, having been borrowed into English from Latin *socius* “one who follows”, which of course implies that that which is social is also duplicitous.

2. Note by the way, that this sentence shows that the grammar of English presupposes and that our use of English grammar is unconsciously governed by the interplay between the one and the many because we say “an” image, but “the” moon, where “an” implies “one of many” and “the” implies the only one, because there are many images of the one moon. Thus the conventional usage of determiners also is governed by an unconscious awareness of the duplicity of signs.
sign relation are different from the above in that they are radial replications rather than serial replications.

And, of course, there are situations which can combine both radial and serial kinds of iteration in various ways. Consider the situation implicit in this sentence: “I see the moon in the water and I see the moon in the mirror”. Here we have two chaining iterations of two radial iterations. So these various examples show how even the most basic sign relation alone can be iterated in various ways to generate extremely complex sign relations. And obviously as we move up the scale of complexity adding the second and third types of signs the combinatorial possibilities become exponentially more complex.1

Let us move on to the second type of sign, the indexical sign. While the iconic sign refers to its referent by virtue of a relation of similarity, the indexical sign refers to its referent by virtue of a relation of physical contiguity, or actual contact in the limiting case. Consider this example: “I see a footprint of a deer in the mud”. This is a two-level sign relation similar to that of the moon in the water, but it is different in that it involves two different type of sign relations. One is an indexical sign, the other is an iconic sign.

The impression in the mud is an indexical sign of the foot of the deer, and the image of that impression which I see in my eye is a iconic sign of that indexical sign.

This example illustrates the dimension of displacement that is characteristic of indexical signs as distinct from iconic signs. There are two dimensions of displacement here. The impression in the mud is made by the physical presence of the foot of the deer in contact with the mud which forced the mud to conform to its shape. And the mud is of sufficient viscosity that it preserves the impression after the deer is no longer present. In the example of the iconic sign of the moon in the water, the image of the moon does not change the shape of the water, or in any other way materially affect the water, and the image remains in the water only as long as the moon is present. In other words, the indexical sign in the mud is displaced in both time and space from its referent, whereas the image in the water is only displaced in space.

This dimension of displacement that is characteristic of indexical signs opens up a vast new realm of new possibilities, and a vast new realm of problems. For example, a photograph is like the mud in that it can retain impressions for a long time. The mind is also like the mud in that it can retain an impression long after its referent is gone, perhaps dead, or even totally extinct, like the footprints of the dinosaurs. Also like the mud, the mind can be used by man to manufacture images of referents that never did exist. Or, the mud can be used to manufacture images of referents that only exist in the imagination.

Given these new dimensions of duplicity, chronological displacement, and imaginary displacement, together with the second kind of duplicity inherent in the indexical sign relation, the possibilities of displacement from reality which are possible in the realm of signs at the indexical level is exponentially increased from that which is possible at the level of the iconic sign. The realization of this fact opens the way to an awareness of how complex imaginary realms of duplicitous interaction

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1. I would like to point out that complex systems of this kind are not just logical possibilities. Lakoff (1987) described many different kinds of grammatical systems in many different languages that are a function of the iteration of these two types of pairwise relations, which he called “radial” and “chaining” relations.
can evolve from the sort of tiny gaps of displacement from reality as are implicit in the logic of a foot- 
print in the mud. And, of course, displacement from reality is just another way of talking about 
duplicity.

There is also another indexical sign function implicit in this situation, and another kind of dis- 
placement. The footprint of a deer is not only a sign of the foot of a deer, but because the foot is part 
of a deer, it is also a sign of a deer. This kind of sign is a function of the relationship between the parts 
and the whole. Each part, taken separately, is a sign of the whole. Thus the hair of a deer is a sign of a 
deer. The droppings of a deer is a sign of a deer. The smell of a deer is a sign of a deer. And the foot 
of a deer is a sign of a deer. And so on.

As we discussed above, an image of the moon in the water is an iconic sign of the moon 
because its connection to the moon is that it is similar in appearance. The example of the moon in the 
water is unusual because you can look back and forth between the image of the moon and the image 
of the image of the moon in the water to compare the two images, and see that they are similar, and 
thus directly see the multiplicity of images, and directly see into the mechanics of representation. By 
contrast, if we look at an image of our face in a mirror, for example, there is only one image in our 
field of vision, and since we cannot see our face directly, we cannot compare direct and indirect 
images in the same way. So too in ordinary perception there is only one image in our field of vision. 
That is, if we see the image of a duck flying across the sky, that is all we have to go on. There are 
rarely two images of the same thing in our field of vision at the same time. Thus in ordinary percep- 
tion it is easier to overlook the imaginariness of the images which we see. This is why the moon in the 
water is a particularly good to consider in trying to expose the intermediary role of images as iconic 
signs.

In regard to the example of the moon in the water, we should comment on the fact that the two 
images which we see, the image of the moon and the image of the image in the water, may be virtu- 
ally identical in appearance. One might suppose that a relation of identity is different from a relation 
of similarity, and therefore that this is not really an example of an iconic sign. But identity is not a cat- 
egorically different relation from similarity. It is merely the limiting case of similarity: There is a 
scale of similarity such that if two things are totally similar, then they are identical. Or to put it the 
other way around, if they are identical, then they are totally similar\(^1\). And if the surface of the water 
were to move even slightly, the image in the water would be distorted, so that the two images might 
vary between being identical and merely similar through time, but the image in the water would still 
be a sign of the moon whether it was identical or merely similar\(^2\). In fact, even a totally unrecogniz- 
able flash of light reflected in the water could be taken as a sign of the moon.

The point I want to make here is this: whether one image is objectively identical to another or 
only similar or totally different is irrelevant. One of the characteristics of the realm of signs which 
makes it easier to get confused is that one must make a subjective judgment as to whether the two 
images are images of the same thing or not. There is no independent objective standard. It is a well 
known matter of fact that sometimes two seemingly identical images are images of different things,

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1. This is only one manifestation of the confusion of identity. The concept of identity is intrinsically duplicitous. Consider 
   this: The sentence “A is identical to B” presupposes that there are two things, namely A and B, but it asserts that those 
   two things are one thing.

2. See the discussion of the mirror image as a limiting case of the iconic sign function, Chapter 7, “Mirrors”, in Umberto 
   Eco, *Semiotics and the Philosophy of Language*, Indiana University Press, Bloomington. 1986
whereas sometimes two different images are images of the same thing. As an example of the former witness the angler fish’s worm. As an example of the latter witness the moon in moving water.

So there is a gap between the sign and the thing which the sign represents. This gap is the space of possibility, of variability, of uncertainty, of error. And thus it is the space which offers the possibility for fraud and deception, for wishful thinking, for selective ignorance or creative interpretation, etc. And therefore, this gap is the critical juncture in the dynamic of the sign, the weak point in our contact with reality, where the necessity for wise judgment comes into play in trying to bridge the gap correctly. This gap, this space of possibility, is the realm of duplicity.

Recall that in our discussion of the three categories above we mentioned that there is a relationship of conceptual evolution between the three categories. Just as a category of three things presuppose a category of two things and a category of two things presupposes a category of one thing so does the category of thirdness presuppose the category of secondness and the category of secondness presuppose the category of firstness.

And since the three sign types follow from the logic of the three categories, it follows that there is also a relation of conceptual evolution between the three types of signs. The iconic sign is first and the indexical sign is second.

One way one can see the relation of conceptual evolution is in the necessary sequence of steps by which one interprets signs. Consider the footprint example: First as the mud comes into one's field of vision an abnormal shape in the mud comes to one's attention; then one recognizes the mark as the footprint of a deer, because one notices that it is similar in shape to the foot of a deer; then one reasons that this similarity is probably a function of the physical impression of the foot of a deer so there must have been a deer on this spot. So the indexical sign function evolves from the conceptually prior iconic sign function.

Another example of an indexical sign: Smoke is a sign of fire. This is an indexical sign function because smoke is connected to fire by virtue of the fact that it is produced by fire. So if we see a column of smoke in the distance, then we can interpret that as a sign which indicates a fire, hence an indexical sign.

Another example, in Peirce's words,

A sundial or a clock indicates the time of day. (2.285, his emphasis)

He also mentions many other examples.

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...The pole star is an index, or pointing finger, to show us which way is north. A spirit-level or plumb bob, is an index of the vertical direction. (2.286)

1. Note that “recognize”, borrowed from Latin, literally means “to cognize again”, semantically equivalent to English “to know again”. Thus the word refers to the process of concluding that this image is similar to an image which you remember from past experience, i.e., that they are images of the same thing. It describes the working of the iconic sign function from the point of view of the interpreter.
The act of pointing is perhaps the most typical example of the indexical sign, or at least it is the example from which the name of the type, “index”, comes.\(^1\) The most basic indexical signs in language are the demonstrative pronouns, “this” and “that”, which are obviously related to the act of pointing. And because these words are indexical signs they cannot be interpreted unless they are accompanied by something else which provides an indication of physical orientation. That is why it is inappropriate to say, “I caught a fish this big”, without something nonverbal index that indicates the size you are referring to by the word “this”.

When we consider examples of indexical signs such as these, it might seem, contrary to the assertion that was made above, that in some cases there is no prior iconic sign function. But this only appears to be the case when we think about signs in the abstract. For example, when we think of smoke as a sign of fire, the indexical dimension is obvious, i.e., smoke is produced by fire, but there seems to be no iconic dimension. But our thinking works this way because, in keeping with conventional linguistic practice, we have simply left out the iconic stage of the calculation. When we see an image that looks like smoke, if there is no ambiguity about the identity of the image as smoke, then we automatically identify it as smoke because it looks exactly like smoke, and then we take that smoke as a sign of fire. But in reality we do not see smoke, we see an image of smoke. And our judgement that it is an image of smoke is the first stage in the process of interpreting smoke as a sign of fire. Thus in the ideal case we are not consciously aware of the fact that we have used the iconic sign function in our interpretation of the visual image as an image of smoke.

However, when there is some doubt about the identity of what we see, then the iconic sign function becomes a problem, and it comes to our attention. For example, on a day in which the sky is otherwise clear we might see some diffuse whiteness against the blue far away on the horizon but not be able to tell if it is smoke, or just a cloud, or fog, or perhaps the snow caps of a distant mountain range. Another example: Outside of my window there is a small canal. This morning there was a hazy whiteness over the surface of the water but I could not determine just by visual observation if it was fog arising from the water because the air was cold or if it was smoke drifting down the canal from the neighbor’s burning leaves. Only when I went outside to smell could I determine that it was indeed smoke. In cases such as these, where the image is vague, the iconic aspect of the indexical sign function forces itself into our awareness. Otherwise the iconic level of the indexical sign function remains unconscious.

Thus when we take smoke as a sign of fire, there are two stages of reasoning: first there is an iconic stage of reasoning where we identify what see as smoke, as distinct from clouds, or fog; and then there is an indexical stage of reasoning where we reason that if there is smoke, then there must be a fire, because smoke is produced by fire. So when we identify the percept as smoke, we are reading the percept as an iconic sign, and then when we take smoke as a sign of fire, we are reading it as an indexical sign.

Or consider the act of pointing in regard to the iconic dimension of the indexical sign. In American culture one points by extending one’s arm in the direction of the object being referred to with one's hand clasped in a loosely clenched fist except for the index finger, which is extended in the direction of the object being indicated, which is why it is called the “index” finger. Again, when we consider the act of pointing as an indexical sign in the abstract, it seems to be purely indexical with-

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1. Latin “index” means “indicator” and refers to the finger which we call in English the “forefinger” or the “index” finger.
out any underlying level of iconic sign function. However, the iconic level becomes evident when interpretation becomes a problem through doubt about whether the person is really pointing or just reaching out to grab something or to touch something. The iconic level also becomes evident if one considers cultural variability in ways of pointing and considers the question of what it is about the various gestures that permits them to function as an act of pointing. For example, whereas in American culture the stereotype of pointing is with the index finger, we do sometimes point with our eyes, or with a turn of the head. Some cultures point with their elbows, some with their lips pursed, some with their nose. But what all of these indexical signs have in common is that they orient and/or extend some salient body part in the direction of the referent. For example, those who use their lips as an index, when they point they purse their lips to make them protrude even more than usual, and they raise and tilt their head in such a way as to make their lips move in the direction of the object of reference. Thus what all acts of pointing have in common is that they protrude and/or move in the indicated direction and thus they move our attention in that direction. In other words, moving my hand in that direction is similar to moving my whole body in that direction is similar to moving my eyes in that direction is similar to moving my attention in that direction. So to “get the point” is to grasp the similarity between the movement of the indicator (the finger, lip, eye, etc.) to the referent and the intended movement of attention to the referent. This similarity is the iconic dimension of the indexical sign of pointing.

Thus having described and illustrated the evolutionary logic of the first two levels of the system of signs, let us move on to consider the third type of sign, which Peirce calls the “symbol.”1 The symbol is a sign that represents an object by virtue of an assumption, a stipulation, an agreement, a rule, or a convention. Language is the symbolic medium, and the word is the basic symbolic element, but “all words, sentences, books, and other conventional signs are Symbols” (2.291) And, of course, being the third type of sign, the symbolic sign evolves from and incorporates2 the prior two types of signs.

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 can 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. (2.299)

Note that in the case of the symbol, the relationship between the sign and the referent is a function of nothing more than the idea that they are related. All that is required for something to represent something to someone as a symbolic sign is for that someone to consider it to do so. So I can make up my own symbols as I wish. And you can make up your own symbols as you wish. Or we can make up symbols in agreement with each other as we wish. Or we can adopt the symbols that have been collectively developed by the language and culture that we happened to be born into. Thus it is possible

1. Peirce points out that the word “symbol” is borrowed from Greek suvmbolon, and etymologically it means “to throw together” or “put together”, or “unite”. (Note, by the way, that diabolon, translated into English as “diabol(ical)” or “devil”, has the same root, and note that it is semantically opposite, meaning “to throw across” or “to pull apart” or “to divide”.). In regard to the role of the symbol as the ground of the social contract, Peirce observed that “we do find symbol (suvmbolon) early and often used to mean a convention or contract.” (2.298)

2. See the discussion of symbolic incorporation below.
to use any arbitrary thing as a symbolic sign to represent any other arbitrary thing. The possibilities are limited only by the fertility of our imaginations.

However, while it is true that symbolic possibilities are only limited by our imaginations, it is also true that our imaginations are limited by reality to the extent that our being is limited by reality. That is, we are free to imagine anything we might wish to imagine, but in the beginning all imagination arises from the ground of reality, and in the end all imagination comes back down to the ground of reality, one way or another, either by gradual evaporation or by sudden collapse. Thus we must take care not to draw the wrong conclusion from the fact that the possibilities of the symbolic realm are unlimited in principle. The fact that it is possible to create any arbitrary symbolic sign we might wish to has led many people to erroneously jump to the conclusion that all symbolic signs are necessarily arbitrary. This is not true.

There are degrees of arbitrariness, or unnaturalness, in symbols. And at the same time there are degrees of motivation, or naturalness in symbols. But we must take care here not to fall into another error, which is to assume that the relation between naturalness and unnaturalness is scalar, like temperature or height. That is, while it is true that all symbolic signs are partly natural and partly unnatural, it is also true, as we have seen, that some signs are purely natural, e.g., shadows and mirror images. So there are signs that are purely natural, but there are no signs that are purely unnatural. Therefore, there are no symbols that are purely unnatural. And at the same time there are no symbols that are purely natural.1

To put it another way, there is an asymmetrical relation between naturalness and unnaturalness, which follows from and manifests the same logic as that of the basic categories which underlie the system of signs. To be precise, in the tripartite system of categories, unnaturalness is a function of the third type, and therefore unnatural relations are built upon the foundation of and evolve from the logic of the two prior kinds of relations, which are natural. Thus, all signs that have an element of unnaturalness, i.e., all symbols, also have an underpinning of naturalness, but the converse is not true. Thus from the logic of signs it follows that there could not possibly be such a thing as a sign that is totally unnatural, not even a symbolic sign.

Let us briefly consider some examples to illustrate the relationship between naturalness and unnaturalness in symbolic signs. One obvious example is that giving food is a natural element of intimate relationship, both among human beings and lower species, and consequently it is natural that human beings in disparate cultures throughout the world would choose to use the act of giving food as a symbolic sign of intimacy or offering to give food in the ceremonial enactment of social relationships which are intended to be intimate, such as marriage.2 In this way, in symbolic systems which

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1. This seemingly strange kind of asymmetrical relationship is not unique to the naturalness of signs. This asymmetry is common in ordinary language; for example, “up” and “down” work this way. “Down” is a fixed point of reference, namely on the ground, whereas “up” is open ended. Thus there is an absolute limit to “down” namely “all the way down”, whereas there is no limit to how “up” something can be. Thus there are endless degrees of upness, and yet there is a categorial limit to downness. So too is “here” and “there”, “now” and “then”, “us” and “them”, etc. Indeed, everything in language works this way. This is a function of the oneness vs. the manyness of the relation between the true and the false. There are no degrees of truth, and yet there are infinite degrees of falseness. So there is a ground of naturalness in signs, an absolute standard, and yet there are infinite degrees of possible unnaturalness. I believe a similar thing occurs in the realm of physics where, for example, there is an absolute lower limit of temperature, called absolute zero, whereas there is no upper limit.

2. The natural basis of such symbols is discussed in some detail in Natural Symbols by Mary Douglas (1970).
have evolved more or less naturally, i.e., more or less unconsciously, without conscious contrivance, without what Franz Boas called “secondary reasoning”, “re-interpretations”, “secondary explanations”\(^1\), symbols come into being through chains of natural associations based upon iconic or indexical relations. Thus the symbols of natural language tend to be relatively natural, especially when compared to artificial languages, such as formal logic, mathematics, and computer languages. But even artificial languages retain inextricable traces of their grounding in naturalness. Although logicians of the logical positivist school have been trying to develop a purely logical language for decades, by which they mean a language from which naturalness has been totally expunged, it is not possible to do so.\(^2\) It is no more possible to have a symbolic system without natural iconic and indexical functions, than it is to have an animal without chemical and vegetative functions.

Of course, as is probably obvious, Peirce’s theory of signs explains the naturalness of symbolic signs as a consequence of the fact that symbolic signs evolve from the lower level iconic and indexical signs, which are connected to their referents by natural relations of similarity or contiguity.

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. (2.302)

One can look at the same phenomena from another angle in terms of the observation that there is no such thing as a purely symbolic sign. All symbols have the value which they do in large part as a function of underlying iconic and indexical functions upon which arbitrary symbolic functions are imposed. In one of his discussions of language in terms of Peirce’s theory of signs Roman Jakobson cited some simple and clear examples which illustrate how the different kind of sign functions are integrated in the same complex sign.

The chain of verbs - *Veni, vidi, vici* - informs us about the order of Caesar’s deeds first and foremost because the sequence of co-ordinate preterits is used to reproduce the succession of reported occurrences. The temporal order of speech events tends to mirror the order of narrated events in time or in rank. Such a sequence as “the President and the Secretary of State attended the meeting” is far more usual than the reverse, because the initial position in the clause reflects the priority in official standing. (1971, “Quest for the Essence of Language”, p. 351)

The words - *Veni, vidi, vici* - are symbols, but the relation of priority among the words, and thus the chronological sequence of the events they refer to, is represented by means of the iconic sign of priority, which in this case is represented by left-to-right order. That is, there is an iconic relation of similarity between order in left-to-right sequence (at least in English) and order in time. So order in left-to-right sequence is an icon of order in time, though in reality the two have nothing to do with each other.

Note the verbs which Jakobson used in this quote to describe the sign function -” reproduce”, “mirror”, and “reflect”. I want to point out first that in general the verbs which are used to describe

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1. In his classic *Handbook of American Indian Languages* (1911, reprinted 1966, p.63-4)
2. See the discussion in Greenberg 1966 beginning on p. 25. He notes that the natural principles of markedness “can be shown to operate even within the austere confines of mathematical and logical symbolism”. For example, in keeping with the fact that truth is naturally prior to false, as we argued in Chapter 1, Greenberg pointed out that “logicians use the term ‘truth value’, involving the unmarked member, not ‘falsity value’ to express the over-all category”. Similarly, in the language of mathematics, “-5 is always negative, but 5 by itself is either the absolute value of 5, that is 5 abstracted from its sign value or +5 as the opposite of the marked negative category. So, in logic \( p \) was used ambiguously either as the proposition \( p \) abstracted from its truth value as either true or false or, on the other hand, for the assertion of the truth of \( p \).”
the sign function always allude to the doubleness of the sign in some way. “Re-produce” means “to produce again”. “Re-present” means “to present again”. As we discussed above, “to mirror” and “to reflect” describe the reproduction of an image of the original. And as we pointed out in a footnote above, the word “sign” itself means “that which follows” and thus alludes to its own position of secondness.

In addition I would like to point out, focusing upon Jakobson’s use of the words “mirror” and “reflect”, that he used these words to refer to this relationship because the iconic sign is a mirror-like relation. In other words, the mirror image relation is similar to the iconic sign relation. So, the words “mirror” and “reflect” are being used in this quote with a secondary iconic value, as iconic signs, not with their literal referential value. That is, Jakobson is not speaking of a mirror when he uses the word “mirror”, but rather he is using the idea of the mirror relation as an iconic sign of the iconic relation. The mirror relation mirrors the iconic relation. So the word “mirror” in his description is an example of the iconic use of a symbol, which is what we call “metaphor”.

In the same work, Jakobson also cites the well known language universal which holds that if a language distinguishes between plural and singular in nouns, then the plural will be marked1. In English, for example, we mark the plural by adding "s", so “dog” is singular and “dog+s” is plural. If one considers this fact about English in the abstract, one might think that it could just as well be the other way around. That is, one might think there could be a language in which the plural would be the simple form from which the singular would be differentiated by marking it with a suffix of singularity. But linguists have found that there is no such language. And not by coincidence. The reason that the grammar of pluralization works out this way in all language is because the symbolic layer of language, to which grammar belongs, is built upon the foundation of the prior, and semantically dominant, underlying layers of indexical and iconic sign functions. As the grammar of number is manifest in English, and other languages, the singular form consists of one morpheme and the plural form consists of two morphemes. In this way, the oneness of the form of the singular as opposed to the twoness of the form of the plural is an iconic sign which conveys the meaning of singularity vs. plurality. That is, the “-s” in and of itself is not a sign which means “plural” symbolically, in the same arbitrary sense as the word “dog” means dog. The “-s” is a sign which means “plural” iconically, because when it is added to a word, it makes the word more complex. The plural suffix does not refer to the idea of plurality, but rather it actually makes the word plural, and thus conveys the idea of plurality by being the very embodiment of multiplicity, that is, pluralness2.

Thus semantic categories and their corresponding grammatical structures are necessarily asymmetrical in this way because it is not possible in principle to represent oneness. Considered in the abstract, one might suppose that one could devise a system where the basic form is plural and one derives the singular by marking every noun as singular by removing the last phoneme, thus making the form of the word less complex, and thus by implication singular. But in practice this would not

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1. See Greenberg, 1966 for a detailed statement of the universal principle which governs the morphology of plurals and a survey of the facts. It should also be said here that this is by no means an isolated example of this phenomenon. The whole fabric of language shows the same kind of asymmetrical structural bias, which is known as “markedness”. Greenberg discusses some of the more well known examples. See also Osgood, et al (1975) for a description of a massive computerized cross-cultural study.

2. By the way, this also explains why languages tend to use the same suffix to mark numerous unrelated grammatical categories. For example, in English we use “-s” not only to mark the plural of nouns, but also to mark the third person singular present tense, “I dig” vs. “He dig+s”.

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work because if you take something away, you don't make a word less complex, you make it different. “Dog” minus the “g” is “do”, which is not a less complex variant of “dog”, but a totally different word. Thus it is inherent in the nature of the realm of signs that the underlying iconic sign functions comprise the foundation of and impose their prior government upon the level of symbolic sign functions.

**General Characteristics of the Realm of Signs**

We have barely touched upon the vast complexity of the realm of signs, or even the more narrow realm of language, but we have looked at enough examples to have developed an understanding of the general characteristics of the realm of signs, and so we are in a position to locate the duplicity of language in the context of the larger realm of signs. So we must put off further exploration of the system of signs in order to return to the task at hand, which is to develop an understanding of the duplicity of language. Let us therefore bring this survey of the theory of signs to a close by summarizing the general characteristics of the realm of signs, and by explaining exactly how our focus of interest on the duplicity of language fits in the general realm of signs.

Figure  is a representation of the tripartite structure of the realm of signs in accord with Peirce's theory of signs.

**FIGURE 3. The Typology of Signs**

The idea of this representation is that there are three levels of sign types, each of which evolves from the prior. As in biology, where vegetative processes evolve from more elementary chemical processes, so in the realm of signs each level evolves from the prior, and adds another level of complexity to the machinery of representation. The first sign type is the icon, which represents its object by means of a relation of similarity. The second sign type is the index, which represents its object by means of a relation of contiguity. And the third sign type is the symbol, which represents its object by means of a relation of ideal conjugation.

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1. The root meaning of “similar” is “as one”, which is why it is the first and most basic sign relation. Note, however, the duplicity implicit in the fact that “as one” implies “not one”.

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On the Duplicity of Language (Draft of 10/14/99)
Now that we have the framework of the realm of signs laid out before us, I would like to specific some of the basic parameters of the realm of signs by way of elaborating our position.

1. First, one of the obvious differences between living organisms and non-living things, such as a rock, is that a rock can only interact with its environment in direct physical ways, whereas living organisms can interact both in direct ways and also in indirect ways that are mediated by signs. Thus, only living organisms can transact in the realm of signs. And, as I said in the introduction, it appears that all evolutionary levels of living organisms, from man down to plants, and even bacteria and viruses, do interact in the medium of signs. So the first parameter of the realm of signs is this:

**ONLY LIVING ORGANISMS INTERACT IN THE REALM OF SIGNS.**

2. In terms of the theory of signs, what distinguishes human beings from other living organisms is that only human beings fully enter into the symbolic level of the realm of signs. And conversely, all normal human beings do fully enter into the symbolic level of the realm of signs; If they do not, they are not considered to be normal.

**ONLY HUMAN BEINGS INTERACT AT THE SYMBOLIC LEVEL.**

Of course, the symbolic realm is the realm of human language *par excellence*, the duplicity of which is our focus of attention. And all human beings take on a symbolic social identity by incorporating themselves in the images of their mother tongue. (See "Incorporation" beginning on page 236.) Some other animals are capable of limited transaction in the currency of symbols, but their ability to coin new symbols is severely limited, and they do not attain a social identity, etc.

3. As we showed in discussing each different kind of sign above,

**ALL SIGNS ARE DUPLICITOUS.**

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2. “Ideal” is the adjective of “idea”, meaning “something that exists in the mind, imaginary”. An older meaning, now obsolete, is “a mental image of something remembered”. The word was borrowed from Greek *eidos* meaning “form, shape” and has related forms in English “eidetic”, “idyll”, and “idol”. It comes from the Proto-Indoeuropean root *weid-* meaning “to see”, which became “wit”, “wise”, “wisdom” in English, and “druid” (*< dru-wid* = “strong seer”) in Celtic, and “view”, “vision”, etc. in Latin. So from the root meaning “to see” we get “wise” in one direction and “idol” in the other, the former from the underlying, the latter from the surface. The former is the point of what you see, the latter is the image of what you see.

“Conjugation” is the noun of the verb “conjugate”, borrowed from Latin, meaning literally “together yoke”, i.e., “to join together especially in pairs” It also means “to inflect a verb”. It comes from the Proto-Indoeuropean root *yeug-* which became “yoke” in English, and is uses especially in reference to joining man and woman together in marriage, which is the idea that is commonly used as the prototype of conjunction.

Thus “ideal conjugation”, which is the symbolic relation, is the imaginary marriage of the sign and referent, a synthetic union (to use Kant’s characterization of thirdness with a different value than he intended), an artificial union. In other words, the symbolic sign is a substitutive reenactment of the original state of unity in the realm of signs. Thus the symbol is a duplicitous union.
And what is more, all duplicity is a function of the logic of the sign. From this it follows that the realm of signs is the realm of duplicity, and vice versa. “Sign” and “duplicity” are different names for the same thing.

A corollary of this is that, as we discussed in Chapter 1, the realm of duplicity is not co-terminous with the realm of language. In other words, duplicity is not an exclusively human capability. Just as there is duplicity in the lower orders of the realm of signs, there is also duplicity in the lower orders of the system of biological evolution.

The Cut

It seems appropriate at this point to interject a parenthetical note explaining how the duplicity of language and of all signs is ultimately a function of the predicate Peirce posits at the very root of the logic of the sign, namely, the cut. Someone who is not familiar with the deepest levels of Peirce’s Theory of Signs might be of the opinion that the idea that all signs are duplicitous is alien to his way of thinking. It is certainly not a point that is commonly discussed in relation to his theory. Therefore, under that supposition, one might question the authority of my assertion that all signs are duplicitous, thinking perhaps that I am interjecting it into the theory of signs on my own authority. I reply in two ways.

First, the question of whether Peirce was aware of the fact that all signs are duplicitous or not is of historical interest, but not of more than incidental relevance to the theory of signs. The most important question is whether it is true that all signs are duplicitous. And this is a question that one can only answer by looking at signs, not at Peirce’s writings. I believe I have demonstrated in the above discussion that all signs are indeed duplicitous.

Second, it happens to be the case that Peirce was perfectly aware of the inherent duplicity of all signs, and he alluded to it in many places in many different ways. But he did not focus upon the doubleness implicit in the logic of the sign, nor particularly on its inclination to falsity. But he posited the “cut” as the basic predicate upon which the logic of the sign rests. The cut is the mental operation by which something is taken as a sign, which is to say, as a sign of something else, as distinct from being taken as itself. In the beginning the cut is a purely iconic operation, i.e. it takes place in our imagination. The cut divides the thing taken as a sign from the thing as a thing, and thus gives birth to the conceptualization of the thing as sign in our imagination. For example, when you look at a dark cloud in the sky and take it as a sign of rain, you are no longer relating to the cloud as a cloud per se, but as a sign of rain. This is what it means to take the cloud as a sign of rain. You no longer see it in its cloud-ness, but you see it in its sign-ness. Thus in your minds eye the cloud has been alienated from its essential nature and has been transformed into a sign of something else. Thus taking it as a sign creates a secondary conceptual realm in which the cloud has value as a sign of rain, as distinct

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1. This “cut” is obviously the same as the predicate which Spencer-Brown posited at the root of his theory of logic in his *Laws of Form*, namely, “Let there be a distinction.” As Merrell (1991) pointed out, “Peirce’s notion of a cut in the uncut is remarkably commensurate... with Spencer-Brown’s calculus of indications based on one symbol, ⊼, the mark of distinction...” (p. 11, italics in original).
from the prior situation in which a cloud is just a cloud. In this way, taking something as a sign cuts our conceptualization of the cloud up into two layers, which taken together constitute a duplicitous conceptualization. This is an example of what Peirce meant by “a cut in the uncut” in the sense that the cloud is not actually cut in being taken as a sign. So this is the sense in which duplicity is the conceptual state that results from the cut.1

While it would be interesting and useful to explore the implications of the idea of the cut more directly, we must keep to our focus upon the duplicitous aspect of signs. I will thus only mention a couple of particularly salient points in passing.

I would like to point out that the technical concept of the mark as it is used in linguistics as the basic element of the formal structure of language an idea that was developed in the Prague school of linguistics, notably in the work of Trubetzkoy and Jakobson, and which has now become commonly accepted in the discipline of linguistics, though not widely understood, is connected to Peirce’s idea of the cut in the following way: A mark is a sign of a cut.

Finally, I would like to point out that the violence which is implicit in both the idea of the cut and the idea of the mark is not incidental. The cut, which Peirce identifies as the primitive generator of the realm of signs, is also the primitive generator of the violence that evolves to the ultimate degree of fruition and flourishes so spectacularly, and so tragically, in the human species. It is not that taking a cloud as a sign of rain is intrinsically harmful, but what is harmful is to forget that it is a cloud, and to treat it only as a sign. At this elementary level in the evolution of the logic of the cut, at the level of simple and natural indexical signs, the violence of the cut is correspondingly trivial. But as the logic of the cut multiplies and increases in force and becomes more complex and more sophisticated and spreads to encompass larger areas of life and more intimate areas of life, the violence becomes correspondingly more pervasive, and more intense, and more harmful.

The violence of the cut in the case of the angler fish is obvious, but the same degree of violence is evident in human interaction. For example, it is common among cultures of the world to take women as signs of value, and to exchange them between social groups as tokens of solidarity, as chattel.2 In such systems of exchange, women are conceptualized as and transacted with as signs of something else, not as they are in their own intrinsic nature. In this way, women are commonly cut off from, alienated from, their own nature in the conventional universe of discourse. And, men are correspondingly cut off and alienated in their role as symbolic embodiment of the law. At this level the violence of the cut has evolved to a level of sophistication that is far from trivial.

But then there is no shortage of examples. On the contrary, as we are arguing, the point is precisely that what counts for value, i.e., significance, in the realm of signs is a function of the violence of the cut. For example, consider the story of the Trojan Horse, which we will discuss in some detail in the next chapter; note that in order to make that symbolic horse, the Greeks had to cut down real trees. That sort of cut is not just an imaginary cut, like the one that results from taking a cloud as a sign of rain. It a real physical cutting of real physical trees. So too are tattoos. And the cutting of sac-

1. There is a detailed analysis of a system of cuts in phonology in the section entitled “Sapir’s Fourth Example of Phonemic Illusion” beginning on page 324.
2. For a discussion of the role of women as tokens of exchange from an anthropological perspective see Levi-Strauss ( ). And by the way, the word “chattel” is from Old French chatel, from Latin capita:le. It means “property, goods, money”, and it was also used of indentured servants and slaves.
rifical lambs. Etc. These examples suggest, in the present context, that there are three different kinds of cuts - iconic cuts, indexical cuts, and symbolic cuts.

As I said it would be interesting to explore the realm of signs as a function of the cut, but we will have to put it off for a future occasion. On the other hand, one can easily transform statements about the duplicity of language into statements about the cut, so that one can take this present study of the duplicity of language as an exploration of the logic of the cut.

I will just conclude this present discussion of Peirce’s conceptualization of the duplicity of language in terms of the cut by explaining how the cut is manifest in the iconic representation of duplicity which I am using here. For this purpose consider Figure 4 on page 79. The idea here is that the paper represents reality, which Peirce calls variously the “first sheet of assertions”, the level of firstness, the real, or the uncut. The first cut is the cut in the uncut, which is represented here by the first line. The plane that is labeled “Level 1” is cut out of the prior, which in this case is reality, and thus derives the first layer of duplicity. The shadow represents the fact that the conceptual space which is cut out of the prior uncut space is suspended in imaginary space above the level of the real surface of the paper. Of course, the space of Level 1 which appears to be cut out of the paper, and which appears to be suspended above the level of the paper, is not really cut out and it is not really above the level of the paper. It is just an illusion. This is the sense in which this space is duplicitous. And the cut is also an illusion. But the black line is a real thing, and it represents the cut. The line is the mark of the cut. Thus the black line is a sign of the cut that separates the space of Level 1 from the space of the paper, but in this case it does not really cut the paper, just as taking a cloud as a sign of rain does not really cut the cloud out of the sky. In some cases, however, such as circumcision, the cut is real.

And then, having cut out the space of Level 1, we can take Level 1 as a sheet of assertions, or a universe of discourse, and we can repeat the process cutting out the space of Level 2 from the prior ground of Level 1.

This figure illustrates the way in which a cut engenders a duplicity. And it also illustrates the logic of the concept of the “mark” as it is used in linguistics: a mark is the sign of a cut. And it illustrates the way in which cuts can be iterated.
4. Returning now to our explanation of the duplicity of language in the context of the Theory of Signs, given the fact that all signs are duplicitous, we can restate the point of this book thus:

**THE REALM OF SIGNS IS THE REALM OF DUPLICITY.**

So in these terms one can characterize the generic human error as one of using the wrong name for these things. The conventional name for these things we are looking at is “signs”, but as I have been trying to argue, the conventional point of view is that of the customer, the dupe, the victim. The problem with the name “sign” is that it implies that a sign is a trustworthy thing. And while signs are trustworthy, if you read them correctly, if you fail to realize that they are duplicitous, you are likely to misread them. So to frame our relationship with these things in such a way as to emphasize their duplicity, we should call them duplicitous.

To see that the word “sign” is misleading, if you look up the word “sign” in a dictionary, there are many different definitions, but all of them focus only on the benevolent aspect of the sign. None of them even hints that there is a dark side. The first definition of “sign” in my dictionary (American Heritage, third edition) is this: “something that suggests the presence or existence of a fact, condition, or quality”. This definition implies that the fact, condition, or quality which the sign suggests is really there, and thus implies that the sign is a reliable guide to things. Nowhere, in this or any of the other definitions given, does the dictionary give even the least suggestion that signs might sometimes be misleading. Nor does it point out that signs sometimes suggest a fact, condition, or quality that is a fabrication. So needless to say, the fact that all signs are intrinsically duplicitous is not mentioned in the dictionary.

What is most egregious in regard to the common way of defining a sign, is that, while it is true that a sign suggests the presence of something (whether truly or falsely is another question), at the same time a sign implies the absence of that very thing. That is, if you are looking at a menu, the words on the menu suggest that there is food somewhere, but the fact that you are looking at signs of food implies that food is absent. You look at the menu only when the food is not present; when the food comes, you stop looking at the menu and start eating. So in reality, a sign of something only plays a role when the thing it refers to is absent. A sign therefore is a kind of promise, but a promise is necessarily about things that are absent. So a sign does suggest the presence of something, but it does so in the absence of that something. So a sign is not a sign of presence, but a sign of absence.

So the point we are trying to make in this book is that the conventional conceptualization of language is misleading, and the very crux of this misleading conceptualization is the name in terms of which it is conventionally institutionalized, which is the word “sign”. Therefore, in order to properly frame our relationship with this realm of things, we should call it the realm of duplicity, rather than the realm of signs.

In the next section of this chapter we will show that this is the point of the ancient Greek story of the Trojan horse. The Trojan horse is a symbolic representation of the sign. The horse was offered to the Trojans by their enemies as a sign of the Trojan’s victory. The Trojans committed the strategic error of accepting their enemy’s representation of the horse at face value as a sign of victory, whereas in fact the horse was a duplicitous ruse designed to bring about their destruction, which it did. So the point of this story is that the error of believing in the value of a sign of victory, brought about the fact of defeat. This is what is at stake in the question of whether to call these things signs, or duplicitous images. If we call them signs, they will be inclined to believe them and be taken in by them,
whereas if we call them duplicity, we will be inclined to see their doubleness and thus read them correctly.

5. Given that the realm of signs is the realm of duplicity, then it follows that Peirce's theory of signs is also a theory of duplicity. From this it follows that the tripartite system of signs is a tripartite system of duplicity. So

THERE ARE THREE TYPES OF DUPLICITY.

There is iconic duplicity, indexical duplicity, and symbolic duplicity.

6. As we discussed at length above, and as is obvious from Figure 3, “The Typology of Signs,” on page 75,

LANGUAGE CONSISTS OF ALL THREE SIGN TYPES.

So, although we are focusing on the duplicity of language, which is the symbolic realm, one cannot make sense of symbolic duplicity apart from the underlying levels of duplicity from which it evolves. Therefore, although we are concerned primarily with the duplicity of language, the duplicity of language cannot be separated from the whole system of duplicity.

7. As is also obvious from Figure 3, since language incorporates all three sign types, language is not merely duplicitous, but

LANGUAGE CONSISTS OF ALL THREE TYPES OF DUPLICITY.

Iconic signs are the first layer of duplicity, indexical signs, which include iconic duplicity and add another layer of duplicity, are the second layer of duplicity, and symbolic signs, which include indexical and iconic duplicity and add yet another layer, constitutes the third layer of duplicity.

8. Moving back now to look from a broad point of view at the realm of duplicity, which is the same as the realm of signs, I would like to explicitly focus upon one particular feature of the realm of duplicity, an important feature, but one which has remained in the background up to this point, namely, error. I think it would be useful to discuss the relationship between error and the realm of duplicity. To establish the lower boundary of error, let us note that a rock cannot err. Nor can water or fire or gravity. I think it is safe to surmise on the basis of such observations that error does not arise in the realm of physical phenomena.

As we saw in our discussion about the angler fish in Chapter 1, there is error in the animal kingdom, or at least the fish kingdom, because the angler fish makes his living by exploiting the inclination to error among fish in his neighborhood. And we pointed out that if one looks at biological literature in the right way it becomes obvious that the inclination to error pervades the realm of living organisms from bacteria and viruses and plants at the bottom all the way up to the human species at the top, about which one could say that they have not only attained the apogee of biological evolution, but also that they have attained the apogee of evolution in the realm of duplicity and error, hence the famous dictum “to err is human”.

On the Duplicity of Language (Draft of 10/14/99)
These observations about the general parameters of error suggest that not only is the realm of error coterminous with the realm of duplicity, which is also the realm of signs, but also that error is a function of duplicity, which is to say, error is a function of signs. Therefore,

THE REALM OF SIGNS IS THE REALM OF ERROR

and

THE REALM OF DUPLICITY IS THE REALM OF ERROR.

From this it follows that the realm of error has the same architectonic structure as the realm of signs. It follows that

THERE ARE THREE TYPES OF ERROR

and it follows that these three types of error are isomorphic with the three types of signs and the three types of duplicity, that these three types of error are interrelated in accord with the underlying logic of the three categories, exhibiting the same features we discussed above in relation to signs, and so on.

Finally, now that we have attained a perspective where we can see that signs, duplicity, and error are merely different facets of the same epiphenomenal relationship, we are in a position to succinctly state the point I want to make here, which is this:

THE FAILURE TO REALIZE THAT ALL SIGNS ARE DUPLICITOUS IS THE MOTHER OF ALL ERROR.

Or as Huang Po, the sixth patriarch of Chinese Buddhism, put it circa 850 AD (Blofeld, p. 71),

Anything possessing any signs is illusory. It is by perceiving that all signs are not signs that you perceive the Truth.

9. The last point I will make by way of relating the theory of signs to the larger context is to observe that

THE REALM OF DUPLICITY IS THE REALM OF STRATEGY

It may seem like a big jump to go from the study of language to strategy, but if you consider the duplicity of the angler fish, for example, it is obvious that angling is a strategic way of getting food, as distinct from the strategy of brute force and speed, used by the lion, for example. And if you think about strategic maneuver in general, you will realize that strategy functions by means of the duplicity of signs. Strategy manipulates signs duplicitously in such a way as to induce the enemy to bring about his own defeat by committing the error of misreading the signs in the way intended by the strategist. Thus the strategic dimension of interaction is an inherent facet of communication. Understanding and misunderstanding, information and misinformation, cooperation and conflict are not two things but are two aspects of one thing, namely, interaction in the realm of signs.

As with so many of the various facets of the realm of signs which we have observed here, we cannot take time to fully explore the strategic dimension, but in the following pages as we explore the duplicity of language, the fact is that the strategic dimension is always in the background, because in exploring duplicity we are exploring strategy. In fact, the whole argument we are pursuing here is itself a strategic maneuver whereby we exploit the duplicity of the word duplicity as a stratagem to help us understand the duplicity of language. So it might be helpful by way of fleshing out the context if we make a couple of explicit observations about the strategic dimension before we move on.
Strategy

One of the problems that has always clouded the study of strategy is that there has been no clear understanding of what strategy is and no clear notion of how to distinguish strategy from tactics. Many scholars have so radically misunderstood strategy as to define it out of existence by defining it as game theory. Edward Luttwak’s excellent study of the logic of strategy devotes an appendix to the discussion of the problem of defining strategy.

What strategy is and how it is distinct from tactics is perfectly obvious if one looks at it in the present framework. Strategy is the dimension of interaction that is a function of signs, which is a function of duplicity, which is function of truth. Strategy is a function of truth. Tactics on the other hand is a function of sheerly physical parameters such as force and speed. Tactics is the dimension of interaction that takes place at the level of rocks. The realm of tactics is the realm of physics. The realm of strategy is the realm of signs.

It is instructive in regard to this distinction, and in regard to the theory of language, to consider the etymology of the words “strategy” and “tactics”. “Tactics” was borrowed into English from Greek takto,j. This word comes from the Proto-Indoeuropean root *tag- “to touch”. (By the way, this is also the root of the technical term “tagmemics” which is the heart of Kenneth Pike’s linguistic theory. It is also the root of the technical linguistic terms “syntagmatic”, and “syntax”.) Thus it is cognate with Latin tangere “to touch”, which was borrowed into English as “tangible”, the past participle of which, tactilis (long a), was borrowed as English “tactile”. Therefore, “tactics” refers to that which can be touched, which is physical things like rocks. And thus to do “tactics” is to govern the interaction of things in regard to their contact. (Contrast “politics”, which is the government of that which is in the city, from Greek polis.) So the tactical dimension of interaction is that which involves direct contact (the “tact” in “contact” is the same root), as distinct from interaction which takes place at a distance through the medium of signs. So the principles which govern the tactics of a human being, or any other living organism, are the same as the principles which govern a rock.

The word “strategy” was borrowed into English via French from Greek strathgo,j, which was the title of a military rank more or less equivalent in reference, but not semantic value, to English “general”. The word is a compound of two roots. The first root is from the Proto-Indoeuropean root *ster- meaning “to spread”, which has a wide variety of descendants: English “straw” meaning “that which is scattered”; Old English streon (long e) “offspring”, which became modern English “strain”; the family of borrowings into English from Latin which includes “structure”, “construct”, “destroy”, “instruct”, etc. The line of semantic descent we are particularly interested in includes English “strata” and “substratum”, borrowed from Latin stratus, meaning “layers”, and is cognate with Greek stratos. In Greek this word was used to refer to the military in general, as in stratocracy, which means literally “government of or by the strata”, or “government by the layers,” but figuratively it means “government by the military”. And of course the semantic connection is metonymic: in this usage the word “strata” alludes to the rigid hierarchical stratification or layering that is characteristic of military social structure. Thus the meaning of the “strat-” part of “strategy” that is relevant to the present discussion is “strata” or “layers”, like the ones we find in the military, and in language.

The “-eg-” part of the word “strat-eg-y” comes from the Proto-Indoeuropean root *ag- which means “to move, drive, lead”. It shows up in English in many words borrowed from Latin, such as “act”, “agent”, “ambiguous”, “squat”, etc., which are based on the Latin verb agere “to do, act, drive, conduct, lead.” The cognate verb in Greek, agein, is also used in numerous forms which were borrowed into English, such as “agony”, “demagogue”, “protagonist”, “synagogue”, and of course,
“strategy”. So “strategy” means “to lead or control the strata”. In Greek it was used to refer ambiguously to the military or to the leader of the military. And it does so by alluding to the hierarchical structuring of the military corps. And, of course, the word “strategy” also refers at the same time in a more general sense to any hierarchically stratified system, such as the realm of signs. So in the most general sense “strategy” refers to the government of any hierarchically stratified system.

Another important feature of strategy, as we mentioned above, is this. If strategy and duplicity are the same thing, then, since duplicity is a function of truth, strategy also must be a function of truth. So the basic dynamic of strategy is the dynamic of the conflict between the true and the false. Therefore, what is desired in strategy is to establish your own position on the solid ground of truth, and to allow or induce your enemy to take a dubious position on the ground of some false belief.

That duplicity, or signs, is the essence of strategy was observed by Sun Tzu two millennia ago in *The Art of War* (trans. Griffith 1971, p. 66), where he said,

> All warfare is based on deception.

And, speaking of the enemy, Sun Tzu said, “When he is united, divide him”, which is equivalent to our saying, “Divide and conquer”. And as we have been trying to explain, duplicity is the essence of strategy by virtue of the fact that duplicity divides.

In his introduction to the above mentioned translation, Griffith shows that Mao Tse-Tung built his strategic thinking on the foundation of Sun Tzu’s ancient analysis.

Again paraphrasing Sun Tzu, Mao has said that war demands deception. ‘It is often possible by adopting all kinds of measures of deception to drive the enemy into the plight of making erroneous judgments and taking erroneous actions, thus depriving him of his superiority and initiative.’ The enemy is deceived by creating ‘shapes’ (Sun Tzu) or ‘illusions’ (Mao). At the same time, one conceals his shape from the enemy...Deception is not enough- the enemy’s leaders must be confused; if possible driven insane. (p. 54)

(By the way, note that shapes and illusions, as referred to in this quote, are signs.) Or, as Sun Tzu said in making this point explicit,

> what is of supreme importance in war is to attack the enemy's strategy (p. 77).

Another point I would like to make about strategy in the context of duplicity is that, because strategy is a function of truth, and because the true/false conflict is asymmetrical, there is an intrinsic asymmetry in the dynamics of strategy. One manifestation of this asymmetry is this: A person has control over what he himself believes, but he does not have control over what his adversary believes. Therefore, one can bring about one's own defeat by believing what is false, but one cannot cause one's enemy's defeat by strategy because one cannot cause one's enemy to believe what is false. One can display various duplicitous lures and baits, but in the end strategic defeat is brought about by one's own error, and one person cannot cause another to error. This is the point of the following from Sun Tzu:

> Anciently the skillful warriors first made themselves invincible and awaited the enemy's moment of vulnerabil-

*Invincibility depends on one's self; the enemy's vulnerability on him.*

Therefore it is said that one may know how to win, but cannot necessarily do so.

And one final point about the strategic dimension, as a consequence of the intrinsic duplicity of this realm of phenomena, the force of any act is intrinsically ambivalent. This is something like the
second law of thermodynamics, which holds that for every action, there is an equal and opposite reaction. This is why, as I pointed out at the beginning of Chapter 1, the more forcefully one tries to deny something, the more it persuades others to believe it is true. Likewise, the more forcefully one tries to persuade, the more doubt it creates. The more fulsome one's compliments, the more likely to be seen as insulting. And on the contrary, one can damn with faint praise. Etc., etc.

What is going on here is a general phenomenon. As we have seen many times already, there is an asymmetry in the way truth works. Therefore, as a consequence of the fact that force in the strategic realm is a function of truth, there is an asymmetry in the way force works. The force of truth does not work the same way as physical force works. The force of truth is a function of the fact that truth is what is, as opposed to the false, which is what is not. And what is not has no substance, no force, no being. So from the point of view of truth, there is no contest. Truth already holds the indomitable position of that which is, so there is no need for truth to struggle with the false. On the contrary, it is the false that needs to struggle to maintain its ephemeral grip on being by using speed and force and aggression and violence. So forcefulness, speed, aggression, and violence, are signs of the false. This is why the more effort we exert in an act, the more it has the opposite of the effect we want it to have.

With this rather lengthy digression into the strategic facet of the realm of duplicity, we end our explanation of how our position in regard to the duplicity of language fits into the context of the theory of signs.