

**A STUDY ON INTERRELATIONSHIP BETWEEN
'SEMIOTICS AND SEMANTICS'**

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Abstract

Semiotics is the study of sign phenomena. Specialized research into natural human language— the semiotic phenomenon par excellence—constitutes linguistics; within linguistics, semantics is concerned with the conveyance of meaning by the grammatical and lexical devices of a language. According to the theoretical, descriptive, and historical slants of linguistic investigation, semantic problems respectively assume a general, synchronic, or diachronic character. The self-evident systematicity of grammatical phenomena has always been conducive to their relatively reliable semantic analysis. When it comes to the looser domain of vocabulary, however, the obscurity of the underlying structure quickly embroils semantic analysis in some of the more inconclusive epistemological controversies of social science. While vast supplies of raw semantic data repose in dictionaries of various languages, there is no consensus among linguists on a coherent theory in accordance with which this material can be analyzed and compared for purposes of generalization.

Key Words: grammatical, language, literature, Semantics, Semiotics, signs, text, words

Introduction

The key term in semiotics is “sign.” By all accounts, a sign must consist of at least (1) a perceptible impact on one of the senses of the “receiver” and (2) a content that is signified. First distinguished by the Stoic philosophers, then recognized in European medieval literature as *signans* and *signatum*, these minimal components of the sign have reappeared in modern theory under such labels as signifiant and signifié (Ferdinand de Saussure) or “sign vehicle” and “designatum” (Charles W. Morris). (Under appropriate contextual conditions, the absence of a signans itself functions as a “zero” sign vehicle. It is often utilized in language with great effectiveness.) A particular occurrence of a sign is customarily called a “token,” while the class of all occurrences of the sign is called the “type.” According to this usage, the total number of words in a text is the number of word tokens, whereas the number of different words in the text is the number of word types.

Signs may be classified by the sense on which the sign vehicle impinges: they can be visual, auditory, etc. A sign may then have equivalent sign vehicles in the same or another modality. Full equivalence is illustrated by a plain transposition cipher (based on a novel utilization of the same graphic system) or by a light blinking and a buzzer sounding in response to the same Morse code impulses. The correlation, on the other hand, between written and spoken language is far from one-to-one.

Designation and denotation:

A crucial issue for most students is the distinction between what particular sign tokens denote, or refer to, and the constant capacity of the sign type to denote, or refer. The former relation has been treated under the heading of “denotation,” or reference; the latter has been called “designation,” or meaning (in the narrow sense). Thus, the designatum (2a) of a sign type—what the sign designates—can in theory be specified by (2b) the conditions under which, or the “objects” with reference to which, the tokens of the sign would be said to denote in a truthful way. Every sign by definition designates something, but some signs have no real things, or “denotata,” to refer to (e.g., unicorn), and every sign may on occasion be used without denoting (e.g., milk when no actual milk is being referred to) or without denoting truly (e.g., milk used with reference to water). A perceptible discrepancy between what a sign type designates (2a) and the denotatum of one of its tokens (2b) seems to be involved in such effects as metaphor and irony, as well as in perversions of communication (lying).

If the designatum is thought of as the class of denotata for which the sign vehicle is a name, the specification of the designatum can correspondingly be visualized as extensional (by enumeration of the members of the class, i.e., the denotata) or as intensional (by stating the properties shared by all members of the class, and only by them). The ability of living beings to form intensional class concepts—an ability which has not so far been mechanically simulated or abstractly reconstructed—reaches the most extraordinary proportions in man. There is evidence that concept formation proceeds with particular efficiency if there are signs present for which the concepts can become the designata.

The theoretical distinction between (2a) designata and (2b) denotata is also essential for accommodating the fact that something can be a true denotatum of more than one simple sign (e.g., car and vehicle) or of various compound signs (e.g., female sheep = ewe).

“Reductionist” approaches. The minimal account of signs in terms of sign vehicles and designata has been variously enriched; the richer schemes have in turn been subjected to reduction along several lines. Two further factors of the sign, essential in some accounts, such as that of Charles S. Peirce, are (3) the interpreter, or the individual for whom the pairing of a sign vehicle and a designatum functions as a sign, and (4) the interpretant, corresponding to the interpreter’s (perhaps unconscious) reaction to a sign. One way of explicating this reaction is to understand “interpretant” as the interpreter’s private translation of a sign into other signs. Anticipating the discovery of neurological correlates of “understanding” and similar psychological phenomena, some theorists have apparently identified the interpretant of a sign with its translation into the (still unknown) neurological code.

Related in spirit is the effort of experimental psychologists to specify the meaning of a sign in terms of attitudes taken toward it, emotions induced by it, or further signs automatically evoked by it—as displayed, for example, in a semantic differential (Osgood et al. 1957) or a free-association test. Thus, whereas the designatum of a sign was traditionally understood to be given by the verbal definition of the sign, behavioristic psychology has endeavored to bypass the designatum (2a) in favor of the effect of the sign (4), regarding the latter, if not as more accessible to study, then at least as the less objectionable construct. A kindred suspicion of constructs has moved skeptical empiricists—in eighth-century India as in twentieth-century England and America—to reject designata as needless entities and to account for the use of sign tokens (acts of “reference”) merely in terms of the sign vehicle (1) and the actual denotatum or “referent” (2b).

Such impoverished theories may cover certain “straightforward” uses of natural language and may serve the rationalization of scientific discourse. But an account that fails to treat the designatum as a component of the sign, distinct from both its denotatum and its interpretant, cannot adequately deal

with such phenomena as reasoning or humor, and is therefore incommensurate with the complexity and subtlety of human semiotic abilities.

In general it should be admitted that the denial of the sui generis nature of communicative activity and the reduction of sign phenomena to some more general kind of behavioral phenomenon have produced no marked success in either theory or research practice. A sign type is not always—perhaps only rarely—correlated with a class of specific stimuli or of overt responses. Nor is a sign token a counterfeit or avowed “substitute” for a “real” thing; it is, at most, a “representative” of the real things for purposes of communication qua communication, and in contrast to the case of other substitutes, the real thing will not do where a sign is required. When we reflect, furthermore, that the denotata of most sign tokens of language are neither “real” nor “things” nor even necessarily existent, it becomes evident that if sign tokens “stand for something,” they do so in a way that differs from other modes of substitution.

Symbolic and less-than-symbolic signs:

A sign with an intensional class for a designatum and without contiguity or similarity between its vehicle and its denotata is called a symbol. Other, less fully developed forms of sign may be classified as indices, icons, names, signals, and symptoms.

A sign is said to be an index rather than a symbol insofar as its sign vehicle is contiguous with its denotatum, or is a physical sample of it (a swatch of cloth as a sign of the color or an onomatopoeic word as a sign for an animal sound). In the case of some indices the contiguity between the sign vehicle and the denotatum is suggestive rather than literal, as in a directional arrow which guides the viewer’s eyes toward a target. In general, when a sign vehicle is paired with a denotatum as a matter of necessity, the involuntary, mechanical nature of this connection may be viewed as an abstract analogue of physical contiguity; automatic, nonarbitrary signs are hence said to be merely “symptomatic” rather than fully symbolic.

Natural languages have been observed to contain indexlike signs which conventionally direct the listener’s attention to a time, a place, a participant in the discourse, or a part of the interlocutor’s field of sight. These are studied under the heading of “deictics” or “shifters”; English examples are now, here, I, this.

When there is a geometric similarity between a sign vehicle and its denotata, the sign is said to be iconic. Such similarity would be exemplified by a system in which, let us say, large things are signified by long words, small things by short words, or in which plurality of denotata is signified by repetition of the sign vehicle. A realistic painting is a highly iconic sign; in human language the role of iconicity is marginal.

A theory of signs which conceives of a designatum as an intensional class must also allow for a more “stunted” type of sign which has an extensional class as its designatum. Such signs are generally called “(proper) names.” The individuals, whether one or many, which are truly denoted by a proper name have no common property attributed to them except “answering” to that name.

For discourse about signs it is necessary to use signs for referring to signs. For this purpose a sign vehicle is commonly employed as an index of its own sign. In discourse about languages it has long been found useful to discriminate between the use of signs and the mention of signs. A sign employed as a name for itself is commonly said to be used “metalinguistically”; a specialized language for communication about another language (the “object language”) is called a “metalanguage.”

Overlapping semiotic functions:

In a particular communicative act a token may at the same time function as a symbol and as a less-than-symbolic sign. Thus, a sign token may trigger, mechanically or conventionally, some action on the part of the receiver; it then functions as a “signal.” In many languages, the imperative is a grammatical device for endowing a symbol with signal value, but a complex symbolic sign without special markers (e.g., *I am ready*) may function secondarily as a signal for some action. Similarly, an interjection of pain, to the extent that it has a coded form in the language (e.g., English *ouch* vs. German *aw*), is conventionalized and hence symbolic; insofar, however, as it is uttered involuntarily, it is a symptomatic (indexical) sign. Every layman develops considerable skill in synchronizing the “symbolic” analysis of speech with a judgment of voice quality, tempo, and other involuntary aspects of the utterance as symptoms of the speaker’s state. Specialists have learned to interpret in depth certain “covert,” involuntary statistical properties of speech to which ordinary hearers may not respond even on an unconscious level.

Not only do symbolic functions overlap with symptomatic and signaling sign functions, but the sign may, primarily or secondarily, serve altogether noncommunicative functions as well. Superimposed upon linguistic utterances with symbolic value may be aesthetic or magical functions (poetry, incantations). Contrariwise, behavior patterns and artifacts intended for other primary purposes may acquire a signlike aspect: a garment, worn to provide warmth, may by its shape symbolize the wearer’s acceptance of, or rebellion against, the conventions of society; an automobile, primarily a means of transport, may by the redness of its color symbolize its user’s status as fire chief. The development of general and comparative semiotic research would seem to depend to a large extent on the inclusion of such “mixed” semiotic phenomena.

Paradigmatic relations between signs:

Two or more signs each or all of which can occur in the same context are said to form a paradigmatic set. Membership in such a set helps to determine the identity of a sign, since the definition of its sign vehicle and its designatum may be formulated in terms of the discrete differences between them and the vehicles and designata of other signs in the same set. Students of language have capitalized on the paradigmatic nature of their material by organizing the description of sign vehicles and designata around those minimal distinctive differences of sound and meaning which contrast one item with another within the total system. In the investigation of vocabulary, this approach has led to the concept of “word fields,” i.e., semantically related groups of words, and has yielded a sizable literature since it was initiated in the 1930s by Jost Trier. However, the more populous and amorphous a paradigmatic set of elements, the less certain is the organization of their contrastive features. Hence word-field studies are beset by a strong streak of impressionism, exacerbated by the concentration of research on early stages of languages for which the benefit of native speakers’ intuitions cannot be drawn upon.

Being different from each other is, of course, only the most general relation between signs in a paradigmatic set. More specific relations are determined by the conditions under which two signs are interchangeable: symmetrically in the case of perfect synonyms, asymmetrically in the case of superordinates and subordinates (e.g., *gun-rifle*), and at the cost of reversing the truth value of the message in the case of antonyms. The way in which these more specific relations organize a set of terms may be different in various languages. Thus, two languages may have terms for “cattle,” the difference between them being that in one of the languages, but not in the other, “cattle” includes “sheep” as a subordinate.

Proceeding from their experience with folk classification in the field of kinship, anthropologists (particularly in the United States) have analyzed selected sectors of vocabulary in the form of taxonomies—systems in which all terms are governed by a subordinate-superordinate relation

(Conklin 1962). It still remains to be shown whether this descriptive format is easily applicable to lexical domains less closely structured than those dealing with kinship, color, weather, illness, plants, and animals. It is clear, moreover, that studies of lexical systems oversimplify the problem unless they take full account of the omnipresent facts of polysemy, grammatical specialization, and phraseological specialization (discussed below). Meanwhile the introduction of certain nonsymmetrical operations to supplement the traditional algebra of classes promises to reduce some of the counterintuitive excesses of earlier sophisticated nomenclature analysis (Lounsbury 1964).

Sign tokens in sequence:

The patterning of sequences in which sign tokens may be transmitted ranges between two extremes. At one pole lies the impossibility of predicting a sign's occurrence from a preceding sign; at the other extreme lie systems with a completely predictable sequence, such as the alternation of red and green at an automatic traffic signal. A sign system like human language is vastly more intricate than these models because of two groups of factors: the interdependence of paradigmatic and sequential patterning, and the complexity of the sequential patterning itself. The latter is the subject matter of syntax, which was revolutionized in the late 1950s, when it was shown by means of newly developed mathematical tools that the syntactic structure of natural languages had been only vaguely characterized and that its complexity had been seriously underestimated (Chomsky 1957). Several attempts have already been made to develop semantic theories compatible with the new approach to syntax (Katz & Fodor 1963; Weinreich 1966).

Compositional effects - class meanings:

It is a feature of natural language that signs combined in appropriate ("grammatical") ways yield compound designata; thus the designatum of the phrase *shy unicorn* includes the properties of unicorns as well as of shy things. Compound signs can be formed which are not only virtually unlimited in complexity but which are capable of being interpreted regardless of whether their denotata are real, or not necessarily real, or even explicitly mythical. In this way languages contribute to the continual expansion of their own universes of discourse. The possibility of constructing a represented world regardless of its actual or conceivable existence is utilized, with different degrees of extravagance, in verbal art. Semantic play through carefully controlled deviations from literal conceivability of the representation is an essential ingredient of literature, especially of modern poetry.

Traditionally, only those sign combinations were considered whose semantic effect could be explained as a logical product of the designata. Twentieth-century logicians, with the help of the higher calculus of functions, have accounted for a much greater range of combinatorial semantic effects. Even this more elaborate apparatus, however, does not seem sufficient to account semantically for every type of sign combination in language (Weinreich 1963).

The utilization of the same linguistic material in multiple, overlapping semiotic functions is also observed in the case of idioms—compound signs which are not resolved into their constituent designata but function with a simplex designatum of their own. Thus, to pull X's leg has a complex meaning derived by a transparent process from the meanings of pull, leg, and -s; but when it means "to hoax X playfully," the meanings of the constituents are disregarded. In a rationalized lexicographic system the selection of items to be treated as idioms must be weighed against the "cost" of increasing the number of elementary units in the system and the alternative of specifying additional subsenses for each constituent of an idiom, coupling them with the indication that they evoke each other.

The standard patterns of sign compounding in a language are characterized by specialized "slots" (for example, for subjects and for predicates), and the vocabulary items are in turn specialized as to

their privileges of occurring in the various “slots.” As a result, different word classes (nouns, verbs, etc.) tend to acquire appropriate “class meanings,” for instance, the constant use of verbs to represent “action” endows the verb with a concomitant meaning of action. This automatic component, first analyzed systematically in medieval Europe under the heading of *consignificatio*, or “modes of signifying,” exercises so powerful an influence on our mentality that doubts have been voiced whether the semantic implications of the syntactic form obligatory in one’s native language can be transcended at all, or at least easily, in thinking. But specific claims about the grip of lexical and syntactic meaning-systems on thinking, advanced particularly by Wilhelm von Humboldt (and popularized in America by Edward Sapir and Benjamin L. Whorf), have turned out to be either unresearchable in their circularity or—in the few instances which permitted experimentation—to be unsubstantiated by the factual evidence.

Grammatical specialization:

As long as sentences of natural languages were characterized in terms of a small number of “slots,” many of the corresponding paradigmatic sets of words were so large as to exclude any hope of their being semantically characterized. With the advent of transformational analysis in the 1950s the specification of the structure of sentences became more articulated. As the kinds of word-classes proliferated, the sizes of the classes shrank in inverse proportion. Seizing on the prospect of utilizing these results, a search was instituted for distinctive semantic features in the words belonging to small grammatical subclasses (e.g., Apresian 1962). Statements of a word’s membership in a particular set of small grammatical subclasses were also proposed as substitutes for the more elusive, properly semantic description of the word. Previously, the tendency had been to view the correlation of meanings of words (or submeanings of polysemous words) with grammatical properties as a point on which natural languages deviate from the ideal sign system; now they came to be explored as perhaps the most workable principle for significantly organizing a vocabulary. Correspondingly, there arose the problem of explaining what this universal trait of languages contributes to the effectiveness of communication.

Phraseological specialization:

Human languages also deviate from the theoretically ideal sign system in that the same sign vehicle can function with different designata in different contexts; thus, *white* belongs to different paradigmatic sets in the contexts- paint, skin, wine, magic. To the extent that some common meaning factor can be extracted, we may speak of several submeanings of a single polysemous word, *white*. The verb *to bank*, on the other hand, appears to have completely unrelated designata depending on whether its object is money, a fire, an airplane, or whether it is followed by the preposition *on* (i.e., “to rely”). Instead of sweeping such effects under the rug, attempts are being made to use them as the foundation for a formal analysis of vocabulary. The most challenging problem is to find ways of classifying and grouping the features of phraseological specialization that appear to be so profoundly specific to individual words.

Toward a general semiotics:

Although no sign system equals language in the variety and overlapping of semiotic devices employed, it has been instructive to embed the study of natural language in a broader investigation of sign phenomena of all kinds, including substitutes for language (for example, flag codes) and extensions of language (gesture patterns, chemical formalism, etc.). Observation of “mixed” phenomena—behavior and cultural institutions, whose primary purpose is other than communication, utilized for semiotic purposes—has also contributed insights for a general theory of signs. The accomplishments of the research program in general semiotics proposed by Charles S. Peirce and Ferdinand de Saussure have not been spectacular, unless one classifies the achievements of cybernetics under this heading; moreover, such allegedly basic semiotic concepts as the tripartition of the field into syntactics, semantics, and pragmatics have turned out to be of little use in connection

with natural sign phenomena. On the other hand, general semiotics has furnished useful tools for comparing human language with animal communication; this may in turn produce new conceptions of the origin of language.

The relationship between semiotics and semantics, like all relationships, is both interconnected and complicated. This article will attempt to simplify otherwise complex theories into simpler components and discuss how they play into visual language and can be utilized to strengthen your brand. However, every company and its brand are different and therefore the application of signs and symbols varies. What I can do is give you a flavor of the factors at play because that, in itself, is fascinating.

Visual Language

Semiotics and semantics work together to form a specific visual language; this strategic combination forms a cohesive brand. Visual language can be defined as a system that communicates through visual elements. It is perceived by our eyes and interpreted by our brain, which receives the signal and transforms it into sensations, emotions, thoughts, and actions. It uses images or symbols to convey meaning. The patterns of these visual elements can be recognized by the audience you are trying to reach. Visual language can help your company differentiate itself, establish a stronger identity, and streamline communication more effectively. Using a consistent visual and verbal language system fortifies your brand identity to make it memorable. Branding is a strategic combination of semiotics and semantics working together to form a specific visual language. Designers create visual language to define and express brands. The underlying theory behind all of this can be found in the study of semiotics and semantics.

Conclusion

According to Henrik Sunde (Department of Design, Norwegian University of Science and Technology), “Semiotics is the study of signs, and semantics is the study of their meaning. In product semantics, these linguistic concepts are used to describe design. Applied to design, the product is the sign, and it concerns how designers encode meaning into their products and how they communicate with the user. Possible goals can be to describe the product’s purpose or use, to express desired attributes or characteristics, or to encourage certain user behavior. The importance of product semantics has been to create products with improved usability and likability to increase their chance of success.”

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