symbol, index, icon

Created by American polymath Charles Sanders Peirce (1839-1914), the symbol/index/icon triad remains a tool of analysis at the core of semiotics, a discipline which studies signs and their meanings. As semiotics has broadened to include anything which could be termed communication (including the non-deliberate and the non-human), symbol/index/icon analysis is now used throughout many disciplines.

Peirce (pronounced purse) originally developed the symbol/index/icon triad as one component in a massively complex formal system of semiotics and logic. This system ultimately identified over 50,000 possible elements and relations, but is now considered unwieldy (Johansen 2002, 5). Of Peirce's many ways of distinguishing signs, the symbol/index/icon triad focuses on the relations of signs to their objects: symbols have a convention-based relationships with their objects (e.g. alphanumberic symbols); indexes/indicies are directly influenced by their objects (e.g. a weathervane or a thermometer); and icons have specific properties in common with their objects (e.g. portraits, diagrams) (Johansen 2002, 51). Even at this basic level, overlap and ambiguity are inherent to the system. Consider a photograph: it has properties in common with its object, and is therefore an icon; it is directly and physically influenced by its object, and is therefore an index; and lastly it requires a learned process of "reading" to understand it, and is therefore a symbol (Johansen 1988, 499). This sort contradictory reading is proof not of the triad's failure, but its success.

As each term is considered in greater detail, keep in mind that as a completly abstract system, the symbol/index/icon triad applies equally to any and all media or form of communication, prefering none over another.

Symbols are arbitrary and unmotivated, reliant on conventional usage to determine meaning. Symbolic signs are constructed, or "agreed upon" for given purposes in the internal or external world. When cheating poker players devise a secret and arbitrary code ("coughing fit equals full house"), they illustrate the essential nature of the symbolic sign. Languages are perhaps the most important symbolic sign systems: "Any ordinary word, as 'give,' 'bird,' 'marriage,' is an example of a symbol" (Peirce 114). Furthermore, every alphanumeric character on a computer keyboard is a symbol, as are those things not specifically alphabetic or numeric: $, %, &, #, @, etc. Unlike indices or icons, the symbols are not signs without an interpreter or "reader."

Simply put, indices indicate. Indices always point, reference, or suggest something else. "A sundial or a clock indicates the time of day...A rap on the door is an index...Anything which focuses the attention is an index" (Peirce 109). Furthermore, Peirce outlined three types of index: tracks, symptoms, and designations (Johansen 2002, 32). Tracks often have a physical, cause & effect relationship, but are not simultaneous with their object. Paw prints left by an animal are tracks; the lingering scent of perfume is a track. Symptoms are simultaneous with their object, and distinguishing between symptom and object may be impossible. Fever is a symptom of infection, smoke is a symptom of fire. Lastly, designations point or signify while being distinct from their object: proper names, a pointed finger, and the word 'this' are all designations (Peirce 109). The frequent simultaneity of object and sign may be why (according to Piaget & Bruner), indexical signs are the first signs grasped by infants (Johansen 2002, 32). While symbols cannot be signs without an interpreter, indices cannot be signs without their objects (no interpreter or "reader" necessary). "Such, for instance, is a piece of mould with a bullethole in it as sign of a shot; for without the shot there would have been no hole; but there is a hole there, whether anybody has the sense to attribute it to a shot or not" (Peirce 104).

Originally called "likenesses" by Peirce, icons have a "topological similarity" to their object

keywords cross references

Works Cited

Johansen, Jorgen Dines (1988). "The Distinction between Icon, Index, and Symbol in the Study of

Literature," Semiotic Theory and Practice, Berlin: Walter de Gruyter.

Johansen, Jorgen Dines (2002). Signs in Use: An Introduction to Semiotics, New York: Routledge.

Peirce, Charles S.; Buchler, Justus (ed.) (1955). The Philosophical Writings of Peirce, New York: Dover.

Saussure, Ferdinand de; Bally, Charles (ed.); Sechehaye, Albert (ed.); Baskin, Wade (tr.). Course in general linguistics, New York : McGraw-Hill.

Sebok, Thomas A (1994). Signs: An Introduction to Semiotics, Toronto: University of Toronto Press.

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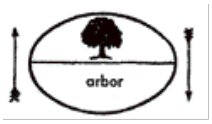
Notes

(Sebok 28). Classical paintings and photographs are obviously icons, as they visually resemble their objects. This resemblance need not be tangible: "every algebraical equation is an icon, in so far as it exhibits, by means of the algebraical signs (which are not themselves icons), the relations of the quantities concerned" (Peirce 107). Along these lines, Peirce creates three subcategories of icon: image, metaphor and diagram. Images share "simple qualities" or "sensory qualities" with their object: NutraSweet(r) is an image of sugar, and foley artists produce sound images. Diagrams and their objects share relations or structures: a subway map is diagram of the actual subway, and the aforementioned equation is a diagram of mathematic relations. Diagrams have a degree of arbitrariness, as I can express the same relation in a number of ways: [family(parents, children)] or family=parents+children. For Peirce, metaphors "represent the representative character of an object by representing a parallelism in something else" (Johansen 2002, 40). Though technically conveyed through the non-iconic symbols of language, literary metaphors qualify as Peircian metaphors. Peirce's definition, however, remains much broader: the thermometer previously described as index can also be described as metaphoric icon: there is a parallelism in the translation of heat into an increased volume of the mercury column. While symbols required interpretants and indices required their objects, icons have no such requirements. Peirce uses the example of a Euclidian diagram: streaks of pencil lead can represent a geometric line, even though the latter "has not existence" (Peirce 104).

Before providing further definitions of the triad, consider the following classic example of Peircian analysis. Peirce's fellow semiotician Saussure used the following to illustrate the relation between signifier and signified:



(Saussure 67)

Saussure used this visual aid in his pursuit to replace the simplistic "words are the names of things" with a more complicated dyad which emphasized the interdependence of signs and their objects (or, in his terminology, the signifier and the signified). For Saussure, even the simplest sign is a "two-sided psychological entity" (Saussure 66). Under a Peircian analysis, the visual aid itself is not dyadic, but triadic. The tree is an icon, "arbor" is a symbol, and everything else (the oval, the arrows, the midline) are indices which direct the reader's attention and indicate the signifier/signified relationship. This destabilization or refutation of a dyadic is characteristic of Peirce's overall semiotic approach. Beyond the examples already provided, Peirce interpreted the symbol/index/icon triad through many other analytic triads. These interpretations and comparisons are not without intellectual and methodological baggage, but are worth noting as they appear frequently in Peircian literature. A few examples, with terms ordered to express congruencies to symbol/index/icon: the legisign/sinsign/qualisign triad organizes signs by relation to their "immediate object"; the argument/dicisign/rheme triad organizes signs by relation to their interpreter or "reader"; and the "thirdness"/"secondness"/"firstness" triad organizes signs by "closeness to their object." Though intriguing in their own right, these alternate and interpretive triads have not been as well developed by Peirce or his successors.

Unlike contemporaries who created semiotic theories based on dominant modes of communication like speech or writing, Peirce reached into a stew of mediation (broadly defined) and pulled out a series of concepts abstracted away from all media. Not coincidentally, Peirce viewed the symbol/index/icon triad as "the most fundamental division of signs," and the majority of semioticians continue to agree (Johansen 1988, 90).

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