

Messages, Signs, and Meanings

**A Basic Textbook in
Semiotics and Communication**

3rd edition

**Volume 1 in the series
Studies in Linguistic and Cultural Anthropology**

**Series Editor:
Marcel Danesi, University of Toronto**

Canadian Scholars' Press Inc.
Toronto

Disclaimer: Some images and text in the printed version of this book are not available for inclusion in the eBook.

**Messages, Signs, and Meanings: A Basic Textbook in Semiotics and Communication Theory,
3rd Edition**

by Marcel Danesi

First published in 2004 by

Canadian Scholars' Press Inc.

180 Bloor Street West, Suite 801

Toronto, Ontario

M5S 2V6

www.cspi.org

Copyright © 2004 Marcel Danesi and Canadian Scholars' Press Inc. All rights reserved. No part of this publication may be photocopied, reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical or otherwise, without the written permission of Canadian Scholars' Press Inc., except for brief passages quoted for review purposes. In the case of photocopying, a licence may be obtained from Access Copyright: One Yonge Street, Suite 1900, Toronto, Ontario, M5E 1E5, (416) 868-1620, fax (416) 868-1621, toll-free 1-800-893-5777, www.accesscopyright.ca.

Every reasonable effort has been made to identify copyright holders. CSPI would be pleased to have any errors or omissions brought to its attention.

CSPI gratefully acknowledges financial support for our publishing activities from the Government of Canada through the Book Publishing Industry Development Program (BPIDP).

National Library of Canada Cataloguing in Publication

Danesi, Marcel, 1946-

Messages and meanings : an introduction to semiotics / by Marcel Danesi.

— [3rd ed.]

(Studies in linguistic and cultural anthropology)

Previously titled: Messages and meanings : sign, thought and culture.

Includes bibliographical references and index.

ISBN 1-55130-250-0 (pbk.)

I. Semiotics. I. Title. II. Series.

P99.D26 2004

302.2

C2003-907010-7

Cover design by Hothouse Canada

Page design and layout by Brad Horning

04 05 06 07 08 5 4 3 2 1

Printed and bound in Canada by AGMV Marquis Imprimeur Inc.

All royalties from the sale of this book will be donated to St. Jude Children's Research Hospital.

Canada

What Is Semiotics?

A science that studies the life of signs within society is conceivable. It would be part of social psychology and consequently of general psychology. I shall call it *semiology* (from Greek *semeion* “sign”). Semiology would show what constitutes signs, what laws govern them.

Ferdinand de Saussure (1857–1913)

PRELIMINARY REMARKS

Semiotics is the science that attempts to answer the following question: What does X mean? The X can be anything from a single word or gesture, to an entire musical composition or film. The “magnitude” of X may vary, but the basic nature of the inquiry does not. If we represent the meaning (or meanings) that X encodes with the letter Y , then the central task of semiotic analysis can be reduced, essentially, to determining the nature of the relation $X = Y$. Let’s take, as a first case-in-point, the meaning of *red*. In this case, our X constitutes an English color term. As it turns out, there is hardly just one answer to the question of what it means. At a basic level, it refers of course to a primary color located at the lower end of the visible spectrum. However, that very color can have a host of other meanings. Here are few of them:

- If it appears as a traffic signal, it means “stop” to anyone facing the signal at an intersection.
- If it is the armband color worn by someone at a political rally, then the wearer is perceived to be an individual who espouses a particular kind of political ideology, often labeled as “left-wing” or “radical.”

- If it is the color of the flag used by someone at a construction site, then it is a signal of “danger.”
- If it is used in an expression such as “turning red,” then it is a figure of speech that allows people to refer to emotional states without naming them precisely.

In sum, *red* is an example of a *sign*. It is something, *X* (a color), that stands for something else, *Y* (a traffic signal, a political ideology and so on). Describing and investigating the nature of the $X = Y$ relation constitutes, *tout court*, the subject matter of semiotics. The distinguishing characteristic of our species is its remarkable ability to portray the world in this way—that is, to use *X*’s such as colors, pictures, vocal sounds, hand gestures, and the like to refer to things. This ability is the reason why, over time, the human species has come to be regulated not by force of natural selection, but by “force of history,” that is, by the accumulated meanings that previous generations have captured, preserved, and passed on in the form of signs. As opposed to Nature, Culture is everywhere “meaningful,” everywhere the result of an innate need to seek meaning to existence.

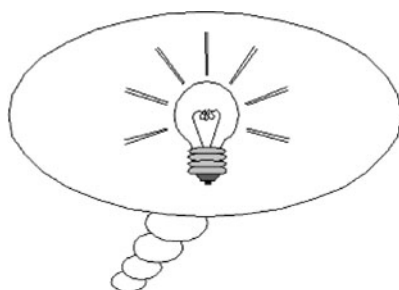
Since the middle part of the twentieth century, semiotics has grown into a truly enormous field of study, encompassing, among other endeavors, the study of body language, art forms, rhetorical discourse, visual communication, media, myths, narratives, language, artifacts, gesture, eye contact, clothing, advertising, cuisine, rituals—in a phrase, anything that is used, invented, or adopted by human beings to produce meaning. The purpose of this chapter is to sketch a general picture of what semiotics is and purports to do, introducing its fundamental notions and principles.

SIGNS

A sign is anything—a color, a gesture, a wink, an object, a mathematical equation, etc.—that stands for something other than itself. The word *red*, as we saw, qualifies as a sign because it does not stand for the sounds *r-e-d* that comprise it, but rather for a certain kind of color and other things.

Actually, the term *semeiotics* (spelled in this way) was coined by Hippocrates (460–377 BC), the founder of Western medical science, as the science of symptoms. The symptom, Hippocrates claimed, was a *semeion*—the Greek word for a physical “mark” or “sign.” Unraveling *what* a symptom

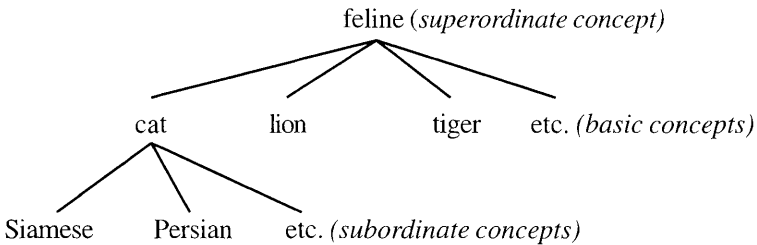
stands for, *how* it manifests itself physically, and *why* it is indicative of certain ailments or conditions is the essence of medical diagnosis. Now, while the goal of semiotics today is to investigate something quite different (a sign such as *red*), it nevertheless has retained the same basic method of inquiry. As a case in point, observe the following figure:



What does it mean? The answer is “a bright idea.” How does it present this meaning? It does so by showing a light bulb inside a bubble. Why is it indicative of this meaning? Answering this last question entails unraveling the cultural roots of each component of the sign. The use of light in the sign is consistent with the general view in our culture of light as an analogue for intellect and intelligence. This can be seen, for instance, in such expressions as “to become *enlightened*,” “to shed *light* on something,” and so on. The use of a “bubble” to enclose the light bulb (the source of light) is derived from the comic book tradition of putting words and thoughts into bubbles. This simple example illustrates the sum and substance of semiotic method. The same triad of questions is used to understand everything from a simple visual figure (such as the one above) to a complex narrative or scientific theory.

The thing to which a sign refers is known, logically, as the *referent*. There are two kinds of referents: (1) a concrete referent, such as the animal designated by the word *cat*, and (2) an abstract referent, such as the “bright idea” concept designated by the light bulb figure above. The former is something that can be shown to exist in the real world—e.g., a “cat” can be indicated by simply pointing to one. The latter is imaginary and cannot be indicated by simply pointing to it—how would you point to a “bright idea” inside the brain? Signs allow us to refer to things and ideas, even though they might not be physically present for our senses to perceive. When we say or hear the word *cat* the image of the animal in question comes instantly to mind, even if the actual animal is not around for us to perceive with our senses.

The image itself is called a *concept*. There are three types of concepts. Consider the word *cat* again. If one were to ask you what kind of animal it is, you might answer that it is a type of *feline*, as is a *lion* or a *tiger*. If one were to ask you to specify the type of cat, you might say that it was a *Siamese* or a *Persian* cat. The word *feline* encodes what is known today in psychology as a *superordinate* concept. Such a concept has a general classificatory function. The word *cat* encodes instead a *basic* or *prototypical* concept. Cats, lions, and tigers are examples of basic (feline) concepts. Finally, the word *Siamese* encodes a *subordinate* concept. This is a subtype of cat. The three kinds of concepts can be shown in relation to each other as follows:



After determining what kind of concept a sign elicits, the semiotician then focuses on the concept itself, attempting to unravel what it entails culturally and personally. In our own culture, the concept that *cat* elicits is that of an animal that we have domesticated as a household companion. But in other cultures, it may elicit instead the concept of a sacred animal, of a scavenger, or of edible meat.

From the foregoing discussion it can be seen that there are three dimensions to a sign: (1) a physical, such as the sequence of sounds *c-a-t*, which (2) elicits a concept (“a type of feline”), which (3) is given culturally conditioned form (“a household companion,” “a scared animal,” etc.). A sign can now be defined, more precisely, as *something that stands to somebody for something else in some respect or capacity*.

Incidentally, *sign* was a word slow to enter the English language. It came into usage in the thirteenth century, referring at first to a gesture or motion, and by the end of the century to either the sign of the cross or a figure on a banner or shield. As early as the 1390s English merchants were required to label their premises with “signs.” By the sixteenth century, there emerged a tradition throughout Europe of placing a sign over the door of a house bearing the owner’s name. Such “place signs” have since become common.

AN HISTORICAL SKETCH

As mentioned, in its oldest usage the term *semiotics* meant essentially medical diagnosis. The term was not applied, as far as I know, to the study of the relation between human symbols and reality. It was Plato (c. 428–c. 347 BC) who indirectly dismissed such study because he argued that human forms were deceptive things that did not stand for reality directly, but rather as mental idealizations of it. As an example of what Plato meant, consider the geometric figure called the *circle*. Circles do not really exist in Nature. They are human constructs. When geometers define a circle as a series of points equidistant from a given point (called the center), they are referring to an idealized form. They are not referring to actual physical points. Objects existing in the physical world are called “circles” insofar as they resemble or approximate the geometric form. Thus, the concept encoded by the word *circle* is unlikely to have been pried out of Nature directly. Unconvinced by his teacher’s particular perspective, Plato’s illustrious pupil Aristotle (384–322 BC) took it upon himself to investigate the relation between forms and reality more closely. He pointed out that words, for instance, do indeed refer to real things, allowing us at the same time to classify the world into real categories—e.g., *plants* vs. *animals* vs. *objects*, and so on.

The first true sign theory is due to St. Augustine (AD 354–430), who did not, however, use the term *semiotics* to identify it. He defined a *natural sign* as one that is found, literally, in Nature. Bodily symptoms, the rustling of leaves, the colors of plants, etc., are all natural signs, as are the signals that animals emit in response to physical and emotional states. He distinguished this type of sign from a *conventional sign*, which is a sign made by humans. Words, gestures, and symbols are examples of conventional signs. In modern-day semiotic theory, these are divided into *verbal* and *nonverbal*—words and other linguistic structures (expressions, phrases, etc.) are examples of *verbal signs*; drawings and gestures are examples of *nonverbal signs*. As St. Augustine emphasized, conventional signs serve a fundamental psychological need—they allow humans to encode and, thus, remember the world. They make thinking and recognition fluid and routine. Finally, St. Augustine defined *sacred signs*, such as miracles, as signs containing messages from God. These can only be understood on faith. He also emphasized that the whole process of understanding what signs mean is partly based on social conventions and partly on individual reactions to them. This idea was consistent with the hermeneutic tradition that had already been established by Clement of Alexandria (AD 150?–215?), the Greek theologian and early Father of the Church. *Hermeneutics* was (and

continues to be) the study of texts by taking into account their linguistic features and the historical contexts in which they were written.

St. Augustine's views lay largely unknown until the eleventh century, when interest in human signs was rekindled by traveling Arab scholars, who had translated the works of Plato, Aristotle, and other Greek thinkers. The result was the movement known as *Scholasticism*. Using Aristotle as their inspiration, the Scholastics asserted that signs captured truths, not constructed them. But within this movement there were some—the so-called *nominalists*—who argued that “truth” was a matter of subjective opinion and that signs captured, at best, only illusory and highly variable human versions of it. John Duns Scotus (c. 1266–1308) and William of Ockham (c. 1285–c. 1349), for instance, stressed that signs only referred to other signs, rather than to actual things. The great theologian St. Thomas Aquinas (1225–1274) countered, however, that signs referred to real things, since they were derived from sense impressions. But, like St. Augustine, he asserted that sacred signs revealed truths that were beyond rational comprehension and, therefore, had to be accepted on faith.

Almost four centuries later, the British philosopher John Locke (1632–1704) finally introduced the formal study of signs into philosophy in his *Essay Concerning Human Understanding* (1690), calling it *semeiotics* for the first time (at least to the best of my knowledge). Locke clearly anticipated that it would allow philosophers to study the relation between concepts and reality much more precisely. But the task he laid out for philosophy remained virtually unnoticed until the late nineteenth century, when the ideas of the Swiss linguist Ferdinand de Saussure (1857–1913) and the American philosopher Charles S. Peirce (1839–1914) became the platform on which an autonomous field of inquiry was gradually constructed in the twentieth century. In his *Cours de linguistique générale* (1916), a textbook put together after his death by two of his previous university students, Saussure used the term *semiology* to designate the field. He coined it in obvious analogy to other scientific terms ending in *-logy*, such as *psychology*, *biology*, *anthropology*, (from Greek *logos* “word,” “study”). Saussure's term betrayed a belief in the supremacy of language among sign systems. Here is what he had to say about it:

Language is a system of signs that expresses ideas, and is therefore comparable to a system of writing, the alphabet of deaf-mutes, symbolic rites, polite formulas, military signals, etc. But it is the most important of all these systems (Saussure 1916: 16).

Nowadays, the term *semiotics* is the preferred one, and it is the one that will be used throughout this text. This is probably due to the strong influence

of Charles Peirce on modern-day theory and practice. Peirce reintroduced Locke's term because he saw it as being consistent with previous traditions. My own sense is that those who prefer to use *semiology* perceive the discipline as similar in overall method to other sciences such as psychology; while those who use *semiotics* perceive it as a more philosophically oriented form of inquiry. My view is that both are complementary perspectives that can easily be integrated into an overall "science of the sign," however we wish to name it. Incidentally, Peirce also provided the most comprehensive typology of signs so far devised. He identified 66 species of signs, according to their function. For example, he defined a *qualisign* as a sign that draws attention to some quality of its referent. In language, an adjective is a qualisign since it draws attention to the qualities (color, shape, size, etc.) of objects. In nonverbal domains, qualisigns include the colors used by painters and the harmonies and tones used by composers.

Semiotic method includes both the *synchronic* and the *diachronic* study of signs—terms introduced by Saussure. The former refers to the study of signs at a given point in time, normally the present, and the latter to the study of how signs change, in form and meaning, over time. As a case in point, consider the word *person*. Today, we use it to refer to any human being. But a diachronic analysis reveals that this was not its original meaning. In ancient Greece, the word *persona* signified a "mask" worn by an actor on stage. Subsequently, it came to have the meaning of "the character of the mask-wearer." This meaning can still be found in the theater term *dramatis personae* "cast of characters" (literally "the persons of the drama"). Eventually, the word came to have its present meaning, probably because of the perceived importance of the theater in Western society in portraying human character. This is why we still say that people "play roles in life," "interact," "act out their feelings," "put on a proper face [mask]," and so on.

In the twentieth century, a number of key figures developed semiotics into the discipline it has become today. Only a few will be mentioned here. The American semiotician Charles Morris (1901–1979) divided semiotic method into: (1) the study of the relations between a sign and other signs, which he called *syntactics*; (2) the study of the relations between signs and their basic meanings, which he called *semantics*; and (3) the study of the relations between signs and their users, which he called *pragmatics*. The Russian-born American semiotician Roman Jakobson (1896–1982) put forward the pivotal notion of "motivated signs," which he defined as the tendency to make signs represent the world through simulation. The French semiotician Roland Barthes (1915–1980) illustrated the power of using semiotics to unravel the meaning structures

hidden in everyday spectacles, performances, and common concepts. French semiotician Algirdas J. Greimas (1917–1992) developed the branch of semiotics known as *narratology*, which he defined as the study of how human beings in different cultures invent similar kinds of narratives (myths, tales, etc.) with virtually the same stock of characters, motifs, themes, and plots. Greimas also characterized the sign as a four-component relational structure, whereby we purportedly come to understand the meaning of a specific sign (e.g., *rich*) by relating it to its contradictory (*not rich*), its contrary (*poor*), and its contradictory (*not poor*). Thomas A. Sebeok (1920–2001) was influential in expanding the semiotic paradigm to include the study of animal signaling systems, which he termed *zoosemiotics*, and the comparative study of symptoms, signals and signs in all living things, which he called *biosemiotics*. He also stressed that semiotic method should always unfold in an interdisciplinary fashion. The interweaving and blending of ideas, findings, and scientific discourses from different disciplinary domains was, Sebeok claimed, the distinguishing feature of the semiotic approach. Finally, Italian semiotician Umberto Eco (1932–) has contributed significantly to our understanding of the relation between signs and reality. He has also single-handedly put “semiotics” on the map of contemporary pop culture, so to speak, with his best-selling 1982 novel, *The Name of the Rose*, which became a major movie shortly thereafter.

Semiotics is often confused with communication science. Although the two fields share much of the same theoretical and methodological territory, the latter focuses more on the technical study of how messages are transmitted (vocally, electronically, etc.) and on the mathematical and psychological laws governing the transmission, reception, and processing of information. Semiotics pays more attention to *what* messages mean, and on *how* they have been put together with signs. This is why it also includes the study of purely fanciful, misleading, or deceitful signs and messages. The capacity for artifice, as Eco argues, is a powerful one indeed, allowing us to conjure up nonexistent referents. When we use words such as *unicorn*, *mermaid*, and *elf*, for example, we are doing exactly this. We can also get people to act dangerously by misusing signs—we can cause serious problems on the road by intentionally wiring the traffic lights to flash green on all sides at once; we can incite people to hate others by telling them deceitful lies; and so on. As Prometheus stated in Aeschylus’ (525?–456 BC) great ancient drama *Prometheus Bound*, the capacity for lying with signs has ensured that “rulers would conquer and control not by strength, nor by violence, but by cunning.”

The term *communication theory*, as used in this book, refers to the study of how messages are put together so that they can be exchanged effectively. In effect, it is an extension of semiotics proper, since it deals with the “negotiation” of meaning in specific ways. It is based on Jakobson’s idea that communication is regulated by personal, social, and purely semiotic factors.

SIGNIFICATION

Semioticians seek answers to the *what*, the *how*, and the *why* of meaning. But what is *meaning*? In their 1923 work, titled appropriately *The Meaning of Meaning*, Ogden and Richards came up with 23 meanings of the word *meaning*, showing how problematic a term it is. Here are some of them:

She <i>means</i> to watch that show	=	“intends”
A red light <i>means</i> stop	=	“indicates”
Happiness <i>means</i> everything	=	“has importance”
His look was full of <i>meaning</i>	=	“special import”
Does life have a <i>meaning</i> ?	=	“purpose”
What does love <i>mean</i> to you?	=	“convey”

Compounding the problem is the fact that when we try to “define” the meaning of something, we invariably end up going around in circles. Take the dictionary definition of *cat* as “a small carnivorous mammal domesticated since early times as a catcher of rats and mice and as a pet and existing in several distinctive breeds and varieties.” The first problem that emerges with this definition is the use of *mammal* to define *cat*. In effect, the dictionary has made the unwarranted assumption that we are familiar with the meaning of this term. So, what does the dictionary have to say about the meaning of *mammal*? A mammal, it states, is “any of various warm-blooded vertebrate animals of the class Mammalia.” But this definition now assumes that we already know the meaning of *animal*. So what does the dictionary have to say about the meaning of that term? It defines an *animal* as an *organism*, which it defines, in turn, as an individual form of *life*, which it defines, in turn, as the property that distinguishes living *organisms*. Alas, at that point the dictionary has gone into a loop, since it has employed an already-used concept, *organism*, to define *life*.

This looping pattern surfaces with all definitions. It arises because words are used to define other words. So, like the axioms of arithmetic or geometry,

the notion of *meaning* is best left undefined. It is something of which everyone has an intuitive understanding, but which virtually no one can really explain. On the other hand, the term *signification* has a specific meaning in semiotics, even though the terms *meaning* and *signification* are often used interchangeably by semioticians (as will be done in this book as well). Essentially, *signification* is what happens in our mind when we use or interpret a sign. The process of signification is, thus, the relation $X = Y$ itself. It unfolds in one of two ways, known as *denotation* and *connotation*. Take, for example, the word *house*. This elicits in our mind an image that can be characterized as a “structure for human habitation.” The evocation of this type of basic image is known as *denotation*. It allows us to determine if a specific real or imaginary object (Y) to be labeled *house* is, in its basic outline, a “structure for human habitation,” no matter what its dimensions are, what specific shape it has, and so on. Similarly, the word *square* denotes a figure consisting of “four equal straight lines that meet at right angles.” It is irrelevant if the lines are thick, dotted, 2 meters long, 80 feet long, or whatever. If the figure has “four equal straight lines meeting at right angles,” it is identifiable denotatively as a *square*.

Now, the word *house* can be extended to encompass a whole range of other referents. This extensive process is called *connotation*. Here are just three examples of the connotative uses of *house*:

The <i>house</i> is in session	=	“legislative assembly, quorum”
The <i>house</i> roared with laughter	=	“audience in a theater”
They sleep at one of the <i>houses</i> at Harvard	=	“dormitory”

Note, however, that the basic concept of “structure for human habitation” is either implied or suggested in all three uses—a legislative assembly, a theater audience, and a dormitory imply “structures” of certain kinds that “humans” can be seen to “inhabit” in some way. Connotation allows humans to expand the application of signs creatively. It is, in fact, the operative mode of signification in the construction and interpretation of all creative texts—poems, novels, musical compositions, art works, and the like. And, any interpretation of culture-specific concepts, such as *motherhood*, *masculinity*, *friendship*, and *justice*, invariably involve connotation. In 1957, Osgood, Suci, and Tannenbaum invented an interesting technique for fleshing out the connotations that such concepts entail, known as the *semantic differential*. It consists in posing a series of questions to subjects about a specific concept, using opposites—*Is it good or bad? weak or strong?* etc.—as seven-point scales,

with the opposites at each end. The answers are then analyzed statistically in order to sift out any general pattern. Suppose that subjects are asked to evaluate the concept *President* in terms of the following scales:

<i>Young</i>	$\overline{1}$	$\overline{2}$	$\overline{3}$	$\overline{4}$	$\overline{5}$	$\overline{6}$	$\overline{7}$	<i>Old</i>
<i>Practical</i>	$\overline{1}$	$\overline{2}$	$\overline{3}$	$\overline{4}$	$\overline{5}$	$\overline{6}$	$\overline{7}$	<i>Idealistic</i>
<i>Modern</i>	$\overline{1}$	$\overline{2}$	$\overline{3}$	$\overline{4}$	$\overline{5}$	$\overline{6}$	$\overline{7}$	<i>Traditional</i>
<i>Attractive</i>	$\overline{1}$	$\overline{2}$	$\overline{3}$	$\overline{4}$	$\overline{5}$	$\overline{6}$	$\overline{7}$	<i>Bland</i>
<i>Friendly</i>	$\overline{1}$	$\overline{2}$	$\overline{3}$	$\overline{4}$	$\overline{5}$	$\overline{6}$	$\overline{7}$	<i>Stern</i>

A subject who feels that a *President* should be more youngish than oldish would place a mark towards the *young* end of the top scale. One who feels that a *President* should be bland, would place a mark towards the *bland* end of the *attractive-bland* scale, and so on. If a large number of subjects were asked to rate *President* in this way, we would get a “culture-specific profile” of the *presidency* in terms of the statistically significant variations in connotation that the concept evokes.

Interestingly, research utilizing the semantic differential has shown that, while the meanings of most concepts are subject to personal interpretation and subjective feelings, the range of variation is not simply a matter of randomness, but forms a socially based pattern. In other words, the experiments have shown that the connotations of many (if not most) concepts are constrained by culture: e.g., the word *noise* turns out to be a highly emotional concept for the Japanese, who rate it consistently at the ends of the scales presented to them; whereas it is a fairly neutral concept for Americans, who tend to rate it on average in the mid-ranges of the scales.

The study of connotation constitutes the core of contemporary semiotics. This is because most of the meanings that signs bear in cultural settings are connotative. Rarely is denotation evoked in the interpretation of signs in such settings, as will become obvious throughout this book. In a fundamental sense,

culture can be characterized as a huge system of connotative meanings that cohere into an associative “macro-code” that allows members of the culture to interact purposefully and to represent and think about the world in specific ways. This is why some semioticians prefer to call it the *semiosphere*. In biology, a region that sustains life is called the *biosphere*. By analogy, the semiosphere is the region of social life that sustains knowledge-making and representational activities.

STRUCTURE, TEXT, AND MESSAGE

In order to extract meaning from a form *X*, one must be able to recognize it as a sign in the first place. This means that signs have *structure*. Specifically, a form *X* is a sign if: (1) it is distinctive; and (2) it is constructed in a predictable way. The former is called, more specifically, *paradigmatic* and the latter *syntagmatic* structure. For instance, what keeps the words *cat* and *rat* recognizably distinct? It is, of course, the initial sound. The articulatory difference between *c* (= /k/) and *r* (= /r/) is, in fact, what allows us to recognize that the two words are different signs. Paradigmatic structure is a feature of all types of signs, not just words. In music, a major and minor chord of the same key are perceivable as distinct on account of a half tone difference in the middle note of the chord; the left and right shoes of a pair are identifiable as different in terms of the orientation of each shoe; raising the index and middle fingers in a vertical orientation can mean “victory,” “peace” (among other meanings), but aiming the same two fingers in a horizontal way at someone would be interpreted instead as a threat, and so on.

Now, note that the words *cat* and *rat* are legitimate signs, not only because they are recognizable as different in a specific way, but also because the combination of sounds with which they are constructed is consistent with English syllable structure. On the other hand, *pfat* would not be recognized as a legitimate word in English because it violates an aspect of such structure—English words cannot start with the cluster *pf*. Syllable structure is an example of *syntagmatic* structure. Syntagmatic structure too is found in the composition of all kinds of signs. In music, for instance, a melody is recognizable as such only if the notes follow each other in a certain way (e.g., according to the rules of harmony); two shoes are considered to form a pair if they are of the same size, style, and color, and so on.

Something is a sign if it has both a discernible (repeatable and predictable) form and if it is constructed in a definable (patterned) way. Signs are comparable

to the pieces of a jigsaw puzzle. These have visual features on their “faces” that keep them distinct from each other, as well as differently shaped “edges” that make it possible to join them together in specific ways to complete the overall picture.

Because of the predictability of their structure, some signs can replace each other—a relation known as *analogy*. For example, European cards can replace American cards for playing solitaire, because a structural match can be easily made between European and American suits. Analogy constitutes a force of change in sign systems. Words are often re-formed or created on the model of existing patterns in a language. For example, in Old English the plural of *name* was *naman*. This was changed over time to *names* on the model of nouns like *stone*—*stones*. Analogy is the operative force when children utter a form like *goed*, rather than *went*. This is created in analogy with forms like *played*, *stayed*, etc.

The *X* part of a sign can take any form, or “size,” we desire to give it, as long as it does not violate paradigmatic and syntagmatic structure, and it assumes signification ($X = Y$) in some way. It can thus be something “small,” such as a word or two fingers raised in a vertical way; or it can be something much “larger,” such as a mathematical equation or a narrative. If we ask a mathematician what $c^2 = a^2 + b^2$ means, he or she would instantly recognize it as an $X = Y$ relation, namely as an equation standing for the Pythagorean Theorem (“the square on the hypotenuse of a right-angled triangle is equal to the sum of the squares on the other two sides”). If we ask someone who has just read a novel what he or she got out of it, we would receive an answer that reveals a perception of the novel as an $X = Y$ structure—that is, as something containing a message.

In contemporary semiotic theory, such “larger *X*’s” are called *texts*, rather than simply signs; and the meanings, or “larger *Y*’s” that they encode are called *messages*. The term *text* embraces such things as conversations, letters, speeches, poems, myths, novels, television programs, paintings, scientific theories, musical compositions, and so on. A novel, for instance, is a verbal text constructed with language signs (“smaller *X*’s”) in order to communicate some overarching message (the “larger *Y*”). Texts are composite phenomena—they are not interpreted in terms of their constituent parts (the smaller *X*’s), but holistically as single signs—as $X = Y$. This is why when we ask someone what a novel means, he or she couches the answer in terms of the message he or she extracts from it: e.g., “The novel *Crime and Punishment* paints a grim portrait of the human psyche.”

The term *message* is not synonymous with meaning. Consider a simple greeting such as “Nice day, today!” It encodes, of course, a simple message. However, the meaning of that message can be literal, whereby the speaker is acknowledging the kind of day it is simply to make contact; on the other hand, it could be ironic, if uttered on a rainy and miserable day. As this example shows, a message can have more than one meaning, and several messages can have the same meaning. In the mass media, as in art, it is often the case that many layers of meanings are built into the same message. These can only be determined or deciphered in reference to other meanings. Needless to say, this creates problems of interpretation and comprehension of various sorts. To avoid such problems, semioticians often employ the technique of *binary opposition* to flesh out what something means in relation to something else. This approach assumes that meaning is something that cannot be determined in the absolute, but only in relation to other signs: e.g., *cat* vs. *dog*; *cat* vs. *bird*; etc. From such oppositions we can see, one or two features at a time, what makes a *cat* unique among animals. In effect, such oppositions cumulatively allow us to pinpoint what *cat* means by virtue of how it is different from other animals.

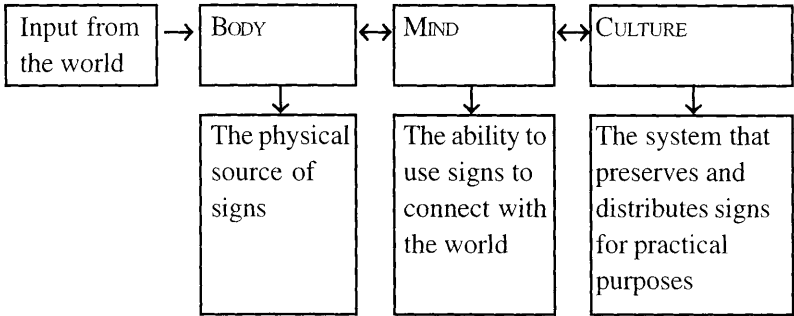
SEMIOSIS, REPRESENTATION, AND INTERPRETATION

The brain’s capacity to produce and understand signs is called *semiosis*, while the knowledge-making activity this capacity allows all human beings to carry out is known as *representation*. The latter can be defined more precisely as the use of signs (pictures, sounds, etc.) to relate, depict, portray, or reproduce something perceived, sensed, imagined, or felt in some physical form. It is, in other words, the process itself of putting *X*’s and *Y*’s together. Figuring out the meaning of $X = Y$ is not, however, a simple task. The intent of the form-maker, the historical and social contexts in which the representation was made, the purpose for which it was made, and so on and so forth, are complex factors that enter into the picture. One of the main objectives of semiotics is, in fact, to study those very factors. Charles Peirce called the actual physical form of a representation, *X*, the *representamen* (literally, “that which does the representing”); he termed the *Y* to which it calls attention, the *object* of the representation; and the meaning or meanings that can potentially be extracted from the representation ($X = Y$), the *interpretant*. The whole process of deciding the meaning of the representamen is, of course, called *interpretation*.

As an example of what representation entails, consider *sex*, as an object. This is something that exists in the world as a biological and emotional phenomenon. Now, as an object, it can be represented (literally “presented again”) in some physical form. For example, in our culture, common representations of *sex* include: (1) a photograph of two people engaged in kissing romantically; (2) a poem describing the various emotional aspects of sex; or (3) an erotic movie depicting the more physical aspects of sex. Each of these constitutes a specific kind of representamen. The meanings that each captures are built into each representamen not only by its maker, but also by certain preexisting notions relative to the culture in which the representamen was made. Representations of sex in, say, Paris are thus going to be different from representations of the same object that are made, for instance, in Bombay or San Francisco. Moreover, the type of representamen used to portray the object also shapes the meaning. Photographs can show fairly limited views of sexual activities, whereas movies can provide much more graphic detail. Finally, the ways in which people living in Paris, Bombay, or San Francisco will derive meaning from the representations will vary widely. This is because they have become accustomed in their specific cultures to different perceptions of what sex is.

Interpretation is a crucial aspect of the human condition. The instant children start to interpret the world with signs, they make a vital psychosocial connection between their developing bodies and conscious thoughts to that world. To put it figuratively, signs constitute the “conceptual glue” that interconnects their body, their mind, and the world around them in a holistic fashion. Once the child discovers that signs are effective tools for thinking, planning, and negotiating meaning with others in certain situations, he or she gains access to the knowledge domain of his or her culture. At first, the child will compare his or her own attempts at interpreting the world against the signs he or she is exposed to in specific contexts. But through protracted usage, the signs acquired in such contexts will become cognitively dominant in the child, and eventually mediate and regulate her or his thoughts, actions, and behaviors. Most of the raw, unorganized sensory information that comes from seeing, hearing, and the other senses is organized into meaningful wholes by signs. Our understanding of the world is thus not a direct sensory one. It is mediated by signs and, thus, by the images that they elicit within our mind-space.

The semiotic interconnection between the body, the mind, and culture can be shown graphically as follows:



Charles Peirce referred to these three dimensions as *firstness*, *secondness*, and *thirdness*. A sign starts out as a sensory structure, that is, as something that has been made to simulate an object in terms of its sensory properties. It is then used by the sign-user to establish a connection to the object, even if the actual object is not present for the senses to perceive (= secondness). Finally, the sign itself becomes a source of knowledge about the world, once it enters the world of culture and distributed for general usage (= thirdness). Cultures are, essentially, “sign-preserving” systems that distribute signs to people for various kinds of practical purposes.

The research of the Swiss psychologist Jean Piaget (1896–1980) and the Russian psychologist L. S. Vygotsky (1896–1934) on the nature of the child’s mind has largely confirmed this three-dimensional model of human development. Piaget’s research showed that children progress from a sensory and concrete stage of mind to a reflective and abstract one. Around the age of two, they develop representational abilities derived from constant exposure to words and symbols in cultural context. As these become more dynamic, they prepare the child for more abstract thinking. Vygotsky showed that human development goes from an unconscious “feeling” that the world has meaning to a cogitation of the world with the resources of language (“thinking in words”). This is why he defined speech as a “microcosm of consciousness.”

CODE

The signs that we use to make messages are not randomly chosen structures. When we enter into a conversation, for example, we will be able to encode and decode messages only if we know the language used. Language is a system that provides the structures and specifies the relations that these bear to each other for the purpose of making messages. But messages can also be made

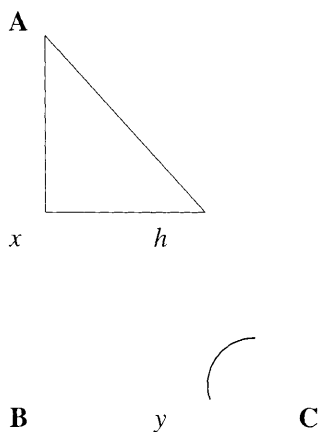
with music, painting, and other kinds of nonverbal systems. The term used in semiotics to refer to all such systems is *code*. Language, dress, music, and gesture are examples of codes. These can be defined as systems of signs (verbal, visual, gestural, etc.) that have specific properties and, thus, can be used over and over to encode and decode texts and their messages. Indeed, the words *encode* and *decode* reveal, by themselves, that the making and interpreting of messages involves use of a code.

A simple example of a code is the type used in secret communications. Take the following combination of letters:

JGNNQ

If told that each letter represents another letter of the alphabet and that the combination stands for an actual word, then it is easy to see that the actual English word is *Hello*, and thus that the code used consists in replacing each letter with the second letter after it in the normal alphabetic sequence: hence, H = J, E = G, L = N (twice), and O = Q.

There are many kinds of codes used by human beings, each with a specific kind of function. For example, *intellectual codes* allow for representational and message-making activities of a logical, mathematical, scientific, or philosophical nature, providing the appropriate resources (numerical, geometrical, etc.) to represent certain kinds of objects. A perfect example of an intellectual code is trigonometry, which is based on the relations between the sides of a triangle. The six trigonometric functions are defined in terms of a given acute angle in a right triangle:



The *sine* (\sin) of the angle at **C** is the ratio of the opposite side to the hypotenuse, x/h ; the *cosine* (\cos) is the ratio of the adjacent side to the hypotenuse, y/h ; the *tangent* (\tan) is the ratio of the opposite side to the adjacent side, x/y ; the *cotangent* (\cot) is the ratio of the adjacent to the opposite side, y/x , the *secant* (\sec) is the ratio of the hypotenuse to the adjacent side, h/y , and the *cosecant* is the ratio of the hypotenuse to the opposite side, h/x . For any angle the numerical values of the trigonometric ratios can be easily approximated by drawing the angle, measuring, and then calculating the ratios. While this code appears to have little relevance to real-world situations, the remarkable thing is that it can be applied to solve real-world problems. By envisioning an unmeasurable distance as one side of a triangle, measuring other sides or angles of the triangle, and applying the appropriate trigonometric ratios, the distance can be easily determined.

Another type of code is called a *social code* (dress, gender, food, space, etc.). Such codes provide the structures for making messages about oneself in socially appropriate ways and for regulating interpersonal activities. We will discuss social codes in more detail in Part II of this book. Food codes, for example, underlie how people prepare food and when and how they eat it. Many Christians say grace before starting a meal together; Jews say special prayers before partaking of wine and bread. At a formal meal, the order in which dishes are presented, what combinations can be served in tandem, how the foods are to be placed on the table, who has preference in being served, who must show deference, who does the speaking and who the listening, who sits where, and what topics of conversation are appropriate are all based on an appropriate food code, steeped in cultural history and tradition. All cultures, moreover, have a discrete set of table rituals and manners that are inculcated into the members of the culture from birth. If one does not know the *table-manner code*, then he or she will have to learn it in order to continue living in the culture without censure and disapprobation.

While intellectual codes tend to be more or less stable and fixed (e.g., mathematical theorems vary very little over time, if at all), social codes are adaptive and can be recycled in various ways. For example, the “mythic code of the hero,” which was embodied in ancient world figures such as Achilles, Prometheus, Samson, and many others is recycled by contemporary pop culture into comic book or movie heroes. Such heroes must be strong, superhuman, have a tragic flaw, etc., just like their mythic predecessors. For example, the comic book and movie Superman comes from another world (the planet Krypton); he has come to help humanity overcome its weaknesses; he has a tragic flaw (exposure to the fictitious substance known as kryptonite takes

away his power), and so on. In the figure of Superman, thus, the code of the mythic hero reverberates in modern guise.

Codes guide interpretation in a *context*. In semiotics, the term *context* is defined as the environment, situation, or process—physical, psychological, and social—in which interpretation unfolds. Consider a discarded and damaged beer can. If you were to come across this item on a sidewalk on a city street, you would no doubt view it as a piece of garbage or rubbish. But if you saw the very same object on a pedestal, displayed in an art gallery, “signed” by some artist, and given a title such as “Waste,” then you would be inclined to interpret it in a vastly different way. You would, in fact, be predisposed to interpret it as an artistic text, desecrating a throw-away or materialistic society. Clearly, the can’s physical context of occurrence and social frame of reference—its location on a sidewalk vs. its display in an art gallery—will determine how you will interpret it. The art gallery is, in effect, a social code. This is why we interpret anything that is put on display within it as “art,” rather than as something else.

The network of interconnected meanings that constitute a culture is configured with codes. These can be characterized as “organizational grids” within the network. Utilization of the codes for various representational reasons will, of course, vary, but the basic structure of the code will remain intact and be recognizable. As a concrete example, take 1950s rock and roll music. This constitutes a specific type of musical code, providing a system of musical structures with which songs can be composed. Differences in the actual songs composed are attributable to differences in *style*, that is, to the peculiar way in which a particular song has been composed. Thus, one can talk of an “Elvis Presley style” or a “Little Richard style,” which are characteristic uses of the same musical code by particular artists. Nevertheless, all 1950s songs retain an essential recognizable form because they are based on the same musical code.

CONCLUDING REMARKS

A sign selects what is to be known and memorized from the infinite variety of things that are in the world. Although we create new signs to help us gain new knowledge and modify previous knowledge—that is what artists, scientists, writers, for instance, are always doing—by and large, we literally let our culture “do the understanding” for us. We are born into an already-fixed semiosphere that will largely determine how we view the world around us. Only if,

hypothetically, all our knowledge (which is maintained in the form of codes) were somehow erased from the face of the earth would we need to rely once again on our instinctive meaning-making tendencies to represent the world all over again.

As an example, consider the concept of health. Although this might at first appear to capture a universally shared meaning, in actual fact what is considered to be “naturally healthy” in one culture may not coincide with views of health in another. Health cannot be defined ahistorically, aculturally, or in purely absolute terms. This does not deny the existence of events and states in the body that will lead to disease or illness. All organisms have a species-specific bodily warning system that alerts them to dangerous changes in bodily states. But in the human species bodily states are interpreted in culture-specific ways. This is why in American culture today a “healthy body” is considered to be one that is lean and muscular. Conversely, in others it is one that Americans would consider too plump and rotund. A “healthy lifestyle” might be seen by some cultures to inhere in rigorous physical activity, while in others it might be envisaged as inhering in a more leisurely and sedentary lifestyle.

Moreover, as the writer Susan Sontag cogently argued in her compelling 1978 book *Illness as Metaphor*, the semiosphere predisposes people to think of specific illnesses in certain ways. Using the example of cancer, Sontag pointed out that in the not-too-distant past the very word *cancer* was said to have killed some patients who would not have necessarily succumbed to the malignancy from which they suffered: “As long as a particular disease is treated as an evil, invincible predator, not just a disease, most people with cancer will indeed be demoralized by learning what disease they have” (Sontag 1978: 7). Sontag’s point that people suffer more from interpreting their disease in cultural terms than from the disease itself is, indeed, a well-taken and instructive one.

Medical practitioners too are not immune from the influence of cultural symbolism. The body, as we shall see in chapter 4, is as much a source of symbolism as it is organic substance. Several decades ago, Hudson (1972) showed how this affects medical practices. He found that medical specialists trained in private British schools were more likely to achieve distinction and prominence by working on the head as opposed to the lower part of the body, on the surface as opposed to the inside of the body, and on the male as opposed to the female body. Hudson suggested that the only way to interpret such behaviors was in cultural terms: that is, parts of the body, evidently, possessed a symbolic significance that influenced the decisions taken by medical students: “students from an upper-middle-class background are more likely than those from a lower-middle-class background to find their way into specialties that are seen for symbolic reasons as desirable” (Hudson 1972: 25).