1 What Is Semiotics?

Life has to be given a meaning because of the obvious fact that it has no meaning.

Henry Miller (1891–1980)

1.1 Introduction

Each time people experience excitement from reading a thriller, or shed tears while watching a sentimental movie, or chuckle at a cartoon strip, they are responding emotionally to the 'meanings' injected into these products by other human beings. Reading books, watching movies, and laughing at Homer Simpson are not exceptional activities or responses – they are behaviours that people in all walks of life engage in on a daily basis. Their ubiquity suggests that the need for meaning is as important as the procurement of biological survival. Perhaps they are even more important – news reports of people who willingly give up their lives for a 'cause' (read 'meaning') bear this out rather dramatically.

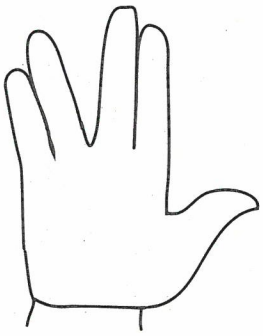
It can be argued that the need for 'produced meanings' constitutes a small-scale version of humanity's larger-scale need to unravel the 'meaning of life.' Studying the latter has always been the project of philosophy and theology as well as various other disciplines; studying the former is the specific task of semiotics, which we can define simply as the 'science of produced meaning.' The ultimate goal of semiotics is, in fact, to unravel the meanings that are built into all kinds of human products, from words, symbols, narratives, symphonies, paintings, and comic books to scientific theories and mathematical theorems. At first glance, this task might seem daunting, as it encompasses virtually

all the creative and knowledge-making activities that make up huma social life. But it is not, because semiotics focuses more narrowly o the use, structure, and function of the signs (symbols, word images, figures, etc.) used in these activities. Ultimately, though, produces insights that relate to the larger question of the meaning o existence.

Consider, as an initial example of semiotic analysis, the sign formec by raising the index and middle fingers in the shape of a V.

If asked what it means, most people today would answer that it stands for 'victory' or 'peace.' Why is this so? After all, two fingers are two fingers. What possible connection could they have to victory or peace? As it turns out, the sign's link to victory spread through con- temporary society at the end of the Second World War, after British politician Winston Churchill (1874–1965) utilized it publicly to under- score the Allied victory. Churchill evidently formed the sign to resem- ble the first letter of the English word 'victory.' A generation later, the same sign underwent a drastic transformation in meaning, aided by the popularity of the *Star Trek* series on network television, where it surfaced as the Vulcan peace sign, signifying 'Live long and prosper.' The Vulcan sign was formed with the third and fourth fingers instead of the second and third (see the next page). This 'peace meaning' of the V-sign caught on quickly in the emerging counterculture of the late 1960s. Indeed, the hippies used it deliberately as a symbol to warn society of the inanity of war and human conflict.

But the semiotic story of the V-sign (however it is made) does not stop here. It can also be used much more practically to indicate the number '2' or the letter 'V' itself. Moreover, in some cultures it is used as a greeting sign, while in others it stands for 'femininity' and 'fertil-



ity.' Now, explaining meanings associated with the V-sign such as '2' or 'victory' is a fairly simple task. On the other hand, explicating a meaning such as 'femininity' is not. Here, the semiotician becomes a 'detective' and, like a true detective, must start by considering the shape of the sign itself as an initial clue for unravelling the reasons underlying the meaning. The V-shape seems to suggest the physiognomy of female sexuality as a receptacle or a vessel, in much the same way that phallic symbols suggest male sexuality – namely, through resemblance. Of course, in this particular case the semiotician can only raise this possibility, and look for corroborating evidence among the symbolic and representational traditions of cultures around the world that use the V-sign with this meaning, as well as in current manifestations. A contemporary version of this sign can, by the way, be observed in its use to indicate 'girl power' – a use that, to the best of my knowledge, was brought into the pop culture domain in the mid-1990s by a British rock group called the Spice Girls.

The above discussion encapsulates what semiotics is essentially all about. Its central aim is to investigate, decipher, document, and explain the *what*, *how*, and *why* of signs, no matter how simple or complex they are. Since the middle part of the twentieth century, semiotics has grown into a broad field of inquiry. It has been applied to the study of body language, art forms, discourses of all kinds, visual communication, media, advertising, narratives, language, objects, gestures, facial expressions, eye contact, clothing, space, cuisine, rituals – in sum, to everything that human beings produce and use to communicate and represent things in some psychologically and socially meaningful way. But this seemingly eclectic pastiche of applications is hardly random or haphazard. It has a specific purpose – to flesh out recurrent patterns in the production of human meaning.

1.2 A Historical Sketch

The historical sketch that follows makes no pretensions to being exhaustive. It is intended simply to provide major points of reference for discussing semiotic concepts and practices in this and later chapters.

The term *semeiotics* (now spelled without the 'e') – from the Greek *sêmeiotikos*, 'observant of signs' – was coined by Hippocrates (c. 460–c. 370 BCE), the founder of Western medicine, to designate the study of the warning signs produced by the human body, referred to more commonly today as symptoms. Hippocrates argued that the particular physical form that a symptom takes – called a *semeion* ('mark') – constitutes a vital clue to its source. Its visible features 'announce,' so to speak, that 'something invisible' – a disease, malady, or ailment – is present in the body. With this simple concept, Hippocrates established medicine as a diagnostic 'semeiotic' science – that is, a science based on the detection and interpretation of bodily signs. Semeiotic method was entrenched permanently in medical practice shortly afterwards by the physician Galen of Pergamum (c. 130–c. 200 CE).

The concept of *semeion* as 'something physical' standing for 'something else' was expanded in antiquity to include human-made semeions (such as words) that stood for psychological or emotional states. Among the first to differentiate between physical and human-made or conventional semeions was the Greek philosopher Plato (c. 427–c. 347 BCE). Plato was intrigued by the fact that a single word has the capacity to refer not only to specific objects, but also to objects that resemble one another in some identifiable way. For example, the word *circle* does not refer to a singular thing (although it can if need be), but rather to anything that has the property 'circularity' – a particular circle can be altered in size, but it will still be called a *circle* because it possesses this property. Plato concluded that the ideas we encode with words can't possibly be part of our everyday world, which is changing and imperfect. They possess, he suggested, inherent properties that mirror innate forms in the mind. It is these properties that are captured by words.

As Plato realized, words reveal something remarkable about human understanding – namely, our propensity to unravel the essence of things, not just name and classify them as individual objects. In any case, the latter would be impossible because there would then be as many words as there are things. Plato's pupil Aristotle (384–322 BCE)

took issue with this particular aspect of his teacher's philosophy, arguing that words start out not as properties but rather as practical strategies for naming singular things. Only after we discover that certain things have similar properties do we start classifying them into categories. At such points of discovery, Aristotle argued, we create abstract words that allow us to bring together things that have similar properties: plants, animals, objects, and so on. In contrast to Plato's 'mentalist' theory, Aristotle's theory is referred to as 'empirical.' Both theories make sense, and neither can be proved or disproved. To this day, the debate between mentalists and empiricists rages on, indicating that it will probably never be resolved.

Eventually, a question arose: Is there any connection between natural and conventional signs? Among the first to discuss a possible relationship between the two were the Stoics. Stoicism was a Greek school of philosophy that emerged around 308 BCE. The Stoics argued that conventional signs (words and symbols) reveal something intrinsic about the nature of human psychological and emotional states in the same way that natural signs reveal something intrinsic about biological states. Is this a tenable view? Are natural and conventional signs – for example, symptoms and words – linked in some way? Semioticians have always debated this question. St Augustine (354–430 CE), the early church father and philosopher, was among the first to argue for a fundamental difference between the two in his *De doctrina christiana* (On Christian Doctrine). He posited that natural signs *(signa naturalia)* are distinct from conventional ones because they are products of nature and thus lack intentionality. Such signs include not only bodily symptoms but also the rustling of leaves, the colours of plants, the signals that animals emit, and so on. Conventional signs *(signa data)*, on the other hand, are the product of human intentions. These include not only words but also gestures and the many symbols that humans have invented to serve their psychological, social, and communicative needs. Finally, St Augustine considered miracles to be messages from God and thus sacred signs. These can only be understood on faith, although such understanding is based in part on specific cultural interpretations of them.

Interest in linking human understanding with sign production waned after St Augustine's death. Only in the eleventh century was interest rekindled, mainly through the translation of the works of Plato, Aristotle, and other important Greek philosophers. The outcome was the movement known as Scholasticism. The Scholastics

were Christian thinkers whose aim was to solve long-standing theological problems, such as the provability of God's existence. Using Aristotelian empiricist theory as their basic modus operandi, they asserted that conventional signs capture practical truths and do not construct them out of mere convenience. However, within this movement there were some – referred to as nominalists – who argued that 'truth' is itself a matter of subjective opinion and that at best, signs capture illusory and highly variable human versions of truth. For instance, John Duns Scotus (c. 1266–1308) and William of Ockham (c. 1285–c. 1349) stressed that signs end up referring to other signs rather than to actual things or Platonic properties – a perspective that is strikingly similar to some modern theories of the sign, as we shall see in due course. The theologian St Thomas Aquinas (1225–74) countered with the idea that signs do indeed refer to real things and categories of things, even if they constitute variable human models of them. At about the same time, the English philosopher and scientist Roger Bacon (c. 1214–c. 1292) developed one of the first comprehensive typologies of signs, contending that without a firm understanding of the role of signs in human understanding, discussing what truth is or is not can only end up being a trivial matter of subjective opinion.

Two centuries later, after the Polish astronomer Copernicus (1473–1543) arrived at the theory of heliocentricity (i.e., the earth orbits the sun), a powerful new intellectual movement took shape in Western society. This movement placed science ahead of religion and philosophy as the primary form of inquiry for grasping truths about reality. This movement was spearheaded by the scientists themselves, especially Francis Bacon (1561–1626) and Galileo Galilei (1564–1642). A little later, philosophers joined the scientists, contending that all forms of reality, physical and psychological, can be studied in ways that parallel the scientific approach – a view scattered throughout the writings of Thomas Hobbes (1588–1679), René Descartes (1596–1650), Benedict Spinoza (1632–77), Gottfried Wilhelm Leibniz (1646–1716), David Hume (1711–76), and John Locke (1632–1704). Needless to say, there were some who went against this intellectual grain. For instance, the Irish prelate George Berkeley (1685–1753) detested science and mathematics, arguing that they were nothing but fanciful concoctions of the human mind; and the German philosopher Immanuel Kant (1724–1804) suggested, in an analogous fashion, that any scientific claim to truth can only be an illusory one because science is itself a

product of human fancy. Kant's ideas laid the groundwork for the Romantic movement in philosophy and the arts – a movement manifested especially in the writings of Friedrich Nietzsche (1844–1900), Edmund Husserl (1859–1938), and, later, Martin Heidegger (1889–1976) – which claimed that true knowledge of the world is an unattainable ideal.

A particularly important figure in the development of sign theory in the post-Copernican era was John Poinsot (1589–1644), who in *Treatise on Signs* (1632) defined the sign as an intermediary between thoughts and things. Poinsot suggested that signs function psychologically as 'intermediary forms' that allow the human mind to make a direct link to the 'realities' of life. These realities can thus be studied in the actual forms we make. A half century later, Locke suggested a specific plan for incorporating the formal study of signs into philosophy in his *Essay Concerning Human Understanding* (1690). Locke saw semiotics as an investigative instrument for philosophers, rather than a distinct discipline or method of inquiry. The idea of fashioning an autonomous discipline of sign study did not crystallize until the late nineteenth century, when the Swiss linguist Ferdinand de Saussure (1857–1913) proposed this in *Cours de linguistique générale* (1916), a textbook compiled after his death by two of his university students. Saussure used the term *sémiologie* (English *semiology*) – which he had used in personal correspondence as far back as 1894 – to designate the new discipline.

As the following extract from the *Cours* shows, Saussure suggested that the main goal of semiology (should it ever come into being) would be to understand the social function of signs:[1]

> It is possible to conceive of a science which studies the role of signs as part of social life. It would form part of social psychology, and hence of general psychology. We shall call it *semiology* (from the Greek *semeion*, 'sign'). It would investigate the nature of signs and the laws governing them. Since it does not yet exist, one cannot say for certain that it will exist. But it has a right to exist, a place ready for it in advance. Linguistics is only one branch of this general science. The laws which semiology will discover will be laws applicable in linguistics, and linguistics will thus be assigned to a clearly defined place in the field of human knowledge.

Saussure went on to suggest that of all sign systems, language is 'the most complex and universal,'[2] and that this is so because 'There are no

pre-existing ideas, and nothing is distinct before the appearance of language.'[3]

Saussure seems to have been unaware that the French term *sémiologie* first appeared, so it seems, in *Dictionnaire de Trévoux* (1752), where it had a medical meaning. Also, the *Imperial Dictionary*, published in England in 1883, included an entry for *semeiology*, defining it as the 'doctrine of signs.' Today, Locke's term *(semeiotics)*, spelled *semiotics*, is the preferred one, having been adopted by the International Association of Semiotic Studies in 1969. The term *significs*, coined by Victoria Lady Welby (1837–1912) in 1896, is also used occasionally in the technical literature, but with a specific sense – the study of the relations among signs and the emotions. It was the American philosopher Charles S. Peirce (1839–1914) who brought Locke's term into wide circulation. Along with Saussure, Peirce is the founder of modern semiotics. Peirce's writing style is rather dense and his ideas are not easily grasped; even so, his basic theory of the sign has become a key one. Perhaps his greatest insight is that our sensory and emotional experience of the world influences how a sign is constituted and why it has been brought into existence in the first place. We construct a semeion not because we simply want to refer to something in particular or classify it as part of some category, but because we wish to understand that something in a sensory-based way. This can be heard clearly in imitative or onomatopoeic words such as *buzz* and *murmur*, which are designed to resemble the sounds associated with the objects or actions to which they refer. But the very same modelling process occurs across meaning systems, as we shall see in due course.

Following Saussure and Peirce, a number of people developed semiotics into the sophisticated discipline that it is today. Only a few will be mentioned in passing here. Ludwig Wittgenstein (1889–1951) suggested that signs are pictures of reality, presenting it as if it were a series of frames. This 'picture view' continues to inform a large part of semiotic theory and practice. The American semiotician Charles Morris (1901–79) subdivided semiotic method as follows: the study of sign assemblages, which he called *syntactics*; the analysis of the relations that are forged between signs and their meanings, which he called *semantics*; and the investigation of the relations that are formed between signs and their users, which he called *pragmatics*. The Russian-born American semiotician Roman Jakobson (1896–1982) studied various facets of sign construction but is probably best

known for his model of communication, which suggests that sign exchanges are hardly ever neutral, but involve subjectivity and goal attainment of some kind. The French semiotician Roland Barthes (1915–80) illustrated the power of semiotics for decoding the hidden meanings in pop culture spectacles such as wrestling matches and Hollywood blockbusters. Another French semiotician, Algirdas J. Greimas (1917–92), developed the branch of semiotics known as *narratology*, which studies 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. The Hungarian-born American semiotician Thomas A. Sebeok (1920–2001) was influential in expanding the semiotic paradigm to include the comparative study of animal signalling systems, which he termed *zoosemiotics*, and the study of semiosis in all living things, which has come to be called *biosemiotics*. Semiosis is the innate ability to produce and comprehend signs in a species-specific way. Sebeok contended that the interweaving and blending of ideas, findings, and discourses from different disciplinary domains is the distinguishing feature of biosemiotics. Finally, the Italian semiotician Umberto Eco (b. 1932) has contributed significantly to our understanding of how we interpret signs. It was Eco who single-handedly put semiotics on the map of pop culture with his best-selling novel *The Name of the Rose*.

Readers are also bound to come across names such as Derrida, Lévi-Strauss, Merleau-Ponty, Deleuze, Ricoeur, Deely, Merrell, Lotman, Hjelmslev, Kristeva, Lacan, Foucault, Lady Welby, Bénveniste, and Langer, among others, when reading about signs and sign theory in various sources. Some of these people will be mentioned later in this book. Because of space limitations many others will not be, even though their influence on semiotic theory and practice has hardly been negligible. The monumental treatise on the development of sign theory by John Deely is recommended as a resource for filling in the gaps left here.[4]

1.3 The Science of Meaning

As already noted, semiotics can be defined simply as the science of meaning. But how does one go about scientifically studying something as elusive as meaning, since unlike physical objects, it cannot be handled or described separately from the products that are con-

structed to contain it (words, symbols, etc.)? In fact, there *is* a way to do so rather easily – namely, by studying those very products in order to determine how they convey meaning and then reconstructing the various forms of meaning by inference. Instead of studying meaning by contemplating it directly, as traditional philosophy does, semiotics studies how it is built into signs and texts of all kinds (words, symbols, drawings, musical compositions, etc.). In short, semiotics studies 'produced meaning' in order to understand semiosis. 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, by contrast, pays more attention to *what* information is and *how* we interpret it.

What is *meaning*? A little reflection tells us that this is a confusing word indeed. As the literary critics C.K. Ogden and I.A. Richards showed in their masterful 1923 work *The Meaning of Meaning*, there are at least twenty-three definitions of the word *meaning* in English, which of course adds to the confusion.[5] Here are some of them:

Alex *means* to watch that show.	=	'intends'
A red light *means* stop.	=	'indicates'
Happiness *means* everything.	=	'has importance'
Sarah's look was full of *meaning*.	=	'special import'
Does life have a *meaning*?	=	'purpose'
What does love *mean* to you?	=	'convey'

To avoid such ambivalence, the terms *reference*, *sense*, and *definition* are often used instead of *meaning* in both philosophy and semiotics. Reference is the process of pointing out or identifying something; sense is what that something elicits psychologically, historically, and socially; and definition is a statement about what that something means by convention. Words can refer to the same (or similar) things, known as *referents*, yet have different *senses*. For example, the 'long-eared, short-tailed, burrowing mammal of the family Leporidae' can be called *rabbit* or *hare* in English. Both words *refer* essentially to the same kind of mammal. But there is a difference of sense between the two – *hare* is the more appropriate term for describing the mammal if it is larger, has longer ears and legs, and does not burrow. Another dif-

ference is that a *rabbit* is now viewed as a 'pet,' whereas a *hare* is unlikely to be viewed as such. The German philosopher Gottlob Frege (1848–1925) was among the first to point out the importance of sense phenomena in theories of meaning. Frege's now classic example was that of the 'fourth smallest planet and the second planet from the Sun' as being named both *Venus* and the *Morning Star*. The two terms refer to the same thing, he observed, but they have different senses: *Venus* designates the planet in a straightforward referential way (nevertheless with implicit references to the goddess of sexual love and physical beauty of Roman mythology), whereas *Morning Star* brings out the fact that the planet is visible in the east just before sunrise. Knowledge of signs, as this example shows, includes awareness of the senses that they bear in social and historical context – a fact emphasized further by the philosopher Willard V.O. Quine (1908–2000). In what has become a classic example in modern-day philosophy of the inherent difference between referential and sense-based meaning, Quine portrayed a situation in which a linguist overhears *Gavagai* from the mouth of a native informant when a rabbit is sighted scurrying through the bushes. But the linguist cannot determine whether the word means 'rabbit,' 'undetached rabbit parts,' or 'rabbit stage' because, as he has discovered from the informants, these are all senses that the word evokes. The meaning, therefore, will remain indeterminate unless it can be inferred from the context in which *Gavagai* occurs.

Definition, as mentioned, is a statement about what something means put together by using words and other signs (e.g., pictures). As useful as it is, the act of defining something such as a word leads inevitably to circularity. Take the dictionary definition of *cat*: '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.' One of the problems that immediately surfaces from this definition relates to the use of *mammal* to define *cat*. In effect, one term has been replaced by another. So, what is the meaning of *mammal*? A *mammal*, the dictionary states, is 'any of various warm-blooded vertebrate animals of the class Mammalia.' But this definition is hardly a viable way out of the growing circle of references. What is an *animal*? The dictionary defines *animal* as an *organism*, which it defines, in turn, as an individual form of *life*, which it then defines as the property that distinguishes living *organisms*. Alas, at that point the dictionary has gone into a referential loop, since it has employed an already used concept, *organism*, to define *life*. This

looping pattern surfaces in all domains of human knowledge. It suggests that signs can never be understood in the absolute, only in relation to other signs.

In contemporary semiotics the terms *denotation* and *connotation* are preferred to reference and sense. Consider, again, the word *cat*. The word elicits an image of a 'creature with four legs, whiskers, retractile claws,' and so on. This is its *denotative* meaning, which is intended to point out what distinguishes a *cat* – a mammal with 'retractile claws,' 'long tail,' and so on – from some other mammal. This allows us to determine whether something real or imaginary under consideration is an exemplar of a 'cat.' Similarly, the word *square* refers to a figure characterized by the distinctive features 'four equal straight lines' and 'meeting at right angles.' It is irrelevant whether the lines are thick, dotted, 2 metres long, 80 feet long, or coloured differently. If the figure has 'four equal straight lines meeting at right angles,' it qualifies as a square. The word *denotation*, incidentally, is derived from the compound Latin verb *de noto*, 'to mark out, point out, specify, indicate.' The noun *nota* ('mark, sign, note') itself derives from the verb *nosco* ('to come to know,' 'to become acquainted with,' 'to recognize').

All other senses associated with the words *cat* and *square* are connotative – that is, they are derivational or extensional. Some connotative senses of *square* can be seen in expressions such as the following:

She's so *square*.	=	'old fashioned'
He has a *square* disposition.	=	'forthright,' 'honourable'
Put it *squarely* on the table.	=	'evenly,' 'precisely'

Notice that an old-fashioned person, an honourable individual, and the action of laying something down nevertheless imply the referential meaning of 'square.' The concept of 'square' is an ancient one and thus probably known by everyone (hence 'old-fashioned'); it is also a figure with every part equal (hence 'forthright'); and it certainly is an even-sided figure (hence 'evenly'). Connotation encompasses all kinds of senses, including emotional ones. Consider the word *yes*. Besides being a sign of affirmation, it can have various emotional senses depending on the tone of voice with which it is uttered. When one says it with a raised tone – as in a question, 'Yes?' – then it conveys doubt or incredulity. When articulated emphatically – 'Yes!' – then it connotes triumph, achievement, or victory.

Connotation is the operative sense-making and sense-extracting mode in the production and decipherment of creative texts such as poems, novels, musical compositions, works of art – in effect, of most of the non-technical texts that people create. But this does not imply that meaning in technical (information-based) domains is exclusively denotative. On the contrary, many (if not all) scientific theories and models involve connotative processes, even though they end up being interpreted denotatively over time. This topic will be examined more closely in subsequent chapters. Above all else, it should be emphasized that connotation is not an option, as some traditional theories of meaning continue to sustain to this day; rather, it is something we are inclined to extract from a sign. The V-sign discussed above (§1.1), for example, has a denotative meaning, as we saw – it can be used to represent the number 2 – but only in response to a question such as, 'How many dollars do you have in your pocket?' This denotative meaning – two fingers representing the number 2 directly – is established by a very limitative context. In all other contexts the V-sign elicits connotative interpretations. This applies to all kinds of signs – even to digits. The numbers 7 and 13 in our culture invariably reverberate with connotative meanings such as 'fortune,' 'destiny,' 'bad luck,' and so on. By the way, such meanings are hardly fanciful or dismissible. They tend to have real-world consequences, notwithstanding their apparent superstitious senses. This can be seen, for instance, in the fact that many high-rise buildings in our society do not label the 'thirteenth floor' as such, but rather as the 'fourteenth,' in order to avoid the possibility of inviting the bad fortune associated connotatively with the number 13 to the building and its residents.

Abstract concepts such as 'motherhood,' 'masculinity,' 'friendship,' and 'justice' are especiallly high in connotative content. In 1957 the psychologists Osgood, Suci, and Tannenbaum showed this empirically by applying a technique called the *semantic differential*, which is designed to flesh out the connotative (culture-specific) meanings that abstract concepts elicit.[6] It consists in posing a series of questions to subjects about a particular concept – *Is X good or bad? Should Y be weak or strong?* and so on. The subjects are asked to rate the concept on seven-point scales. The ratings are then collected and analysed statistically in order to sift out any general patterns.

Suppose that subjects are asked to rate the concept 'ideal American president' in terms of the following scales: for example, *Should the pres-*

ident be young or old? Should the president be practical or idealistic? Should the president be modern or traditional? and so on:

young	1 2 3 4 5 6 7	*old*
practical	1 2 3 4 5 6 7	*idealistic*
modern	1 2 3 4 5 6 7	*traditional*
attractive	1 2 3 4 5 6 7	*bland*
friendly	1 2 3 4 5 6 7	*stern*

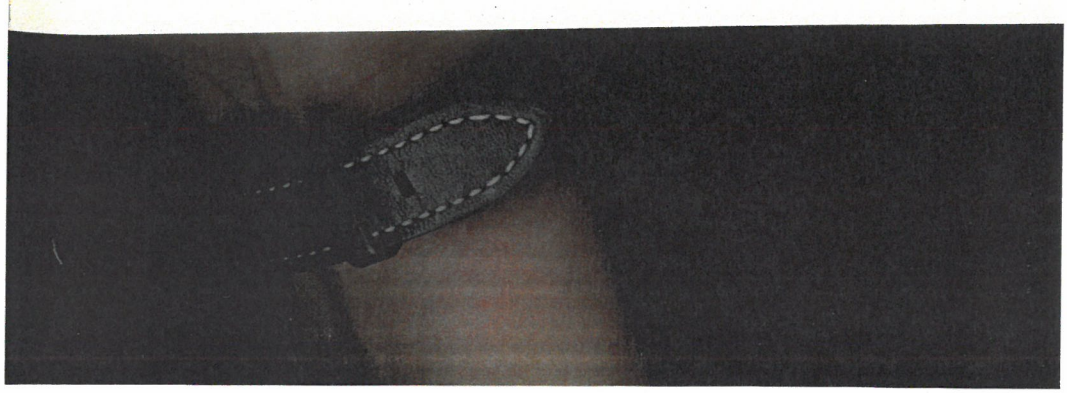
A subject who feels that the president should be more 'youngish' than 'oldish' would place a mark towards the *young* end of the top scale; one who feels that a president should be 'bland' would place a mark towards the *bland* end of the *attractive–bland* scale; and so on. If we were to ask a large number of subjects to rate the president in this way, we would get a 'connotative profile' of the American presidency in terms of the statistically significant variations in sense that it evokes. Interestingly, research utilizing the semantic differential has shown that the range of variations is not a matter of pure subjectivity, but forms, rather, a socially based pattern. In other words, the connotations of many (if not all) abstract concepts are constrained by culture. For example, 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 same scales. Connotation is not, therefore, open-ended; it is constrained by a series of factors, including conventional agreements as to what signs mean in certain situations. Without such constraints, our systems of meaning, known as *signification* systems, would be virtually unusable. All signification (be it denotative or connotative) is a relational and associative process – that is, signs acquire their meanings not in isolation, but in relation to other signs and to the contexts in which they occur.

As mentioned, the distinction between denotation and connotation is by and large analogous to Frege's distinction between reference and sense. And indeed, these terms are used interchangeably in the relevant semiotic literature, as are Rudolf Carnap's (1891–1970) terms *intension* (= denotation) and *extension* (= connotation). While there are subtle differences among these terms, it is beyond the present purpose to compare them. Suffice it to say that in current semiotic practice they are virtually synonymous:

reference	=	denotation	=	intension
sense	=	connotation	=	extension

The use of the denotation vs connotation dichotomy is often credited to philosopher John Stuart Mill (1806–73); in actual fact, though, it can be traced back to the medieval Scholastics, and in particular to William of Ockham (§1.2). In both Ockham and Mill, however, connotation is used to indicate the sum of the properties that a word's referent is perceived to have. The distinction between denotation and connotation as we understand it today was made for the first time by the American linguist Leonard Bloomfield in his influential 1933 book *Language*.[7] The same distinction was fleshed out later by the Danish linguist Louis Hjelmslev (1899–1965); Hjelmslev's treatment is highly abstruse and largely confusing; even so, it has placed this basic distinction on the semiotic agenda once and for all. Especially relevant is Hjelmslev's characterization of connotation as a 'secondary semiotic system' for expressing subjective meanings. Barthes and Greimas (§1.2) later argued that connotation is an inbuilt feature of signs, not just a matter of individual choice.

At this point it is important to distinguish between the terms *image* and *concept*, which are also used interchangeably in the semiotic literature even though there is a difference. The former is the mental picture of a referent that is evoked when a sign is used or suggested; the latter is the culture-specific interpretation that is assigned to that picture. There are two types of concept: concrete and abstract. The former is any referent that can be seen, heard, smelled, touched, or tasted – that is, observed in some direct sensory way; the latter is any referent that cannot be perceived in a direct sensory fashion. A 'cat' constitutes a concrete concept because a real cat can be observed with the senses. On the other hand, 'love' is an abstract concept because, although it can be experienced emotionally, it cannot be observed



directly – that is, the emotion itself cannot be separated from the behaviours, states of mind, and so on that it produces.

The distinction between concrete and abstract concepts is a general one. In actual fact, there are many degrees or levels of concreteness and abstraction, which are influenced by social, historical, and other kinds of external or contextual factors. Generally, semioticians and psychologists posit the existence of three such levels. At the highest, referred to as the *superordinate* level, concepts are considered to have a highly general classificatory (abstract) function. So, for example, in the dictionary definition of *cat*, the related concept of *mammal* would be viewed as a superordinate concept because it refers to the general category of animals to which a cat belongs. Then there is the *basic* or *prototypical* level, which is where the word *cat* itself would fit in. This is the level where basic types of mammals are classified – cats, dogs, goats, hogs, horses, and the like. The third level, called the *subordinate* level, is where more detailed ways of referring to something occur. There are in fact many types (breeds) of cat – Siamese, Persian, Abyssinian, Korat, and so forth – which allow us to refer to differences in detail perceived as relevant. However, such notions as levels and hierarchies are problematic, as Umberto Eco pointed out in *Semiotics and the Philosophy of Language* (1984).[8] The main difficulty, he suggested, is that decisions as to where a concept belongs in a hierarchy invariably end up being a matter of subjective choice. Rather than hierarchical structure, Eco and other semioticians suggest that they have associative structure (see §3.3).

Ultimately, signs allow people to recognize certain patterns in the world over and over again; in this way they serve as directive guides for taking action in the world. Signs are thus closely tied to social needs and aspirations – a fact emphasized by many semioticians, especially the Russian theorist Mikhail Bakhtin (1895–1975). Bakhtin went so far as to argue that signs gain meaning only as they are exchanged by people in social dialogue or discourse. In effect, he maintained that all human meaning is constructed dialogically (socially). In my view, this is only partially correct. Some caution must be exercised in adopting social theories of meaning à la Bakhtin. The fact is that there is a constant interaction between nature and culture, or between the *biosphere* and the *semiosphere*, in the production of signs, as the great biologist Jakob von Uexküll (1864–1944) and the Estonian cultural semiotician Jurij Lotman (1922–93) argued. It is more accurate to say that concept formation is the result of adaptation

partly to the biosphere and partly to the semiosphere – that is, to the universe of signs in which humans are reared. The notion of semiosphere will be taken up in §4.5. Suffice it to say here that it seems to resolve the controversy between 'constructivists' like Bakhtin and those who contend that everything we know is hard-wired in the brain at birth ('universalists').

1.4 Two Fundamental Models of the Sign

The elemental question that motivates semiotic inquiry is this: How does semiosis occur? Answers to this question are guided today by two fundamental models of the sign – the one put forward by Saussure and the one elaborated by Peirce.

Saussure was born in Geneva in 1857. He attended science classes at the University of Geneva before turning to language studies at the University of Leipzig in 1876. In 1879, while still a student, he published his only book, *Mémoire sur le système primitif des voyelles dans les langues indo-européennes* (Memoir on the Original Vowel System in the Indo-European Languages), an important work on the vowel system of Proto-Indo-European, considered the parent language from which the Indo-European languages have descended. Saussure taught at the École des Hautes Études in Paris from 1881 to 1891 and then became a professor of Sanskrit and comparative grammar at the University of Geneva. He never wrote another book; however, his teaching proved to be highly influential. After his death, two of his students compiled the lecture notes they had taken in his classes, as well as other materials related to the course, and wrote the seminal work *Cours de linguistique générale* (1916), which bears Saussure's name.

Saussure suggested, first and foremost, that any true semiological science should include *synchronic* and *diachronic* components. The former involves studying sign systems at a given point in time – normally the present – and the latter how they change over time. As a simple case in point of what diachronic analysis involves, consider the word *person*, which derives from the Latin word *persona*, meaning a 'mask' worn by an actor on stage. The Romans probably adopted it from an even earlier Etruscan word, *phersu*, perhaps by way of Greek. Subsequently, it came to have the meaning 'the character of the mask wearer' on the stage. That meaning exists to this day in the theatre term *dramatis personae*, 'cast of characters' (more literally 'the persons of the drama'). Eventually the word came to have its present meaning

of 'human being' – an outcome that brings out the influence that the theatre has had in human society. This analysis of *person* also provides insight into why we continue to this day to use theatrical expressions such as *to play a role in life, to interact, to act out feelings, to put on a proper face* (mask), and so on to describe the activities and behaviours of 'persons.' The theatre itself may in fact have come about in order to make life intelligible. With its characters and plots, it continues to have great emotional power because it puts *life* on display in a concrete and understandable way. The linkage between personality and the theatre is also the reason why we commonly resort to theatre terms in conversations about people and their lives. For example, if we ask someone 'What is your life like?' we often get responses such as 'My life is a comedy' or 'My life is a farce,' from which we can draw specific inferences about the person's life.

Saussure put forward a 'binary' model of the sign – a structure with two components, physical and conceptual. He termed the physical part of the sign, such as the sounds that make up the word *cat*, the *signifier*, and the concept that the sign elicits, the *signified* (literally, 'that which is signified by the sign'). Saussure contended, moreover, that there is no necessary motivation or reason for creating the word *cat* other than the social need to do so. Any other signifier would have done the job just as effectively. This is why his model of the sign is called 'arbitrary.' This topic will be revisited in due course.

Peirce was born in Cambridge, Massachusetts, in 1839. He was educated at Harvard University. He lectured on logic and philosophy at Johns Hopkins and Harvard, where he expanded the system of logic created by the British mathematician George Boole (1815–64). But Peirce is best known for his view, called *pragmatism*, which maintains that the significance of any theory or model lies in the practical effects of its application. Pragmatism was incorporated by William James (1842–1910) into psychology and by John Dewey (1859–1952) into education, profoundly influencing modern-day practices in those two fields. In contrast to the Saussurean model of the sign, the Peircean model is referred to as 'triadic' because it posits three main components in sign constitution: the actual physical sign, the thing to which it refers, and the interpretation that it elicits in real-world situations. Peirce called the form a *representamen* ('something that does the representing') and the concept that it encodes the *object* ('something cast outside for observation'). He termed the meaning that we get from it the *interpretant*. This constitutes a 'derived' sign itself, because it

entails the further production of meanings arising from the context in which a sign is used. In our culture, a cat is considered to be a domestic companion, among other things; in others it is viewed primarily as a sacred animal (akin to a sacred cow in some societies); and in others still it is considered to be a source of food (cat meat). Thus, while the sign refers to virtually the same mammal in different cultures (not matter what name is used), its interpretant varies considerably, constituting a source of supplementary (and obviously crucial) semiosis.

Peirce also developed a comprehensive typology of signs – a typology that has yet to be eclipsed. He identified sixty-six types in total. Newcomers to semiotics often react with perplexity to his typology, which consists of seemingly obscure and unfathomable notions such as *qualisigns*, *sinsigns*, and *legisigns*. But it is actually quite straightforward. For instance, as its name implies, a *qualisign* is a sign that draws attention to some *quality* of its referent (the object it represents). In language, an adjective is a qualisign since it draws attention to the qualities (colour, shape, size, etc.) of things. In other sign systems, qualisigns include colours (painting), harmonies and tones (music), and so forth. A *sinsign* is a sign that *singles* out a particular object – a pointing finger and the words *here* and *there* are examples of sinsigns. A *legisign* is a sign that designates something by convention (literally 'by law'). Legisigns include various kinds of symbols and emblems such as those used on flags and logos.

Unlike Saussure and much like Plato (§1.2), Peirce viewed semiosis as originating in the perception of some property in an object. For this reason, he called the act of sign creation or sign interpretation a 'firstness' event. Firstness is, more technically, a tendency to forge or interpret signs as simulations of the world. As we shall see in the next chapter, he called this process *iconicity*. Since 'iconic signs' are fashioned in culture-specific contexts, their manifestations across cultures are not exactly alike, even though they spring from the same human perceptual apparatus. Peirce used the term *hypoicon* to acknowledge this culture-constrained dimension of firstness. Nevertheless, because it is a firstness (sensory-based) sign, its referent can be figured out even by those who are not a part of the culture, if they are told how it simulates, resembles, or substitutes it. A 'secondness' tendency in sign creation or sign interpretation consists in relating objects in some way. He called this tendency *indexicality*. The pointing finger is a basic example of a secondness sign, known as an *index*. When we point to something, we are in fact relating it to our location as pointers. If it is close by we

refer to it as *near* or *here*. If not, we refer to it as *far* or *there*. Finally, Pierce posited that there exists a 'thirdness' tendency in sign creation or interpretation, which consists in learning and using signs in conventional ways. He called signs that result from this tendency *symbols*. The cross figure used to stand for Christianity is a perfect example of a symbol. Although it represents the figure of the cross on which Christ was crucified, it is interpreted historically and conventionally as a sign standing for the religion that was founded after Christ's death.

Despite the obvious richness and breadth of Peircean sign theory, the Saussurean model continues to have wide usage among semioticians because it is a much more expedient one to apply, especially in the initial phases of analysis. Signifiers can easily be separated from contexts of occurrence and studied abstractly in relation to signifieds, albeit somewhat artificially. Peirce's model, however, has proven to be a more insightful and all-encompassing one in the development of a comprehensive theory of meaning.

1.5 The Current Practice of Semiotics

It is accurate to say that semioticians today use a blend of Saussurean and Peircean concepts and techniques at various stages of analysis and for diverse purposes. They also often use ideas and findings from related or cognate disciplines, especially linguistics, philosophy, psychology, and anthropology. Note, however, that this 'interdisciplinary' mode of inquiry is a two-way street, in that many ideas developed within semiotics proper are now found scattered throughout cognate fields. It was actually Saussure who originated the interdisciplinary orientation of contemporary semiotics by arguing that semiology should be considered a part of psychology and linguistics a part of semiology. His suggestion merits some consideration here, since current semiotic theory and practice is highly interactive with theories and practices in both psychology and linguistics.

Since ancient times, philosophers have wondered what the mind is. Plato and Aristotle believed that it was separate from the body. During the Renaissance, Descartes further entrenched this view – adding, however, that the two strongly influenced each other. He even suggested that the interaction between body and mind takes place in the pineal gland, a tiny organ in the brain.

Psychology was forged as a science independent of philosophy in 1875, the year the American philosopher William James (1842–1910)

founded the world's first psychology 'laboratory' to study the mind in a 'scientific,' rather than a speculative (philosophical) manner. A similar laboratory was established in Leipzig by Wilhelm Wundt (1832–1920) in 1879. Wundt, also a philosopher, published the first journal of experimental psychology. James and Wundt both defined psychology as the study of mind through experimentation with human subjects. By the late 1960s, however, a new cadre of psychologists were beginning to question the experimental orientation of their discipline, and seeking to gain insights into the mind by examining parallels between the functions of the human brain and those of computer systems. Computer terms such as 'storage,' 'retrieval,' and 'processing' became part of the emerging new lexicon in psychology, and remain basic ones to this day. This movement led in the 1980s and 1990s to the view that human intelligence itself may be a product of 'computational laws' built into the human brain by evolutionary forces. Some radical evolutionary psychologists, as they are now called, even argue that human consciousness is no more than the outcome of the complex operations of such laws (or principles) developed through evolutionary processes. Contemporary semiotics sees evolutionary processes as interactive with historical ones in generating consciousness. Moreover, it assigns much weight to human inventiveness and creativity as factors shaping human evolution. Semiotics is thus a safeguard against determinism in any of its modern forms.

Modern linguistics is the twin sister of semiotics, since it also traces its parentage to Saussure's *Cours de linguistique générale* (§1.2). Since its birth, linguistics has always aimed to study *langue,* as Saussure called it – namely, the forms and functions of the sounds, words, and grammatical categories of specific languages, as well as the formal relationships that exist among different languages. Early on, though, many linguists also saw the usefulness of studying the everyday use of *langue* (called *parole* by Saussure) in specific social situations. Among the first to do so profitably were Franz Boas (1858–1942) and his student Edward Sapir (1884–1939). Boas and Sapir devised practical field methods for gathering information on unwritten languages – methods that were systematized by the American linguist Leonard Bloomfield (§1.3) in 1933. Their ultimate goal was to understand the links among language (*langue)*, discourse *(parole*), and culture. In the 1950s two main branches of linguistics were established to deal directly with *parole*: *sociolinguistics* and *psycholinguistics*. The former aims to describe the kinds of behaviours that correlate with the use of

language in different social contexts; the latter is concerned with such issues as language acquisition in childhood, the nature of speech perception, the localization of language in the brain, and the relationship between language and thought. Of special relevance to semiotics is the hypothesis, put forward in the mid-1930s by Edward Sapir's student Benjamin Lee Whorf (1897–1941), that language conditions the specific ways in which people think and act. The question of whether the 'Whorfian Hypothesis' is tenable continues to be debated. If the signs of a particular language system constitute a set of strategies for classifying, abstracting, and storing information in culture-specific ways, do these predispose its users to attend only to certain specific perceptual events and ignore others? If so, do speakers of different languages perceive the world in different ways? These are the kinds of intriguing questions that the Whorfian Hypothesis invites. Much of the contemporary semiotic inquiry into language is, in fact, guided by such questions.

Like psychology and linguistics, semiotics can be characterized as a science. True, meaning cannot be studied with the same objectivity as, say, physical matter is by chemists. Even so, semiotics constitutes a science in the traditional sense of the word for five fundamental reasons, as Umberto Eco has cogently suggested:[9]

1. It is an autonomous discipline.
2. It has a set of standardized methodological tools that allow semioticians to seek answers to specific kinds of questions (What does something mean? How does it mean what it means? Why does it mean what it means?).
3. It has the capacity to generate hypotheses about semiosis, by analysing the products of semiosis.
4. It affords the possibility of making predictions, such as how societies and cultures will evolve through semiosis.
5. Its findings can lead to a modification of the actual state of the objective world.

Needless to say, claims to 'objectivity' need to be tempered with caution. This is not unique to semiotics, however. It has, in fact, become characteristic of all the sciences in the twentieth century ever since Werner Heisenberg (1901–76), the German physicist and Nobel laureate, put forward his now famous *indeterminacy principle* during the first part of the century. This principle debunks the notion that an

objective reality exists independent of culture and of the scientist's personal participation in it.

To Eco's list of reasons, I would add a sixth: semiotic inquiry, like inquiry in any other scientific enterprise, is guided by a set of specific axioms. As far as I can surmise, at least seven axioms have guided the semiotician's exploration of meaning over the past century. These can be formulated as follows:

1. Sign systems the world over are constructed with the same innate semiosic tendencies, as Pierce emphasized (simulation, relation, etc.).
2. This implies that there are universal structures of semiosis in the human species that are constrained only by force of history and tradition.
3. Particular sign systems are specific instantiations of these structures.
4. Differences in sign systems result from differences in such instantiations, as caused by human variability and fluctuating contextual-historical factors.
5. Sign systems thus entail culture-specific classifications of the world.
6. These classifications influence the way people think, behave, and act.
7. Perceptions of 'naturalness' are thus tied to sign systems.

In the end, semiotic inquiry aims to understand the quest for meaning to life – a quest so deeply rooted in human beings that it subtly mediates how they experience the world. This quest gains material expression in the signs and sign systems found throughout human societies. Paradoxically, these are highly restrictive and creative at the same time. Signs learned in social contexts are highly selective of what is to be known and memorized from the infinite variety of things that are in the world. By and large, we let our culture (which is a network of signs) 'do the thinking' for us when we use signs unreflectively. But there is a paradox here – a paradox that lies in the fact that we can constantly change, expand, elaborate, or even discard the habits of thought imprinted in sign systems. We do this by creating new signs (words, symbols, etc.) to encode new knowledge and modify previous knowledge. The human species is, above all else, a highly creative and imaginative one.

1.6 Further Reading and Online Resources

Further Reading

Barthes, Roland. *Elements of Semiology*. London: Cape, 1968.
Clarke, D.S. *Principles of Semiotic*. London: Routledge and Kegan Paul, 1987.
Deely, John. *Basics of Semiotics*. Bloomington: Indiana University Press, 1990.
– *Four Ages of Understanding: The First Postmodern Survey of Philosophy from Ancient Times to the Turn of the Twentieth Century*. Toronto: University of Toronto Press, 2001.
Eco, Umberto. *Semiotics and the Philosophy of Language*. Bloomington: Indiana University Press, 1984.
– *A Theory of Semiotics*. Bloomington: Indiana University Press, 1976.
merrell, floyd. *Peirce, Signs, and Meaning*. Toronto: University of Toronto Press, 1997.
– *Signs Grow: Semiosis and Life Processes*. Toronto: University of Toronto Press, 1996.
Morris, Charles W. *Foundations of the Theory of Signs*. Chicago: University of Chicago Press, 1938.
– *Writings on the General Theory of Signs*. The Hague: Mouton, 1946.
Nöth, Winfried. *Handbook of Semiotics*. Bloomington: Indiana University Press, 1990.
Ogden, C.K., and I.A. Richards. *The Meaning of Meaning*. London: Routledge and Kegan Paul, 1923.
Posner, Roland, K. Robering, and Thomas A. Sebeok, eds. *Semiotik/Semiotics. Ein Handbuch zu den zeichentheoretischen Grundlagen von Natur und Kultur / A Handbook on the Sign-Theoretic Foundations of Nature and Culture*. 4 vols. Berlin and New York: Mouton de Gruyter, 1997–2004.
de Saussure, Ferdinand. *Cours de linguistique générale*, ed. C. Bally and A. Sechehaye. Paris: Payot, 1916; trans. W. Baskin, *Course in General Linguistics*. New York: McGraw-Hill, 1958.
Sebeok, Thomas A. *Contributions to the Doctrine of Signs*. Lanham, MD: University Press of America, 1976.
– *I Think I Am a Verb: More Contributions to the Doctrine of Signs*. New York: Plenum, 1986.
– *The Play of Musement*. Bloomington: Indiana University Press, 1981.
– *The Sign and Its Masters*. Austin: University of Texas Press, 1979.
– ed. *Encyclopedic Dictionary of Semiotics*. 3 vols. Berlin, New York, and Amsterdam: Mouton de Gruyter, 1986.

The main journal for research in semiotic theory and practice is *Semiotica*, founded by the International Association of Semiotic Studies in 1969 under the editorship of Thomas A. Sebeok, who remained its editor until his death in 2001. At the time of writing, the author of this book is the current editor. Other major journals that publish ongoing research in semiotic theory are *Sign System Studies*, *Versus*, *American Journal of Semiotics*, *European Journal of Semiotics*, and *Zeitschrift für Semiotik*.

Online Resources

The popular and useful website maintained by Donald Chandler, *Semiotics for Beginners* (http://www.aber.ac.uk/media/Documents/S4B/sem02.html), is very well written for a general audience. Martin Ryder's website, http://carbon.cudenver.edu/~mryder/martin.html, is a storehouse of information and links related to a vast array of topics in semiotics. An excellent survey of semiotic theory in the medieval period is the one by Stephan Meier-Oeser: http://plato.stanford.edu/entries/semiotics-medieval/.

There is an excellent online journal, *Applied Semiotics* (http://www.chass.utoronto.ca/french/as-sa/index.html), edited by Peter G. Marteinson and Pascal G. Michelucci, which covers a broad range of topics in the theory and practice of semiotics.