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Signs We seem as a species to be driven by a desire to make meanings: above all, we are surely Homo significans - meaning-makers. Distinctively, we make meanings through our creation and interpretation of 'signs'. Indeed, according to Peirce, 'we think only in signs' (Peirce 1931-58, 2.302). Signs take the form of words, images, sounds, odours, flavours, acts or objects, but such things have no intrinsic meaning and become signs only when we invest them with meaning. 'Nothing is a sign unless it is interpreted as a sign', declares Peirce (Peirce 1931-58, 2.172). Anything can be a sign as long as someone interprets it as 'signifying' something - referring to or standing for something other than itself. We interpret things as signs largely unconsciously by relating them to familiar systems of conventions. It is this meaningful use of signs which is at the heart of the concerns of semiotics. The two dominant models of what constitutes a sign are those of the linguist Ferdinand de Saussure and the philosopher Charles Sanders Peirce. These will be discussed in turn. Saussure offered a 'dyadic' or two-part model of the sign. He defined a sign as being composed of: a 'signifier' (signifiant) - the form which the sign takes; and the 'signified' (signifi&#65533;) - the concept it represents. The sign is the whole that results from the association of the signifier with the signified (Saussure 1983, 67; Saussure 1974, 67). The relationship between the signifier and the signified is referred to as 'signification', and this is represented in the Saussurean diagram by the arrows. The horizontal line marking the two elements of the sign is referred to as 'the bar'. If we take a linguistic example, the word 'Open' (when it is invested with meaning by someone who encounters it on a shop doorway) is a sign consisting of: a signifier: the word open; a signified concept: that the shop is open for business. A sign must have both a signifier and a signified. You cannot have a totally meaningless signifier or a completely formless signified (Saussure 1983, 101; Saussure 1974, 102-103). A sign is a recognizable combination of a signifier with a particular signified. The same signifier (the word 'open') could stand for a different signified (and thus be a different sign) if it were on a push-button inside a lift ('push to open door'). Similarly, many signifiers could stand for the concept 'open' (for instance, on top of a packing carton, a small outline of a box with an open flap for 'open this end') - again, with each unique pairing constituting a different sign. Nowadays, whilst the basic 'Saussurean' model is commonly adopted, it tends to be a more materialistic model than that of Saussure himself. The signifier is now commonly interpreted as the material (or physical) form of the sign - it is something which can be seen, heard, touched, smelt or tasted. For Saussure, both the signifier and the signified were purely 'psychological' (Saussure 1983, 12, 14-15, 66; Saussure 1974, 12, 15, 65-66). Both were form rather than substance: A linguistic sign is not a link between a thing and a name, but between a concept and a sound pattern. The sound pattern is not actually a sound; for a sound is something physical. A sound pattern is the hearer's psychological impression of a sound, as given to him by the evidence of his senses. This sound pattern may be called a 'material' element only in that it is the representation of our sensory impressions. The sound pattern may thus be distinguished from the other element associated with it in a linguistic sign. This other element is generally of a more abstract kind: the concept. (Saussure 1983, 66; Saussure 1974, 66) Saussure was focusing on the linguistic sign (such as a word) and he 'phonocentrically' privileged the spoken word, referring specifically to the image acoustique ('sound-image' or 'sound pattern'), seeing writing as a separate, secondary, dependent but comparable sign system (Saussure 1983, 15, 24-25, 117; Saussure 1974, 15, 16, 23-24, 119). Within the ('separate') system of written signs, a signifier such as the written letter 't' signified a sound in the primary sign system of language (and thus a written word would also signify a sound rather than a concept). Thus for Saussure, writing relates to speech as signifier to signified. Most subsequent theorists who have adopted Saussure's model are content to refer to the form of linguistic signs as either spoken or written. We will return later to the issue of the post-Saussurean 'rematerialization' of the sign. As for the signified, most commentators who adopt Saussure's model still treat this as a mental construct, although they often note that it may nevertheless refer indirectly to things in the world. Saussure's original model of the sign 'brackets the referent': excluding reference to objects existing in the world. His signified is not to be identified directly with a referent but is a concept in the mind - not a thing but the notion of a thing. Some people may wonder why Saussure's model of the sign refers only to a concept and not to a thing. An observation from the philosopher Susanne Langer (who was not referring to Saussure's theories) may be useful here. Note that like most contemporary commentators, Langer uses the term 'symbol' to refer to the linguistic sign (a term which Saussure himself avoided): 'Symbols are not proxy for their objects but are vehicles for the conception of objects... In talking about things we have conceptions of them, not the things themselves; and it is the conceptions, not the things, that symbols directly mean. Behaviour towards conceptions is what words normally evoke; this is the typical process of thinking'. She adds that 'If I say "Napoleon", you do not bow to the conqueror of Europe as though I had introduced him, but merely think of him' (Langer 1951, 61). Thus, for Saussure the linguistic sign is wholly immaterial - although he disliked referring to it as 'abstract' (Saussure 1983, 15; Saussure 1974, 15). The immateriality of the Saussurean sign is a feature which tends to be neglected in many popular commentaries. If the notion seems strange, we need to remind ourselves that words have no value in themselves - that is their value. Saussure noted that it is not the metal in a coin that fixes its value (Saussure 1983, 117; Saussure 1974, 118). Several reasons could be offered for this. For instance, if linguistic signs drew attention to their materiality this would hinder their communicative transparency (Langer 1951, 73). Furthermore, being immaterial, language is an extraordinarily economical medium and words are always ready-to-hand. Nevertheless, a principled argument can be made for the revaluation of the materiality of the sign, as we shall see in due course. Saussure noted that his choice of the terms signifier and signified helped to indicate 'the distinction which separates each from the other' (Saussure 1983, 67; Saussure 1974, 67). Despite this, and the horizontal bar in his diagram of the sign, Saussure stressed that sound and thought (or the signifier and the signified) were as inseparable as the two sides of a piece of paper (Saussure 1983, 111; Saussure 1974, 113). They were 'intimately linked' in the mind 'by an associative link' - 'each triggers the other' (Saussure 1983, 66; Saussure 1974, 66). Saussure presented these elements as wholly interdependent, neither pre-existing the other (Silverman 1983, 103). Within the context of spoken language, a sign could not consist of sound without sense or of sense without sound. He used the two arrows in the diagram to suggest their interaction. The bar and the opposition nevertheless suggests that the signifier and the signified can be distinguished for analytical purposes. Poststructuralist theorists criticize the clear distinction which the Saussurean bar seems to suggest between the signifier and the signified; they seek to blur or erase it in order to reconfigure the sign or structural relations. Some theorists have argued that 'the signifier is always separated from the signified... and has a real autonomy' (Lechte 1994, 68), a point to which we will return in discussing the arbitrariness of the sign. Commonsense tends to insist that the signified takes precedence over, and pre-exists, the signifier: 'look after the sense', quipped Lewis Carroll, 'and the sounds will take care of themselves' (Alice's Adventures in Wonderland, chapter 9). However, in dramatic contrast, post-Saussurean theorists have seen the model as implicitly granting primacy to the signifier, thus reversing the commonsensical position. Louis Hjelmslev used the terms 'expression' and 'content' to refer to the signifier and signified respectively (Hjelmslev 1961, 47ff). The distinction between signifier and signified has sometimes been equated to the familiar dualism of 'form and content'. Within such a framework the signifier is seen as the form of the sign and the signified as the content. However, the metaphor of form as a 'container' is problematic, tending to support the equation of content with meaning, implying that meaning can be 'extracted' without an active process of interpretation and that form is not in itself meaningful (Chandler 1995 104-6). Saussure argued that signs only make sense as part of a formal, generalized and abstract system. His conception of meaning was purely structural and relational rather than referential: primacy is given to relationships rather than to things (the meaning of signs was seen as lying in their systematic relation to each other rather than deriving from any inherent features of signifiers or any reference to material things). Saussure did not define signs in terms of some 'essential' or intrinsic nature. For Saussure, signs refer primarily to each other. Within the language system, 'everything depends on relations' (Saussure 1983, 121; Saussure 1974, 122). No sign makes sense on its own but only in relation to other signs. Both signifier and signified are purely relational entities (Saussure 1983, 118; Saussure 1974, 120). This notion can be hard to understand since we may feel that an individual word such as 'tree' does have some meaning for us, but its meaning depends on its context in relation to the other words with which it is used. Together with the 'vertical' alignment of signifier and signified within each individual sign (suggesting two structural 'levels'), the emphasis on the relationship between signs defines what are in effect two planes - that of the signifier and the signifier. Later, Louis Hjelmslev referred to the planes of 'expression' and 'content' (Hjelmslev 1961, 60). Saussure himself referred to sound and thought as two distinct but correlated planes. 'We can envisage... the language... as a series of adjoining subdivisions simultaneously imprinted both on the plane of vague, amorphous thought (A), and on the equally featureless plane of sound (B)' (Saussure 1983, 110-111; Saussure 1974, 112). The arbitrary division of the two continua into signs is suggested by the dotted lines whilst the wavy (rather than parallel) edges of the two 'amorphous' masses suggest the lack of any 'natural' fit between them. The gulf and lack of fit between the two planes highlights their relative autonomy. Whilst Saussure is careful not to refer directly to 'reality', Fredric Jameson reads into this feature of Saussure's system that 'it is not so much the individual word or sentence that "stands for" or "reflects" the individual object or event in the real world, but rather that the entire system of signs, the entire field of the langue, lies parallel to reality itself; that it is the totality of systematic language, in other words, which is analogous to whatever organized structures exist in the world of reality, and that our understanding proceeds from one whole or Gestalt to the other, rather than on a one-to-one basis' (Jameson 1972, 32-33). What Saussure refers to as the 'value' of a sign depends on its relations with other signs within the system - a sign has no 'absolute' value independent of this context (Saussure 1983, 80; Saussure 1974, 80). Saussure uses an analogy with the game of chess, noting that the value of each piece depends on its position on the chessboard (Saussure 1983, 88; Saussure 1974, 88). The sign is more than the sum of its parts. Whilst signification - what is signified - clearly depends on the relationship between the two parts of the sign, the value of a sign is determined by the relationships between the sign and other signs within the system as a whole (Saussure 1983, 112-113; Saussure 1974, 114). The notion of value... shows us that it is a great mistake to consider a sign as nothing more than the combination of a certain sound and a certain concept. To think of a sign as nothing more would be to isolate it from the system to which it belongs. It would be to suppose that a start could be made with individual signs, and a system constructed by putting them together. On the contrary, the system as a united whole is the starting point, from which it becomes possible, by a process of analysis, to identify its constituent elements. (Saussure 1983, 112; Saussure 1974, 113) As an example of the distinction between signification and value, Saussure notes that 'The French word mouton may have the same meaning as the English word sheep; but it does not have the same value. There are various reasons for this, but in particular the fact that the English word for the meat of this animal, as prepared and served for a meal, is not sheep but mutton. The difference in value between sheep and mouton hinges on the fact that in English there is also another word mutton for the meat, whereas mouton in French covers both' (Saussure 1983, 114; Saussure 1974, 115-116). Saussure's relational conception of meaning was specifically differential: he emphasized the differences between signs. Language for him was a system of functional differences and oppositions. 'In a language, as in every other semiological system, what distinguishes a sign is what constitutes it' (Saussure 1983, 119; Saussure 1974, 121). As John Sturrock points out, 'a one-term language is an impossibility because its single term could be applied to everything and differentiate nothing; it requires at least one other term to give it definition' (Sturrock 1979, 10). Advertising furnishes a good example of this notion, since what matters in 'positioning' a product is not the relationship of advertising signifiers to real-world referents, but the differentiation of each sign from the others to which it is related. Saussure's concept of the relational identity of signs is at the heart of structuralist theory. Structuralist analysis focuses on the structural relations which are functional in the signifying system at a particular moment in history. 'Relations are important for what they can explain: meaningful contrasts and permitted or forbidden combinations' (Culler 1975, 14). Saussure emphasized in particular negative, oppositional differences between signs, and the key relationships in structuralist analysis are binary oppositions (such as nature/culture, life/death). Saussure argued that 'concepts... are defined not positively, in terms of their content, but negatively by contrast with other items in the same system. What characterizes each most exactly is being whatever the others are not' (Saussure 1983, 115; Saussure 1974, 117; my emphasis). This notion may initially seem mystifying if not perverse, but the concept of negative differentiation becomes clearer if we consider how we might teach someone who did not share our language what we mean by the term 'red'. We would be unlikely to make our point by simply showing them a range of different objects which all happened to be red - we would be probably do better to single out a red object from a sets of objects which were identical in all respects except colour. Although Saussure focuses on speech, he also noted that in writing, 'the values of the letter are purely negative and differential' - all we need to be able to do is to distinguish one letter from another (Saussure 1983, 118; Saussure 1974, 119-120). As for his emphasis on negative differences, Saussure remarks that although both the signified and the signifier are purely differential and negative when considered separately, the sign in which they are combined is a positive term. He adds that 'the moment we compare one sign with another as positive combinations, the term difference should be dropped... Two signs... are not different from each other, but only distinct. They are simply in opposition to each other. The entire mechanism of language... is based on oppositions of this kind and upon the phonic and conceptual differences they involve' (Saussure 1983, 119; Saussure 1974, 120-121). Although the signifier is treated by its users as 'standing for' the signified, Saussurean semioticians emphasize that there is no necessary, intrinsic, direct or inevitable relationship between the signifier and the signified. Saussure stressed the arbitrariness of the sign (Saussure 1983, 67, 78; Saussure 1974, 67, 78) - more specifically the arbitrariness of the link between the signifier and the signified (Saussure 1983, 67; Saussure 1974, 67). He was focusing on linguistic signs, seeing language as the most important sign system; for Saussure, the arbitrary nature of the sign was the first principle of language (Saussure 1983, 67; Saussure 1974, 67) - arbitrariness was identified later by Charles Hockett as a key 'design feature' of language (Hockett 1958; Hockett 1960; Hockett 1965). The feature of arbitrariness may indeed help to account for the extraordinary versatility of language (Lyons 1977, 71). In the context of natural language, Saussure stressed that there is no inherent, essential, 'transparent', self-evident or 'natural' connection between the signifier and the signified - between the sound or shape of a word and the concept to which it refers (Saussure 1983, 67, 68-69, 76, 111, 117; Saussure 1974, 67, 69, 76, 113, 119). Note that Saussure himself avoids directly relating the principle of arbitrariness to the relationship between language and an external world, but that subsequent commentators often do, and indeed, lurking behind the purely conceptual 'signified' one can often detect Saussure's allusion to real-world referents (Coward & Ellis 1977, 22). In language at least, the form of the signifier is not determined by what it signifies: there is nothing 'treeish' about the word 'tree'. Languages differ, of course, in how they refer to the same referent. No specific signifier is 'naturally' more suited to a signified than any other signifier; in principle any signifier could represent any signified. Saussure observed that 'there is nothing at all to prevent the association of any idea whatsoever with any sequence of sounds whatsoever' (Saussure 1983, 76; Saussure 1974, 76); 'the process which selects one particular sound-sequence to correspond to one particular idea is completely arbitrary' (Saussure 1983, 111; Saussure 1974, 113). This principle of the arbitrariness of the linguistic sign was not an original conception: Aristotle had noted that 'there can be no natural connection between the sound of any language and the things signified' (cited in Richards 1932, 32). In Plato's Cratylus Hermogenes urged Socrates to accept that 'whatever name you give to a thing is its right name; and if you give up that name and change it for another, the later name is no less correct than the earlier, just as we change the name of our servants; for I think no name belongs to a particular thing by nature' (cited in Harris 1987, 67). 'That which we call a rose by any other name would smell as sweet', as Shakespeare put it. Whilst the notion of the arbitrariness of language was not new, but the emphasis which Saussure gave it can be seen as an original contribution, particularly in the context of a theory which bracketed the referent. Note that although Saussure prioritized speech, he also stressed that 'the signs used in writing are arbitrary, The letter t, for instance, has no connection with the sound it denotes' (Saussure 1983, 117; Saussure 1974, 119). The arbitrariness principle can be applied not only to the sign, but to the whole sign-system. The fundamental arbitrariness of language is apparent from the observation that each language involves different distinctions between one signifier and another (e.g. 'tree' and 'free') and between one signified and another (e.g. 'tree' and 'bush'). The signified is clearly arbitrary if reality is perceived as a seamless continuum (which is how Saussure sees the initially undifferentiated realms of both thought and sound): where, for example, does a 'corner' end? Commonsense suggests that the existence of things in the world preceded our apparently simple application of 'labels' to them (a 'nomenclaturist' notion which Saussure rejected and to which we will return in due course). Saussure noted that 'if words had the job of representing concepts fixed in advance, one would be able to find exact equivalents for them as between one language and another. But this is not the case' (Saussure 1983, 114-115; Saussure 1974, 116). Reality is divided up into arbitrary categories by every language and the conceptual world with which each of us is familiar could have been divided up very differently. Indeed, no two languages categorize reality in the same way. As John Passmore puts it, 'Languages differ by differentiating differently' (cited in Sturrock 1986, 17). Linguistic categories are not simply a consequence of some predefined structure in the world. There are no 'natural' concepts or categories which are simply 'reflected' in language. Language plays a crucial role in 'constructing reality'. If one accepts the arbitrariness of the relationship between signifier and signified then one may argue counter-intuitively that the signified is determined by the signifier rather than vice versa. Indeed, the French psychoanalyst Jacques Lacan, in adapting Saussurean theories, sought to highlight the primacy of the signifier in the psyche by rewriting Saussure's model of the sign in the form of a quasi-algebraic sign in which a capital 'S' (representing the signifier) is placed over a lower case and italicized 's' (representing the signified), these two signifiers being separated by a horizontal 'bar' (Lacan 1977, 149). This suited Lacan's purpose of emphasizing how the signified inevitably 'slips beneath' the signifier, resisting our attempts to delimit it. Lacan poetically refers to Saussure's illustration of the planes of sound and thought as 'an image resembling the wavy lines of the upper and lower Waters in miniatures from manuscripts of Genesis; a double flux marked by streaks of rain', suggesting that this can be seen as illustrating the 'incessant sliding of the signified under the signifier' - although he argues that one should regard the dotted vertical lines not as 'segments of correspondence' but as 'anchoring points' (points de capiton - literally, the 'buttons' which anchor upholstery to furniture). However, he notes that this model is too linear, since 'there is in effect no signifying chain that does not have, as if attached to the punctuation of each of its units, a whole articulation of relevant contexts suspended 'vertically', as it were, from that point' (ibid., 154). In the spirit of the Lacanian critique of Saussure's model, subsequent theorists have emphasized the temporary nature of the bond between signifier and signified, stressing that the 'fixing' of 'the chain of signifiers' is socially situated (Coward & Ellis 1977, 6, 13, 17, 67). Note that whilst the intent of Lacan in placing the signifier over the signified is clear enough, his representational strategy seems a little curious, since in the modelling of society orthodox Marxists routinely represent the fundamental driving force of 'the [techno-economic] base' as (logically) below 'the [ideological] superstructure'. The arbitrariness of the sign is a radical concept because it proposes the autonomy of language in relation to reality. The Saussurean model, with its emphasis on internal structures within a sign system, can be seen as supporting the notion that language does not 'reflect' reality but rather constructs it. We can use language 'to say what isn't in the world, as well as what is. And since we come to know the world through whatever language we have been born into the midst of, it is legitimate to argue that our language determines reality, rather than reality our language' (Sturrock 1986, 79). In their book The Meaning of Meaning, Ogden and Richards criticized Saussure for 'neglecting entirely the things for which signs stand' (Ogden & Richards 1923, 8). Later critics have lamented his model's detachment from social context (Gardiner 1992, 11). Robert Stam argues that by 'bracketing the referent', the Saussurean model 'severs text from history' (Stam 2000, 122). We will return to this theme of the relationship between language and 'reality' in our discussion of 'modality and representation'. The arbitrary aspect of signs does help to account for the scope for their interpretation (and the importance of context). There is no one-to-one link between signifier and signified; signs have multiple rather than single meanings. Within a single language, one signifier may refer to many signifieds (e.g. puns) and one signified may be referred to by many signifiers (e.g. synonyms). Some commentators are critical of the stance that the relationship of the signifier to the signified, even in language, is always completely arbitrary (e.g. Lewis 1991, 29). Onomatopoeic words are often mentioned in this context, though some semioticians retort that this hardly accounts for the variability between different languages in their words for the same sounds (notably the sounds made by familiar animals) (Saussure 1983, 69; Saussure 1974, 69). Saussure declares that 'the entire linguistic system is founded upon the irrational principle that the sign is arbitrary'. This provocative declaration is followed immediately by the acknowledgement that 'applied without restriction, this principle would lead to utter chaos' (Saussure 1983, 131; Saussure 1974, 133). If linguistic signs were to be totally arbitrary in every way language would not be a system and its communicative function would be destroyed. He concedes that 'there exists no language in which nothing at all is motivated' (ibid.). Saussure admits that 'a language is not completely arbitrary, for the system has a certain rationality' (Saussure 1983, 73; Saussure 1974, 73). The principle of arbitrariness does not mean that the form of a word is accidental or random, of course. Whilst the sign is not determined extralinguistically it is subject to intralinguistic determination. For instance, signifiers must constitute well-formed combinations of sounds which conform with existing patterns within the language in question. Furthermore, we can recognize that a compound noun such as 'screwdriver' is not wholly arbitrary since it is a meaningful combination of two existing signs. Saussure introduces a distinction between degrees of arbitrariness: The fundamental principle of the arbitrary nature of the linguistic sign does not prevent us from distinguishing in any language between what is intrinsically arbitrary - that is, unmotivated - and what is only relatively arbitrary. Not all signs are absolutely arbitrary. In some cases, there are factors which allow us to recognize different degrees of arbitrariness, although never to discard the notion entirely. The sign may be motivated to a certain extent (Saussure 1983, 130; Saussure 1974, 131; original emphasis, see also following pages) Here then Saussure modifies his stance somewhat and refers to signs as being 'relatively arbitrary'. Some subsequent theorists (echoing Althusserian Marxist terminology) refer to the relationship between the signifier and the signified in terms of 'relative autonomy' (Tagg 1988, 167; Lechte 1994, 150). The relative conventionality of relationships between signified and signifier is a point to which I return below. It should be noted that whilst the relationships between signifiers and their signifieds are ontologically arbitrary (philosophically, it would not make any difference to the status of these entities in 'the order of things' if what we call 'black' had always been called 'white' and vice versa), this is not to suggest that signifying systems are socially or historically arbitrary. Natural languages are not, of course, arbitrarily established, unlike historical inventions such as Morse Code. Nor does the arbitrary nature of the sign make it socially 'neutral' or materially 'transparent' - for example, in Western culture 'white' has come to be a privileged signifier (Dyer 1997). Even in the case of the 'arbitrary' colours of traffic lights, the original choice of red for 'stop' was not entirely arbitrary, since it already carried relevant associations with danger. As L&#65533;vi-Strauss noted, the sign is arbitrary a priori but ceases to be arbitrary a posteriori - after the sign has come into historical existence it cannot be arbitrarily changed (L&#65533;vi-Strauss 1972, 91). As part of its social use within a code (a term which became fundamental amongst post-Saussurean semioticians), every sign acquires a history and connotations of its own which are familiar to members of the sign-users' culture. Saussure remarked that although the signifier 'may seem to be freely chosen', from the point of view of the linguistic community it is 'imposed rather than freely chosen' because 'a language is always an inheritance from the past' which its users have 'no choice but to accept' (Saussure 1983, 71-72; Saussure 1974, 71). Indeed, 'it is because the linguistic sign is arbitrary that it knows no other law than that of tradition, and [it is] because it is founded upon tradition that it can be arbitrary' (Saussure 1983, 74; Saussure 1974, 74). The arbitrariness principle does not, of course mean that an individual can arbitrarily choose any signifier for a given signified. The relation between a signifier and its signified is not a matter of individual choice; if it were then communication would become impossible. 'The individual has no power to alter a sign in any respect once it has become established in the linguistic community' (Saussure 1983, 68; Saussure 1974, 69). From the point-of-view of individual language-users, language is a 'given' - we don't create the system for ourselves. Saussure refers to the language system as a non-negotiable 'contract' into which one is born (Saussure 1983, 14; Saussure 1974, 14) - although he later problematizes the term (ibid., 71). The ontological arbitrariness which it involves becomes invisible to us as we learn to accept it as 'natural'. The Saussurean legacy of the arbitrariness of signs leads semioticians to stress that the relationship between the signifier and the signified is conventional - dependent on social and cultural conventions. This is particularly clear in the case of the linguistic signs with which Saussure was concerned: a word means what it does to us only because we collectively agree to let it do so. Saussure felt that the main concern of semiotics should be 'the whole group of systems grounded in the arbitrariness of the sign'. He argued that: 'signs which are entirely arbitrary convey better than others the ideal semiological process. That is why the most complex and the most widespread of all systems of expression, which is the one we find in human languages, is also the most characteristic of all. In this sense, linguistics serves as a model for the whole of semiology, even though languages represent only one type of semiological system' (Saussure 1983, 68; Saussure 1974, 68). He did not in fact offer many examples of sign systems other than spoken language and writing, mentioning only: the deaf-and-dumb alphabet; social customs; etiquette; religious and other symbolic rites; legal procedures; military signals and nautical flags (Saussure 1983, 15, 17, 68, 74; Saussure 1974, 16, 17, 68, 73). Saussure added that 'any means of expression accepted in a society rests in principle upon a collective habit, or on convention - which comes to the same thing' (Saussure 1983, 68; Saussure 1974, 68). However, whilst purely conventional signs such as words are quite independent of their referents, other less conventional forms of signs are often somewhat less independent of them. Nevertheless, since the arbitary nature of linguistic signs is clear, those who have adopted the Saussurean model have tended to avoid 'the familiar mistake of assuming that signs which appear natural to those who use them have an intrinsic meaning and require no explanation' (Culler 1975, 5). At around the same time as Saussure was formulating his model of the sign, of 'semiology' and of a structuralist methodology, across the Atlantic independent work was also in progress as the pragmatist philosopher and logician Charles Sanders Peirce formulated his own model of the sign, of 'semiotic' and of the taxonomies of signs. In contrast to Saussure's model of the sign in the form of a 'self-contained dyad', Peirce offered a triadic model: The Representamen: the form which the sign takes (not necessarily material); An Interpretant: not an interpreter but rather the sense made of the sign; An Object: to which the sign refers. 'A sign... [in the form of a representamen] is something which stands to somebody for something in some respect or capacity. It addresses somebody, that is, creates in the mind of that person an equivalent sign, or perhaps a more developed sign. That sign which it creates I call the interpretant of the first sign. The sign stands for something, its object. It stands for that object, not in all respects, but in reference to a sort of idea, which I have sometimes called the ground of the representamen' (Peirce 1931-58, 2.228). The interaction between the representamen, the object and the interpretant is referred to by Peirce as 'semiosis' (ibid., 5.484). Within Peirce's model of the sign, the traffic light sign for 'stop' would consist of: a red light facing traffic at an intersection (the representamen); vehicles halting (the object) and the idea that a red light indicates that vehicles must stop (the interpretant). Peirce's model of the sign includes an object or referent - which does not, of course, feature directly in Saussure's model. The representamen is similar in meaning to Saussure's signifier whilst the interpretant is similar in meaning to the signified (Silverman 1983, 15). However, the interpretant has a quality unlike that of the signified: it is itself a sign in the mind of the interpreter. Peirce noted that 'a sign... addresses somebody, that is, creates in the mind of that person an equivalent sign, or perhaps a more developed sign. The sign which it creates I call the interpretant of the first sign' (Peirce 1931-58, 2.228). Umberto Eco uses the phrase 'unlimited semiosis' to refer to the way in which this could lead (as Peirce was well aware) to a series of successive interpretants (potentially) ad infinitum (ibid., 1.339, 2.303). Elsewhere Peirce added that 'the meaning of a representation can be nothing but a representation' (ibid., 1.339). Any initial interpretation can be re-interpreted. That a signified can itself play the role of a signifier is familiar to anyone who uses a dictionary and finds themselves going beyond the original definition to look up yet another word which it employs. This concept can be seen as going beyond Saussure's emphasis on the value of a sign lying in its relation to other signs and it was later to be developed more radically by poststructuralist theorists. Another concept which is alluded to within Peirce's model which has been taken up by later theorists but which was explicitly excluded from Saussure's model is the notion of dialogical thought. It stems in part from Peirce's emphasis on 'semiosis' as a process which is in distinct contrast to Saussure's synchronic emphasis on structure (Peirce 1931-58, 5.484, 5.488). Peirce argued that 'all thinking is dialogic in form. Your self of one instant appeals to your deeper self for his assent' (Peirce 1931-58, 6.338). This notion resurfaced in a more developed form in the 1920s in the theories of Mikhail Bakhtin (Bakhtin 1981). One important aspect of this is its characterization even of internal reflection as fundamentally social. Peirce, clearly fascinated by tripartite structures, made a phenomenological distinction between the sign itself [or the representamen] as an instance of 'Firstness', its object as an instance of 'Secondness' and the interpretant as an instance of 'Thirdness'. Such unfamiliar terms are relatively modest examples of Peircean coinages, and the complexity of his terminology and style has been a factor in limiting the influence of a distinctively Peircean semiotics. Variants of Peirce's triad are often presented as 'the semiotic triangle' (as if there were only one version). Here is a version which is quite often encountered and which changes only the unfamiliar Peircean terms (N&#65533;th 1990, 89): Sign vehicle: the form of the sign; Sense: the sense made of the sign; Referent: what the sign 'stands for'. One fairly well-known semiotic triangle is that of Ogden and Richards, in which the terms used are (a) 'symbol', (b) 'thought or reference' and (c) 'referent' (Ogden & Richards 1923, 14). The broken line at the base of the triangle is intended to indicate that there is not necessarily any observable or direct relationship between the sign vehicle and the referent. Unlike Saussure's abstract signified (which is analogous to term B rather than to C) the referent is an 'object'. This need not exclude the reference of signs to abstract concepts and fictional entities as well as to physical things, but Peirce's model allocates a place for an objective reality which Saussure's model did not directly feature (though Peirce was not a naive realist, and argued that all experience is mediated by signs). Note, however, that Peirce emphasized that 'the dependence of the mode of existence of the thing represented upon the mode of this or that representation of it... is contrary to the nature of reality' (Peirce 1931-58, 5.323). The inclusion of a referent in Peirce's model does not automatically make it a better model of the sign than that of Saussure. Indeed, as John Lyons notes: There is considerable disagreement about the details of the triadic analysis even among those who accept that all three components, A, B and C, must be taken into account. Should A be defined as a physical or a mental entity? What is the psychological or ontological status of B? Is C something that is referred to on a particular occasion? Or is it the totality of things that might be referred to by uttering the sign...? Or, yet a third possibility, is it some typical or ideal representative of this class? (Lyons 1977, 99) The notion of the importance of sense-making (which requires an interpreter - though Peirce doesn't feature that term in his triad) has had a particular appeal for communication and media theorists who stress the importance of the active process of interpretation, and thus reject the equation of 'content' and meaning. Many of these theorists allude to semiotic triangles in which the interpreter (or 'user') of the sign features explicitly (in place of 'sense' or 'interpretant'). This highlights the process of semiosis (which is very much a Peircean concept). The meaning of a sign is not contained within it, but arises in its interpretation. Whether a dyadic or triadic model is adopted, the role of the interpreter must be accounted for - either within the formal model of the sign, or as an essential part of the process of semiosis. David Sless declares that 'statements about users, signs or referents can never be made in isolation from each other. A statement about one always contains implications about the other two' (Sless 1986, 6). Paul Thibault argues that the interpreter features implicitly even within Saussure's apparently dyadic model (Thibault 1997, 184). Note that semioticians make a distinction between a sign and a 'sign vehicle' (the latter being a 'signifier' to Saussureans and a 'representamen' to Peirceans). The sign is more than just a sign vehicle. The term 'sign' is often used loosely, so that this distinction is not always preserved. In the Saussurean framework, some references to 'the sign' should be to the signifier, and similarly, Peirce himself frequently mentions 'the sign' when, strictly speaking, he is referring to the representamen. It is easy to be found guilty of such a slippage, perhaps because we are so used to 'looking beyond' the form which the sign happens to take. However, to reiterate: the signifier or representamen is the form in which the sign appears (such as the spoken or written form of a word) whereas the sign is the whole meaningful ensemble. Whereas Saussure emphasized the arbitrary nature of the (linguistic) sign, most semioticians stress that signs differ in how arbitrary/conventional (or by contrast 'transparent') they are. Symbolism reflects only one form of relationship between signifiers and their signifieds. Whilst Saussure did not offer a typology of signs, Charles Peirce was a compulsive taxonomist and he offered several logical typologies (Peirce 1931-58, 1.291, 2.243). However, his divisions and subdivisions of signs are extraordinarily elaborate: indeed, he offered the theoretical projection that there could be 59,049 types of signs! Peirce himself noted wryly that this calculation 'threatens a multitude of classes too great to be conveniently carried in one's head', adding that 'we shall, I think, do well to postpone preparation for further divisions until there be a prospect of such a thing being wanted' (Peirce 1931-58, 1.291). However, even his more modest proposals are daunting: Susanne Langer commented that 'there is but cold comfort in his assurance that his original 59,049 types can really be boiled down to a mere sixty-six' (Langer 1951, 56). Unfortunately, the complexity of such typologies rendered them 'nearly useless' as working models for others in the field (Sturrock 1986, 17). However, one of Peirce's basic classifications (first outlined in 1867) has been very widely referred to in subsequent semiotic studies (Peirce 1931-58, 1.564). He regarded it as 'the most fundamental' division of signs (ibid., 2.275). It is less useful as a classification of distinct 'types of signs' than of differing 'modes of relationship' between sign vehicles and their referents (Hawkes 1977, 129). Note that in the subsequent account, I have continued to employ the Saussurean terms signifier and signified, even though Peirce referred to the relation between the 'sign' (sic) and the object, since the Peircean distinctions are most commonly employed within a broadly Saussurean framework. Such incorporation tends to emphasize (albeit indirectly) the referential potential of the signified within the Saussurean model. Here then are the three modes together with some brief definitions of my own and some illustrative examples: Symbol/symbolic: a mode in which the signifier does not resemble the signified but which is fundamentally arbitrary or purely conventional - so that the relationship must be learnt: e.g. language in general (plus specific languages, alphabetical letters, punctuation marks, words, phrases and sentences), numbers, morse code, traffic lights, national flags; Icon/iconic: a mode in which the signifier is perceived as resembling or imitating the signified (recognizably looking, sounding, feeling, tasting or smelling like it) - being similar in possessing some of its qualities: e.g. a portrait, a cartoon, a scale-model, onomatopoeia, metaphors, 'realistic' sounds in 'programme music', sound effects in radio drama, a dubbed film soundtrack, imitative gestures; Index/indexical: a mode in which the signifier is not arbitrary but is directly connected in some way (physically or causally) to the signified - this link can be observed or inferred: e.g. 'natural signs' (smoke, thunder, footprints, echoes, non-synthetic odours and flavours), medical symptoms (pain, a rash, pulse-rate), measuring instruments (weathercock, thermometer, clock, spirit-level), 'signals' (a knock on a door, a phone ringing), pointers (a pointing 'index' finger, a directional signpost), recordings (a photograph, a film, video or television shot, an audio-recorded voice), personal 'trademarks' (handwriting, catchphrase) and indexical words ('that', 'this', 'here', 'there'). The three forms are listed here in decreasing order of conventionality. Symbolic signs such as language are (at least) highly conventional; iconic signs always involve some degree of conventionality; indexical signs 'direct the attention to their objects by blind compulsion' (Peirce 1931-58, 2.306). Indexical and iconic signifiers can be seen as more constrained by referential signifieds whereas in the more conventional symbolic signs the signified can be seen as being defined to a greater extent by the signifier. Within each form signs also vary in their degree of conventionality. Other criteria might be applied to rank the three forms differently. For instance, Hodge and Kress suggest that indexicality is based on an act of judgement or inference whereas iconicity is closer to 'direct perception' making the highest 'modality' that of iconic signs. Note that the terms 'motivation' (from Saussure) and 'constraint' are sometimes used to describe the extent to which the signified determines the signifier. The more a signifier is constrained by the signified, the more 'motivated' the sign is: iconic signs are highly motivated; symbolic signs are unmotivated. The less motivated the sign, the more learning of an agreed convention is required. Nevertheless, most semioticians emphasize the role of convention in relation to signs. As we shall see, even photographs and films are built on conventions which we must learn to 'read'. Such conventions are an important social dimension of semiotics. Peirce and Saussure used the term 'symbol' differently from each other. Whilst nowadays most theorists would refer to language as a symbolic sign system, Saussure avoided referring to linguistic signs as 'symbols', since the ordinary everyday use of this term refers to examples such as a pair of scales (signifying justice), and he insisted that such signs are 'never wholly arbitrary. They are not empty configurations'. They 'show at least a vestige of natural connection' between the signifier and the signified - a link which he later refers to as 'rational' (Saussure 1983, 68, 73; Saussure 1974, 68, 73). Whilst Saussure focused on the arbitrary nature of the linguistic sign, a more obvious example of arbitrary symbolism is mathematics. Mathematics does not need to refer to an external world at all: its signifieds are indisputably concepts and mathematics is a system of relations (Langer 1951, 28). For Peirce, a symbol is 'a sign which refers to the object that it denotes by virtue of a law, usually an association of general ideas, which operates to cause the symbol to be interpreted as referring to that object' (Peirce 1931-58, 2.249). We interpret symbols according to 'a rule' or 'a habitual connection' (ibid., 2.292, 2.297, 1.369). 'The symbol is connected with its object by virtue of the idea of the symbol-using animal, without which no such connection would exist' (ibid., 2.299). It 'is constituted a sign merely or mainly by the fact that it is used and understood as such' (ibid., 2.307). It 'would lose the character which renders it a sign if there were no interpretant' (ibid., 2.304). A symbol is 'a conventional sign, or one depending upon habit (acquired or inborn)' (ibid., 2.297). 'All words, sentences, books and other conventional signs are symbols' (ibid., 2.292). Peirce thus characterizes linguistic signs in terms of their conventionality in a similar way to Saussure. In a rare direct reference to the arbitrariness of symbols (which he then called 'tokens'), he noted that they 'are, for the most part, conventional or arbitrary' (ibid., 3.360). A symbol is a sign 'whose special significance or fitness to represent just what it does represent lies in nothing but the very fact of there being a habit, disposition, or other effective general rule that it will be so interpreted. Take, for example, the word "man". These three letters are not in the least like a man; nor is the sound with which they are associated' (ibid., 4.447). He adds elsewhere that 'a symbol... fulfills its function regardless of any similarity or analogy with

'degenerate in the greater degree'. Peirce noted that signs were 'originally in part iconic, in part indexical' (ibid., 2.92). He adds that 'in all primitive writing, such as the Egyptian hieroglyphics, there are icons of a non-logical kind, the ideographs' and he speculates that 'in the earliest form of speech there probably was a large element of mimicry' (ibid., 2.280). However, over time, linguistic signs developed a more symbolic and conventional character (ibid., 2.92, 2.280). 'Symbols come into being by development out of other signs, particularly from icons' (ibid., 2.302). The historical evidence does indicate a tendency of linguistic signs to evolve from indexical and iconic forms towards symbolic forms. Alphabets were not initially based on the substitution of conventional symbols for sounds. Marcel Danesi notes that 'archaeological research suggests... that the origins of alphabetical writing lie in symbols previously made out of elemental shapes that were used as image-making objects - much like the moulds that figurine and coin-makers use today. Only later did they take on more abstract qualities' (Danesi 1999, 35; see Schmandt-Besserat 1978). Some of the letters in the Greek and Latin alphabets, of course, derive from iconic signs in Egyptian hieroglyphs. The early scripts of the Mediterranean civilizations used pictographs, ideographs and hieroglyphs. Many of these were iconic signs resembling the objects and actions to which they referred either directly or metaphorically. Over time, picture writing became more symbolic and less iconic (Gelb 1963). This shift from the iconic to the symbolic may have been 'dictated by the economy of using a chisel or a reed brush' (Cherry 1966, 33); in general, symbols are semiotically more flexible and efficient (Lyons 1977, 103). The anthropologist Claude L€vi-Strauss identified a similar general movement from motivation to arbitrariness within the conceptual schemes employed by particular cultures (L€vi-Strauss 1974, 156). Taking a historical perspective is one reason for the insistence of some theorists that 'signs are never arbitrary' (Kress & van Leeuwen 1996, 7). Gunther Kress, for instance, emphasizes the motivation of the sign users rather than of the sign (see also Hodge & Kress 1988, 21-2). Rosalind Coward and John Ellis insist that 'every identity between signifier and signified is the result of productivity and a work of limiting that productivity' (Coward & Ellis 1977, 7). A distinction is sometimes made between digital and analogical signs. Indeed, Anthony Wilden declares that 'no two categories, and no two kinds of experience are more fundamental in human life and thought than continuity and discontinuity' (Wilden 1987, 222). Whilst we experience time as a continuum, we may represent it in either analogue or digital form. A watch with an analogue display (with hour, minute and second hands) has the advantage of dividing an hour up like a cake (so that, in a lecture, for instance, we can 'see' how much time is left). A watch with a digital display (displaying the current time as a changing number) has the advantage of precision, so that we can easily see exactly what time it is 'now'. Even an analogue display is now simulated on some digital watches. We have a deep attachment to analogical modes and we tend to regard digital representations as 'less real' or 'less authentic' - at least initially (as in the case of the audio CD compared to the vinyl LP). The analogue/digital distinction is frequently represented as 'natural' versus 'artificial'. Perhaps this is connected in part with the notion that the unconscious - that which we regard as 'deepest' within us - appears to operate analogically (Wilden 1987, 224). The privileging of the analogical may be linked with the status of the unconscious and the defiance of rationality in romantic ideology (which still dominates our conception of ourselves as 'individuals'). The deliberate intention to communicate tends to be dominant in digital codes, whilst in analogue codes 'it is almost impossible... not to communicate' (ibid., 225). Beyond any conscious intention, we communicate through gesture, posture, facial expression, intonation and so on. Analogical codes unavoidably 'give us away', revealing such things as our moods, attitudes, intentions and truthfulness (or otherwise). However, although the appearance of the 'digital watch' in 1971 and the subsequent 'digital revolution' in audio- and video-recording have led us to associate the digital mode with electronic technologies, digital codes have existed since the earliest forms of language - and writing is a 'digital technology'. Signifying systems impose digital order on what we often experience as a dynamic and seamless flux. The very definition of something as a sign involves reducing the continuous to the discrete. As we shall see later, binary (either/or) distinctions are a fundamental process in the creation of signifying structures. Digital signs involve discrete units such as words and 'whole numbers' and depend on the categorization of what is signified. Analogical signs (such as visual images, gestures, textures, tastes and smells) involve graded relationships on a continuum. They can signify infinite subtleties which seem 'beyond words'. Emotions and feelings are analogical signifieds. Unlike symbolic signifiers, motivated signifiers (and their signifieds) blend into one another. There can be no comprehensive catalogue of such dynamic analogue signs as smiles or laughs. Analogue signs can of course be digitally reproduced (as is demonstrated by the digital recording of sounds and of both still and moving images) but they cannot be directly related to a standard 'dictionary' and syntax in the way that linguistic signs can. Bill Nichols notes that 'the graded quality of analogue codes may make them rich in meaning but it also renders them somewhat impoverished in syntactical complexity or semantic precision. By contrast the discrete units of digital codes may be somewhat impoverished in meaning but capable of much greater complexity or semantic signification' (Nichols 1981, 47; see also Wilden 1987, 138, 224). The art historian Ernst Gombrich insists that 'statements cannot be translated into images' and that 'pictures cannot assert' - a contention also found in Peirce (Gombrich 1982, 138, 175; Peirce 1931-58, 2.291). Nevertheless, whilst images serving such communicative purposes may be more 'open to interpretation', contemporary visual advertisements are a powerful example of how images may be used to make implicit claims which advertisers often prefer not to make more openly in words. The Italian semiotician Umberto Eco has criticized the apparent equation of the terms 'arbitrary', 'conventional' and 'digital' by some commentators. He notes the way in which the following widespread pairings misleadingly suggest that the terms vertically aligned here are synonymous (Eco 1976, 190). He observes, for instance, that a photograph may be both 'motivated' and 'digital'. Nor is 'conventionality' (dependence on social and cultural conventions) equivalent to 'arbitrariness' (the lack of any intrinsic connection between the signifier and the signified). Yet it is easy to slip into treating such terms as equivalent - the current text far from immune to this. We may, as we shall see later, be so fond of analogy that we are often (perhaps unavoidably) its unwitting victims. digitalvs.analogical arbitaryvs.motivated conventionalvs.natural Another distinction between sign vehicles relates to the linguistic concept of tokens and types which derives from Peirce (Peirce 1931-58, 4.537). In relation to words in a spoken utterance or written text, a count of the tokens would be a count of the total number of words used (regardless of type), whilst a count of the types would be a count of the different words used, ignoring repetitions. In the language of semantics, tokens instantiate (are instances of) their type. 'Word' and 'word' are instances of the same type. Language depends on the distinction between tokens and types, between the particular instance and the general category. This is the basis of categorization. John Lyons notes that whether something is counted as a token of a type is relative to one's purposes - for instance: Are tokens to include words with different meanings which happen to be spelt or pronounced in the same way? Does a capital letter instantiate the same type as the corresponding lower-case letter? Does a word printed in italics instantiate the same type as a word printed in Roman? Is a word handwritten by X ever the same as a word handwritten by Y? (Lyons 1977, 13-15) From a semiotic point-of-view, such questions could only be answered by considering in each case whether the different forms signified something of any consequence to the relevant sign-users in the context of the specific signifying practice being studied. Eco lists three kinds of sign vehicles, and it is notable that the distinction relates in part at least to material form: signs in which there may be any number of tokens (replicas) of the same type (e.g. a printed word, or exactly the same model of car in the same colour); 'signs whose tokens, even though produced according to a type, possess a certain quality of material uniqueness' (e.g. a word which someone speaks or which is handwritten); 'signs whose token is their type, or signs in which type and token are identical' (e.g. a unique original oil-painting or Princess Diana's wedding dress). (Eco 1976, 178ff) The type-token distinction may influence the way in which a text is interpreted. In his influential essay on 'The Work of Art in the Age of Mechanical Reproduction', the literary-philosophical theorist Walter Benjamin (1892-1940) noted that technological society is dominated by reproductions of original works - tokens of the original type (Benjamin 1992, 211-244). Indeed, even if we do see, for instance, 'the original' of a famous oil-painting, we are highly likely to have seen it first in the form of innumerable reproductions (books, postcards, posters - sometimes even in the form of pastiches or variations on the theme) and we may only be able to 'see' the original in the light of the judgements shaped by the copies or versions which we have encountered (see Intertextuality). In the postmodern era, the bulk of our texts are indeed 'copies without originals'. The type-token distinction in relation to signs is important in social semiotic terms not as an absolute property of the sign vehicle but only insofar as it matters on any given occasion (for particular purposes) to those involved in using the sign. Minute differences in a pattern could be a matter of life and death for gamblers in relation to variations in the pattern on the backs of playing-cards within the same pack, but stylistic differences in the design of each type of card (such as the Ace of Spades), are much appreciated by collectors as a distinctive feature of different packs of playing-cards. As already indicated, Saussure saw both the signifier and the signified as non-material 'psychological' forms; the language itself is 'a form, not a substance' (Saussure 1983, 111, 120; Saussure 1974, 113, 122). He uses several examples to reinforce his point. For instance, in one of several chess analogies, he notes that 'if pieces made of ivory are substituted for pieces made of wood, the change makes no difference to the system' (Saussure 1983, 23; Saussure 1974, 22). Pursuing this functional approach, he notes elsewhere that the 8.25pm Geneva-to-Paris train is referred to as 'the same train' even though the combinations of locomotive, carriages and personnel may change. Similarly, he asks why a street which is completely rebuilt can still be 'the same street'. He suggests that this is 'because it is not a purely material structure' (Saussure 1983, 107; Saussure 1974, 108). Saussure insists that this is not to say that such entities are 'abstract' since we cannot conceive of a street or train outside of its material realization - 'their physical existence is essential to our understanding of what they are' (Saussure 1983, 107; Saussure 1974, 109; see also ibid, 15). This can be related to the type-token distinction. Since Saussure sees language in terms of formal function rather than material substance, then whatever performs the same function within the system can be regarded as just another token of the same type. With regard to language, Saussure observes that 'sound, as a material element... is merely ancillary, a material the language uses' (Saussure 1983, 116; Saussure 1974, 118). Linguistic signifiers are 'not physical in any way. They are constituted solely by differences which distinguish one such sound pattern from another' (Saussure 1983, 117; Saussure 1974, 118-119). He admits at one point, with some apparent reluctance, that 'linguistic signs are, so to speak, tangible: writing can fix them in conventional images' (Saussure 1983, 15; Saussure 1974, 15). However, referring to written signs, he comments that 'the actual mode of inscription is irrelevant, because it does not affect the system... Whether I write in black or white, in incised characters or in relief, with a pen or a chisel - none of that is of any importance for the meaning' (Saussure 1983, 118; Saussure 1974, 120). One can understand how a linguist would tend to focus on form and function within language and to regard the material manifestations of language as of peripheral interest. 'The linguist... is interested in types, not tokens' (Lyons 1977, 28). This was not only the attitude of the linguist Saussure, but also of the philosopher Peirce: 'The word "man"... does not consist of three films of ink. If the word "man" occurs hundreds of times in a book of which myriads of copies are printed, all those millions of triplets of patches of ink are embodiments of one and the same word... each of those embodiments a replica of the symbol. This shows that the word is not a thing' (Peirce 1931-58, 4.447). Peirce did refer to the materiality of the sign: 'since a sign is not identical with the thing signified, but differs from the latter in some respects, it must plainly have some characters which belong to it in itself... These I call the material qualities of the sign'. He granted that materiality is a property of the sign which is 'of great importance in the theory of cognition'. Materiality had 'nothing to do with its representative function' and it did not feature in his classificatory schemes. However, he alludes briefly to the signifying potential of materiality: 'if I take all the things which have certain qualities and physically connect them with another series of things, each to each, they become fit to be signs'. For instance, if the colour of a red flower matters to someone then redness is a sign (ibid., 5.287). Whilst Saussure chose to ignore the materiality of the linguistic sign, most subsequent theorists who have adopted his model have chosen to reclaim the materiality of the sign (or more strictly of the signifier). Semioticians must take seriously any factors to which sign-users ascribe significance, and the material form of a sign does sometimes make a difference. Contemporary theorists tend to acknowledge that the material form of the sign may generate connotations of its own. As early as 1929 Valentin Voloshinov published Marxism and the Philosophy of Language which included a materialist critique of Saussure's psychological and implicitly idealist model of the sign. Voloshinov described Saussure's ideas as 'the most striking expression' of 'abstract objectivism' (Voloshinov 1973, 58). He insisted that 'a sign is a phenomenon of the external world' and that 'signs... are particular, material things'. Every sign 'has some kind of material embodiment, whether in sound, physical mass, colour, movements of the body, or the like' (ibid., 10-11; cf. 28). For Voloshinov, all signs, including language, have 'concrete material reality' (ibid., 65) and the physical properties of the sign matter. Psychoanalytic theory also contributed to the revaluation of the signifier - in Freudian dream theory the sound of the signifier could be regarded as a better guide to its possible signified than any conventional 'decoding' might have suggested (Freud 1938, 319). For instance, Freud reported that the dream of a young woman engaged to be married featured flowers - including lilies-of-the-valley and violets. Popular symbolism suggested that the lilies were a symbol of chastity and the woman agreed that she associated them with purity. However, Freud was surprised to discover that she associated the word 'violet' phonetically with the English word 'violate', suggesting her fear of the violence of 'defloration' (another word alluding to flowers) (Freud 1938, 382-3). If this sounds familiar, this particular dream motif featured in the film Final Analysis (1992). As the psychoanalytical theorist Jacques Lacan emphasized (originally in 1957), the Freudian concepts of condensation and displacement illustrate the determination of the signified by the signifier in dreams (Lacan 1977, 159ff). In condensation, several thoughts are condensed into one symbol, whilst in displacement unconscious desire is displaced into an apparently trivial symbol (to avoid dream censorship). Poststructuralist theorists have sought to revalorize the signifier. The phonocentrism which was allied with Saussure's suppression of the materiality of the linguistic sign was challenged in 1967, when the French poststructuralist Jacques Derrida, in his book Of Grammatology, attacked the privileging of speech over writing which is found in Saussure (as well as in the work of many other previous and subsequent linguists) (Derrida 1976). From Plato to L€vi-Strauss, the spoken word had held a privileged position in the Western worldview, being regarded as intimately involved in our sense of self and constituting a sign of truth and authenticity. Speech had become so thoroughly naturalized that 'not only do the signifier and the signified seem to unite, but also, in this confusion, the signifier seems to erase itself or to become transparent' (Derrida 1981, 22). Writing had traditionally been relegated to a secondary position. The deconstructive enterprise marked 'the return of the repressed' (Derrida 1978, 197). In seeking to establish 'Grammatology' or the study of textuality, Derrida championed the primacy of the material word. He noted that the specificity of words is itself a material dimension. 'The materiality of a word cannot be translated or carried over into another language. Materiality is precisely that which translation relinquishes' - this English translation presumably illustrating some such loss (ibid., 210). Roland Barthes also sought to revalorize the role of the signifier in the act of writing. He argued that in 'classic' literary writing, the writer 'is always supposed to go from signified to signifier, from content to form, from idea to text, from passion to expression' (Barthes 1974, 174). However, this was directly opposite to the way in which Barthes characterized the act of writing. For him, writing was a matter of working with the signifiers and letting the signifieds take care of themselves - a paradoxical phenomenon which other writers have often reported (Chandler 1995, 60ff). Subsequent theorists have also sought to 'rematerialize' the linguistic sign, stressing that words are things and that texts are part of the material world (e.g. Coward & Ellis 1977; Silverman & Torode 1980). Jay David Bolter argues that 'signs are always anchored in a medium. Signs may be more or less dependent upon the characteristics of one medium - they may transfer more or less well to other media - but there is no such thing as a sign without a medium' (Bolter 1991, 195-6). This is a little misleading, because, as Justin Lewis notes, 'the sign has no material existence, since meaning is brought to words or objects, not inscribed within them. Only the signifier - the unit prior to meaning - exists as a material entity' (Wren-Lewis 1983, 181). Nevertheless, Bolter's point does apply to the sign vehicle, and as Hodge and Tripp note, 'fundamental to all semiotic analysis is the fact that any system of signs (semiotic code) is carried by a material medium which has its own principles of structure' (Hodge & Tripp 1986, 17). Furthermore, some media draw on several interacting sign systems: television and film, for example, utilize verbal, visual, auditory and locomotive signs. The medium is not 'neutral'; each medium has its own constraints and, as Umberto Eco notes, each is already 'charged with cultural signification' (Eco 1976, 267). For instance, photographic and audio-visual media are almost invariably regarded as more 'real' than other forms of representation. Gunther Kress and Theo van Leeuwen argue that 'the material expression of the text is always significant; it is a separately variable semiotic feature' (Kress & van Leeuwen 1996, 231). Changing the signifier at the level of the form or medium may thus influence the signified - the sense which readers make of what is ostensibly the same 'content'. Breaking up a relationship by fax is likely to be regarded in a different light from breaking up in a face-to-face situation. I have alluded to the problematic distinction between form and content. The linguist Louis Hjelmslev acknowledged that 'there can be no content without an expression, or expressionless content; neither can there be an expression without a content, or content-less expression' (Hjelmslev 1961, 49). However, he offered a framework which facilitated analytical distinctions (ibid., 47ff). Whilst he referred to 'planes' of expression and content (Saussure's signifier and signified), he enriched this model (ibid., 60). His contribution was to suggest that both expression and content have substance and form. Thus there are four categories: substance of expression, form of expression, substance of content, form of content. Various theorists such as Christian Metz have built upon this theoretical distinction and they differ somewhat in what they assign to the four categories (see Tudor 1974, 110; Baggaley & Duck 1976, 149; Metz 1981). Substance Form Signifiers: plane of expression Substance of expression:physical materials of the medium (e.g. photographs, recorded voices, printed words on paper) Form of expression:language, formal syntactic structure, technique and style Signifieds: plane of content Substance of content:'human content' (Metz), textual world, subject matter, genre Form of content:'semantic structure' (Baggaley & Duck), 'thematic structure' (including narrative) (Metz) Whereas Saussure had insisted that language is 'a form, not a substance', Hjelmslev's framework allows us to analyse texts according to their various dimensions and to grant to each of these the potential for signification. Such a matrix provides a useful framework for the systematic analysis of texts, broadens the notion of what constitutes a sign, and reminds us that the materiality of the sign may in itself signify. From an explicitly social semiotic perspective, Gunther Kress and Theo van Leeuwen adapt a linguistic model from Michael Halliday and insist that any semiotic system has three essential metafunctions: the ideational metafunction - 'to represent, in a referential or pseudo-referential sense, aspects of the experiential world outside its particular system of signs'; the interpersonal metafunction - 'to project the relations between the producer of a sign... and the receiver/reproducer of that sign'; and the textual metafunction - 'to form texts, complexes of signs which cohere both internally and within the context in and for which they were produced'. (Kress & van Leeuwen 1996, 40-41) Specific semiotic systems are called codes. Contents Last modified: 04/11/2006 10:37:12 TYPES OF SIGNS. In different semiotic classifications are based on the relations between the sign and the referent (an object or a class of objects), on the structure of the sign, its transformations, and their participation in the semiosis. The most famous typology of signs was introduced by Charles Sanders Peirce, who described the trichotomy: a sign per se, a sign related to an object, a sign as a triadic model. Altogether, there are 66 types of signs, grouped into larger classess in the trichotomy structure. The first trichotomy “qualitative, single, general” comprises the followings types of signs: Qualiasign (this type focuses on the qualities of a referent, e.g. adjectives or colour in pictorial art) Sinsign (it serves to refer to single objects, e.g. deictic units this, that) Legisign (the so-called conventional sign, for example an emblem in non-verbal semiotics) The second trichotomy distinguishes between icons, indexes, symbols, and the third one draws the line between a Rheme (a term a class name), Dicent (a proposition), Argument. Pierces’ second trichotomy became the most widely used in linguistics. According to Pierce, icons include images, diagrams, metaphors, as they demonstrate the relations of similarity between a sign and an object (see the term iconicity). Index signs show the relations of adjacency between a sign and an object (including cause-and-effect, whole-part, case-contents, action-reaction). For example, a knock at the door is an index (an indicator) that somebody wants to enter the house. In symbols there are no immediate links established between signs and objects, there are no natural connections of similarity and adjacency. However symbols and objects they represent are connected via conventional relations, as the result of “mutual agreement” between the users of signs. The typology of signs was offered in the works by Charles Morris, who differentiated between indexical signs (they refer to a unique object), characterizing signs (these signs denote a plurality of objects), universal signs (they denote all actually existing objects). Ch. Morris also introduced the notion of the systemic nature of signs, dividing them into designators, appraisors, prescriptors, identifiors and formators according to the modes of signifying. Further reading Иванов Вяч. Вс. Избранные труды по семиотике и истории культуры. М.: Языки русской культуры, 2004. Степанов Ю. С. Семиотика. М.: Наука, 1971. Chandler D. Semiotics. The Basics. L., NY.: Routledge, 2007. Eco U.A theory of semiotics. Bloomington: Indiana University Press, 1976. Merrel F. Sign, mind, time, space: Contradictory complementary coalescence // Semiotica. Vol.177. № 1/4. De Gruyter Mouton, 2009. — P. 29-116. Morris Ch. Writings on the general theory of signs. The Hague, Paris: Mouton, 1971. Maria Kiose Translated by Nastya Zhuchenko Semiotics is the study of signs and symbols as elements of communicative behavior. Emerging as a distinct field of inquiry during the late 19th and early 20th centuries, semiotics roots itself in the works of pioneers such as Ferdinand de Saussure and Charles Sanders Peirce. This branch of study examines how meaning is constructed and understood through a system of signs, which can be verbal, visual, or behavioral in nature. At its core, semiotics explores the process of signification—the means by which meaning is created and communicated. A “sign” in this context refers to anything that conveys a message. It comprises two primary components: the “signifier,” which is the form that the sign takes, and the “signified,” which is the concept it represents. For example, the word “tree” (the signifier) brings to mind the image or concept of a tree (the signified). This dynamic is foundational in understanding how language and other sign systems operate. Ferdinand de Saussure, a Swiss linguist, is often regarded as the father of modern semiotics. His seminal work, “Course in General Linguistics,” laid the groundwork for structuralist semiotics. Saussure posited that the relationship between the signifier and the signified is arbitrary; there is no inherent reason why a particular form should be linked to a particular meaning, aside from social convention. This principle underscores the flexibility and variability within languages and other semiotic systems. In parallel, American philosopher Charles Sanders Peirce made significant contributions by developing a triadic model of the sign, which includes the representamen (the form of the sign), the interpretant (the understanding of the sign), and the object (the actual entity the sign refers to). Peirce’s extensive contributions offer a comprehensive framework that extends beyond linguistic signs to include all forms of symbolic thought and communication. Understanding the foundational principles of semiotics is crucial for analyzing how signs and symbols function across various mediums and contexts, casting light on the intricate mechanisms of meaning-making in human communication. In semiotics, understanding the relationship between the signifier and the signified is fundamental to grasping how meaning is constructed. A signifier refers to the form of a sign, which could be a word, sound, or image, while the signified is the concept or idea that the signifier represents. The interdependence between these two components exemplifies the intricate process through which meaning is conveyed in communication. Consider the word “tree.” The letters T-R-E-E and the corresponding sound when pronounced constitute the signifier. Meanwhile, the idea or mental image of a tall, leafy plant that one envisions when encountering the signifier is the signified. This binary nature of signs as theorized by Ferdinand de Saussure underpins much of linguistic and visual semiotics. He argued that the meaning of a sign emerges from the relationship between the signifier and the signified, emphasizing that this relationship is arbitrary and culturally determined. For instance, in other languages, the same concept is represented by different signifiers. Furthermore, the flexibility and fluidity of this signifier-signified relationship highlight the role of interpretation in meaning-making. A single signifier can correspond to multiple signifieds depending on the context. The word “bat,” for example, can denote a flying mammal or a piece of sports equipment, demonstrating the polysemy inherent in linguistic signs. Visual signs operate under similar principles; for instance, a red octagonal sign usually signifies “stop” in many parts of the world, a meaning constructed through cultural conventions and shared understanding. Diagrams can be instrumental in clarifying these concepts. One common diagram used in semiotics illustrates the signifier and signified as two sides of the same coin, connected yet distinct. Such visual aids underscore the balance and tension that exist between form and content, crucial for deciphering the layered nature of signs in diverse communication forms. Understanding this relationship elucidates how meaning is not inherent in signs but is dynamically constructed through interpretive processes, influenced by cultural and contextual factors. This foundational aspect of semiotics provides a framework for analyzing not just linguistic signs, but also visual and multimodal communication. Semiotics, the study of signs and symbols, encompasses a vast array of communication mechanisms. Famed philosopher Charles Sanders Peirce categorized signs into three main types: icons, indexes, and symbols. Each type of sign establishes meaning through distinct channels, profoundly influencing how messages are interpreted across diverse contexts. Icons are signs that resemble or imitate the object they represent. They are visually representative, bearing a direct similarity to their referent. Photographs serve as quintessential examples of icons, as they capture real-life images, enabling immediate recognition. Another example can be found in onomatopoeic words, where the sound mimics the action or object it denotes, like “buzz” for a bee’s sound. Because of their resemblance, icons often provide clear and instantaneous comprehension, making them highly effective in visual communications. Indexes, on the other hand, demonstrate a direct causal or physical connection to their referent. They indicate something by pointing or suggesting its presence through evidence. A classic example is smoke indicating fire; smoke is not fire, but its presence is intrinsically linked to the presence of fire. Fingerprints are also indexical signs, as they point directly to the individual’s identity. These signs provide clues that need interpretive reasoning, making them essential in contexts requiring diagnostic or inferential understanding. Symbols differ significantly, as their relationship to their referent is arbitrary and established through social conventions or agreed-upon rules. Language is a prime illustration where words, as symbols, bear no inherent resemblance to the objects they denote. The word “tree” only represents the object because of a consensual linguistic agreement. Symbols require a shared knowledge base for effective communication, highlighting their indispensability in cultural, legal, and technical fields where specific meanings must be consistently understood. The implications of using these different types of signs are vast. Icons simplify perception, making them valuable in educational tools and universal design contexts. Indexes are paramount in scientific, forensic, and medical fields where evidence and indicators are pivotal. Symbols, with their demand for a shared understanding, shape societal constructs and enable intricate communication systems like language and mathematics. Understanding the purposeful use of icons, indexes, and symbols in varied communicative contexts allows for more precise and effective transmission of ideas, enhancing both the clarity and depth of human interaction. Semiotic codes function as intricate systems of signs governed by a series of rules and conventions that collectively shape meaning within communication. These systems are embedded within cultural and societal contexts, aids in the transmission and interpretation of information. Semiotic codes are not universal; their interpretation is contextual, heavily influenced by the cultural and societal norms of the community they belong to. In the realm of language, semiotic codes manifest in various forms including syntax, semantics, and pragmatics. For example, the syntax of a sentence—the arrangement of words—follows specific grammatical rules that are understood and shared by the speakers of a language. Similarly, linguistic semantics involves shared understandings of word meanings, while pragmatics concerns how context influences the interpretation of statements. If one claims, “I could eat a horse,” this idiom is widely understood within English-speaking contexts to mean extreme hunger, though such an expression might puzzle those unfamiliar with it. Visual media similarly relies on semiotic codes to convey messages effectively. Take, for instance, color codes in traffic lights; red universally denotes ‘stop’ while green signals ‘go.’ In film, a scene doused in blue light might suggest sadness or melancholy, tapping into a culturally ingrained emotional response to that color. Advertising also leverages visual semiotics, such as the use of specific imagery or typography to evoke particular feelings or associations, thereby resonating more deeply with the target audience. Everyday communication is replete with these codes and conventions. Emojis, for example, have formed a global semiotic system within digital communication. A smiling face suggests happiness, while a thumbs-up symbolizes approval or agreement. These symbols cut across linguistic boundaries and serve as a shorthand method for conveying emotions and reactions, bridging gaps in understanding among diverse language speakers. Ultimately, shared semiotic codes and conventions are crucial for enabling effective understanding within any community. By adhering to these established rules and norms, individuals can communicate more effectively, ensuring that the intended messages are correctly interpreted by others. In the field of semiotics, understanding the distinction between denotation and connotation is crucial for analyzing the layers of meaning embedded in signs and symbols. Denotation refers to the literal, explicit meaning of a sign—the straightforward, dictionary definition. For instance, when viewing an advertisement featuring a red rose, the denotation would simply be the flower itself. Connotation, on the other hand, delves deeper into the associative and cultural meanings that a sign carries. Using the same example of a red rose in advertising, the connotative meaning encompasses emotions and ideas such as love, passion, and romance. These associations are not inherent to the object but are derived from cultural and social contexts that imbue the sign with additional significance. In literature, authors often rely on the interplay between denotation and connotation to add richness and complexity to their narratives. Consider the use of the snake in various texts. Denotatively, a snake is simply a reptile. However, connotatively, it can signify deceit, danger, or even transformation, as seen in works ranging from the Biblical depiction in the Garden of Eden to modern novels that evoke these underlying themes. Media, particularly advertising, adeptly employs denotation and connotation to elicit desired responses from audiences. Television commercials might show a luxurious car (denotation) that conveys status, success, and aspiration (connotation). Such connotative messaging drives consumer behavior by tapping into deeper psychological and cultural factors. The interplay between denotation and connotation enriches communication, allowing messages to operate on multiple levels simultaneously. This duality enables signs and symbols to be both universally understood and deeply personal, depending on an individual’s background and experiences. By unraveling these layers, semioticians can better understand how meaning is constructed and conveyed across various forms of communication. In contemporary media and popular culture, semiotics serves as a powerful analytical tool to decode the myriad of signs and symbols employed to convey messages, construct identities, and influence perceptions. By examining specific instances from film, television, advertising, and social media, we can uncover the intricate layers of meaning embedded in visual and textual content. Film, as a medium, often utilizes semiotics to enhance storytelling. For instance, Alfred Hitchcock’s “Psycho” uses various symbols to elicit suspense and foreshadow events. The recurring imagery of birds, knives, and mirrors serves to communicate underlying themes of danger, violence, and duality. Similarly, in “The Matrix,” colors such as red and blue become potent symbols representing conscious choices between reality and illusion, creating a deeper engagement with the audience. Television shows like “Mad Men” employ semiotic analysis to depict the social and cultural milieu of the 1960s. The fashion, dialogue, and props are meticulously chosen signs that encode historical truths and ideologies about gender, race, and consumerism. The show’s deliberate use of period-specific advertising campaigns further emphasizes the constructed nature of identity and societal values, making it a rich subject for semiotic deconstruction. In advertising, semiotics is strategically used to convey brand identity and evoke targeted emotional responses. For example, Apple’s use of minimalist design and the bitten apple logo signifies innovation, simplicity, and sophistication. These elements work synergistically to create a powerful brand narrative that resonates with consumers, reinforcing the company’s market positioning. Social media platforms such as Instagram and Twitter amplify the role of semiotics in constructing identities and shaping perceptions. Hashtags, emojis, and memes serve as contemporary signs that communicate complex ideas quickly and effectively. Analyzing the semiotics of viral memes, for instance, reveals socio-political commentaries and collective attitudes that might otherwise remain unspoken. Ultimately, semiotics in media and popular culture enables a deeper understanding of how signs and symbols operate within our daily lives. By critically engaging with these elements, we can better appreciate how media not only reflects but also constructs, and sometimes challenges, the prevailing ideologies of our time. Roland Barthes, a key figure in the realm of semiotics, introduced the concept of “mythologies” to explore how everyday cultural artifacts and practices carry ideological meanings. Barthes’ theory posits that what we commonly perceive as simple signs or symbols often reinforce and naturalize certain ideologies and social norms. This approach serves to unpack the layers of meaning that are ingrained in various forms of communication, revealing how they contribute to the perpetuation of dominant values and beliefs. Barthes argued that myths operate at a second-order level of signification, where the sign (composed of a signifier and a signified) becomes a new signifier for additional meanings. These myths mask their ideological underpinnings, presenting culturally and socially constructed ideas as if they are natural, universal truths. For instance, in Barthes’ analysis of a French magazine cover featuring a Black soldier saluting the French flag, he argued that the image does not just denote patriotism but also promotes the myth of French colonial benevolence, obscuring the realities of colonial exploitation. The utility of semiotic analysis in identifying ideological messages extends across various domains. In fashion, for example, clothing choices are not merely personal or aesthetic decisions but can carry deep-seated societal meanings. A simple piece of attire, such as a suit, may serve to signify professionalism, authority, and conformity to capitalist norms. Similarly, political discourse is rife with signs that serve mythological functions. The rhetoric of “freedom” and “democracy,” often employed in political speeches, tends to naturalize certain political ideologies by presenting them as self-evident universal goods, thus masking complex, sometimes contentious, realities. Ultimately, Barthes’ theory of mythologies provides a powerful lens for critiquing and understanding the ideological nature of signs. Through semiotic analysis, we can uncover the hidden messages in everyday cultural artifacts, enabling a more critical engagement with the norms and values that shape our social world. Semiotics, the study of signs and symbols in communication, finds practical application in a range of fields, enhancing our understanding and improvement of various methodologies. In marketing, semiotics plays a crucial role in creating compelling advertising campaigns and brand identities. By aligning symbols and signs with cultural meanings, marketers can craft messages that resonate deeply with their target audience, thereby fostering stronger emotional connections and brand loyalty. In the realm of design, particularly graphic and product design, semiotic analysis helps designers convey particular messages effectively. Understanding the symbolic meanings that different design elements—such as colors, shapes, and icons—carry can significantly improve user experience. Designers can tailor these elements to evoke specific emotions or responses, ensuring that their designs are both functional and aesthetically pleasing. Anthropologists employ semiotic techniques to decode cultural symbols and rituals, offering deeper insights into human behavior and societal structures. By analyzing the signs and symbols prevalent within a culture, anthropologists can understand the values, beliefs, and social norms that define that society. This understanding is vital for studying cultural evolution and for fostering intercultural communication. In linguistics, semiotics aids in understanding how language functions as a system of signs. Through this lens, linguists can explore how meaning is constructed and interpreted within different languages, thereby gaining insights into the cognitive processes that underlie communication. This can also have significant implications for language education and translation studies. The field of artificial intelligence (AI) has also embraced semiotics, particularly in developing more intuitive human-computer interfaces. By integrating semiotic principles, AI systems can better interpret human inputs and respond in ways that are meaningful to users. This alignment not only enhances user experience but also bridges the gap between human and machine communication. Overall, understanding semiotics is invaluable across these diverse fields, allowing professionals to align symbolic meaning with audience expectations and cultural contexts, thereby enhancing communication strategies, product design, and user experiences. Find out the difference between icons, indexes and symbols in our guide to Peirce’s sign categories. Charles Peirce, an American philosopher writing in the 1800s, categorised the signs we use to communicate ideas with each other into three types: icon, index and symbol. The main difference between each broad category of signs is the quality of the physical relationship between the signifier and signified. Icons have obvious physical connections between the signifier and their meanings. For instance, the people and places in a photograph will probably look like their real life counterparts. By contrast, symbols are defined by culture and do not need to resemble their mental concepts. There is no reason why blue, for example, is used to signify masculinity. It is simply tradition and convention. Finally, indexes have some factual relationship between the signifier and signified, such as a thermometer used indicate the temperature or the smells coming from a kitchen will suggest what is being cooked. Importantly, Peirce recognised a single sign could easily have the characteristics of all three categories. Contents An icon has a close physical resemblance to what it signifies. Consider the following communication icons: Communication Icons You should be able to recognise the newspaper from the first icon because it has a similar shape and the rectangles represent a masthead and image. The lines signify the story. It might be a little old-fashioned, but it should be fairly obvious that the second icon refers to a television. Can you work out what the other three icons represent? At the other end of this spectrum, a symbol has no resemblance between the signifier and signified at all. It is our framework of knowledge which helps us understand the meaning of these signs. Perhaps the best examples of symbols are those we use to identify gender: These symbols might have some historical context or significance, such as how the male and female signs are derived from the classical symbols for Mars and Venus, but there is very little connection to the constructs they represent. In fact, the most of the words you are reading now are also symbols which have no physical relationship to the mental concepts they convey. The third category identified by Peirce was the index. This type of sign will show some sort physical relationship with what is represents and point towards its meaning, but they will not be directly related to the signified. These signs are often caused by what they signify. Paw prints are an excellent example of an indexical sign Look carefully at the following signs and decide whether they are iconic, indexical or symbolic: Describing the physical form is an important step to identifying the type of sign being used in the text. If you are not too sure which category is the correct answer, go for a “best fit” approach and try to justify your response. The following image was taken at the 2014 Formula One British Grand Prix. The Ferrari mechanic is holding up the pit board which is informing the driver of their position and lap times. Look closely at the photograph and identify as many examples as you can of the different categories of signs identified by Peirce. When you are analysing a media text, identifying whether a signifier is an icon, index or symbol could help support your interpretation of the producer’s intended meaning. For more information about Charles Peirce’s approach to understanding signs, you should read our guide to his triadic model of communication. If would like to practice identifying these different types of signs, we have plenty of media texts to analyse in our semiotics exam practice. Perhaps the best place to start is the use of signs in the film poster for “Moonlight”. Signs can take many forms. They can be words, numbers, sounds, photographs, paintings and road signs among and more. However, while signs can be many things, they can be categorized as one of a few types. The last few weeks, I’ve been talking about icons. I talked about them in general and then specifically about the hamburger icon. Last week I began a look at semiotics and this week I’d like to continue that look. Charles Sanders Peirce, one of the founders of semiotics, categorized signs as being one of three types. More recently professor Yvonne Rogers came up with four categories for iconic representation and they fit nicely with Peirce’s three types. I’ll walk through both sets of categorization in this post. A Quick Reminder About Signs In case you didn’t read last week’s post, let me offer a quick reminder about how semiotics defines a sign. A sign is anything that creates meaning. It’s anything that can be used to represent something else. Ferdinand de Saussure, the other founder of semiotics saw signs as the basic unit of meaning and he defined two parts of signs. Signifier — The form of a sign. The form might be a sound, a word, a photograph, a facial expression, a painting of a pipe, etc. Signified — The concept or object that’s represented. The concept or object might be an actual pipe, the command to stop, a warning of radioactivity. Peirce added a third part, the interpretant or what the audience makes of the sign or the sense of what’s actually communicated. If you’d like more details, I’ll refer you again to last week’s post. Everything that follows here applies to the signifier or the form of a sign. 3 Types of Signifiers — The Categories of Signs Peirce said the form a sign takes, it’s signifier, can be classified as one of three types an icon, an index, or a symbol. An Icon has a physical resemblance to the signified, the thing being represented. A photograph is

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Everything that follows here applies to the signifier or the form of a sign. 3 Types of Signifiers — The Categories of Signs Peirce said the form a sign takes, it's signifier, can be classified as one of three types an icon, an index, or a symbol. An Icon has a physical resemblance to the signified, the thing being represented. A photograph is a good example as it certainly resembles whatever it depicts. An Index shows evidence of what's being represented. A good example is using an image of smoke to indicate fire. A Symbol has no resemblance between the signifier and the signified. The connection between them must be culturally learned. Numbers and alphabets are good examples. There's nothing inherent in the number 9 to indicate what it represents. It must be culturally learned. I know the first time I saw definitions for each type of signifier I was more than a little confused so let's look at each in a little more detail. Signifier as Icon Clear your head of what you know about icons for a moment. The icons we use in digital interfaces are all signs and not specifically icons as defined by semiotics. Icons as discussed here are one possible type of form a sign might take. An icon is meant as a direct imitation of the object or concept. Icons bear a physical resemblance to what's being represented. A photograph is an example of an icon signifier. Take a picture of a tree and the resulting image will look like that tree. With icons there's a real connection between the signifier and the signified. Magritte's painting of a pipe, which I talked about last week, may not be an actual pipe, but it certainly looks like one and anyone viewing the painting will understand that what they see represents a pipe. When user interfaces were first being created, most of the signs were imitations of real objects. Think documents, folders, and printers. This is possibly why we refer to all signs in user interfaces as icons, but the original signifiers used were icons in that they resembled what they represented. Signifier as Index An index describes the connection between signifier and signified. With an index, the signifier can not exist without the presence of the signified. For example smoke is an index of fire. Dark clouds are an index of rain. A footprint is an index of a foot. In each case the presence of the former implies the latter exists. An index is a sign that shows evidence of the concept or object being represented. An index doesn't resemble the object or concept being represented. Instead it resembles something that implies the object or concept. I'm sure you're familiar with WYSIWYG editors. Controls for things like aligning text to the left or using a paint bucket image to paint color are examples of index signs as they use imagery to represent the result of using the tool. One thing to be careful with indexes is to make sure that the correlation between the signifier and signified is understood by whoever sees the sign. I think it's safe to assume that people know smoke indicates fire, but I doubt most people would know that a thrown baseball that appears to have a red dot on it is an indication that the pitcher threw a slider. However, a major league hitter or a baseball fanatic like myself understands the rotation of the pitch combined with the red stitching on the ball leads to the batter seeing the dot. It's a reminder that the interpretant is an important part of a sign. Two people seeing a baseball with a red dot could come away with two different interpretations of what's being communicated. Another point to keep in mind is that the correlation between signifier and signified in an index can be known innately or learned. A smile is an index of being happy and it's something I'd say we all know innately. On the other hand a red stop light is an index for stop, but it's something that we all needed to learn. Signifier as Symbol Symbols are at the opposite end from icons. The connection between signifier and signified in symbols is completely arbitrary and must be culturally learned. The letters of an alphabet are a good example of symbols. The shape of each letter and the sound it represents bear no physical connection to each other. There's no logical connection between a symbol and what it represents. The connection must be learned and it usually becomes associated with the concept it represents over time. Again language and numbers are symbols. Traffic lights are symbols. Flags are symbols. What's being communicated, must be learned. Conventions and standards help make the connection between symbols and what they represent. An example might one day be the hamburger icon. There's nothing about three lines that automatically suggests menu, but if designers consistently use the hamburger icon, the connection will eventually be learned. An icon or index can also become a symbol over time through repetition. For example the floppy disk is still used to represent saving a digital file, even though no one uses floppy disks anymore and I'm sure plenty of people have probably never even seen one. 4 Types of Iconic Representation One of my first stops to research the subject of iconography was my bookshelf. I picked up a few design books and found two of them (Universal Principles of Design and Visual Language for Designers) included pages about four types of iconic representation. The information originally comes from Yvonne Rogers, the director of the Interaction Centre at University College London and a professor of Interaction Design. A warning that the choice of names conflicts with the three types of signifiers as defined by Peirce. Resemblance icons are direct likenesses of the objects they represent. (camera icon for a smartphone camera app) Exemplar icons depict a common example of the class of objects they represent. (trowel or rake to represent gardening) Symbolic icons convey a concept at a higher level of abstraction than the object depicted. (cracked wineglass to indicate something is fragile) Arbitrary icons have no relationship to an object or concept and their association must be learned. (computer on/off power button) If you compare these to Peirce's three types of signifiers, you might notice that resemblance icons are Peirce's icons as they resemble what they represent. Arbitrary icons are Peirce's symbols as the connection between signifier and signified is arbitrary. Both exemplar and symbolic icons as defined by Professor Rogers are Peirce's indexes. Rogers essentially widened the definition of an index and divided them into two distinct types based on the level of abstraction. In either case the signifier isn't arbitrary even if it doesn't directly resemble what's being signified. Resemblance icons work best when the representation is simple and direct. They're most effective when communicating simple actions, objects, and concepts, however they're less effective as the complexity increases. For example showing a curved line to indicate the road curves ahead, works well, but something more is needed if the idea is to communicate that the driver should slow down. Exemplar icons work well to show examples of the signified. They show examples that are commonly associated with an action, object, or concept. Any road sign showing an airplane to indicate an airport is a good example. They're effective when what's being represented is more complex than what a resemblance icon can easily communicate. Symbolic icons are similar to exemplar icons, but they're more effective at a higher level of abstraction. A padlock to represent a secure URL is a good example, because we associate locks with security. Symbolic icons are best used when the actions, objects, or concepts being represented are well-established. For example a camera is also often associated with security, though the imagery isn't as quite as associated with security as a padlock, which is only used for security. Arbitrary icons are like Peirce's symbols as there's no logical connection between signifier and signified. They're best reserved for when people will have the time to learn the connection between signifier and signified or when the representation has become a standard or convention. There's no reason why blue underlined text should be a link, but it's become the standard online and so when we see blue underlined text we now think the text is a link. Again I wish the names were a little different, since it will be easy to confuse Rogers symbolic icons with Peirce's symbolic signifiers, but hopefully calling it out a few times here will alleviate some potential confusion. Closing Thoughts It's easy to think all signs are the same thing and communicate in the same way by presenting one thing that represents another, but there are different types of signs that communicate in different ways. Signs can communicate by resembling what they represent, by implying what they represent, or through arbitrary representations that must be learned before we can understand their meaning. Hopefully after reading this post you have a better idea when to use one type of signifier over another. Next week I'll continue this look into semiotics. I want to talk more about the meaning of signs, particularly what a sign literally denotes and what secondary meanings it connotes. « Prev PostNext Post » Download a free sample from my book, Design Fundamentals. Bardt, C. (2019). Material and mind. Cambridge, MA: MIT Press. Google Scholar Barthes, R. (1977). Rhetoric of the image. Image, music, text. Trans. Heath, S. New York: Hill and Wang. Reprinted in Innis 1985, pp. 192–205. Google Scholar Bühler, K. (1934). Theory of language. Trans. Goodwin, D. Amsterdam: John Benjamins. Google Scholar Cassirer, E. (1910/1923). Substance and function. Trans. Swabey, W., & Swabey, M. La Salle: Open Court. Google Scholar Cassirer, E. (1923). The philosophy of symbolic forms: Language. Trans. Manheim, R. New Haven: Yale University Press, 1953. Google Scholar Cassirer, E. (1924). Language and myth: A contribution to the problem of the names of the gods. In Cassirer (2014), pp. 130–213. Google Scholar Cassirer, E. (1925). 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Michelangelo's finger: An exploration of everyday transcendence. London: Atlantic Books. Google Scholar Taylor, C. (2016). The language animal: The full shape of the human linguistic capacity. Cambridge, MA: The Belknap Press of Harvard University Press.Book Google Scholar Uexküll, J. V. (1934, 1940/2010). A foray into the worlds of animals and humans: With a theory of meaning. Trans. O'Neil, J. Minneapolis: University of Minnesota Press. Google Scholar Signs can take many forms. They can be words, numbers, sounds, photographs, paintings and road signs among and more. However, while signs can be many things, they can be categorized as one of a few types. The last few weeks, I've been talking about icons. I talked about them in general and then specifically about the hamburger icon. Last week I began a look at semiotics and this week I'd like to continue that look. Charles Sanders Peirce, one of the founders of semiotics, categorized signs as being one of three types. More recently professor Yvonne Rogers came up with four categories for iconic representation and they fit nicely with Peirce's three types. I'll walk through both sets of categorization in this post. A Quick Reminder About Signs In case you didn't read last week's post, let me offer a quick reminder about how semiotics defines a sign. A sign is anything that creates meaning. It's anything that can be used to represent something else. Ferdinand de Saussure,

the other founder of semiotics saw signs as the basic unit of meaning and he defined two parts of signs. Signifier — The form of a sign. The form might be a sound, a word, a photograph, a facial expression, a painting of a pipe, etc. Signified — The concept or object that's represented. The concept or object might be an actual pipe, the command to stop, a warning of radioactivity. Peirce added a third part, the interpretant or what the audience makes of the sign or the sense of what's actually communicated. If you'd like more details, I'll refer you again to last week's post. Everything that follows here applies to the signifier or the form of a sign. 3 Types of Signifiers — The Categories of Signs Peirce said the form a sign takes, it's signifier, can be classified as one of three types an icon, an index, or a symbol. An Icon has a physical resemblance to the signified, the thing being represented. A photograph is a good example as it certainly resembles whatever it depicts. An Index shows evidence of what's being represented. A good example is using an image of smoke to indicate fire. A Symbol has no resemblance between the signifier and the signified. The connection between them must be culturally learned. Numbers and alphabets are good examples. There's nothing inherent in the number 9 to indicate what it represents. It must be culturally learned. I know the first time I saw definitions for each type of signifier I was more than a little confused so let's look at each in a little more detail. Signifier as Icon Clear your head of what you know about icons for a moment. The icons we use in digital interfaces are all signs and not specifically icons as defined by semiotics. Icons as discussed here are one possible type of form a sign might take. An icon is meant as a direct imitation of the object or concept. Icons bear a physical resemblance to what's being represented. A photograph is an example of an icon signifier. Take a picture of a tree and the resulting image will look like that tree. With icons there's a real connection between the signifier and the signified. Magritte's painting of a pipe, which I talked about last week, may not be an actual pipe, but it certainly looks like one and anyone viewing the painting will understand that what they see represents a pipe. When user interfaces were first being created, most of the signs were imitations of real objects. Think documents, folders, and printers. This is possibly why we refer to all signs in user interfaces as icons, but the original signifiers used were icons in that they resembled what they represented. Signifier as Index An index describes the connection between signifier and signified. With an index, the signifier can not exist without the presence of the signified. For example smoke is an index of fire. Dark clouds are an index of rain. A footprint is an index of a foot. In each case the presence of the former implies the latter exists. An index is a sign that shows evidence of the concept or object being represented. An index doesn't resemble the object or concept being represented. Instead it resembles something that implies the object or concept. I'm sure you're familiar with WYSIWYG editors. Controls for things like aligning text to the left or using a paint bucket image to paint color are examples of index signs as they use imagery to represent the result of using the tool. One thing to be careful with indexes is to make sure that the correlation between the signifier and signified is understood by whoever sees the sign. I think it's safe to assume that people know smoke indicates fire, but I doubt most people would know that a thrown baseball that appears to have a red dot on it is an indication that the pitcher threw a slider. However, a major league hitter or a baseball fanatic like myself understands the rotation of the pitch combined with the red stitching on the ball leads to the batter seeing the dot. It's a reminder that the interpretant is an important part of a sign. Two people seeing a baseball with a red dot could come away with two different interpretations of what's being communicated. Another point to keep in mind is that the correlation between signifier and signified in an index can be known innately or learned. A smile is an index of being happy and it's something I'd say we all know innately. On the other hand a red stop light is an index for stop, but it's something that we all needed to learn. Signifier as Symbol Symbols are at the opposite end from icons. The connection between signifier and signified in symbols is completely arbitrary and must be culturally learned. The letters of an alphabet are a good example of symbols. The shape of each letter and the sound it represents bear no physical connection to each other. There's no logical connection between a symbol and what it represents. The connection must be learned and it usually becomes associated with the concept it represents over time. Again language and numbers are symbols. Traffic lights are symbols. Flags are symbols. What's being communicated, must be learned. Conventions and standards help make the connection between symbols and what they represent. An example might one day be the hamburger icon. There's nothing about three lines that automatically suggests menu, but if designers consistently use the hamburger icon, the connection will eventually be learned. An icon or index can also become a symbol over time through repetition. For example the floppy disk is still used to represent saving a digital file, even though no one uses floppy disks anymore and I'm sure plenty of people have probably never even seen one. 4 Types of Iconic Representation One of my first stops to research the subject of iconography was my bookshelf. I picked up a few design books and found two of them (Universal Principles of Design and Visual Language for Designers) included pages about four types of iconic representation. The information originally comes from Yvonne Rogers, the director of the Interaction Centre at University College London and a professor of Interaction Design. A warning that the choice of names conflicts with the three types of signifiers as defined by Peirce. Resemblance icons are direct likenesses of the objects they represent. (camera icon for a smartphone camera app) Exemplar icons depict a common example of the class of objects they represent. (trowel or rake to represent gardening) Symbolic icons convey a concept at a higher level of abstraction than the object depicted. (cracked wineglass to indicate something is fragile) Arbitrary icons have no relationship to an object or concept and their association must be learned. (computer on/off power button) If you compare these to Peirce's three types of signifiers, you might notice that resemblance icons are Peirce's icons as they resemble what they represent. Arbitrary icons are Peirce's symbols as the connection between signifier and signified is arbitrary. Both exemplar and symbolic icons as defined by Professor Rogers are Peirce's indexes. Rogers essentially widened the definition of an index and divided them into two distinct types based on the level of abstraction. In either case the signifier isn't arbitrary even if it doesn't directly resemble what's being signified. Resemblance icons work best when the representation is simple and direct. 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For example a camera is also often associated with security, though the imagery isn't as quite as associated with security as a padlock, which is only used for security. Arbitrary icons are like Peirce's symbols as there's no logical connection between signifier and signified. They're best reserved for when people will have the time to learn the connection between signifier and signified or when the representation has become a standard or convention. There's no reason why blue underlined text should be a link, but it's become the standard online and so when we see blue underlined text we now think the text is a link. Again I wish the names were a little different, since it will be easy to confuse Rogers symbolic icons with Peirce's symbolic signifiers, but hopefully calling it out a few times here will alleviate some potential confusion. Closing Thoughts It's easy to think all signs are the same thing and communicate in the same way by presenting one thing that represents another, but there are different types of signs that communicate in different ways. Signs can communicate by resembling what they represent, by implying what they represent, or through arbitrary representations that must be learned before we can understand their meaning. Hopefully after reading this post you have a better idea when to use one type of signifier over another. Next week I'll continue this look into semiotics. I want to talk more about the meaning of signs, particularly what a sign literally denotes and what secondary meanings it connotes. « Prev PostNext Post » Download a free sample from my book, Design Fundamentals. First published Fri Oct 13, 2006; substantive revision Thu Aug 4, 2022 Peirce's Sign Theory, or Semiotic, is an account of signification, representation, reference and meaning. Although sign theories have a long history, Peirce's accounts are distinctive and innovative for their breadth and complexity, and for capturing the importance of interpretation to signification. For Peirce, developing a thoroughgoing theory of signs was a central philosophical and intellectual preoccupation. The importance of semiotic for Peirce is wide ranging. As he himself said, "[…] it has never been in my power to study anything, – mathematics, ethics, metaphysics, gravitation, thermodynamics, optics, chemistry, comparative anatomy, astronomy, psychology, phonetics, economics, the history of science, whist, men and women, wine, metrology, except as a study of semiotic" (SS 1977, 85–6). Peirce also treated sign theory as central to his work on logic, as the medium for inquiry and the process of scientific discovery, and even as one possible means for 'proving' his pragmatism. Its importance in Peirce's philosophy, then, cannot be overestimated. Across the course of his intellectual life, Peirce continually returned to and developed his ideas about signs and semiotic and there are three broadly delineable accounts: a concise Early Account from the 1860s; a complete and relatively neat Interim Account developed through the 1880s and 1890s and presented in 1903; and his speculative, rambling, and incomplete Final Account developed between 1906 and 1910. The following entry examines these three accounts, and traces the changes that led Peirce to develop earlier accounts and generate new, more complex, sign theories. However, despite these changes, Peirce's ideas on the basic structure of signs and signification remain largely uniform throughout his developments. Consequently, it is useful to begin with an account of the basic structure of signs according to Peirce. In one of his many definitions of a sign, Peirce writes: I define a sign as anything which is so determined by something else, called its Object, and so determines an effect upon a person, which effect I call its interpretant, that the later is thereby mediately determined by the former. (EP2, 478) What we see here is Peirce's basic claim that signs consist of three inter-related parts: a sign, an object, and an interpretant. For the sake of simplicity, we can think of the sign as the signifier, for example, a written word, an utterance, smoke as a sign for fire etc. The object, on the other hand, is best thought of as whatever is signified, for example, the object to which the written or uttered word attaches, or the fire signified by the smoke. The interpretant, the most innovative and distinctive feature of Peirce's account, is best thought of as the understanding that we have of the sign/object relation. The importance of the interpretant for Peirce is that signification is not a simple dyadic relationship between sign and object: a sign signifies only in being interpreted. This makes the interpretant central to the content of the sign, in that, the meaning of a sign is manifest in the interpretation that it generates in sign users. Things are, however, slightly more complex than this and we shall look at these three elements in more detail. 1.1 The Signifying Element of Signs The very first thing to note is that there are some potential terminological difficulties here. We appear to be saying that there are three elements of a sign, one of which is the sign. This is confusing and does not fully capture Peirce's idea. Strictly speaking, for Peirce, we are interested in the signifying element, and it is not the sign as a whole that signifies. In speaking of the sign as the signifying element, then, he is more properly speaking of the sign refined to those elements most crucial to its functioning as a signifier. Peirce uses numerous terms for the signifying element including "sign", "representamen", "representation", and "ground". Here we shall refer to that element of the sign responsible for signification as the "sign-vehicle". Peirce's idea that a sign does not signify in all respects and has some particular signifying element is perhaps best made clear with an example. Consider, for instance, a molehill in my lawn taken as a sign of moles. Not every characteristic of the molehill plays a part in signifying the presence of moles. The color of the molehill plays a secondary role since it will vary according to the soil from which it is composed. Similarly, the sizes of molehills vary according to the size of the mole that makes them, so again, this feature is not primary in the molehill's ability to signify. What is central here is the causal connection that exists between the type of mound in my lawn and moles: since moles make molehills, molehills signify moles. Consequently, primary to the molehill's ability to signify the mole is the brute physical connection between it and a mole. This is the sign-vehicle of the sign. For Peirce, then, it is only some element of a sign that enables it to signify its object, and when speaking of the signifying element of the sign, or rather, the sign-vehicle, it is this qualified sign that he means. 1.2 The Object Just as with the sign, not every characteristic of the object is relevant to signification: only certain features of an object enable a sign to signify it. For Peirce, the relationship between the object of a sign and the sign that represents it is one of determination: the object determines the sign. Peirce's notion of determination is by no means clear and it is open to interpretation, but for our purposes, it is perhaps best understood as the placing of constraints or conditions on successful signification by the object, rather than the object causing or generating the sign. The idea is that the object imposes certain parameters that a sign must fall within if it is to represent that object. However, only certain characteristics of an object are relevant to this process of determination. To see this in terms of an example, consider again the case of the molehill. The sign is the molehill, and the object of this sign is the mole. The mole determines the sign, in as much as, if the molehill is to succeed as a sign for the mole it must show the physical presence of the mole. If it fails to do this, it fails to be a sign of that object. Other signs for this object, apart from the molehill, might include the presence of mole droppings, or a particular pattern of ground subsidence on my lawns, but all such signs are constrained by the need to show the physical presence of the mole. Clearly, not everything about the mole is relevant to this constraining process: the mole might be a conventional black color or an albino, it might be male or female, it might be young or old. None of these features, however, are essential to the constraints placed upon the sign. Rather, the causal connection between it and the mole is the characteristic that it imposes upon its sign, and it is this connection that the sign must represent if it is to succeed in signifying the mole. 1.3 The Interpretant Although there are many features of the interpretant that bear further comment, here we shall mention just two. First, although we have characterized the interpretant as the understanding we reach of some sign/object relation, it is perhaps more properly thought of as the translation or development of the original sign. The idea is that the interpretant provides a translation of the sign, allowing us a more complex understanding of the sign's object. Indeed, Liszka (1996) and Savan (1988) both emphasize the need to treat interpretants as translations, with Savan even suggesting Peirce should have called it the translatant (Savan 1988, 41). Second, just as with the sign/object relation, Peirce believes the sign/interpretant relation to be one of determination: the sign determines an interpretant. Further, this determination is not determination in any causal sense, rather, the sign determines an interpretant by using certain features of the way the sign signifies its object to generate and shape our understanding. So, the way that smoke generates or determines an interpretant sign of its object, fire, is by focusing our attention upon the physical connection between smoke and fire. For Peirce, then, any instance of signification contains a sign-vehicle, an object and interpretant. Moreover, the object determines the sign by placing constraints which any sign must meet if it is to signify the object. Consequently, the sign signifies its object only in virtue of some of its features. Additionally, the sign determines an interpretant by focusing our understanding on certain features of the signifying relation between sign and object. This enables us to understand the object of the sign more fully. Although this is a general picture of Peirce's ideas about sign structure, and certain features are more or less present, or given greater or lesser emphasis at various points in Peirce's development of his theory of signs, this triadic structure and the relation between the elements is present in all of Peirce's accounts. In what follows, we shall see three of Peirce's attempts at giving a full account of signs and signification, the corresponding sign typologies, look at the transitions between these accounts, and examine some of the issues that arise from them. 2. Peirce's Early Account: 1867–8. Peirce's earliest significant attempt at an account of signs comes in his 1867 paper "On A New List of Categories" (W2 .49–58). In that account, we find the same basic sign structure outlined above: any sign, or representation as Peirce calls it at this early stage, will have a sign-vehicle, an object, and an interpretant. An important difference here though is how he thinks of the relation between signs and interpretants. In particular, Peirce thought that whilst our interpreting the signifying relation between sign and object relied upon understanding the basis of signification in any given case, he also thought that the generated interpretant itself functioned as a further, more developed sign of the object in question. And of course, as a further sign, it will also signify that object through some features, which again, we must interpret, and generate a further interpretant. As will be obvious, this leads to an infinite chain of signs. If any sign must generate an interpretant in order to be a sign, and any sign is itself the interpretant of some further sign, then clearly, there must be an infinity of signs both proceeding and preceding from any given instance of signification. Some scholars (for example, Short 2004; 2007) think that infinite semiosis is a characteristic only of Peirce's early account. Others, (Liszka 1996, Savan 1988) treat infinite semiosis as present in all of Peirce's accounts. We shall return to the issue of infinite semiosis in the early account below. First, we shall look at the types of sign to which Peirce's early account gives rise. Peirce thought that "representations" generate further interpretants in one of three possible ways. First, via "a mere community in some quality" (W2 .56). These he calls likenesses, but they are more familiarly known as icons. Second, those "whose relation to their objects consists in a correspondence in fact" (W2 .56) are termed indices. And finally, those "whose relation to their objects is an imputed character" (W2. 56) are called symbols. Put simply, if we come to interpret a sign as standing for its object in virtue of some shared quality, then the sign is an icon. Peirce's early examples of icons are portraits and noted similarities between the letters p and b (W2. 53–4). If on the other hand, our interpretation comes in virtue of some brute, existential fact, causal connections say, then the sign is an index. Early examples include the weathercock, and the relationship between the murderer and his victim (W2. 53–4). And finally, if we generate an interpretant in virtue of some observed general or conventional connection between sign and object, then the sign is a symbol. Early examples include the words "homme" and "man" sharing a reference. (W2. 53–4). This, then, is the very first outing for Peirce's famous division of signs into Icons, Indexes, and Symbols. Although Peirce's precise thoughts about the nature of this division were to change at various points in his development of sign theory, the division nonetheless remains throughout his work. There are, however, some important features to this early account that mark it out from the later developments. We shall look at two of these features here: the importance of thought-signs; and infinite semiosis. 2.1 Thought-Signs An interesting feature of Peirce's early account is that he is keen to associate signs with cognition. In particular, Peirce claims that all thought is in signs (W2. 213). We can see this from Peirce's early idea that every interpretant is itself a further sign of the signified object. Since interpretants are the interpreting thoughts we have of signifying relations, and these interpreting thoughts are themselves signs, it seems to be a straight-forward consequence that all thoughts are signs, or as Peirce calls them "thought-signs". One interesting consequence of this is that in the early account, Peirce is quick to dismiss the importance and relevance of icons and indices. The objects of the understanding, considered as representations, are symbols, that is, signs which are at least potentially general. But the rules of logic hold good of any symbols, of those which are written or spoken as well as those which are thought. They have no immediate application to likeness [icons] or indices, because no arguments can be constructed of these alone, but do apply to all symbols. (W2. 56) This gives Peirce's early account of signs a rather narrow scope; it is concerned primarily with the general and conventional signs of which our language and cognition consist. The reason for this narrow focus is simple: for Peirce, since symbols are "potentially general" and fall under the remit of general rules, they are a fit subject of study for his primary focus, logic. This early account, then, focuses mainly on general and conventional signs, those signs identified by Peirce as symbols. Icons and indices, although noted at this early stage, are considered of secondary philosophical importance. As we shall see later, this narrow focus is something that Peirce was later to revise. 2.2 Infinite Semiosis As previously noted, part and parcel of Peirce's early account of signs is that an infinity of further signs both proceed and precede from any given sign. This is a consequence of the way Peirce thinks of the elements of signs at this early stage and seems to stem from his idea that interpretants are to count as further signs, and signs are interpretants of earlier signs. Since any sign must determine an interpretant in order to count as a sign, and interpretants are themselves signs, infinite chains of signs seem to become conceptually necessary. To see this, imagine a chain of signs with either a first or a last sign. The final sign that terminates the semiotic process will have no interpretant; if it did, that interpretant would function as a further sign and generate a further interpretant, and the final sign would, in fact, not terminate the process. However, since any sign must determine an interpretant to count as a sign, the final sign would not be a sign unless it had an interpretant. Similarly, a first sign could not be the interpretant of a preceding sign. If it were, that previous sign would be the first sign. However, since any sign must be an interpretant of a previous sign, a first sign would not be a sign unless it was also an interpretant of a previous sign. The problem is that if we allow a final sign with no interpretant, or a first sign which is not the interpretant or some earlier sign, then we have failed signs in the semiotic process. This affects the rest of the semiotic chain causing something like a collapse of dominoes. For example, if the final sign fails to be a sign in virtue of generating no interpretant, then since that failed sign is supposed to act as the interpretant of the previous sign and function as a further sign in its own right, it has also failed to be an interpretant. The consequence of this is that the previous sign has failed to generate a proper interpretant and so failed to be a sign. The consequence of this is that…and so on. The alternative is not to countenance terminating signs. And obviously, if we cannot end the semiotic process then signs continue generating signs ad infinitum. Peirce was both aware and untroubled by infinite semiosis. In part, this is due to the anti-Cartesian project carried out in Peirce's work in the 1860s. A significant part of this project for Peirce is the denial of intuitions, something that Peirce took as a key assumption of Cartesian philosophical method. Given that Peirce defines "intuition" as "a cognition not determined by a previous cognition of the same object" (W2. 193), it seems clear that the infinite procession of thought-signs generated by earlier thought-signs and in turn generating further thought-signs is part and parcel of the denial of intuitions. However, in later developments to his sign theory, despite never explicitly relinquishing infinite semiosis, many of the concepts that lead to it are replaced or revised, and the concept becomes less prominent in Peirce's work. (See Atkin 2015, 132–135) for more on the anti-Cartesian motivation of Peirce's early account of signs). 3. The Interim Account: 1903 In 1903, Peirce gave a series of lectures at Harvard, and at The Lowell Institute. Part of these lectures was an account of signs. However, the 1903 account of signs showed considerable developments to the early account of the 1860s. First, where the early account suggested three classes of sign, the 1903 account suggests ten classes of sign. Second, where the account the 1860s treats the general sign, or symbol, as the main focus of sign theory, the 1903 account counts many more sign types as within the focus of philosophy and logic. Third, Peirce dropped the claim that an infinite chain of signs precedes any given sign (see Short 2004, 221–2). These changes seem to be partly a consequence of developments in symbolic logic made by Peirce and his Johns Hopkins student, Oscar Mitchell, in the early 1880s. As is well known, during this time, and independently of Frege, Peirce and Mitchell developed quantification theory (see Peirce 1883, and W5. 162–191). An essential part of this development was the inclusion of singular propositions and individual variables for objects that cannot be picked out be definite descriptions. Peirce treated these non-general signs as indices, which in turn led him to identify the index as an essential part of logic. This made his earlier account of signs seem underdeveloped. (See, for instance, Short 2004, 219–222; Hookway 2000, 127–131; and Murphey 1961, 299–300). This appears to have led Peirce to take signs other than the symbol more seriously. In particular, it led Peirce to realize that some symbolic signs had distinctly indexical (that is non-general) features. Similarly, symbols with heavily iconic features, especially in mathematics (see Hookway 1985 Ch 6), were more important than he thought. What this meant, of course, was that the account of the 1860s was now woefully inadequate to the task of capturing the range of signs and signification that Peirce thought important for philosophy and logic. A further point worth noting about Peirce's developing sign theory is that by 1903, he had begun to think of his overall philosophy in architectonic terms, and this included a broadening of his view of semiotics (see Atkin 2015, 15–20). Put simply, Peirce thought that all domains of thought were connected and structured hierarchically, and that logic, "in its general sense, is … only another name for semiotic" (CP2.227 1897). Logic, construed as extensive with semiotic, in Peirce's hierarchy contained three domains – Speculative Grammar (which is the study of sign classifications); Critical Logic (which is the study of the form and evaluation of arguments); and Methodeutic (which is the student of scientific inquiry). The discussion of Peirce's sign theory here is placed firmly in the domain of speculative grammar, however, in the later developments of his work, Peirce began to think of these three areas of "logic" as involving semiotics. (See Bellucci 2017 for a discussion of speculative grammar and its development in Peirce's thought). Peirce's 1903 account of signs, then, is notable for its broader scope, relative neatness, and completeness. In it Peirce returns to the basic sign structure we gave above and by paying close attention to those elements of signs and the various interactions between them gives what seems to be an extensive account of signification, and an exhaustive typology of signs far beyond the range of his early account of the 1860s. To understand Peirce's 1903 account, we must return to the three elements of signification, namely, the sign-vehicle, the object, and the interpretant and see how Peirce thinks their function in signification leads to an exhaustive classification of sign types. 3.1 Sign-Vehicles Recall that Peirce thought signs signify their objects not through all their features, but in virtue of some particular feature. By 1903, for reasons related to his work on phenomenology, Peirce thought the central features of sign-vehicles could be divided into three broad areas, and consequently, that signs could be classified accordingly. This division depends upon whether sign-vehicles signify in virtue of qualities, existential facts, or conventions and laws. Further, signs with these sign-veh

a verb or a noun?”, or even “are you talking to me?” and developing a series of dynamic interpretants that get us closer and closer to the final interpretant. Just as the dynamic interpretant has clear connections with other elements of Peirce’s semiotic, so too does the final interpretant. As should be clear, from the connections that emerge from the notion of inquiry, the final interpretant interacts strongly with the dynamic object. The final interpretant, then, is important to our understanding of the dynamic object in a couple of ways. First, it is the point where our grasp of the dynamic object would be complete and, according to Ransdell (1977, 169–170), is where the immediate object and the dynamic object coincide. This represents the full assimilation or integration of the dynamic object into our system of signs. Second, the final interpretant functions as an exemplar or normative standard by which we can judge our actual interpretative responses to the sign. As David Savan puts it, “Peirce’s intention was to identify the third type of interpretant as providing a norm or standard by which particular stages (Dynamical Interpretants) of an historical process may be judged.” (Savan 1988, 62). From the point of view of Peirce scholars, an interesting element of this division of objects and interpretants is how it might be used to inform accounts of meaning raised in analytic philosophy of language. Risto Hilpinen (2019), for instance, argues that we can see clear parallels between Peirce’s immediate object and Frege’s notion of “sense”. Atkin (2008a) suggests a range of connections between Peirce’s later division of objects and interpretants and analytic accounts of meaning and reference, and even identifies a historical connection between Peirce’s accounts of signs and recent work on meaning by John Perry (Atkin 2008b). (For other related work on Peirce’s sign theories as accounts of reference and meaning see Bellucci 2021, Agler 2010, and Hilpinen 2015). 4.3 Issues with the Final Account This identification of the six elements of a sign is the clearest and least controversial part of Peirce’s final sign theories. Most of what we know about Peirce’s final account is gleaned from letters, partially worked out manuscripts and other miscellaneous items. Consequently, there is much to the final account that is still unclear, unsatisfactory, incomplete, and controversial. In this final section, we shall look at two of the most interesting issues surrounding the final account: Peirce’s projected Final Classification of sixty-six signs; and what appears to be his identification of additional interpretants. 4.3.1 The Final Classification Just as the Early and Interim Accounts include a corresponding classification of sign types, Peirce’s final account holds similar typological ambitions. Peirce states explicitly that there are sixty-six classes of sign in his final typology. (See EP2. 481). Strictly speaking, the six elements that we have detailed yield only twenty eight sign types, but we are interested in Peirce’s very final typology. He believes that we can obtain these sixty-six classes, rather in the manner of the 1903 typology, by identifying ten elements of signs and signification, each of which has three qualifying classes, and then working out their permissible combinations. These ten elements include the six sign elements identified above, plus four other elements that focus on the relation between signs, objects and interpretants. The ten elements and their respective sign types, taken from Peirce’s 1908 letters to Lady Welby (EP2 483–491), then, are as follows: In respect of the Sign itself (what we have been calling the Sign-Vehicle), a sign may be either a (i) Potisign (ii) Actisign or (iii) a Famisign. (By the time of the final accounts, Peirce was experimenting with terminology so these types are perhaps more familiar as Qualisigns, Sinsigns and Legisigns). In respect of the Immediate Object, a sign may be either i) Descriptive (ii) Designative or (iii) a Copulant. In respect of the Dynamic Object, a sign may be either (i) Abstractive (ii) Concretive or (iii) Collective. In respect of relation between the Sign and the Dynamic Object, a sign may be either, (i) an Icon (ii) an Index or (iii) a Symbol. In respect of the Immediate Interpretant, a sign may be either (i) Ejaculative, (ii) Imperative or (iii) Significative. In respect of the Dynamic Interpretant, a sign may be either (i) Sympathetic (ii) Shocking or (iii) Usual. In respect of the relationship between the Sign and Dynamic Interpretant, a sign may be either (i) Suggestive (ii) Imperative or (iii) Indicative. In respect of the Final Interpretant, a sign may be either, (i) Gratiffic (ii) Action Producing or iii) Self-Control Producing. In respect of the relation between the Sign and the Final Interpretant, a sign may be either a (i) Seme (ii) Pheme or (iii) a Delome. In respect of the relation between the Sign, Dynamic Object and Final Interpretant, a sign may be either (i) an Assurance of Instinct (ii) an Assurance of Experience or (iii) an Assurance of Form. The reason that Peirce believes these ten elements will yield sixty-six classes is clear enough, the same combinatorial considerations given for the interim typology (outlined above in 3.4) apply here. However, the precise manner and order in which these elements interact will determine what the sixty-six classes of signs will look like in the final typology. Unfortunately, these ten divisions and their classes represent a baffling array of under-explained terminology, and there is little to indicate precisely how we should set about the task of combining them. Even though we may be confident on the number of signs in the final typology, other details are sketchy and underdeveloped, and there still exists no fully satisfactory account of the sixty-six classes. As Nathan Houser points out, “a sound and detailed extension of Peirce’s analysis of signs to his full set of ten divisions and sixty-six classes is perhaps the most pressing problem for Peircian semiotics”. (Houser 1992, 502). There is, of course, good work on the final typology (see (Burks and Weiss 1949), (Sanders 1970), (Savan 1988), (Jappy 1989), (Jappy 2017), (Short 2007), (Muller 1994), and (Farias and Queiroz 2003) for the best of this work), but ultimately, it is not clear that any account will overcome the problems posed by the incomplete and cursory nature of the final account. Indeed, it is not clear that Peirce himself was fully at ease with his final typology and how its elements should hang together. As he himself said: The ten divisions appear to me to be all Trichotomies; but it is possible that none of them are properly so. Of these ten Trichotomies, I have a clear apprehension of some, an unsatisfactory and doubtful notion of others, and a tolerable but not thoroughly tried conception of others. (EP2. 483) Despite Peirce’s own admission of doubts here, there is an ongoing concern among Peirce scholars to determine the importance of the later account and typology. Amongst the more positive positions in this debate, we see arguments that Peirce’s later typology is crucial to a full understanding and application of semiotics (see Quieroz 2012), or claims that it whilst underdeveloped, it holds promise and deserves serious effort and attention (see Houser 1992 and Jappy 2017). More pessimistic Peirce scholars hold that the typology is either incoherent (see Short 2007), or that as an increasingly narrow classificatory project, it runs counter to the more emergent and systemic properties of Peirce’s semiotics (see Lizska 2019). 4.3.2 Additional Interpretants As is common with all of Peirce’s work in philosophy, various changes in terminology and subtleties with accompanying neologisms occur from one piece of work to the next. His work on interpretants is no different. At various points in his final accounts of signs, Peirce describes the division of interpretants as being: immediate, dynamic and final; or as emotional, energetic, and logical; or as naïve, rogate and normal; or as intentional, effective and communicational; or even destinate, effective and explicit. As Liszka (1990, 20) notes, “the received view in Peirce scholarship suggests that the divisions of interpretant into immediate, dynamic, and final are archetypal, all other divisions being relatively synonymous with these categories.” There are, however, some dissenters from this view. In discussing the interpretant, Peirce describes one of the trichotomies above as follows: In all cases [the Interpretant] includes feelings; for there must, at least, be a sense of comprehending the meaning of the sign. If it includes more than mere feeling, it must evoke some kind of effort. It may include something besides, which, for the present, may be vaguely called “thought”. I term these three kinds of interpretant the “emotional”, the “energetic”, and the “logical” interpretants. (EP2. 409) For some scholars, this describes a division distinct from the immediate/dynamic/final trichotomy. Fitzgerald (1966, 78) claims that since emotional, energetic and logical interpretants are actual effects, they must be seen as three sub-types of the dynamic interpretant. This is because dynamic interpretants are described by Peirce as the effect actually produced on the mind. Short (1981, 1996, and 2004) thinks that each of the immediate, dynamic and final interpretants may be further sub-divided into emotional, energetic and logical. In particular, Short thinks that the immediate/dynamic/final trichotomy describes the interpretant at some stage of an end-directed semiotic process, whereas the emotional/energetic/logical trichotomy describes the types of interpretant possible at any given stage. There are simple textual reasons that count against Fitzgerald’s claims. For instance, Peirce describes the dynamic interpretant as deriving its character from action (CP8 .315 1904), but later says, “action cannot be a logical interpretant” (CP5 .491 1906). This seems to make the two inconsistent. (See Liszka (1990, 21) for more on the problems with Fitzgerald’s claim). Moreover, this inconsistency seems to suggest a problem for Short’s view since his account also suggests that the dynamic interpretant should include the logical interpretant as a subdivision (Short 1981, 213). Short, however, claims textual support for his own view from instances where Peirce mentions the emotional/energetic/logical trichotomy alongside the apparently separate claim that signs have three interpretants. (Short sites (CP8 .333 1904) and (CP4 .536 1906). Short takes this as suggesting that the two should be treated as different and distinct trichotomies. (Short 2004, 235). How far the textual evidence on the matter will prove decisive is unclear, especially given the fragmentary nature of Peirce’s final work on signs. However, one or two things militate in favor of the “received view”. First, Peirce is notorious for experimenting with terminology, especially when trying to pin down his own ideas, or describe the same phenomenon from different angles. Second, it is unclear why trichotomies like the intentional/effectual/communicational should count as terminological experiments whilst the emotional/energetic/logical counts as a distinct division. And finally, there is little provision in Peirce’s projected sixty-six classes of signs for the kind of additional classifications imposed by further subdivisions of the interpretant. (For more on this discussion see, Liszka 1990 and 1996; Fitzgerald 1966; Lalor 1997; Short 1981, 1996, and 2004). Signs can take many forms. They can be words, numbers, sounds, photographs, paintings and road signs among and more. However, while signs can be many things, they can be categorized as one of a few types. The last few weeks, I’ve been talking about icons. I talked about them in general and then specifically about the hamburger icon. Last week I began a look at semiotics and this week I’d like to continue that look. Charles Sanders Peirce, one of the founders of semiotics, categorized signs as being one of three types. More recently professor Yvonne Rogers came up with four categories for iconic representation and they fit nicely with Peirce’s three types. I’ll walk through both sets of categorization in this post. A Quick Reminder About Signs In case you didn’t read last week’s post, let me offer a quick reminder about how semiotics defines a sign. A sign is anything that creates meaning. It’s anything that can be used to represent something else. Ferdinand de Saussure, the other founder of semiotics saw signs as the basic unit of meaning and he defined two parts of signs. Signifier — The form of a sign. The form might be a sound, a word, a photograph, a facial expression, a painting of a pipe, etc. Signified — The concept or object that’s represented. The concept or object might be an actual pipe, the command to stop, a warning of radioactivity. Peirce added a third part, the interpretant or what the audience makes of the sign or the sense of what’s actually communicated. If you’d like more details, I’ll refer you again to last week’s post. Everything that follows here applies to the signifier or the form of a sign. 3 Types of Signifiers — The Categories of Signs Peirce said the form a sign takes, it’s signifier, can be classified as one of three types an icon, an index, or a symbol. An Icon has a physical resemblance to the signified, the thing being represented. A photograph is a good example as it certainly resembles whatever it depicts. An Index shows evidence of what’s being represented. A good example is using an image of smoke to indicate fire. A Symbol has no resemblance between the signifier and the signified. The connection between them must be culturally learned. Numbers and alphabets are good examples. There’s nothing inherent in the number 9 to indicate what it represents. It must be culturally learned. I know the first time I saw definitions for each type of signifier I was more than a little confused so let’s look at each in a little more detail. Signifier as Icon Clear your head of what you know about icons for a moment. The icons we use in digital interfaces are all signs and not specifically icons as defined by semiotics. Icons as discussed here are one possible type of form a sign might take. An icon is meant as a direct imitation of the object or concept. Icons bear a physical resemblance to what’s being represented. A photograph is an example of an icon signifier. Take a picture of a tree and the resulting image will look like that tree. With icons there’s a real connection between the signifier and the signified. Magritte’s painting of a pipe, which I talked about last week, may not be an actual pipe, but it certainly looks like one and anyone viewing the painting will understand that what they see represents a pipe. When user interfaces were first being created, most of the signs were imitations of real objects. Think documents, folders, and printers. This is possibly why we refer to all signs in user interfaces as icons, but the original signifiers used were icons in that they resembled what they represented. Signifier as Index An index describes the connection between signifier and signified. With an index, the signifier can not exist without the presence of the signified. For example smoke is an index of fire. Dark clouds are an index of rain. A footprint is an index of a foot. In each case the presence of the former implies the latter exists. An index is a sign that shows evidence of the concept or object being represented. An index doesn’t resemble the object or concept being represented. Instead it resembles something that implies the object or concept. I’m sure you’re familiar with WYSIWYG editors. Controls for things like aligning text to the left or using a paint bucket image to paint color are examples of index signs as they use imagery to represent the result of using the tool. One thing to be careful with indexes is to make sure that the correlation between the signifier and signified is understood by whoever sees the sign. I think it’s safe to assume that people know smoke indicates fire, but I doubt most people would know that a thrown baseball that appears to have a red dot on it is an indication that the pitcher threw a slider. However, a major league hitter or a baseball fanatic like myself understands the rotation of the pitch combined with the red stitching on the ball leads to the batter seeing the dot. It’s a reminder that the interpretant is an important part of a sign. Two people seeing a baseball with a red dot could come away with two different interpretations of what’s being communicated. Another point to keep in mind is that the correlation between signifier and signified in an index can be known innately or learned. A smile is an index of being happy and it’s something I’d say we all know innately. On the other hand a red stop light is an index for stop, but it’s something that we all needed to learn. Signifier as Symbol Symbols are at the opposite end from icons. The connection between signifier and signified in symbols is completely arbitrary and must be culturally learned. The letters of an alphabet are a good example of symbols. The shape of each letter and the sound it represents bear no physical connection to each other. There’s no logical connection between a symbol and what it represents. The connection must be learned and it usually becomes associated with the concept it represents over time. Again language and numbers are symbols. Traffic lights are symbols. Flags are symbols. What’s being communicated, must be learned. Conventions and standards help make the connection between symbols and what they represent. An example might one day be the hamburger icon. There’s nothing about three lines that automatically suggests menu, but if designers consistently use the hamburger icon, the connection will eventually be learned. An icon or index can also become a symbol over time through repetition. For example the floppy disk is still used to represent saving a digital file, even though no one uses floppy disks anymore and I’m sure plenty of people have probably never even seen one. 4 Types of Iconic Representation One of my first stops to research the subject of iconography was my bookshelf. I picked up a few design books and found two of them (Universal Principles of Design and Visual Language for Designers) included pages about four types of iconic representation. The information originally comes from Yvonne Rogers, the director of the Interaction Centre at University College London and a professor of Interaction Design. A warning that the choice of names conflicts with the three types of signifiers as defined by Peirce. Resemblance icons are direct likenesses of the objects they represent. (camera icon for a smartphone camera app) Exemplar icons depict a common example of the class of objects they represent. (trowel or rake to represent gardening) Symbolic icons convey a concept at a higher level of abstraction than the object depicted. (cracked wineglass to indicate something is fragile) Arbitrary icons have no relationship to an object or concept and their association must be learned. (computer on/off power button) If you compare these to Peirce’s three types of signifiers, you might notice that resemblance icons are Peirce’s icons as they resemble what they represent. Arbitrary icons are Peirce’s symbols as the connection between signifier and signified is arbitrary. Both exemplar and symbolic icons as defined by Professor Rogers are Peirce’s indexes. Rogers essentially widened the definition of an index and divided them into two distinct types based on the level of abstraction. In either case the signifier isn’t arbitrary even if it doesn’t directly resemble what’s being signified. Resemblance icons work best when the representation is simple and direct. They’re most effective when communicating simple actions, objects, and concepts, however they’re less effective as the complexity increases. For example showing a curved line to indicate the road curves ahead, works well, but something more is needed if the idea is to communicate that the driver should slow down. Exemplar icons work well to show examples of the signified. They show examples that are commonly associated with an action, object, or concept. Any road sign showing an airplane to indicate an airport is a good example. They’re effective when what’s being represented is more complex than what a resemblance icon can easily communicate. Symbolic icons are similar to exemplar icons, but they’re more effective at a higher level of abstraction. A padlock to represent a secure URL is a good example, because we associate locks with security. Symbolic icons are best used when the actions, objects, or concepts being represented are well-established. For example a camera is also often associated with security, though the imagery isn’t as quite as associated with security as a padlock, which is only used for security. Arbitrary icons are like Peirce’s symbols as there’s no logical connection between signifier and signified. They’re best reserved for when people will have the time to learn the connection between signifier and signified or when the representation has become a standard or convention. There’s no reason why blue underlined text should be a link, but it’s become the standard online and so when we see blue underlined text we now think the text is a link. Again I wish the names were a little different, since it will be easy to confuse Rogers symbolic icons with Peirce’s symbolic signifiers, but hopefully calling it out a few times here will alleviate some potential confusion. Closing Thoughts It’s easy to think all signs are the same thing and communicate in the same way by presenting one thing that represents another, but there are different types of signs that communicate in different ways. Signs can communicate by resembling what they represent, by implying what they represent, or through arbitrary representations that must be learned before we can understand their meaning. Hopefully after reading this post you have a better idea when to use one type of signifier over another. Next week I’ll continue this look into semiotics. I want to talk more about the meaning of signs, particularly what a sign literally denotes and what secondary meanings it connotes. « Prev PostNext Post » Download a free sample from my book, Design Fundamentals. In the vast world of Media and Communications, there is a powerful tool that helps us decode and understand the meanings behind the messages we encounter every day. This tool is called semiotics. Semiotics allows us to analyse the signs and symbols that surround us. It allows for the revealing of the hidden meanings that lie beneath the surface. In this article, we embark on a journey to explore the fascinating world of semiotics, its key concepts, and its significance in understanding Media and Communications. Semiotics is the study of signs and symbols and how they communicate meaning. Signs can be anything that conveys a message, including words, images, sounds, gestures, and even objects. By understanding semiotics, we can uncover the intricate ways in which these signs shape our understanding of the world. Semiotics has a rich history that traces back to ancient civilisations. The roots of semiotics can be found in the works of Greek philosopher Plato and his concept of “ideas” or “forms.” Plato believed that the physical world is a mere reflection of ideal forms, which can be interpreted as the foundation of semiotic thinking. However, the modern development of semiotics can be attributed to the Swiss linguist Ferdinand de Saussure. In the early 20th century, Saussure introduced the concept of “semiology,” which later became known as semiotics. Saussure’s influential work emphasised the importance of language in understanding signs and their meanings. He argued that signs derive their significance from their relationship with other signs within a system of language. Following Saussure, the American philosopher Charles Sanders Peirce made significant contributions to semiotics. Peirce expanded the field by introducing the concept of “semiosis,” which refers to the process of interpreting signs. He proposed a triadic model of signs, highlighting the interplay between the sign, the object it represents, and the interpretant (the understanding of the sign). Another influential scholar in the field of semiotics, Roland Barthes. Barthes expanded the application of semiotics beyond language to include cultural myths. He believed that myths are not simply ancient stories but are also present in contemporary society. He posited that they are embedded in everyday objects and practices. According to Barthes, myths are powerful systems of meanings that shape our understanding of the world and reinforce dominant ideologies. By analysing myths, Barthes aimed to expose the hidden ideologies and social values that they perpetuate. For instance, he famously examined the myth of the “French wine” in his book “Mythologies”. Barthes reveals how this seemingly innocent cultural symbol was then used to construct a sense of national identity and superiority. Barthes’ exploration of myths through semiotics highlights the profound influence of signs and symbols in shaping beliefs and perpetuating societal norms. Over time semiotics has evolved and branched out into various disciplines, including literature, visual arts, anthropology, and media studies. Scholars and researchers continue to build upon the foundations laid by Saussure, Peirce and Barthes. Thus, it expands our understanding of signs, symbols, and myths, and their role in communication. The origins of semiotics showcase its interdisciplinary nature, drawing inspiration from philosophy, linguistics, and cultural studies. It demonstrates the enduring significance of semiotics in unravelling the complexities of human communication. As well as the interpretation of signs and symbols. In semiotics, a sign consists of two parts: the signifier and the signified. Signifier: This is the physical form of the sign, such as a word or an image. Signified: This is the concept or meaning associated with the signifier. For example, the word “tree” is the signifier, and the mental image or concept of a tree is the signified. Semiotics categorises signs into three types: iconic, indexical, and symbolic. Iconic Signs: Iconic signs have a resemblance or similarity to what they represent. For example, a picture of a heart represents love or affection because it resembles the shape of a heart. Icons rely on visual similarity to convey meaning. Indexical Signs: Indexical signs establish a cause-and-effect relationship between the sign and what it represents. Smoke is an indexical sign of fire because the presence of smoke suggests the presence of fire. Indexical signs rely on a logical or physical connection. Symbolic Signs: Symbolic signs are based on agreed-upon conventions and cultural meanings. Words, for instance, are symbolic signs that represent ideas or objects. Symbols are learned and can vary across cultures, making them more complex to interpret. Using these three types can allow for a Semiotic analysis. This involves breaking down a sign or a set of signs to understand its meaning. Thus, we can find out how it functions within a specific context. Furthermore, It helps us uncover the intended and unintended messages embedded in media and communication. Semiotics is highly relevant in the field of media and communication. It allows us to understand how signs and symbols are strategically used to influence our thoughts, beliefs, and behaviors. Advertising In advertising, semiotics plays a crucial role. Advertisements utilise signs and symbols to create persuasive messages that resonate with consumers. By analysing the signs used in advertisements, we can uncover the hidden strategies employed to capture our attention and shape our desires. Film & Television: Semiotics also helps us decipher the messages embedded in films and television shows. Through the use of symbols, colors, camera angles, and sound, filmmakers create meaning and evoke emotions within their audience. By studying these elements, we can better understand the intended messages and the ways in which they shape our interpretations. Social Media & Internet: In the digital age, social media platforms and the internet are abundant sources of signs and symbols. Semiotics aids in understanding how images, hashtags, emojis, and memes communicate ideas, opinions, and cultural norms. While semiotics provides valuable insights into the study of signs and symbols, it is not without its limitations. Some critics argue that semiotics tends to overlook the social and cultural contexts in which signs are created and interpreted. Additionally, interpretations can vary among individuals, leading to subjective analyses. Semiotics serves as a powerful tool in the realm of media and communications. Thus, it enables us to unravel the complex language of signs and symbols that surround us. By understanding the principles of semiotics, we can critically analyse media messages. We do this by decoding hidden meanings, and becoming more informed consumers and communicators. Therefore, semiotics is a never-ending adventure that invites us to explore and interpret the world around us in new and insightful ways. Plato. (360 BC). Phaedrus. Saussure, F. de. (1959). Course in General Linguistics. Philosophical Library. Peirce, C. S. (1998). The Essential Peirce: Selected Philosophical Writings (Vol. 2). Indiana University Press. Barthes, R. (1977). Image-Music-Text. Fontana Press. Barthes, R. (1972). Mythologies. Farrar, Straus and Giroux. Chandler, D. (2017). Semiotics: The Basics. Routledge. Fiske, J. (1982). Introduction to Communication Studies. Routledge. Williamson, J. (1978). Decoding Advertisements: Ideology and Meaning in Advertising. Marion Boyars Publishers. Signs can take many forms. They can be words, numbers, sounds, photographs, paintings and road signs among and more. However, while signs can be many things, they can be categorized as one of a few types. The last few weeks, I’ve been talking about icons. I talked about them in general and then specifically about the hamburger icon. Last week I began a look at semiotics and this week I’d like to continue that look. Charles Sanders Peirce, one of the founders of semiotics, categorized signs as being one of three types. More recently professor Yvonne Rogers came up with four categories for iconic representation and they fit nicely with Peirce’s three types. I’ll walk through both sets of categorization in this post. A Quick Reminder About Signs In case you didn’t read last week’s post, let me offer a quick reminder about how semiotics defines a sign. A sign is anything that creates meaning. It’s anything that can be used to represent something else. Ferdinand de Saussure, the other founder of semiotics saw signs as the basic unit of meaning and he defined two parts of signs. Signifier — The form of a sign. The form might be a sound, a word, a photograph, a facial expression, a painting of a pipe, etc. Signified — The concept or object that’s represented. The concept or object might be an actual pipe, the command to stop, a warning of radioactivity. Peirce added a third part, the interpretant or what the audience makes of the sign or the sense of what’s actually communicated. If you’d like more details, I’ll refer you again to last week’s post. Everything that follows here applies to the signifier or the form of a sign. 3 Types of Signifiers — The Categories of Signs Peirce said the form a sign takes, it’s signifier, can be classified as one of three types an icon, an index, or a symbol. An Icon has a physical resemblance to the signified, the thing being represented. A photograph is a good example as it certainly resembles whatever it depicts. An Index shows evidence of what’s being represented. A good example is using an image of smoke to indicate fire. A Symbol has no resemblance between the signifier and the signified. The connection between them must be culturally learned. Numbers and alphabets are good examples. There’s nothing inherent in the number 9 to indicate what it represents. It must be culturally learned. I know the first time I saw definitions for each type of signifier I was more than a little confused so let’s look at each in a little more detail. Signifier as Icon Clear your head of what you know about icons for a moment. The icons we use in digital interfaces are all signs and not specifically icons as defined by semiotics. Icons as discussed here are one possible type of form a sign might take. An icon is meant as a direct imitation of the object or concept. Icons bear a physical resemblance to what’s being represented. A photograph is an example of an icon signifier. Take a picture of a tree and the resulting image will look like that tree. With icons there’s a real connection between the signifier and the signified. Magritte’s painting of a pipe, which I talked about last week, may not be an actual pipe, but it certainly looks like one and anyone viewing the painting will understand that what they see represents a pipe. When user interfaces were first being created, most of the signs were imitations of real objects. Think documents, folders, and printers. This is possibly why we refer to all signs in user interfaces as icons, but the original signifiers used were icons in that they resembled what they represented. Signifier as Index An index describes the connection between signifier and signified. With an index, the signifier can not exist without the presence of the signified. For example smoke is an index of fire. Dark clouds are an index of rain. A footprint is an index of a foot. In each case the presence of the former implies the latter exists. An index is a sign that shows evidence of the concept or object being represented. An index doesn’t resemble the object or concept being represented. Instead it resembles something that implies the object or concept. I’m sure you’re familiar with WYSIWYG editors. Controls for things like aligning text to the left or using a paint bucket image to paint color are examples of index signs as they use imagery to represent the result of using the tool. One thing to be careful with indexes is to make sure that the correlation between the signifier and signified is understood by whoever sees the sign. I think it’s safe to assume that people know smoke indicates fire, but I doubt most people would know that a thrown baseball that appears to have a red dot on it is an indication that the pitcher threw a slider. However, a major league hitter or a baseball fanatic like myself understands the rotation of the pitch combined with the red stitching on the ball leads to the batter seeing the dot. It’s a reminder that the interpretant is an important part of a sign. Two people seeing a baseball with a red dot could come away with two different interpretations of what’s being communicated. Another point to keep in mind is that the correlation between signifier and signified in an index can be known innately or learned. A smile is an index of being happy and it’s something I’d say we all know innately. On the other hand a red stop light is an index for stop, but it’s something that we all needed to learn. Signifier as Symbol Symbols are at the opposite end from icons. The connection between signifier and signified in symbols is completely arbitrary and must be culturally learned. The letters of an alphabet are a good example of symbols. The shape of each letter and the sound it represents bear no physical connection to each other. There’s no logical connection between a symbol and what it represents. The connection must be learned and it usually becomes associated with the concept it represents over time. Again language and numbers are symbols. Traffic lights are symbols. Flags are symbols. What’s being communicated, must be learned. Conventions and standards help make the connection between symbols and what they represent. An example might one day be the hamburger icon. There’s nothing about three lines that automatically suggests menu, but if designers consistently use the hamburger icon, the connection will eventually be learned. An icon or index can also become a symbol over time through repetition. For example the floppy disk is still used to represent saving a digital file, even though no one uses floppy disks anymore and I’m sure plenty of people have probably never even seen one. 4 Types of Iconic Representation One of my first stops to research the subject of iconography was my bookshelf. I picked up a few design books and found two of them (Universal Principles of Design and Visual Language for Designers) included pages about four types of iconic representation. The information originally comes from Yvonne Rogers, the director of the Interaction Centre at University College London and a professor of Interaction Design. A warning that the choice of names conflicts with the three types of signifiers as defined by Peirce. Resemblance icons are direct likenesses of the objects they represent. (camera icon for a smartphone camera app) Exemplar icons depict a common example of the class of objects they represent. (trowel or rake to represent gardening) Symbolic icons convey a concept at a higher level of abstraction than the object depicted. (cracked wineglass to indicate something is fragile) Arbitrary icons have no relationship to an object or concept and their association must be learned. (computer on/off power button) If you compare these to Peirce’s three types of signifiers, you might notice that resemblance icons are Peirce’s icons as they resemble what they represent. Arbitrary icons are Peirce’s symbols as the connection between signifier and signified is arbitrary. Both exemplar and symbolic icons as defined by Professor Rogers are Peirce’s indexes. Rogers essentially widened the definition of an index and divided them into two distinct types based on the level of abstraction. In either case the signifier isn’t arbitrary even if it doesn’t directly resemble what’s being signified. Resemblance icons work best when the representation is simple and direct. They’re most effective when communicating simple actions, objects, and concepts, however they’re less effective as the complexity increases. For example showing a curved line to indicate the road curves ahead, works well, but something more is needed if the idea is to communicate that the driver should slow down. Exemplar icons work well to show examples of the signified. They show examples that are commonly associated with an action, object, or concept. Any road sign showing an airplane to indicate an airport is a good example. They’re effective when what’s being represented is more complex than what a resemblance icon can easily communicate. Symbolic icons are similar to exemplar icons, but they’re more effective at a higher level of abstraction. A padlock to represent a secure URL is a good example, because we associate locks with security. Symbolic icons are best used when the actions, objects, or concepts being represented are well-established. For example a camera is also often associated with security, though the imagery isn’t as quite as associated with security as a padlock, which is only used for security. Arbitrary icons are like Peirce’s symbols as there’s no logical connection between signifier and signified. They’re best reserved for when people will have the time to learn the connection between signifier and signified or when the representation has become a standard or convention. There’s no reason why blue underlined text should be a link, but it’s become the standard online and so when we see blue underlined text we now think the text is a link. Again I wish the names were a little different, since it will be easy to confuse Rogers symbolic icons with Peirce’s symbolic signifiers, but hopefully calling it out a few times here will alleviate some potential confusion. Closing Thoughts It’s easy to think all signs are the same thing and communicate in the same way by presenting one thing that represents another, but there are different types of signs that communicate in different ways. Signs can communicate by resembling what they represent, by implying what they represent, or through arbitrary representations that must be learned before we can understand their meaning. Hopefully after reading this post you have a better idea when to use one type of signifier over another. Next week I’ll continue this look into semiotics. I want to talk more about the meaning of signs, particularly what a sign literally denotes and what secondary meanings it connotes. « Prev PostNext Post » Download a free sample from my book, Design Fundamentals.