

# Semiotics, semiology and film

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## Abstract

*Semiotics and semiology are quite different paradigms stemming from different origins. This paper demonstrates the differences and develops C.S. Peirce's notions of Phaneroscopy, Firstness, Secondness and Thirdness, explores his notion of Interpretants and applies these to the study of film. Peirce's theory is shown to be much more adaptable than the semiology developed by Metz from de Saussure's linguistic concepts. Whereas Metz's theory of signs can only take account of narrative cinema, the extension of Peirce's theory proposed here is able to account for all types of cinema from narrative to abstract.*

In more than six decades of research since the appearance of the first comprehensive film study, *The Photoplay: A Psychological Study* by Hugo Munsterberg (1916), the dominant problem still confronting film theorists is that of a fragmented approach and apparent inability to relate observed relationships into a unified theory. Technological developments are already superceding what theory has been formulated, which, if it is to continue to be relevant, involves a re-definition of film to incorporate new visual communication technologies such as video images, computer movies and electro-videographic abstractions. During the 1970s film theorists looked to semiology to assist in the construction of a language of film as existing theories were found to be limited in their explanatory capacities. The result was an academic log-jam which continues to confuse semiotics with semiology by assuming that the two paradigms are similar and can be applied without thought to their differing bases of derivation.

## Objectives

This paper will (1) examine the origins of semiology and semiotics and define each in terms of their generic differences; (2) explain the basic principles of C.S. Peirce's notion of semiotics; and (3) extend his concept of the role and function of the scientist to include that of the artist. A second part will compare the application of these two paradigms with respect to the film and demonstrate the greater flexibility and universality of the Peircean system over de Saussure's linguistically based formulation.

The theories of semiotics and semiology deal with the connection between meaning, experience and signification. References to this area of study can be traced to Plato in *Phaedo*, *Symposium* and *Cratylus*. Later mention is found in St Augustine's (354-430AD) *The Teacher*. The late 1800's saw a revised interest in the study of signs heralded by Edmund Husserl (1859-1938), the founder of phenomenology. The term 'semiology', however, was coined by Ferdinand de Saussure (1857-1913) who contributed to the foundation of modern linguistics. In America, pragmatist Charles Sanders Peirce (1839-1913) wrote of a 'semiotic' predicated on non-linguistic postulates. Morris (1938, 1946, 1971), a disciple of Peirce, obfuscated this approach by introducing into his formulation an uncompromising form of Behaviourism. Within this emerging discipline occurred an internal transformation which was stimulated by Roman Jakobson (1960) during the 1920's. He introduced a complex communication model which subsumed the study of signs within its general structure. The posthumous publication of Peirce's work during the 1930's (See Hartshorne and Weiss, 1931 - 1935; Burks, 1931-1935) generated some activity by such eminent scholars as Braithwaite (1934), Quine (1933, 1934-35) and Dewey (1946). The work of de Saussure too, was only published in 1916, three years after his death.

The ideas of Peirce and de Saussure were picked up many years later by Eco (1976, 1977), Barthes (1968, 1973, 1977) and Mukarovsky (1978). The postulates of semiology were also applied to the study of film by Wollen (1969), Metz (1974a, 1974b), Lotman (1976) and Bettetini (1973). These studies generated a new interest in the study of film as a sign system resulting in a world-wide diffusion of the subject. Little attempt, however, has been made to reconcile the two theories. Some discussion has occurred on the differences between Metz and Wollen, but none has been concerned with the wider implications of Peirce's ideas. Despite the initial impetus given by Wollen to the study of a semiotics of the cinema, little progress has occurred within this Peircean paradigm. The reasons may be traced to Peirce's stilted and difficult style, the rather superficial reading by Wollen of Peirce, as well as the immense impact made by Metz in Europe with his semiological notions.

The origins of semiology are well known and we shall reiterate the basic points in order to contextualize the argument.

### **Semiology: The concern with code**

The word 'semiology' is derived from the Greek *semeion* meaning 'sign'. De Saussure argued that this discipline would show what constituted signs and the laws which govern them. Semiology would be part of social psychology and linguistics would fall under semiology.

The construction of a message relies on the use of signs which stand for something else. A basic system of signs is called a code, that is, a system

of signification. Linguistic, para-linguistic and extra-linguistic forms of discourse can be studied by semiology. This discipline is concerned with the explication of codes: it aims to isolate each code, rank the code on a scale of specificity, measure its degree of generality and investigate how it interacts with other codes. In other words, semiology is the aggregate of all the codes and sub-codes which combine to generate signification or meaning in a medium. According to de Saussure a linguistic sign is a binary or dyadic relation between the signifier and what is signified (the referent or meaning). This notion of the sign as a two-fold entity perforce constrains his paradigm to a social rather than a cultural context. Although de Saussure clearly located the study of semiology within the confines of social psychology, according to Eco (1976) de Saussure did not define the signified clearly, leaving it half-way between a mental image and a psychological reality; but he did stress that the signified is something which has to do with the mental activity of the receiver. De Saussure was mainly concerned with the arbitrary nature of the sign: "I mean that it is unmotivated, i.e. arbitrary in that it actually has no connection with the signified" (1959, p. 73). Thus the sign is defined as a communicative device occurring between two human beings intending to express something. It is, therefore, logical that none of the examples of semiological systems offered by de Saussure deviate in any way from strictly conventional systems of arbitrary signs such as polite formulas, military signals, rules of etiquette and visual alphabets. Such a semiology which seeks only for laws and regularities will operate only in a cultural vacuum.

### **Semiotics: The concern with the sign**

Working at more or less the same time, C.S. Peirce provided a much more precise taxonomy of different classes of signs for formally introduced a third element into the dyad. He conceived the sign as a triad — i.e. the relation between the signifier, the signified and also the mind of the interpreter. Peirce postulates that:

A sign stands *for* something to the idea which it produces or modifies . . . for that which it stands for is called its *object*; that which it conveys, its *meaning*; and the idea to which it gives rise, its interpretant (1.399).

Thus a sign can stand for something else to the receiver because the 'standing for' relation is mediated by an interpretant. The sign is an irreducible triadic relative, with the sign determining its interpretant.

### ***Phaneroscopy***

In order to fully understand Peirce's semiotic it is necessary to discuss his notion of *phaneroscopy*, a philosophical pursuit which has hitherto been ignored by film semioticians and semiologists. What has been written, generally by philosophers, is vague, confusing, and very often,

contradictory (See, eg., Burks, 1948-1949; Feibelman, 1940; Dewey, 1946; and Buchler, 1939). The clearest exposition of this concept is offered by Fitzgerald (1966).

Peirce distinguishes the phaneron from the more usual category of the phenomenon, that which is directly perceived by the senses, as follows: ". . . by the *phaneron* I mean the collective total of all that is in any (sic) or in any sense present to the mind quite regardless of whether it corresponds to any real thing or not" (1.284). Phanerons are distinct from phenomena in the following ways: first, they do not need to be verifiable. This means that the phaneron can include fantastical situations, fiction, dreams and misapprehensions. Second, the smallest unit of the phaneron is the totality of what appears at any one time. In a Western film, for example, a phaneron could be a clean shaven man wearing a white hat riding a horse in a blistering hot desert. The white hat is not a phaneron, though it may be a sign (signifying 'good'). The phaneron is rather a collection or bundle of signs. It is a context, a scene or a scenario.

Peirce develops his concept of the phaneron by analysing three pervasive categories to be found within it. All phenomena are classifiable within this triadic set. All three are elements of any one phaneron, although in each case one would outweigh the other two. In what follows, the phaneron of the ballroom scene in Orson Welles' *The Magnificent Ambersons* (1942) is schematically analysed in terms of these categories, viz. firstness, secondness and thirdness.

The most elementary concept that may be extracted from a phaneron is called a *first*. It is the *central idea* of the phaneron and corresponds to Hegel's use of 'essence'. It must be autonomous; that is, it holds its reality without having to be compared to anything else. It is something in itself. In the phaneron of the ballroom scene, the elements of firstness would include self-satisfaction, opulence and respectfulness.

A *second* or secondness implies a *relative autonomy*. The phenomenon exists in a dyadic relation to something else where it is able to retain its identity in the face of others. Peirce argues (see Fitzgerald, 1966, p. 31), "The identity does not result from the opposition, but is manifested in the opposition". In the ballroom scene each character has an element of secondness. Each stands apart from the other and has characteristics which distinguish them from one another.

A *third* or thirdness is a *medium of connection* between a first and a second: It is a mode of relations — a method of combining various elements. Prominent among thirds would be those elements involving representation, generality, continuity and the law. In the ballroom scene, the hero wishes to impress the heroine. His wish to impress is a general idea and therefore a first. He has chosen to impress one particular girl, the heroine, who is thus a second. His way of integrating his 'desire to

impress' with the element of the 'particular girl' is through the social convention of asking her to dance, which is a third.

### *The Second Trichotomy of Signs*

Peirce divides this category into icons, indices and symbols. An *icon* is a sign which represents its object mainly by its similarity to it. Icons are of limited value for they offer no knowledge about actual relationships and are not empirically verifiable. An icon is a first, but implies secondness since the concepts embodied in a first are not possible without previous experience of seconds. There are no pure icons since it would be impossible to conceptualize signs that consist of disembodied qualities. The closest analogue is therefore an idea or a first. The relationship between signifier and signified is not arbitrary (as with de Saussure), but one of likeness.

An *index* is a sign by virtue of an existential bond between itself and an object. A weathercock, for example, is an index of wind direction. An index is a second for it "forces the attention to the particular object intended without describing it" (1.369). Or, more broadly, "Anything which focuses the attention is an index" (2.285).

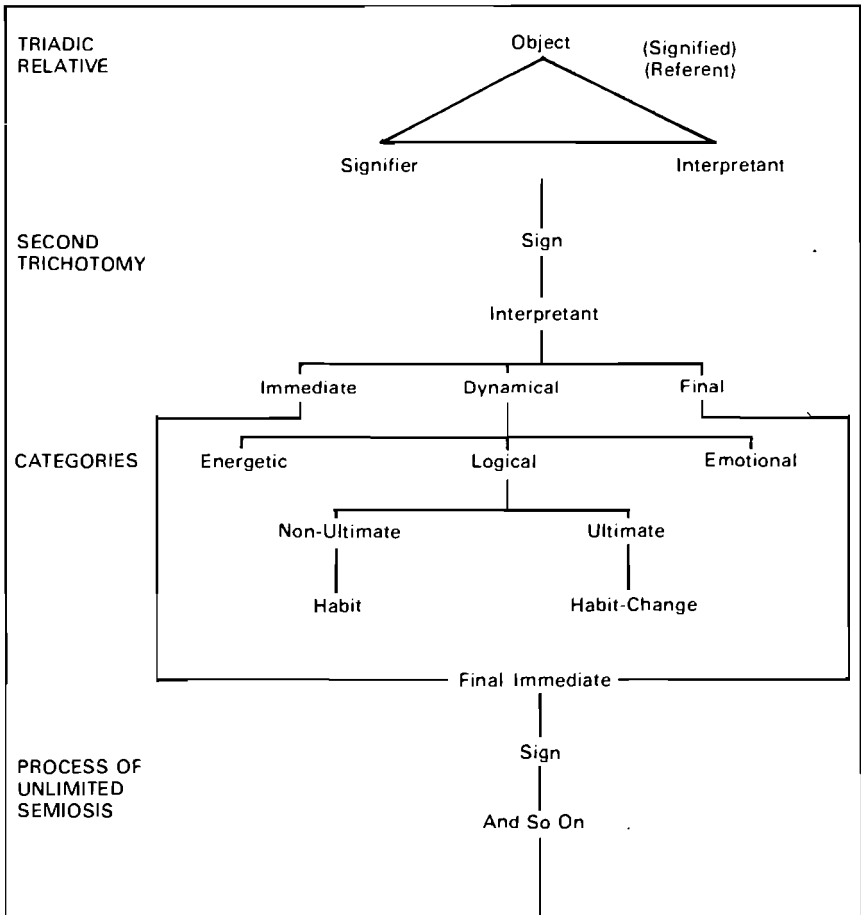
The third category, the *symbol*, requires neither a resemblance to its object, nor an existential bond with it. It is conventional and culture-bound and is related to its object by virtue of a habit of association. The reality of the habit or law exists because individual interpreters will conform to the law. Peirce divides his concept of the symbol into "type" or "symbol" and "token" or "replica". The former is the symbol itself and the latter is a specific instance of the symbol. Thus, for instance, a photograph of a motor car is a symbol or type of a materialistic, industrial, footloose society, whereas an individual copy of that photograph is merely a token or replica. It is this category of sign which corresponds most closely with de Saussure's notion of an arbitrary sign. A generic difference does, however, distinguish between the two categories. For Peirce a symbol is a third, founded upon a triadic relationship. In contrast, de Saussure's notion is analysable only in terms of a dyadic relationship. Peirce further divides his irreducible triads into genuine and degenerate signs. A *genuine* sign is one which requires a cognitive act to complete the triadic relationship. A *degenerate* sign is one whose relationship with the signified or referent is independent of any cognitive act. In Peirce's schema, the same sign can function on different levels. For example, an icon of a weathercock is an image of a weathercock. As an index, the weathercock indicates wind direction regardless of whether it is observed or not. When it is observed and interpreted as indicating wind direction, it is acting as a symbol. Thus, unlike de Saussure's formulation, Peirce's trichotomy may fulfil both an unmotivated and motivated function *at the same time* depending on the interpreter. The key difference between Peirce and de Saussure's respective theories lies, then, in the cognitive role played by the interpreter.

## Outline and Division of Interpretants

The interpretant, it will be remembered, is the idea which the sign originates in the mind of the interpreter. Three kinds of interpretants exist — the immediate, the dynamical, and the final (fig. 1). According to Peirce (see Lieb, 1953), “My Immediate Interpretant is implied in the fact that each sign must have its own peculiar Interpretability before it gets to any Interpreter”. The immediate interpretant is the logical potential or possibility of a sign to be interpreted.

**Figure 1**

### Outline of Interpretants and the Process of Unlimited Semiosis



The *dynamical* interpretant is "the direct effect actually produced by a sign upon an interpreter of it" (4.536). This interpretant is divided according to the different kinds of responses within the interpreter of which Peirce identifies three: the emotional, the energetic and the logical. The *emotional* is the feeling in the interpreter evoked by the sign. It may be one of recognition or may be elevated to a much higher emotional level which is itself "the only proper significate effect that the sign produces" (5.475). The *energetic* interpretant is that which involves an effort which may be either mental or physical. The *logical* interpretant concerns itself with interpretants which are in the category of thirdness and are triadically produced effects of a sign. This accounts for intellectual concepts which may, however, produce a mental sign. At this point Peirce introduces the notion of an *ultimate logical* interpretant which is necessary in order to break the cycle of interpretants producing signs which themselves need interpretants. This is the first time that the necessity of an ultimate interpretant is introduced by Peirce into his argument. Up to this stage he was content to allow for the process of *unlimited semiosis*. This interpretant is thus broken into two: the *non-ultimate logical* interpretant and the ultimate logical interpretant. The ultimate logical interpretant will act as an explanation which must be in terms of something other than what is to be explained. Thus a concept which produces as its interpretant another concept must be ruled out. Peirce argues that the only instance of ultimate logical interpretants, which would need to have a general application, is that of a *habit-change*, meaning: "a modification of a person's tendencies towards action, resulting from previous exertions of his will or acts, or from a complexus of both kinds of causes" (5.476).

The *final* interpretant is "that which would finally be decided to be the true interpretant if consideration of the matter were carried so far that an ultimate opinion were reached" (8.184). Thus Peirce means that the interpretation of the sign would be made by the community of scientists if they understand completely the laws which regulate the effects of the sign.

The immediate interpretant is the concept of the sign itself and as such is an analogue of firstness. The dynamical interpretant is the effect produced on the interpreter, and is therefore mediated through the triadic process. It is the triadic nature of the dynamical interpretant which allows Peirce to equate it with the sign itself. This makes it an analogue of secondness. The final interpretant is that which "would be" if one understood the laws of connection which structure the posited phaneron or sign.

Of the three interpretants, the immediate, the dynamical and the final, only the dynamical is an interpretant in the narrow sense, as Peirce defines the interpretant as the effect that the sign has on the interpreter, and it is only the dynamical which completes this triadic process. The

immediate interpretant is not an interpretant in the narrow sense, as it only establishes the interpretability of a sign. The final interpretant is also only a quasi-interpretant as it is an ideal.

This discussion leads us directly to a discussion of Peirce's notion of "the ultimate opinion". A clue to this can be found when Peirce (8.315) says, "The Dynamical Interpretant approaches the character of the (Final Immediate) Interpretant". That is to say, that as the scientific community develops its knowledge of scientific regulation or scientific laws, the closer they approach the ideal. The closer, too, does the final interpretant approach the immediate interpretability of the sign. When the immediate interpretant coincides with the final interpretant then we have achieved the ultimate opinion.

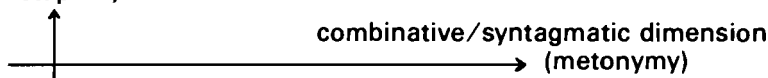
### *Paradigms and Syntagms*

Basic to the organization of any system of signs is the structural relationship between paradigmatic and syntagmatic elements of communication. These can be likened to a set of axes, one vertical and the other horizontal (fig. 2).

### **Figure 2**

#### **Paradigmatic/syntagmatic axis**

selective/associative/paradigmatic dimension  
(metaphor)



A sign enters into *syntagmatic* relations with all other signs which may possibly occur on the same axis but not at the same time — an either/or basis. A syntagm governs the laws of combination of signs and how these laws confer meanings to messages according to agreed rules and conventions. As such, the syntagm is an analogue of thirdness because it is concerned with the methods of combination of single discrete signs into a unified whole. A *paradigm* may be described as a universe of vertical units (words or signs) from which one of the alternatives is selected. The paradigm is an analogue of secondness because it refers to the specificity of a sign which is chosen from amongst the spectrum of alternative signs. Where the two axes intersect, meaning will be deciphered.

### *Art, Science and the Ultimate Opinion*

Peirce's theory of signs is predicated upon what he calls a "community of scientists" who are concerned with an ideal, the ultimate opinion. In keeping with this shift away from a view of science as an organised body of knowledge to a method of approach (see 1.234), the scientists



continually explores beyond the present state of knowledge which, in turn, leads to the formation of new habits. Although Peirce's conception of art is extremely limited (1.43) it can be argued that art delves beyond mere feelings and immediate perceptions: the artist explores and attempts to find rules of structuring. Art exists primarily in the area of thirdness, of connections, of modes of relations. Science, semiotic systems, classificatory methods, artistic styles, legends etc., all represent attempts to gain an insight into the scheme of things. Youngblood (1970, p. 76) summarises the *rapprochement* between the artist and the scientist as follows:

"The new artist, like the new scientist, does not wrest order from chaos. Both realise that supreme order lies in nature and traditionally we have only made chaos out of it. The new artist and the new scientist recognize that chaos is order on another level, and they have set out to find the rules of structuring by which nature has achieved it. That's why the scientist has abandoned absolutes and the film maker has abandoned montage."

For Peirce, this is the meaning of "living science".

### **Film Semiotics or Film Semiology?**

The first part has shown that there is a distinct difference between the Peircean and de Saussurean theories of sign and that care must be taken when intermingling them. This section will examine these differences in relation to film.

The question of meaning in a semiological system has moved, under the guidance of Metz (1974a; 1974b), Bettetini (1973), and Lotman (1976) from what Lotman calls the "semantics" of the film sign to the signs, place and function within de Saussure's thesis that meaning is essentially generated by differences within a system. Fredericksen (1979) concludes that there is little mention of signs *per se* in Metz's work, and that the emphasis is falling rather on higher order concepts such as "message", "code", "text" and "system". Metz has actually attacked the priority of the sign in semiological study:

"The notion of the sign, in effect — even if one submits it to a healthy reduction in scope and if one confines it to the minimal sense which has been specified — has no right to play a more important role in cinematic and filmic semiotics than in other areas of contemporary semiotics and linguistics. Without rejecting the notion of the sign as such, it must be realized that it only represents, today *one* tool of research, and that it no longer enjoys the privileged and central status which it had with Saussure and Peirce; other notions have been shown to be just as important, and sometimes more so, for the concrete progress of analysis: generation or transformation, syntagm and paradigm, system and code, expression/content, form/matter/substance, etc. A system of signification is not only a system of signs; units larger or smaller than the sign play a considerable role in it; the '*level of the sign*' should not be isolated from the others. This is one more reason . . . for not linking the study of the distinctive units of the film to the exclusive search for the cinematic sign" (Metz 1974b, p. 207).

This reduction of the sign by Metz is consequent to his more systemic approach and the need to identify smallest units, or *semes* (or phonemes in linguistics). This need results from Metz's conclusion that film does not have smallest units or minimum entities, that it is rather a medium of expression subject to *ad hoc* rules than a system of communication governed by rigid procedures. Metz (1974a, p. 104) concludes that the laws of a film language call for statements within a narrative, and not monemes within a statement, or still less, phonemes within a moneme. He concludes that a shot is an assertion, a complex statement of undefined length (1974a, pp. 115-116).

The shot is by definition more than one frame, its minimum segment being the syntagma. To remove several frames from a shot would destroy its meaning (Metz 1974a, p. 106). Peirce, in contradistinction, is able to define his smallest unit precisely — it is measured by the phaneron. This corresponds to Metz's description of shot-as-assertion in that it defines the collection of sign that are presents to an interpreter at any given time. Phaneroscopy has a threefold function: first, to describe the features of each of the classes of elements within the phaneron (i.e. firsts, seconds and thirds); second, to show that each class is distinct, although they cannot exist separately, and third to enumerate the principal sub-divisions of classes. The phaneron, however, is not predicated solely upon the syntagmatic properties of the film image. Unlike Metz's sequential approach where the minimum unit or seme is an entire shot and which plays down the contribution of the sign, in Peirce's semiotic the sign is afforded an importance, a function and properties correlative of the intrinsic structure of the phaneron itself. That is, the phaneron subsumes both the sign and the code into its general structure as well as other elements such as the general idea (or first) and discrete sign-meanings (seconds). The phaneron is the smallest entity, the seme. This seme is totally coherent within itself, is not dependent on the syntagmatic axis and can therefore apply to the individual frame or simultaneously across a sequence of frames. The image within the frame can be single or multiple super-impositions. Two points arise from this conclusion: firstly, the phaneron covers anything that appears to mind and accounts not only for verifiable experiences, but as mentioned earlier, dreams, fictions and fantasy. Moreover, it can include representations of extra-objective reality relation-consciousness, etc.: in short, anything that comes to mind. Secondly, the phaneron is the collective total of what is present to the mind at a specific moment. Peirce, however, does not set the limits to the border of the phaneron, its beginning and end in time. One may conclude that he is concerned with that which is present to the mind rather than with the distinct parts of what is present. That which is present is conditional upon the collectivity of signs, their triadic interaction and their relationship to the central idea of the phaneron, the relative autonomies contained within it and their method of connection.

In other words, a symbiotic relationship exists between signs and codes, the one cannot be down-graded at the expense of the other as Metz has suggested for his semiology.

Fredericksen (1979, p. 173) concludes that Metz's privileging of the 'systemic' over the 'semantic' is one reason Jung's symbol (and his sign) occupies no space in contemporary film semiotics. Indeed, the neuro-physiological determinants of the sign have yet to be explored.

At this stage it is necessary to digress slightly and deal with Harman's (1977) attack on both Metz and Wollen. Harman maintains that the Metz/Wollen definition of the code is similar and that any sort of system or structure might be called a code. He accuses Metz and Wollen of cheating because their usage of the term disguises the fact that much of aesthetics and criticism is properly concerned with something other than the significance of signs. The example offered is that of instrumental music which Harman claims is not a language or a system of signs because it does not represent or signify anything. He does acknowledge that an understanding of musical structure plays a role in the appreciation of musical interpretation. His attack, however, lacks an understanding of the process of perception and the role of interpretants in sign recognition. Thus, while the individual signs may not be consciously identified or even known to the recipient, he nevertheless, as an interpreter, automatically produces an interpretant, the idea to which the sign gives rise. This idea may be as vague as a first or as specific as a second. The code in the Peircean construct is governed by his conception of thirds, the mode of relations by which messages can be composed. Film music, for example, is designed to signify moods through a feed-forward linkage where alternatives are worked out in advance of the image. While Metz's schema has no place for the notion of interpretants, his definition of a code is very clear: it is a method of formalization existing as unified fields of communication (Metz, 1974b, pp. 22-23). By ignoring the perceptual process, and how it is accounted for in either paradigm, Harman (1977, p. 23) has incorrectly concluded that ". . . neither Metz nor Wollen has given any reason at all for identifying film theory with semiotics". His further statement that "The theory of signs, in Peirce's sense, contains no laws or general principles; at best it contains a few categories of classification" (p. 42), is a total disregard of the cultural basis of communication, which is determined by the category of thirdness. Harman's argument is reductionistic, for Peirce has basically supplied a means of explanation, a method of analysis and a schemata with great potential for development.

Further semantic issues relating to film semiotics may be found under discussions dealing with Metz's writings on "impressions of reality" and connotation. Metz, by taking into consideration only that Bazinian cinema which permitted the event to be reproduced with a minimum of cinematic mediation, was able to conclude that film was not a language

because it lacked true signs. Metz states: "The image is first and always an image. In its perceptual literalness it reproduces the signified spectacle whose signifier it is; and thus it becomes what it shows, to the extent that it does not have to *signify* it" (Metz, 1974a, pp. 74-75). Bazin equates the language of film with film aesthetics. This approach, followed by Metz, is founded upon the indexical characteristics of the photographic image where the cinema is seen to reveal, not to signify. This theory relies on natural signs in preference to symbolism and styles rather than codes. That is to say, the film image models itself after the patterns of photographic reality and is existentially linked to the object it depicts. A pure cinema would therefore portray a perfect illusion of reality. The belief that film can exist without distinct signifiers is an obviously dyadically derived de Saussurean semiology which excludes the role of the interpreter. Where images exist independently of an interpreting mind they cannot be identified, but as soon as they are perceived by an interpreter, they must become signs. The sign cannot be short-circuited — the signifier and signified are not separate in film.

In contrast to Metz, Peirce rejects the idea of intuitive or perceptual knowledge. There is no direct awareness of things-in-themselves. All knowledge is a product of signs. One sign involves other signs in an infinite regression in which there is no first sign and no initial cognition (Murphey, 1961). By definition then, our perceptual environment is a world of representations. This world is determined by Peirce's triadic relative where the object is something with which the interpreter is already familiar, as Peirce states, "... that with which it (the sign) presupposes an acquaintance in order to convey some further information concerning it" (2.231). This definition allows Peirce to include the phenomena of "natural signs" in his semiotic. In other words, natural events, such as clouds, whose chief object is not communion but which can be "read" as indexical signs fall into the category of "natural". Peirce offers an example of a sunflower:

"Thus, if a sunflower, in turning toward the sun, becomes by that very act fully capable without further condition, of reproducing a sunflower which turns in precisely corresponding ways toward the sun, and of doing so with the same reproductive power, the sunflower could become a Representa-man of the sun. But *thought* is the chief, if not only mode of representation" (2.274).

Perception is the key to interpretation. If the sunflower produces an interpretant in someone's mind which stands for an object (the sun), with which the interpreter is already familiar, then the sunflower is a sign.

The later work of Metz, influenced by Eco's postulate that all images are coded, revised the tenet that "natural" images do not signify. James (1978), commenting on the nature of this revision, points out that three important conclusions follow from Metz's supposition of an analogical

relation between filmic signifiers and their signifieds, together with the assumption that the smallest unit of discourse is the shot. These are, firstly, that film is poor in paradigms; (Metz, 1974a, pp. 69- 70); secondly, it must therefore look to the wealthier syntagmatic axis for the arrangement of shots, what Metz calls the *Grande Syntagmatique*. This basically combinatory orientation constrained Metz to a study of moving images, a syntactical grammar, a language system which could not be extended to a general theory because of its absolutist adherence to narrativity. Penley (1975), for example, has noted that "Metz likes feature-length, fictional, narrative, dramatic films: everything else goes into the set of non-cinema". Thirdly, Metz (1974a, p. 96) acknowledged that "The semiotics of cinema can be conceived of either as a semiotics of connotation or as a semiotics of denotation."

Film is unique in this respect for in any traditional work of art, the world that is represented (the denoted) never constitutes a major part of what the author is communicating. In non-representational art, such as music, it is even missing. When present in literature, its function is merely to introduce the expressed world — the connotative level. In cinema, however, the connotative is linked to the denotative. Metz opted for the latter, arguing that "The properly aesthetic orderings and constraints . . . framing, camera movements, and lighting effects . . . serve as the connoted instance, which is superimposed over the denoted meaning." This orientation effectively excludes the symbolic, the triadic relative, if not the whole second trichotomy. This condition necessarily constrains Metz's analysis to the level of the dynamical object, the degenerate sign. A further implication is that Metz reinforces his emphasis on the reality reproduced, on the signified rather than on the signifier. James (1978, p. 391) concludes that the entire web of Metz's methodology is fundamentally counter to experimental cinema (specifically the montage cinema of Eisenstein) and as Rohdie points out, by its programmatic definition unable to accommodate texts which "move against the dominant codes and refuse any attempt to be absorbed into the dominant textual systems." Metz's paradigm cannot therefore account for the abstract and symbolic images created by electrovideographic artists. Metz thus constrains choice to within the limits set by his system, a reality based semiology. By contrast, Peirce can account for a cinema of relations, synaesthetic rendition of non-object images existing beyond the realm of an ordinary physical solid-object based existential reality. Such films avoid narrativity but are as concerned with the notion of equivalence, the vertical poetic axis of selection which is rich in symbolic and connotated overtones increasingly made more sophisticated by improvements in technology, as they are with the build up of sequence, or the *Grande Syntagmatique*.

In contrast to Metz, Peirce's formulation is able to take the interpreter well beyond mere denotation into the realm of connotation which is simultaneously iconic or motivated, indexical and symbolic. The process

of unlimited semiosis allows the symbolic relation between the signifier and signified to progress *ad infinitum*. These interpretants represent audience response and measure changes in the film-audience-society system. This in turn causes changes of the system (the genre or film structure), its probability level and its semiotic components which are ordered to a content. Metz's construct is unable to account for this process and therefore remains an essentially synchronic as opposed to the more dynamic diachronic Peircean system. Signs, even "natural signs" which have a potential for signification, as in the Peircean scheme, have recourse to the final interpretant and the choices available in a high value equi-probable system. New signs and codes can be produced and new relationships between the signifier and their signifieds can be established. This signified can be of a subjective, interior order of reality. James, referring to the works of the independent film makers of the 1950's and early 1960's concludes:

"Such a cinema, in which the continuity of illusionists narrative was variously aborted in the interests of greater expressive flexibility, and in which the metonymic reproduction of external space was subordinated to the metaphoric investigation of interior space, was hardly accessible to Metz's procedures. Criticism of it was obliged to discover its frame of reference elsewhere" (James, 1978, p. 391).

James goes on to discuss the relevance of structural film analyses and Wollen's Peircean corrective. He does not, however, follow this through and fails to note the importance of the Peircean paradigm and its ability to subsume all of the above mentioned problems under its wing.

Unlike Metz's semiology, Peirce's semiotic is not media specific, and can apply itself across the entire range of visual communications media encompassing both intentional and non-intentional signs. His construct is, therefore, totally universal and far more adaptable than a semiology based on structural linguistics. Moreover, it can account for the idiosyncratic nature of individual perception while simultaneously providing the means of examining universal tendencies of signs and the logical universe for interpreting the meaning of film and other media content.

An example of this process relates to the metaphorical/metonymic distinction. This, of course, has to do with connotation and the workings of the triadic relative. Williams (1976), conceptualizes metaphor and metonymy as follows:

"... out of Jakobson's binary division Metz develops a four-part rhetoricolinguistic classification consisting of metaphors placed in syntagm ('my love, my flame'), metaphors placed in paradigm ('my flame . . . ') metonymies placed in syntagm ('one hundred ships, one hundred sails . . . '), and metonymies placed in paradigm ('one hundred sails')."

The problem is to distinguish between the icon and the metaphor and the index and the metonym. Signs in film are both diagetive (self-

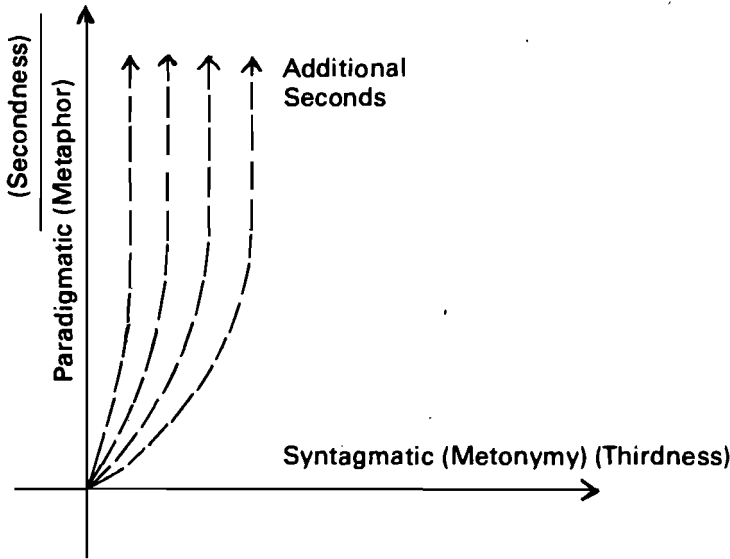
referring) and extra-diagetic (referring to the object). That is, the sign can refer to familiar objects outside the film as well as objects with which the viewer has become familiar within the film. In each case the sign remains iconic, indexical, symbolic or a mixture of all three. But if two symbols are determined to have an iconic relation, such as the energy-wave forms of electrovideographic artists, or if two icons are determined to have a symbolic relation, like the preening peacock and the egocentric Kerensky in Eisenstein's *October*, then the result is a metaphor. Alternatively, if two symbols are designed to have an indexical relation, such as Dracula's shadow warded off by a cross, or two indices have a symbolic relation, such as shots of the barren island in Antonioni's *L'Avventura*, the result is a metonym.

One of the effects of synaesthetic cinema is to break the hold that the medium has over the viewer. By removing the experience from past conditioning or convention, a movie like *Dog Star Man* is able to develop its own syntactical meaning where the semantics of any given image may vary or change in the context of different sequences. This alteration of meanings is brought about by extending the capacity of the paradigmatic axis. This dimension plays a significant role in that it refers to relations between present and absent units. That is, the greater the number of possible alternatives to choose from, the more subtle and pertinent may be the choice of unit to feed into the syntagma, thus affecting nuance and enriching connotation. In addition, the employment of multiple super-impositions as used by, for example, Stan Brakhage in *Dog Star Man*, introduces a new element which greatly complicates the paradigmatic axis. In conventional narrative cinema, this axis operates on a digital either/or basis. The use of multiple interacting superimpositions, however, injects additional seconds which occur simultaneously within the same frame. This serves to transform the digital basis of computation to an analogical one. To meet this change of internal structure, the paradigmatic axis must be redefined to refer to relations not only between present and absent units, but also an unspecified number of simultaneous presents (or seconds). This enriches the semantic dimension of the paradigmatic axis while the syntagmatic axis or thirdness acts as a mode of relations between not only different images, but also diverse aspects of the same image (Fig. 3).

Peirce's major interest concerns the role of the symbol. He has structured his theory in such a way as to make the interpreter an intrinsic component through the application of the triadic relative. Thus, interpretation is both socially and culturally bound. 'Social' describes patterns of human activity, and 'culture' refers to patterns of belief, values and ideas, as well as the artifacts (e.g. film) in which they may be recorded. These elements coalesce into a behaviour pattern called performance. Separate performances combine into a syncretic form of communication termed social discourse. This involves a synergetic

### Figure 3:

#### Multiple Paradigmatic Dimensions Superimposed on Paradigmatic/Syntagmatic Axes



This re-definition is crucial if semiotics is to begin to account for non-narrative, extra-objective cinema.

process by which man studies himself through the media. An important characteristic of synergy is the working together of agents in such a fashion that they potentiate each other's actions (Esser, 1975, p. 345). In other words, participants in synergetic activities like film making are not only willing to experience another's point of view or to feel each other's emotions, but also to act each other's roles. This paper has argued that in transmission, reception and response, film and other media operate in an obvious social and cultural context. This paradigm may be extended to include the metonymic relation of the image of the word as a stage: *teatrum mundi*, of people as actors, assuming and discarding different roles, and of the world of social reality being a play contrived by higher forces. The application of semiotic constructs to theatre has resulted in the formulation of the *dramatistic* model, in which the metaphorical device of the world *representing* a stage or being like a stage, is replaced by the metonymic approach which states that the world *is* a stage (Van Zyl, 1977). Youngblood (1970, p. 78) goes so far as to state that "The world's not a stage, it's a TV documentary", and through the medium of television, man is in direct contact with the human condition, and therefore the need to represent it through art falls



away. Van Zyl argues, therefore, that social reality, as a system of social discourse, can be analysed by seeing it as a *teatrum mundi* with the concomitant references to such terms as "act", "seem", "character", "performance" and "role". Regarding Hitler as the *villain* of Europe, speaking about the last *act* of Stalingrad, and the *performance* of the troops in the *theatre* of war is derived from an interpreting structure which perceives events as part of a larger syncretic structure. This interpretation is derived from a structuralist viewpoint. Semiotics presupposes structuralism since it is itself a study of signs and relations (or codes) within the system. The boundary between being one's self (reality) blurs as the two actions merge into one. Reality and performance become indivisible and the resulting coalescence is electronically punctuated by cathode ray tubes and other forms of communications technology. Van Zyl cites Bergman's *Persona* as an example:

"In this film Bergman has the tragic actress Medea lapse into silence in the face of the instructed (but mediated by technology) tragedy of the television film of the Buddhist monk immolating himself, or the photograph of the little Jewish boy raising his hands in surrender in the Warsaw ghetto. Bergman reminds us, and himself, that technology can render the performances of social life so directly that the traditional form/content or artist/craftsman opposition no longer holds true. The burning Buddhist monk enacts the ultimate role, death, repeatedly as the film shown repeatedly to an audience that was not even present at the moment of death . . . Youngblood says that life is no longer a stage, but Bergman would say that life is both a stage and a television documentary" (Van Zyl, 1977, p. 38).

In this film, technology unifies being and performance into one syncretic act where the part becomes the whole. Shapiro (1970), terms this process the universal semiotic of technological experience which, in this case, offers almost the same immediacy as if the audience was actually there. They are themselves part of the performance. Van Zyl concludes:

"In cinema-verite the characters play themselves and enact their lives before the camera. They create and are created; they all stand in metonymic relation to the completed part. Film and television technology increasingly emphasizes the part-whole relationship of metonymy, as well as the decreasing significance of the either/or alternatives of art/life" (1977, p. 39).

Equally, abstract images of electrovideographic artists are both metonymic and metaphoric. Their cosmic cinema remains primarily metaphoric in function, but at the same time bring the spectator closer to forms that constitute the sub-conscious. This is facilitated through film/video technology which becomes a form of sense experience.

These images are both metaphoric and metonymic because they account for phenomena beyond the normal object-bound field of vision (molecular reality), where the creation (the part) stands for the whole.

This style of synaesthetic cinema is one of the rare occasions when both modes of meaning coincide. The contiguity erodes not only the boundaries between art and life, but also the distinction between performer and audience and beauty and function. The participant stands in metonymic relation to the experience he enacts. The metaphoric function places the viewer and connects him to the visual context of the wider experience.

This model contains an apparant contradiction for it mixes the digital and the analogical. The parallel relationship between the metonymic/paradigmatic, and the metaphoric/syntagmatic (i.e. between the analogical and digital), is resolved at a higher level through the participation of the interpreter. If the interpretant produced proceeds to the final immediate, that which is familiar, then the interpreter will perceive a metonymic relationship. If, however, the interpretant produced subsists in the dynamical category and proceeds no further than the ultimate logical, the image will be perceived as metaphorical only. Metonymy is therefore dependent upon interpretant production, the triadic relative and exists solely in the eye of the beholder.

## Conclusion

Although film theorists have often questioned the tenets of Metz's theory and have detailed many of the problems outlined above, this paper has been primarily concerned with meeting many of these criticisms by invoking Peirce's semiotic as a solution. We have shown that the two paradigms are theoretically distinct and that an over-emphasis on Metz has obscured the more fruitful postulates of Peirce. Only Wollen is excluded from this oversight. Whereas Metz has reached a dead end, Peirce's theory of signs remains open to further development and is applicable across a variety of disciplines including psychology, sociology, cybernetics and other social science disciplines.

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