

# The Cognitive Semiotics of Film

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## The Cognitive Turn in Film Theory

We have witnessed a number of attempts to by-pass [film theory's] most difficult conceptual problems by replacing it with something else. The "something else" is sometimes film history or aesthetics; sometimes it is a new object, such as television, popular culture, video; and sometimes it is a question of new methodologies, which may resemble dusted off methodologies from the social sciences, such as audience questionnaires or interviews, procedures that haven't benefitted from the literature in the social sciences that has interrogated its own methods and limitations. (Janet Bergstrom)<sup>1</sup>

During the eighties, film studies gradually adopted 'new' methodologies from cultural studies and the social sciences, which displaced the speculative ideas of film theory. Rather than construct hypotheses and models about the general structure and spectators' experience of film, film studies has moved toward the 'something else' enumerated by Janet Bergstrom. However, a number of film scholars, in both Europe and North America, have persisted with film theory's most difficult conceptual problems, which they tackle from the perspective of cognitive science. This book is a report on the knowledge generated by these cognitive film theorists. But because this knowledge is fragmentary and incomplete, I have endeavored to expand and develop it in new and unforeseen ways.

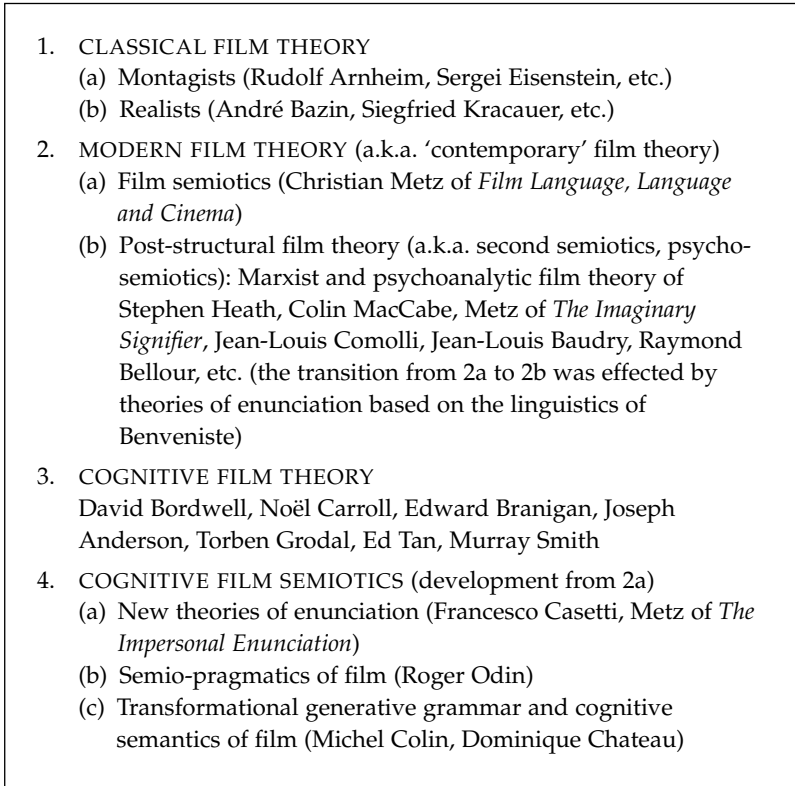
However, for the most part, I do not report on the knowledge generated by the well-known cognitive film theorists in North America (David Bordwell, Noël Carroll, Edward Branigan, Joseph Anderson, among others) but discuss the much lesser known film theorists working in the cognitive tradition in Europe – particularly Francesco Casetti, Roger Odin, Michel Colin, and Dominique Chateau.<sup>2</sup>

Despite their similarities, the two groups evidence a marked

contrast in their work: Whereas the North American cognitivists decisively reject the basic doctrines of modern film theory (a.k.a. 'contemporary' film theory, based upon structural linguistics, semiotics, Marxism, and psychoanalysis), the European cognitivists inaugurate a revolution in modern film theory by returning to and transforming its early stage – that is, the semiotic stage.<sup>3</sup> Both groups therefore reject psychoanalysis and replace it with cognitive science. However, the European cognitivists assimilate cognitive science into a semiotic framework, whereas the North American cognitivists work within a pure cognitive framework (one untainted by semiotics).

Treating the work of a group of individuals as representing a homogeneous position is always risky. Nonetheless, all the North American cognitivists I have named belong to the Institute for Cognitive Studies in Film and Video, which to some extent unifies the agenda of the individual authors.<sup>4</sup> What unifies the European cognitivists is that their work critically responds to Christian Metz's film semiotics. This response involves transforming Metz's semiotics by means of theories of pragmatics, cognitive science, and transformational generative grammar (which is in fact one of the main research programs in cognitive science). The European cognitivists attempt to overcome the 'translinguistics' of Metz's film semiotics – that is, Metz's insistence that film semiotics be based exclusively on the methods of structural linguistics – by combining semiotics with pragmatics and cognitive science. Structural linguists overemphasize language's rigid, limiting capacity, and a semiotics based exclusively on structural linguistics conceptualizes all other semiotic systems in a similarly rigid manner – limiting and conditioning the meaning of human experience – at the expense of the language user's reflective and creative capacities to manipulate signs. By combining semiotics with cognitive science, the European cognitivists restore the balance and begin to conceptualize natural language and other semiotic systems as both enabling and limiting. Because of the dual emphasis in the work of the European cognitivists on semiotics and cognitive science, I shall call them the 'cognitive film semioticians'.<sup>5</sup> Figure 1 shows the relations among the classical film theory of the 1930s–1950s, modern film theory, the North American cognitivists (from now on, simply 'the cognitivists'), and the cognitive film semioticians.

In this book I aim to outline the common theoretical assump-

- 
1. CLASSICAL FILM THEORY
    - (a) Montagists (Rudolf Arnheim, Sergei Eisenstein, etc.)
    - (b) Realists (André Bazin, Siegfried Kracauer, etc.)
  2. MODERN FILM THEORY (a.k.a. 'contemporary' film theory)
    - (a) Film semiotics (Christian Metz of *Film Language, Language and Cinema*)
    - (b) Post-structural film theory (a.k.a. second semiotics, psycho-semiotics): Marxist and psychoanalytic film theory of Stephen Heath, Colin MacCabe, Metz of *The Imaginary Signifier*, Jean-Louis Comolli, Jean-Louis Baudry, Raymond Bellour, etc. (the transition from 2a to 2b was effected by theories of enunciation based on the linguistics of Benveniste)
  3. COGNITIVE FILM THEORY
 

David Bordwell, Noël Carroll, Edward Branigan, Joseph Anderson, Torben Grodal, Ed Tan, Murray Smith
  4. COGNITIVE FILM SEMIOTICS (development from 2a)
    - (a) New theories of enunciation (Francesco Casetti, Metz of *The Impersonal Enunciation*)
    - (b) Semio-pragmatics of film (Roger Odin)
    - (c) Transformational generative grammar and cognitive semantics of film (Michel Colin, Dominique Chateau)

Fig. 1

tions held by cognitive film semioticians and clarify their relation to the broader traditions of twentieth century intellectual thought. Cognitive film semiotics represents the next stage – and arguably the maturation of – semiotic film theory. Despite the revolution it has inaugurated, cognitive film semiotics remains virtually unknown in Anglo-American film studies. This is unfortunate because it develops a more informed understanding – than either semiotics or cognitive science alone – of film's underlying structure, together with the way spectators comprehend films. By writing this book I hope to introduce cognitive film semiotics to the Anglo-American community of film scholars and, more generally, encourage a re-evaluation of the role of semiotics in film theory.

Before outlining cognitive film semiotics, I shall briefly review the cognitivists' position, particularly their reasons for rejecting linguistics and semiotics as viable paradigms for studying film. I

shall also attempt to point out several problems with their purely cognitive-based film theory.

To what extent is the dispute between modern film theory and cognitivism based on conceptual disagreement, and to what extent is it simply based on misunderstanding? Briefly, I shall argue that the cognitivists' criticism of the psychoanalytic dimension of modern film theory is based on conceptual disagreement and, moreover, that this disagreement is partly justified. However, I shall also argue that the cognitivists' critique of the linguistic and semiotic dimensions of modern film theory is based on misunderstanding, which has led them to refute its premises falsely.

If film theory is to make any advances, it needs to establish the grounds for disagreement among its various schools and must identify misunderstandings. Peter Lehman argues that scholars should develop a dialogue with other scholars. He asks: "How do we teach students to respectfully argue with the perspectives of their peers or teachers if the materials that they read encourage them to dismiss those critical methodologies and film styles with which they are not in agreement?" And: "Students should also realize that what they can learn from someone may have little or nothing to do with their agreement with that person's methodology or critical judgement."<sup>6</sup> Similarly, Noël Carroll argues that "film theorizing should be dialectical," adding: "By that I mean that a major way in which film theorizing progresses is by criticizing already existing theory. Some may say that my use of the term 'progresses' here is itself suspect. However, I count the elimination of error as progress and that is one potential consequence, it is to be hoped, of dialectical criticism. Of course, an even more salutary consequence might be that in criticizing one theoretical solution to a problem, one may also see one's way to a better solution."<sup>7</sup> Carroll's recent position is to develop a dialogue with, rather than simply condemn, previous theories of film.

In the following review of cognitivism, I do not aim to be dismissive, but to be critical. This involves clarifying misunderstandings so that we can leave behind us the old disagreements and make advancements by tackling new disagreements.

The cognitivists find very little of value or interest in modern film theory, although in *Narration in the Fiction Film* Bordwell acknowledges the value of some early semiotic work, such as Christian Metz's *grande syntagmatique*.<sup>8</sup> Yet Bordwell undermines this

acknowledgement in Chapter 2 of the same book when he asks the following questions:

Why . . . is the employment of linguistic concepts a necessary condition of analyzing filmic narration? Is linguistics presumed to offer a way of subsuming film under a general theory of signification? Or does linguistics offer methods of inquiry which we can adopt? Or is linguistics simply a storehouse of localized and suggestive analogies to cinematic processes?<sup>9</sup>

I shall take each question in turn. Moreover, I shall use my responses as an opportunity to review the previous research carried out in the name of film semiotics.

1. *“Why . . . is the employment of linguistic concepts a necessary condition of analyzing filmic narration?”*

The simple answer is that the employment of linguistics is *not* necessary to the analysis of filmic narration. Bordwell is right to criticize Metz’s translinguistic standpoint. Metz initially made the mistake of arguing that linguistics is a necessary condition for analyzing filmic narration because he equated film language with narrativity: *“It is precisely to the extent that the cinema confronted the problems of narration that . . . it came to produce a body of specific signifying procedures.”*<sup>10</sup> However, he challenged this equation in *Language and Cinema*,<sup>11</sup> a book that marks the maturation of his semiotic thinking on film. Perhaps we could turn this question back to Bordwell and ask, Why is his historical poetics of cinema predominately a poetics of narration?<sup>12</sup>

2. *“Is linguistics presumed to offer a way of subsuming film under a general theory of signification?”*

The short answer to whether linguistics subsumes film under a general theory of signification is yes. To think of film within a general theory of signification has many consequences, several of which I shall outline.

Film semiotics is a project that does not consider ‘film’ to be an unproblematic, pregiven entity, but reflects on the very nature of film’s existence, together with the consequences it has on culture and society. Semioticians challenge the commonsense ideological understanding of film as a mere form of harmless entertainment, maintaining that it is a system of signification that articulates experience. This is a relevant framework in which to examine film be-



cause the more complex a society becomes, the more it relies upon systems of signification to structure, simplify, and organize experience. The fundamental premise of semiotics is that “the whole of human experience, without exception, is an interpretive structure mediated and sustained by signs.”<sup>13</sup> Semiotics offers an all-embracing theory of human culture – or, more precisely, of human experience, belief, and knowledge. It is a theory in which humans are posited to have an indirect – mediated – relation to their environment. I will argue that natural language plays a decisive role in this process of mediation, of enabling individuals to control and understand their environment. But natural language is not all-encompassing, for human culture consists of numerous other semiotic systems – such as film – that also mediate between individuals and their environment. Perhaps it is relevant here to note that my discussion is limited to anthroposemiotics (the study of human signs) and does not cover zoosemiotics (the study of animal communication), although both are united under biosemiotics (the study of communication generated by all living organisms). Linguistics, the study of natural language, is one of the dominant branches of anthroposemiotics but has a very small role to play in biosemiotics and is not involved in zoosemiotics.

Studying film from a semiotic perspective does not involve comparing it to natural language (although this is one of the secondary consequences of conducting a semiotic analysis of film), but involves first and foremost analyzing film’s specificity. In film semiotics, specificity is defined in terms of the invariant traits manifest in all films, the traits that confer upon film its distinctiveness, which determines its unique means of articulating and mediating experience. Film semioticians define specificity not in terms of film’s invariant surface (immediately perceptible) traits, but of its underlying (non-perceptible and non-manifest) system of invariant traits. This semiotic perspective opposes the work of the classical film theorists, who also studied filmic specificity. However, they defined specificity in terms of film’s immediately perceptible traits, a focus that resulted in their formulating two mutually contradictory theories of filmic specificity. Rudolf Arnheim argued that filmic specificity lies in unique ‘distorting’ properties (especially montage) that demonstrate film’s specific representation of perceptual reality – its presentation of a unique perspective on reality. However, André Bazin argued that its specificity lies in the ability – for the first time

in the history of art – to record ‘reality’ without the intervention of the human hand (that is, he argued that film’s specificity lies in its existential link to reality). He advocated that filmmakers not subsume film’s ability to record under distortive techniques such as montage. Instead, he advocated a style of filmmaking to exploit the recording capacity of film – such as the long take, deep focus, and camera movement – which maintains the film’s existential link to reality. Metz sought to surmount these two mutually contradictory theories by defining specificity in terms of film’s underlying system of invariant traits. To present an understanding of what ‘underlying system of invariant traits’ means and how it enabled Metz to surmount the contradictions of classical film theory, I need to give an overview of semiotics.

Semiotics is premised on the hypothesis that all types of phenomena have a corresponding underlying system that constitutes both the specificity and intelligibility of those phenomena. The role of theory in semiotics is to make visible the underlying, non-perceptible system by constructing a model of it. A model “is an independent object which stands in a certain correspondence with (not identical with, and not completely different from) the object of cognition and which, being a mediating link in cognition, can replace the object of cognition in certain relations and give the researcher a certain amount of information, which is transferred by certain rules of correspondence on the object of modelling. The need for a model arises when for some reason immediate analysis of an object is inexpedient or impossible.”<sup>14</sup>

The first step in developing a semiotic film theory is to construct a model of the non-perceptible system underlying films, which involves identifying the properties and parts of this underlying system, together with the way they interrelate and function. The resulting model is expressed in a series of hypotheses, or speculative propositions. These propositions are not obviously true or false but are probable. The validity of these probable propositions and the models they construct is dependent on both internal and external criteria. Internally, hypotheses and models must display logical consistency. Externally, they must be able to analyze existing phenomena and ‘predict’ the structure of new phenomena. Semiotic film theory can be validated or invalidated on the basis of its logical (in)consistency, as well as its (in)ability to attribute structure to a given or new film – which involves relating the film to the semioti-

cian's prior model of the underlying system. In other words, external validity is dependent upon the model's possession of generality – its ability to be applied to all phenomena, given and new.

Metz attempted to construct a general model of the system underlying all films. His first model, to be discussed, is the *grande syntagmatique*; his second, developed in *Language and Cinema*, attempts to define filmic specificity in terms of a specific combination of five overlapping traits – iconicity, mechanical duplication, multiplicity, movement, and mechanically produced multiple moving images.<sup>15</sup> Taken individually, Metz realized, none of these traits is specific to the cinema; the specificity of cinema, he argues, lies in their specific combination. These five traits are not simply heaped together but are organized into a particular system, which Metz models in terms of overlapping circles, similar to a Venn diagram (although Metz does not go so far as to visualize this model; this is what I have done in Figure 2). Filmic specificity for Metz consists of the five traits and of the system that organizes them. Notice that Metz does not draw any direct comparisons between film and natural language in this semiotic model of film. Although it is possible to question the logical consistency of Metz's mode of reasoning in *Language and Cinema*, my aim in discussing this book is simply to outline the semiotic model Metz developed there. The primary problem with this model is its generalizability, because it leaves out some avant-garde films that do not employ mechanical duplication (for example, the films of Len Lye) and films that do not employ movement (the most celebrated example is Chris Marker's *La Jetée*).

Like other semiotic studies, film semiotics adopts the two tier hierarchy between perceptible and non-perceptible levels of reality and formulates probable hypotheses describing this underlying, non-perceptible level. The ultimate objective of film semiotics is to construct a model of the non-perceptible system underlying all films. Whereas Saussure called the specific underlying system of natural languages *la langue*, in opposition to the surface phenomena, *la parole*, Noam Chomsky calls the underlying system competence, in opposition to performance, and for Metz, the specific underlying system of film is called cinematic language, in opposition to individual films.

The function of a model is therefore to mediate between a theory and its object of study. Semioticians do not commit the fallacy of identifying the real object with the object of knowledge because

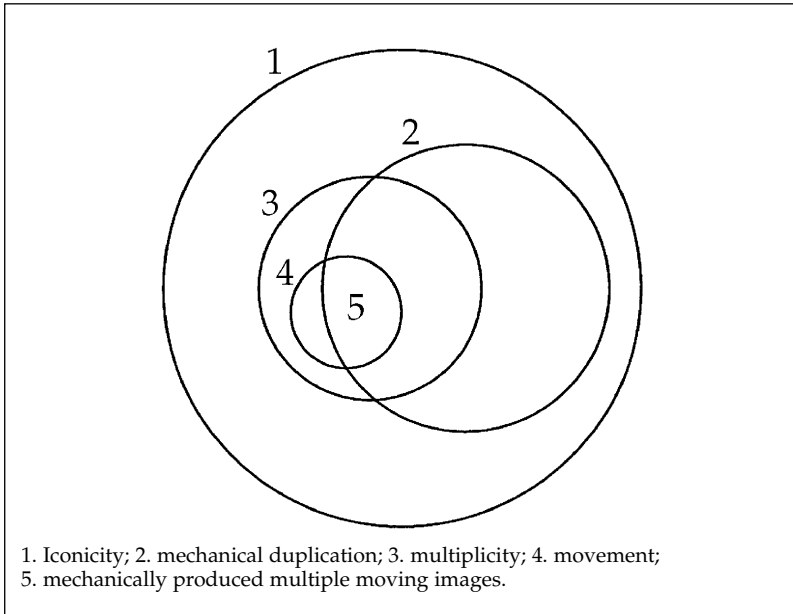


Fig. 2

they realize that each theoretical framework does not *discover* its specific object of study but must *construct* it, precisely because the object of study is inaccessible to perception. Saussure realized this in relation to the specific object of semiotic study: "The object is not given in advance of the viewpoint: far from it. Rather, one might say that it is the viewpoint adopted which creates [*crée*] the object."<sup>16</sup> For Samuel Weber, "This assertion marks out the epistemological space of Saussure's theoretical effort, and to neglect its far-reaching implications has inevitably meant to misconstrue the status of his arguments."<sup>17</sup> In order not to misconstrue Saussure's arguments, I need to point out that semiotics *constructs* a model of its object of study; it does not *create* its object of study (despite Saussure's use of the verb *créer* in the preceding quotation).

To answer adequately Bordwell's second question – "Is linguistics presumed to offer a way of subsuming film under a general theory of signification?" – we need to go further into semiotic theory. The underlying system is "an imperceptible content lending structure to the perceptible insofar as it signifies and conveys precisely the historical experience of the individual and group."<sup>18</sup> Semioticians call this non-perceptible, underlying system, which lends

structure to the perceptible, a system of codes. One of the integral (although by no means encompassing) codes of human culture is natural language. It is a species-specific system that distinguishes humans from animals and that humans use to develop a shared understanding of the world.

A system of codes consists of the prior set of finite, invariant traits of a language, together with their rules for combination. Speech (*la parole*) is generated by two processes: Codes are selected from the underlying system, and they are combined according to rules. Both processes constitute the intelligibility of speech because meaning is the product of the structural relations that exist between the codes. Speech can then be analyzed in terms of the underlying system of codes that generated it.<sup>19</sup> In semiotics, 'code' is therefore a term that designates the underlying system that constitutes the specificity of, lends structure to, and confers intelligibility on phenomena.

In analyzing film from a semiotic perspective, film scholars bring to film theory a new level of filmic reality. They successfully demonstrate that the impression of unity and continuity each spectator experiences at the cinema is based on a shared, non-perceptible underlying system of codes that constitutes the specificity of, lends structure to, and confers intelligibility on the perceptible level of film. Early film semioticians applied the structural linguistic methodology of segmentation and classification to identify the non-perceptible system underlying a film. The setting up of this hierarchy – between the perceptible level of film and the non-perceptible system of codes underlying it – is the main contribution semioticians have so far made to film theory. They show that filmic continuity is a surface illusion, what Marxist critics call the 'impression of reality'. In effect, semiotics enables film theorists to drive a wedge between film and its referent, to break the supposedly existential link between them, and to demonstrate that filmic meaning is a result of a system of codes, not the relation between images and referents.

Once film semioticians identified the hierarchy between the perceptible and the non-perceptible, what were their main 'objects' of study? Very simply, they began to construct models of the various underlying systems that determine the surface – perceptible – level of film. It is at this point that film semioticians moved away from analyzing cinematic language (or filmic specificity) and created a

theory of textual analysis, motivating the study of underlying systems that determine the textual structure of the particular film under discussion, including the cause-effect narrative logic, the process of narrativization, the spatio-temporal relations between shots, the patterns of repetition and difference, and specific filmic techniques such as the eyeline match.

The identification and analysis of all these underlying systems are a result of subsuming film under a general theory of signification. Bordwell may protest that the Russian Formalists studied many of these filmic mechanisms, but, as is well known, Saussure's structural linguistics directly influenced the Russian Formalists.

3. *"Does linguistics offer methods of inquiry which we can adopt?"*

Linguistics does offer methods of inquiry that film theorists can adopt. I shall refer to the most obvious example: Early film semioticians borrowed from structural linguistics the commutation test, a deductive method of analyzing how the underlying level lends structure to the surface level. This method consists of the activities of segmentation and classification. In principle, a commutation involves the correlation between a change on the surface level and a change on the underlying level. A change on the surface may be either a variation of the same code or a new code. By means of the commutation test, semioticians can identify the changes on the surface level that correlate with the changes on the underlying level.

The commutation test enabled Saussure to describe speech (*la parole*) as an infinity of messages generated by a finite, underlying system (*la langue*). The concept of 'identity' enabled him to reduce the infinity of speech to this finite system, for he recognized that all speech is composed from the same small number of invariant codes used recursively in different combinations. Saussure did not conceive of this system as a mere conglomerate of codes, but as a series of interdependent, formal relationships. Furthermore – and here Saussure located the 'ultimate law of language' – he defined codes only in terms of their relation, or *difference*, to other codes (both the paradigmatic relations they enter into in the underlying system and the syntagmatic relations they enter into in speech).

The theory of commutation, based on the analytic methods of segmentation and classification, led Metz (in his essay "Problems of Denotation in the Fiction Film") to formulate the *grande syntagmatique* that Bordwell praised in the Preface to *Narration in the*

*Fiction Film*. For Metz the *grande syntagmatique* designates one of the primary codes underlying and lending structure to all classical films. It represents a prior set of finite sequence (or syntagmatic) types, a paradigm of syntagms from which a filmmaker can choose to represent profilmic events in a particular sequence. Metz defines each syntagma according to the spatio-temporal relations that exist between the profilmic events it depicts. Syntagmas are commutable because the same events depicted by means of a different syntagma will have a different meaning.<sup>20</sup> Metz detected eight different types of syntagma in total, each of which is identifiable by a specific spatio-temporal relationship existing between its images. These syntagmas form a finite paradigm of invariant codes to the extent that they offer eight different commutable ways of constructing an image sequence. The eight syntagmatic types therefore conform to Saussure's 'ultimate law of language', because each syntagma is defined in terms of its relation, or difference, to the other syntagmas. For Metz: "These montage figures [film syntagmas] derive their meaning to a large extent in relation to one another. One, then, has to deal, so to speak, with a paradigm of syntagmas. It is only by a sort of *commutation* that one can identify and enumerate them."<sup>21</sup> Notice again that this semiotic model does not draw any direct comparisons between film and natural language.

4. "Is linguistics simply a storehouse of localized and suggestive analogies to cinematic processes?"

This final question, more rhetorical than the others, reveals Bordwell's preferred way of characterizing modern film theory. Ideally, my responses to the previous three questions have shown that linguistics offers film theorists more than a storehouse of localized and suggestive analogies. Moreover, linguistics does not encourage the majority of film semioticians to draw analogies between film and natural language. Metz adopted a scholastic method of theorizing, in which he considered all the arguments that can be advanced for or against an hypothesis – in this instance, the comparison between film language and natural language – to determine its degree of credibility. The bulk of his first essay "Cinéma: langue ou langage?" advances arguments *against* the temptation to draw analogies between film language and natural language.<sup>22</sup> Metz realized that the two languages belong to different logical categories, and that recognition led him to conclude that film is a "*langage sans*

*langue.*"<sup>23</sup> In his later work, Metz went on to carry out the primary aim of film semiotics – to construct a model of filmic specificity, film's underlying system. In constructing the *grande syntagmatique* he confused filmic specificity with narrativity, but later, in *Language and Cinema*, he defined specificity in terms of a specific combination of five traits, plus the underlying system that organizes them.

To summarize my responses to Bordwell's four questions, the very idea of 'cinematic language' for film semioticians is not simply an analogy (as it was in the prelinguistic film-language comparisons of Raymond Spottiswoode, the filmology movement, etc.); that is, the semioticians' analysis of film is not premised on identifying any direct resemblance between film and natural language. Instead, film semioticians argue that film is a medium that possesses its own distinctive, underlying system that confers intelligibility on and lends structure to all films. Of course, semioticians do not pretend to study everything that makes a film intelligible; instead, they limit their analysis to the invariant traits that define film's specificity.

What about the cognitivists' critique of other domains of modern film theory? One of the dominant reasons the cognitivists criticize modern film theory is the behaviorism implicit in its account of subject positioning, in which the spectator is automatically and unfailingly positioned as an ideological subject, with no cognitive capacity to process and manipulate the film. In other words, the modern film theorists posited a direct, unmediated relation between the stimulus and the spectator's response, which, as Bordwell observes, "impute[s] a fundamental passivity to the spectator."<sup>24</sup> This criticism is certainly valid and justifies the need for a cognitive account of the spectator's processing activity. But does it also justify rejecting semiotics? The argument I develop is that a cognitive theory of film that assimilates semiotics overcomes the problems of translinguistics, the behaviorism of modern film theory's account of subject positioning, together with the cognitivists' overemphasis on the spectator as an autonomous rational self. The cognitivists, on the other hand, argue that film theorists need to reject semiotics and start again by developing a cognitive theory of spectatorship untainted by semiotics. Bordwell and others ask, Why does a cognitive theory of film need to refer to language and semiotics? My immediate answer is that we need to consider the specificity of the human mind and culture. Whereas the Enlightenment



philosophers argued that reasoning is specific to humanity, twentieth century philosophers belonging to the Language Analysis tradition, together with semioticians, realize that language is specific to humanity. Language is not just another aspect of the human mind, but is its defining characteristic. I shall have more to say on the Language Analysis tradition later.

In opposition to modern film theory, Bordwell argues that “a film . . . does not ‘position’ anybody. A film cues the spectator to execute a definable variety of *operations*.”<sup>25</sup> Bordwell then proceeds to fill in the mental blanks left by the behaviorist stance of modern film theory. But by arguing that a film does not position anybody, Bordwell suggests that the spectator is a context-free ‘entity’ and that film viewing is a purely rationalist activity. I agree with Bordwell that spectators are not positioned or placed by a film in the narrow sense of the modern film theorists (as Bordwell writes, the terms ‘position’ and ‘place’ “lead us to conceive of the perceiver as backed into a corner by conventions of perspective, editing, narrative point of view, and psychic unity.”<sup>26</sup>) We can reject this narrow conception of spectatorship without rejecting the proposition that a film modifies the spectator’s mind in a specific way.<sup>27</sup>

To varying degrees cognitivists downplay or reject the anthroposemiotic dimension of filmic comprehension and instead focus on its ecological dimension. The following cognitivists are key to the ecological approach: Joseph Anderson, the Australian philosopher Gregory Currie, the Danish film theorist Torben Grodal, and the Dutch film theorist Ed Tan.<sup>28</sup> Edward Branigan and David Bordwell also develop ecological theories, but to a lesser extent. (Since its initial development in North America, cognitive film theory has therefore become international and has developed an ecological framework at the same time.) The flavour of this work can be summed up in the following extract from Grodal’s *Moving Pictures*:

Visual fiction is viewed in a conscious state, and is mostly about human beings perceiving, acting, and feeling in, or in relation to, a visible and audible world. The viewer’s experience and the phenomena experienced often demand explanations that imply non-conscious activities; but the emotions and cognitions must be explained in relation to conscious mental states and processes. For evolutionary reasons, it is improbable that the way phenomena appear in consciousness is just an illusion caused by certain quite different non-conscious agents and mechanisms.<sup>29</sup>

By ignoring each other, cognitivists and semioticians have developed unbalanced theories of the cinema. In our search to understand how films are understood, we need to maintain a balance between cultural constraints, such as language and other semiotic systems of human culture, and broader ecological constraints. The cognitive film semioticians go some way to achieving this balance, in opposition to the linguistic determinism of Metz's film semiotics and the free will and rational autonomy the cognitivists confer upon film spectators. Each of the following chapters charts the way the cognitive film semioticians attempt to maintain this balance, although there is variation among them.

### The Language Analysis Tradition

The Language Analysis tradition incorporates the analytic philosophy of Frege, Carnap, Moore, Russell, Ryle, and Wittgenstein; the structural linguistics of Saussure; the pragmatics of Habermas; and the semiotics of C. S. Peirce. Its primary aim is to transform questions about epistemology and the mind into questions about language and meaning. Karl-Otto Apel defines the Language Analysis tradition as (following Aristotle) a *prima philosophia*: "First Philosophy was founded by the Greeks as an *ontology* of the essential structure of things; . . . later on, in the so-called 'new age', it was transformed into, or replaced by, a *critical epistemology* . . . ; and . . . finally, in the 20th century, both ontology and epistemology were questioned or transformed by *language analysis*."<sup>30</sup>

The three hundred year domination of epistemology, or the philosophy of the subject, in Western philosophy began with Descartes, reached its peak in the subjective idealism of Kant and Fichte, and was completed in the objective idealism of Hegel and the British idealists (Bosanquet and Bradley). The significance of the transformation from the idealism of epistemology to Language Analysis was that language, signs, and the process of semiosis replaced mental entities. For example, semiotics and structuralism initiated a radical critique of Kant's subjective idealism without attacking reason and rationality (which led Paul Ricoeur to call structuralism "Kantianism without the transcendental subject"). Semioticians relocated reason and rationality in language and sign systems, rather than in the mind. For Jürgen Habermas, "The structuralist approach follows Saussure's lead and begins with the

model provided by grammatical rule systems; and it overcomes the philosophy of the subject when it traces the achievements of the knowing and acting subject, who is bound up in his linguistic practices, back to the foundational structures and generative rules of a grammar. Subjectivity thereby loses the power of spontaneously generating a world.<sup>31</sup> Within analytic philosophy, Gilbert Ryle wrote a devastating critique of Cartesian dualism in *The Concept of Mind*.<sup>32</sup> More generally, analytic philosophers privileged language by conceiving of philosophical problems as mere confusions and misunderstandings over language use, rather than as conflicts or disagreements over substantive issues. Analytic philosophy therefore set itself up as a therapeutic activity that aims to dissolve philosophical problems by clarifying the meaning of words and expressions. Meanwhile, Frege replaced psychologism with logical analysis, and C. S. Peirce transformed Descartes's method of introspection and Kantian epistemology into semiotics.<sup>33</sup>

Jürgen Habermas is well known for his attempts to continue the project of modernity, and the Enlightenment project from which it emerged. But he recognizes the limitations and failures of the Enlightenment project – most notably, its idealism. One dimension of Habermas's work consists of rereading the Enlightenment project from the perspective of linguistics – or, more accurately, the pragmatic theory of speech acts.<sup>34</sup> This enables him to update and transform the Enlightenment by replacing its idealism with Language Analysis, effecting a shift from the purely subjective to the intersubjective – language, dialogue, and communicative reason. His argument is that language is not simply one of many human possessions in the world; instead, it is the primary possession, since it constitutes the basis of humanity's understanding of the world and orients the individual into a shared interpretation of both the world and human actions. Habermas does not fall into a translanguistic trap because he is from the start focusing on human reasoning capacities. And he is not concerned with the "purism of pure reason," but with the way reason is concretized in language. The problem with the philosophy of the subject for Habermas is that it reifies subjectivity by conferring upon the individual a "narcissistically overinflated autonomy" because it overemphasizes "purposively rational self-assertion."<sup>35</sup> By contrast, Habermas – and the Language Analysis tradition generally – decentres subjectivity by arguing that it is not master of its own house, but is dependent on

something that is a priori and intersubjective – language. And language is fundamental because it functions to represent (or disclose) reality, establishes interpersonal relations, and guides personal expression. In other words, it facilitates mutual understanding and coordinates social action: “Agreement arrived at through communication, which is measured by the intersubjective recognition of validity claims, makes possible a networking of social interactions and lifeworld contexts . . . The stratification of discourse and action built into communicative action takes the place of . . . prelinguistic and isolated reflection.”<sup>36</sup> Habermas presents a strong case for replacing the idealism of the philosophy of the subject with Language Analysis. I shall develop this point in more detail in Chapter 2, when reviewing David Bordwell’s cognitive theory of the spectator.

Language Analysis in all its forms therefore rejects idealism and mentalism, transforming the ‘first person’ perspective of epistemology (Descartes’s method of introspection) to the ‘third person’ perspective of language and signs. Thomas Daddesio clearly sums up the issues involved:

The critique of introspection initiated by Peirce gained momentum when, with the rise of behaviorism in the social sciences, introspection was abandoned as a reputable method because it was perceived as being unable to provide the objective, repeatable observations that science requires. As long as it seemed reasonable – a circumstance that lasted roughly three hundred years – to believe that one could have privileged access to the contents of one’s own mind, mental processes could be taken as foundational for both epistemology and accounts of human behavior. However, once this privilege came to be viewed as illusory, introspection was replaced by methods relying on a third-person perspective. From this new perspective, the access that individuals have to their own thoughts could no longer be taken as a foundation for knowledge and, consequently, private events were replaced, in discussions of language, meaning, and reason, by events that were open to public scrutiny such as the behavior of others, the words they utter, and the uses to which they put words.<sup>37</sup>

The epistemologists’ assumptions of immediate access to the thoughts in one’s own mind and the power of the mind to disclose reality were replaced by the Language Analysts’ assumptions of indirect access to one’s thoughts via language and other intersubjective sign systems. Whereas cognitivists adopt the first person perspective of epistemology (philosophy of the subject), semioticians adopt the third person perspective of the Language Analysis tradition.

## Noam Chomsky and the Study of Competence

In the late fifties, the mind and cognition made a decisive return *within* the Language Analysis tradition, beginning with Noam Chomsky's transformational generative grammar (together with his decisive critique of B. F. Skinner's behaviorism).<sup>38</sup> In the form of Chomsky's linguistics, the Language Analysis tradition created a synthesis of both the mentalism of epistemology and the intersubjective nature of language, thus avoiding the idealism and first person perspective of epistemology and the (quasi) behaviorism of the Language Analysis tradition. In this respect, Chomsky's work represents the ideal paradigm for cognitive film semioticians.

David Bordwell has noted the absence of references to the work of Chomsky in film theory: "It is surprising that theorists who assign language a key role in determining subjectivity have almost completely ignored the two most important contemporary developments in linguistic theory: Chomsky's Transformational Generative Grammar and his Principles-and-Parameters theory."<sup>39</sup> He adds that "no film theorist has mounted an argument for *why* the comparatively informal theories of Saussure, Émile Benveniste, or Bakhtin are superior to the Chomskyan paradigm. For over two decades film theorists have made pronouncements about language without engaging with the major theoretical rival to their position."<sup>40</sup> The truth of the matter is that over the last two decades a number of film theorists have been engaging with Chomskyan linguistics and, furthermore, have deemed it to be superior to structural linguistics. Throughout this book I attempt to emphasize that Chomskyan linguistics, particularly in its study of competence, has defined the central doctrines of cognitive film semiotics. Here I shall briefly chart the relation between early film semiotics and cognitive film semiotics.

During the seventies, Metz's film semiotics was modified and transformed. Its fundamental problems, as we have already seen, lay in its total reliance upon structural linguistics. One major transformation came from post-structural film theory, which based itself primarily upon the Marxism of Louis Althusser and the psychoanalysis of Jacques Lacan. Post-structuralists criticize structuralism because they regard it to be the last vestige of Enlightenment reason and rationality. Christopher Norris clearly sums up this post-structural position:

Structuralism renounces the Kantian 'transcendental subject', only to replace it with a kind of linguistic *a priori*, a regulative concept of 'structure' which seeks to place firm juridical limits on the play of signification. Such, at least, is the critique brought to bear upon structuralist thinking by those – like Lacan and Derrida – who read in it the last, lingering signs of a rationalist tradition forced up against its own (unconscious) limits.<sup>41</sup>

Ultimately, structuralism replaces the transcendental Kantian subject with a transcendental signified.

For most Anglo-American film scholars, film semiotics takes only one form – namely, Metz's early film semiotics, ranging from his 1964 paper "Le cinéma: langue ou langage?" leading to his remarkable paper on the *grande syntagmatique* of the image track, and finally to his monumental book *Langage et cinéma*, published in 1971 and translated into English in 1974. But as Metz himself acknowledged in the opening chapter of this book, "By its very nature, the semiotic enterprise must expand or disappear."<sup>42</sup> Although *Langage et cinéma* marks the logical conclusion to Metz's structural linguistic-based film semiotics, it does not mark the end of film semiotics per se. In his subsequent work (particularly his essay "The Imaginary Signifier"),<sup>43</sup> Metz adopted a psychoanalytical framework, which aided the formation of post-structural film theory. However, many of his students and colleagues continued to work within a semiotic framework, which they combined with cognitive science. Research in film semiotics continued unabated in the seventies, eighties, and nineties, especially in France, Italy, and the Netherlands. Far from disappearing, film semiotics has expanded into a new framework, one that overcomes the problems of structural linguistic-based film semiotics by embracing three new theories: (1) a renewed interest in enunciation theory in both film and television (particularly in the work of Francesco Casetti and Metz of *L'Énonciation impersonnelle ou le site du film*),<sup>44</sup> (2) pragmatics (in the work of Roger Odin), and (3) transformational generative grammar and cognitive science generally (in the work of Michel Colin and Dominique Chateau).

One defining characteristic of cognitive film semiotics is that it aims to model the actual mental activities (intuitive knowledge) involved in the making and understanding of filmic texts, rather than study filmic texts themselves. Ultimately, the theories of Francesco Casetti, Roger Odin, Michel Colin, and Dominique Chateau are models of filmic competence. Each theorist models this compe-

tence from a slightly different perspective: Casetti employs the deictic theory of enunciation, Odin employs pragmatics, and Colin and Chateau employ generative grammar and cognitive science.

Chomsky's study of linguistic competence in his generative grammar (where 'grammar' is defined as a theory of language) is one of the main research programs that led to the development of cognitive science in the fifties. Generative grammar shifted linguistic inquiry away from epiphenomena (actual language behavior) and toward competence – the intuitive knowledge that underlies natural language behavior, together with the innate, biologically determined language faculty that constitutes this knowledge as species-specific. Chomsky therefore follows the Enlightenment philosophers' study of what distinguishes humans from non-humans. Chomsky defines the specificity of human reasoning in terms of the possession of a language faculty, a faculty that enables each human to internalize a particular natural language.

Generative grammar is therefore a cognitive theory of natural language. Its cognitive dimension consists of two stages: the study of the language faculty in its initial state and the study of this faculty after it has been conditioned by experience (which leads to the internalization of a particular natural language). The study of the language faculty in its initial state is called 'universal grammar' (the interlocutor's initial competence), whereas the study of a particular natural language involves accounting for the structure of the language faculty after it has been determined by experience (which leads to the formation of the interlocutor's attained competence).

To study the grammar of a particular natural language is to attain descriptive adequacy, whereas to study universal grammar is to attain explanatory adequacy. The aim of a descriptively adequate generative grammar is to construct a formal model (consisting of generative and transformational rules) that generates all and only the grammatical sentences of a particular natural language. By contrast, explanatory adequacy attempts to model the initial state of the language faculty, which Chomsky conceived in terms of a series of innate principles and parameters. If one studies English or Japanese grammar, one is studying the same language faculty (the same series of principles and parameters), but under different empirical conditions, conditions that set these principles and parameters in alternative configurations.

However, structural linguistics attains only observational ade-