

## Intersemiosis

**ABSTRACT** This essay advances the value and theory of *intersemiosis*, an insufficiently studied yet fundamental concept to understand the production of meaning in today's computer-based media. It discusses the origins of the term in contemporary semiotic research, offers hitherto unformulated definitions, and proposes new theoretical approaches and analysis that illustrate the usefulness and applications of this necessary notion.

### 1. Defining Intersemiosis

Notoriously protean, the term *intersemiosis* can be used to describe a wide variety of phenomena. Stretching its sense to its ultimate limits, intersemiosis would suggest the interaction of all signifying processes—a tautology for *semiosis*. Defined more narrowly, however, the term can be used to describe *the interaction of particular kinds of semiosis*. A typical example of different kinds of semiosis is that between verbal, visual, and musical systems. The problem of delimiting increasingly particular kinds of semiosis, as we shall see, is much more difficult.

There are various ways to refer to some of the most common forms of semiosis. In “Rhetoric of the Image” (1964), Roland Barthes uses Louis Hjelmslev’s notion of *substance* to distinguish between such “typical signs” as are “the verbal sign, the iconic sign, [and] the gestural sign” (34n2). These kinds of broad distinctions serve only as point of departure and reference, for there are many other kinds of semiosis in the sphere of human semiotics (anthroposemiotics). As Umberto Eco notes, “the fact is that the variety of semiosis gives rise to phenomena whose difference is of the maximum importance for the semiologist” (2001:73). The question that concerns this study is the *interaction* or *interplay* of different kinds of semiosis. In a world where communication processes are increasingly conducted by means of computerized systems in which multiple kinds of semiosis are at play, intersemiosis becomes a necessary field of study. And yet, it is one that remains largely unexplored.<sup>1</sup>

To study intersemiosis we must first provide a definition of semiosis. Semiotics, the ancient science “studying all possible varieties of signs and the rules governing their production, exchange, and interpretation” (Eco 1977:39), has given us tools to distinguishing between different types of semiosis, that is, between the particular *modes of being* of different communication systems. These distinctions allow us to identify the semiotic systems that intervene in any message, regardless of its source or medium. In particular, they help us consider the types of systems that intervene in the

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array of new media applications as well as the supplementary forms of meaning that their interactions generate.

In contemporary semiotic research, the pioneering study outlining the fundamentals for a typology of different kinds of semiosis is Roman Jakobson's "Language in Relation to Other Communication Systems" (1968). Besides Peirce's fundamental division of signs into indexes, icons, and symbols—a distinction that Peirce privately called "the gift I make to the world," and to which we shall return<sup>2</sup>—the following are, according to Jakobson, some of the primary ways in which signs systems can be classified:

- 1) According to their sensory channel—the acoustic and visual modes being the predominant ones in most cultures. Jakobson mentions a related distinction: that between *continuous*, "purely spatial, visual signs" (icons), and *discrete*, "temporal, auditory signs" (symbols) (701). This distinction is commonly used today to describe the process of converting analog into digital media, continuous data into a numerical representation.
- 2) According to whether the source is *organic* or *instrumental*. "Among visual signs," Jakobson writes for instance, "gestures are directly produced by bodily organs, while painting and sculpture imply the use of instruments" (701). Mechanical or electronic reproduction also changes the nature of the source.
- 3) According to whether they have an *intentional* or *unintentional* addresser (sender)—tweets could serve as an example of the former category, and symptoms, thunder, and omens of the latter.
- 4) According to their capability or incapability of building propositions. "Language and variform superstructures upon language" take precedence among propositional systems; Jakobson calls non-propositional systems "idiomorphic" (706).

The primary focus of this paper is the study of intersemiosis in the context of cultural manifestations. Establishing correspondences between different sign systems, however, is not merely of aesthetic concern; it has also had a significant impact on the development of scientific knowledge. Let me cite one example. Introductory algebra books often begin with an explanation of parabola that includes natural language, graphs (the visual representation of geometric forms), and the symbolic expression of the concept in a mathematical equation. The method of Cartesian coordinates is named after René Descartes who in the 17th century found an intersemiotic link

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between Euclidean geometry and algebra by showing how some geometrical problems can be solved by means of algebraic equations.

### 2. Intersemiosis and Intermodal Communication

#### *2.1 The Book and Intersemiosis*

The vast expanse of interacting semiotic systems in culture incites us to countless critical and creative exploratory journeys. As an object of study, intersemiosis is a broad field that can be approached from many angles. A fundamental characteristic of anthroposemiotics,<sup>3</sup> the interaction of different forms of semiosis dates back to the origins of human communication. The most obvious, but not the only example, is the relation between verbal and visual sign systems.

Words and images have coexisted in complimentary tension since prehistoric times, but it has only been in the last minute of history that technological advances have made it possible for ordinary people to communicate by exchanging pictures. Rising trends in the use of visual systems show that they are gaining preference as modes of communication.<sup>4</sup> space The greater comprehensibility of visual systems eases our ability to communicate across the barriers of learned, natural languages. Visual systems have their own limitations—they cannot be easily used to build philosophical propositions or to express narrative tenses, for instance. These types of contrasts call attention to the particular properties—the reach and limits—of different forms of semiosis.

I first became interested in a general idea of intersemiosis as I researched the history of intermodal communication in the format of the book. The long history of the relation of verbal and visual modalities in this medium dates back, in the west, to the illuminated manuscript, and even farther. It is a history that for the most part would favor the written word, relegating visual texts to serve the function of visual paraphrase of the verbal text, of illustration. The surrealists took this intermodal relation to a logical and aesthetic turning point by freeing it from the demands of interpretation. In the surrealist's intermodal books interpretation is replaced by a free play between verbal and visual modalities linked by kin artistic sensibilities. It is here, in the context of the limits of interpretation, that a rather diffuse notion of intersemiosis first came to my mind.

I used the term “intersemiosis” for the first time to describe the extraordinary interplay of different kinds of semiosis in *Around the Day in Eighty Worlds* (1967), one of Julio Cortázar's extrageneric books.<sup>5</sup> Published at the height of the so-called Latin American Boom, this slippery, hard-to-place intermodal book pushed the envelope of, among other things, ways of juxtaposing verbal and visual

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texts to produce *sui generis* forms of meaning. In “The Book at the Outskirts of Culture” (2000), I offered a broad description of intersemiosis, which I still find valid. A summary of that description will help inform our discussion as we consider the variety of semiosis in further detail.

“The term *intersemiosis*,” I wrote, “evokes a zone of encounter and play between diverse semiotic systems, and it also elicits the frontiers between these systems. At first, the term brings to mind the semiotic structure of culture because culture is composed of a multiplicity of heterogeneous systems that are in constant interplay. [...] Intersemiosis brings to mind art forms composed of more than one semiotic language, such as cinema, audiovisual performances, or books containing both verbal and visual signs” (264-65). I noted that certain forms of intersemiosis are already present within the literary text—such as iconicity (the capacity of verbal systems to generate images), or in the distinction between what rhetoricians called *naked* and *adorned* levels of verbal communication, for instance.

Until the 2004 publication of *Intertextuality & Intersemiosis*, an anthology edited by Marina Grishakova and Markku Lehtimäki, the concept of intersemiosis had received little concerted attention in the field of semiotics.<sup>6</sup> In one of the essays, Anneli Mihkelev compared some of the intratextual aspects of my description of intersemiosis in “The Book at the Outskirts of Culture” (2000) to Jørgen Dines Johansen’s idea of intersemiotic interpretation (179). In *Literary Discourse* (2002), Johansen links intersemiosis to the connections we establish in memory. He writes: “In memory you have a kind of dormant semiotic network allowing you to recognize a very large number of [...] signs and to endow them with signification in given contexts” (72). This observation is valid in the context of our discussion when the connections established concern different kinds of semiosis. Even *in praesentia* forms of intersemiosis take place in memory, for it is in memory that seemingly instantaneous associations and contrasts are established.

### **2.2 Screens and Frame**

1967, the year of the publication of Cortázar’s *Around the Day in Eighty Worlds*, saw the publication of another intermodal book that ventured to the margins of culture in curiously similar ways: Marshall McLuhan and Quentin Fiore’s *The Medium is the Massage: An Inventory of Effects*.<sup>7</sup> Both books were published independently of each other—Cortázar’s in México, McLuhan and Fiore’s in New York—at a time when the development of television had made possible the distribution of audiovisual messages throughout the world and the phenomenon of multimodal communication was becoming a central aspect of our civilization.

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An example from *The Medium is the Massage* will help us take a closer look at the supplementary forms of meaning produced by intersemiosis. It will also help place the notion of intermodality in the wider context of ‘screens’, a concept we begin to define in this section. In his book, McLuhan makes an observation that is perhaps more fitting today than when he wrote it. “Media work is so pervasive in their personal, political, economic, aesthetic, psychological, moral, ethical, and social consequences that they leave no part of us untouched, unaffected, unaltered. The medium is the message” (26).<sup>8</sup>

Juxtaposed to this verbal message (on page 27) is a reproduction of a grainy photograph of a pinky toe with what appears to be a fungal infection. This juxtaposition becomes part of the message; it creates an “effect” that adds a new layer of meanings. The “message” could thus also be understood to be the product of the interaction of the two semiotic modalities (verbal and visual) that are at play in these adjacent pages, as well as of their interplay throughout the book. Intersemiosis is clearly part of the “message” mentioned in the title, a source of many of its effects.

From this perspective it would be more accurate to say that the *intermodal message is the message*, because the “message” lies in the syncretic, intersemiotic nature of the content, rather than in the medium of expression. This is also true of other media McLuhan had in mind, and in particular of the screens, that by 1967, had become a part of homes around the world: television, the dominant medium of the time, the medium of the mass distribution of audiovisual messages, of the mass-age.

Intermodal books are also part of a long history where the rectangular frame, as Barthes showed, acts as a semiotizing factor, as a border separating the semiotic from the non-semiotic realms. “The scene, the picture, the shot, the cut-out rectangle,” he writes, “here we have the very *condition* that allows us to conceive theater, painting, cinema, literature, all those arts, that is, other than music and which could be classed *dioptric arts*” (1973:69-70). His inclusion of literature among these framed arts posits the page as frame for an auditory system coded into visual signs (writing). The intermodal book adds a sort of double framing to this typology, the intersemiotic play of verbal and visual modalities within a single medium.

We may add a further useful distinction. A subset of the universe of “frames” signaled by Barthes is organized around the mechanical reproduction of moving images. We can thus distinguish three major historical stages in the historical evolution of the notion of frame: the *first screen* (cinema, the silver screen), the *second screen* (television, mass media), and the *third screen* (‘screens’, interactive computerized displays, new media).<sup>9</sup> We can trace this last stage to back to the early 90’s when the term “digital media” came in to use. I like to call it the phenomenon of ‘screens’ because the

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colloquial synecdoche signals its broad anthropological reach and impact. The semiotic universe of ‘screens’ is in fact so wide that at times it would seem to encompass all semiotic activity of culture.<sup>10</sup>

Lev Manovich adds another branch to the genealogy of the screen, one that can be traced to the origins of modern surveillance technology and in particular to the development of the radar screen. “The computer screen and other components of the modern human-computer interface” writes Manovich, “owe their existence to [a] particular military idea.” At the beginning of the Cold War, “the American military thought that a Soviet attack on the U.S. would entail sending a large number of bombers simultaneously. Therefore, it seemed necessary to create a center that could receive information from all U.S. radar stations, track the large number of enemy bombers, and coordinate a counterattack” (2001:101).

### 3. Semiosphere and Infinite Semiosis

#### *3.1 The Hot Spots of the Semiosphere*

In *Universe of the Mind* (1990), Yuri Lotman proposes a model capable of describing the functioning of all cultures, languages, and texts. Drawing an analogy with *biosphere*, a concept introduced by the biochemist Vladimir Vernadsky, Lotman defined the *semiosphere* “as the space necessary for the existence and functioning of languages, not the sum total of different languages” (123). We must keep in mind that the idea of language in Lotman can range from climate to cryptography. Some of his observations regarding the production of meaning in the semiosphere are particularly relevant to our description of intersemiosis. On the other hand, the notion of intersemiosis—which Lotman himself does not use—helps understand Lotman’s ideas of boundary and system asymmetry.

The languages in the semiosphere, he explains, form a “spectrum that runs from complete mutual translatability to complete untranslatability” (125). Thus, in Lotman’s model the notion of translation extends far beyond the usual sense of the word to encompass the full spectrum of semiotic systems and kinds of semiosis. “Translation,” he writes, “is a primary mechanism of consciousness. To express something in another language is a way to understand it. And since in many cases the different languages of the semiosphere are semantically asymmetrical, that is to say, they do not have mutual semantic correspondences, then the whole semiosphere can be regarded as a generator of information” (*Universe* 127).

The semiosphere is a vast zone open to surprising forms of meaning. It is the space where all signifying systems and forms of semiosis come into play, coexist, and renew each other. And it is

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here where Lotman introduces the concept of boundary, which at once separates and unites contiguous systems within the semiosphere. It is in these boundaries where we can find, he writes, “the hottest spots for semioticizing processes” (136). From the premises of information theory it follows that the interaction of systems that are semantically similar (symmetrical) generates less information and has a higher level of entropy than the encounter of those that are dissimilar (asymmetrical).<sup>11</sup>

An example would be the hot spots of semiotic activity produced by the collision of different cultures. We should be careful, however, not to confuse the notion of boundary simply with geographical or cultural frontiers. Zones of heightened semiotic activity occur any time two or more asymmetric systems interact. The degree of asymmetry of these systems will vary, from systems using the same kind of semiosis, such as the interplay of different dialects—the ‘macaronic’ texts of Joyce or Gadda, for instance—to the encounter of markedly different forms of semiosis of the kind common in new media.

Lotman’s description of the semiosphere offers a theoretical model that allows one to organize the diversity of semiosis by the degrees of their translatability. This is not to be confused, as we shall see, with the idea of total translatability (the existence of asymmetrical systems defies this), nor can it be equated to *infinite semiosis*, a concept that is at times understood as encompassing the sum total of semiotic activity.

### ***3.2 Intersemiosis and Infinite Semiosis***

In the 1860s Charles Sanders Peirce observed that a sign could be explained only through another sign, which leads to an infinite chain of signs. Perhaps the lapse of a century justifies the validity of this idea. In *A Theory of Semiotics* (1979),<sup>12</sup> Eco elaborates on the notion of *unlimited* or *infinite semiosis*. For Peirce, a sign generates an *interpretant* (not to be confused with *interpreter* or *interpretation*), which is the *representation* of another sign, which, in turn, leads to another *interpretant*. “The most fruitful hypothesis,” writes Eco, “would seem to be that of conceiving the *interpretant as another representation which is referred to the same ‘object’*. In other words, in order to establish what the interpretant of a sign is, it is necessary to name it by means of another sign and so on. At this point there begins a process of *unlimited semiosis*, which, paradoxical as it may be, is the only guarantee for the foundation of a semiotic system capable of checking itself entirely by its own means” (68).

Eco’s last statement presupposes a particular kind of semiosis, namely that of a symbolic or formalized system, which usually implies the presence of language, of a system capable of acting as its own metalanguage, “of checking itself entirely by its own means.” This kind of self-reflexive

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operation would be difficult if not impossible to achieve by many of the other alternative forms of semiosis: of visual systems, for instance, or music. The diversity of semiosis thus opens a theoretical question in Eco's elaboration of Pierce's notion of infinite semiosis. Semiotic systems capable of describing other systems are not alone; a wider intersemiotic sphere surrounds, nurtures, and enriches them.

### 4. A Comparative Approach

The variety of signifying systems that intervene in today's multimodal systems of communication brings to the surface intersemiotic forms of meaning that, lacking better modes to describe them, are often simply called "effects." One way to approach the question of meaning in intersemiosis is by comparing it to the transfer of meaning in translation, because the study of intersemiosis leads us, sooner or later, to consider questions of translation, and vice versa.

Roman Jakobson used the notion of *semantic equivalence* to refer to one of the goals of translation. This is a useful working tool, but, as with Walter Benjamin,<sup>13</sup> writes Cuperman, "the search for complete substitution, resemblance—what Jakobson called 'equivalence'—is meaningless" (6). Eco finds the idea of equivalence problematic even among synonyms (2001:9), but affirms, nonetheless, that a basic characteristic of translation is an effort to "say the same thing using different sign systems" (70).

In *Experiences in Translation* (2001), Eco presents an erudite overview of some of the central problems of translation, which he distinguishes from the broader concept of interpretation. Translation involves rendering the meaning of one (linguistic) system into another, a process that becomes progressively problematic when increasingly heterogeneous forms of semiosis come into play—the translation of music into images, for instance. Where Barthes uses Hjelmslev's notion of *substance* to identify types of signs and sign systems, Eco takes a diametrically different tack and uses instead Hjelmslev's notion of *continuum* or *purport*,<sup>14</sup> concluding that "there is a limit to translation when we are confronted with 'diversity in the purport of expression'" (73).

At the limits of translation and interpretation Eco arrives at what he describes as an "effect" that "cannot be fully translated into words" (96). In the last pages of *Experiences in Translation* Eco quotes a passage where Paolo Fabbri reflects on a verbally untranslatable transition in Fellini's *Orchestral Rehearsal* (1978). In it, the slow, continuous movement of the camera seamlessly takes the viewer



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form a subjective to an objective point of view. Eco adds, “language allows us to say what the camera *did*,” but the *effect* cannot be fully translated (96).

There is an almost exclusive emphasis on film in the section of *Experiences* dedicated to the description of *intersystemic interpretation*. And there is a reason for this besides Eco’s particular interest in film adaptation (he makes a number of remarks concerning Jean-Jacques Annaud’s adaptation of his first novel, *The Name of the Rose* [1980]). The kinds of effects to which Eco refers are most common in the various intersemiotic forms of montage that are possible in film—montage of image and music, for instance. These juxtapositions may take place *in praesentia* or *in absentia*. A good example of the latter is when a particular sound or music, the source of which we see on the screen (sound ‘on’), becomes associated with a character or event that is metonymically called back to mind when the music resurfaces later with sound ‘off’.<sup>15</sup> The full meaning of these kinds of complex intermodal messages defies translation into a verbal system.

We can distinguish between intersemiosis and translation in the following way. Translation entails a process of transporting or transposing some degree of meaning from one system into another—where an effort is often placed on “saying the same thing.” It strives for likeness—semantic, rhythmical, stylistic, compositional, et cetera—between a so-called “source” and a “target” text, a goal more easily achieved between systems sharing similar kinds of semiosis. Intersemiosis, in contrast, refers broadly to the semantic encounter, interplay, and varying levels of integration between systems with different kinds of semiosis. It concerns the particular properties of the intervening systems, their modes of interaction, and the supplementary meanings generated by these encounters.

This last aspect, the question of meaning, is at the heart of intersemiosis. How are we to describe the “effects,” the *sui generis* forms of meaning sparked by marked kinds of intersemiotic encounters? No attempts have been made to put this problem in a theoretical frame. Lotman’s observations regarding the production of meaning in the semiosphere gives us one applicable model. Intersemiosis, in fact, occupies a privileged place among the meaning generating mechanisms in the semiosphere.

Not all asymmetric systems in the semiosphere consist of different kinds of semiosis—‘macaronic’ texts, or texts composed of a mixture of languages, are an example—, but all forms of intersemiosis, such as we have defined it, are interactions involving asymmetrical systems. Intersemiotic phenomena occupy a zone in the spectrum ranging from complete symmetry to complete asymmetry. Since some forms of intersemiosis resulting from markedly asymmetrical systems are

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untranslatable, they produce some of the highest levels of information. In section 7 we will consider a particular example of intersemiotic encounters that ‘say a lot’ and which at the same time are too difficult to describe without high levels of abstraction. It is in these untranslatable clashes and exchanges that we find some of the hottest spots of semiotic activity.

### 5. Intersemiosis and Intersemiotic Translation

A review of the scholarship regarding intersemiosis leads back to Jakobson’s 1959 influential essay “On Linguistic Aspects of Translation.” In it, Jakobson uses the adjective “intersemiotic” to describe a particular kind of translation. Starting from a definition of the linguistic sign as a “translation into some further, alternative sign,” a concept he borrows from Peirce, Jakobson identifies three kinds of translation:

- (1) Intralingual translation or *rewording* is an interpretation of verbal signs by means of other signs of the same language.
- (2) Interlingual translation or *translation proper* is an interpretation of verbal signs by means of some other language.
- (3) Intersemiotic translation or *transmutation* is an interpretation of verbal signs by means of nonverbal sign systems. (*Language* 429)

Scrupulous as he was, Jakobson certainly was aware of a significant absence in his typology, that is, of *the interpretation of nonverbal sign systems by means of verbal signs*. Moreover, and perhaps more significantly, he stopped short of attempting a description of the interpretative operations between nonverbal forms of semiosis. This would have forced him to enter a realm in which interpretative processes become increasingly problematic if not impossible, particularly when the nonverbal systems in question are also nonrepresentational and thus lack a common referent.

Some scholars have read an added reversibility into Jakobson’s third definition. “On Intersemiotic Transposition” (1989), for instance, Claus Clüver refers to Jakobson’s definition in relation to *ekphrasis* along with other forms of transposition of visual into verbal texts.<sup>16</sup> Similarly, in “Translation as Translating as Culture,” Peeter Torop extends the scope of Jakobson’s definition. “As a third type of translation,” he writes, “R. Jakobson suggested intersemiotic translation or transmutation that means interpretation of the signs of a sign system with the signs of another sign system. In this way, translating literature into film or theatre productions, the translatability of word into picture and vice versa became visible to translation studies” (2002:195-96).

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There is no “vice versa” in Jakobson’s measured definition, however; nor does it indicate the wholesale “interpretation of the signs of a sign system with the signs of another sign system.” Torop extends the definition even further. “Intersemiotic translation in R. Jakobson’s sense,” he writes in “Intersemiosis and Intersemiotic Translation” (2000), “becomes associated with all manifestations of total translation. It can be autonomous in the case of screen adaptation and complementary in the case of illustration or a photo accompanying a newspaper article, etc.” (72).

In this context, and alluding to the intercommunicative nature of all semiotic systems, Torop describes “culture as an infinite process of *total translation*” (72). He is not alone in this line of thought. In the preface to *Translation, Translation* (2003), Augusto Ponzio concludes: “semiosis or sign processes as such are, in fact, translation processes” (14). Eco responds skeptically to these all-embracing notions of translation. Alluding to Peirce’s work he points out that “it would be easy to succumb to the temptation to identify the totality of semiosis with a continuous process of translation; in other words, to identify the concept of translation with that of interpretation” (*Experiences* 68). “The universe of interpretations,” he writes, “is vaster than that of translation proper” (73).

### 6. Intersemiosis and the Variety of Semiotic Systems

Jakobson’s 1959 definition of intersemiotic translation/transmutation served as reference for many future studies that would use the notion of intersemiosis. But it is one of Jakobson’s later essays that seems to me fundamental to understand intersemiosis, although the term itself is not used in the essay. I’m referring to “Language in Relation to Other Communication Systems” (1968).

As we have seen, in order to study intersemiosis we must first define semiosis. It is in this essay where Jakobson offers a definition of semiosis as the “variable relationship between *signans* and *signatum*.”<sup>17</sup> “Besides the diverse types of *semiosis*,” he suggests that “the nature of the *signans* itself is of great importance for the structure of messages and their typology” (701). Jakobson’s definition draws a clear distinction between the learned, conventional relation between *signans* and *signatum*—typical but not exclusive of verbal signs—and the “multifarious relations between *signans* and *signatum*” in other forms of semiosis (699), such as abstract art or architecture. This approach helps distinguish the relation between verbal and nonverbal systems but does little to help understand the “multifarious” forms of semiosis that extend beyond this limit.

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It is in this essay, however, that Jakobson gives us the best tool to date to understand the production of meaning in nonverbal systems, a major contribution to the typology of semiosis. He introduces the distinction between *introversive* and *extroversive* semiosis, which is essential to understand the question of meaning in systems lacking the sort of correlational codes typified by natural language. Lotman renamed this distinction *internal* and *external recoding*, perhaps to underline its function in a theory of codes.<sup>18</sup> In *introversive* semiosis meaning is produced internally by a differential system of relations. This important contribution helps understand the nature of meaning in music and abstract art as well as in many other forms of semiosis where meaning is not the product of the correlation of elements in two chains, as is the case in natural language.<sup>19</sup>

Let us take a preliminary look at the interaction of different kinds of semiosis in the context of their translatability. In “Linguistics and Poetics” (1960) Jakobson offers a classic example: Debussy’s transposition of Stéphane Mallarmé’s poem *L’Après-midi d’un faune* into a ballet, that is to say, the interpretation of a verbal text by a syncretic system that incorporates, among others, the languages of music, dance, choreography, scenography, and costume design. Beyond the various interpretative operations that take place—we can say, for instance, that the dance interprets the musical score—the encounters between markedly different kinds of semiosis generate meaningful relations that are independent of both translation and interpretation.

The classic modern example is the screen adaptation of a book because it involves the transfer of meaning from a verbal system into one composed of various forms of semiosis (cinema). Martin Scorsese’s short film *Life Lessons* (1989) draws attention on the signifying function of powerful kinds of intersemiosis in the context of a highly creative interpretative process.<sup>20</sup>

## 7. Lessons on Transposition and Intersemiosis

### 7.1 *The Form of Content and the Content of Form*

*Life Lessons* is ostensibly an adaptation of Dostoyevsky’s 1867 novella *The Gambler*. The title points to the level of content, to *what* the story is about. But much of the story’s production of meaning takes place at the level of expression, in *how* the tale is told. Film’s multiple semiotic registers invite the inclusion of kinds of semiosis that are not present in the novella. Scorsese takes full advantage of this, adding in the transposition rich nonverbal forms of semiosis that engage each other generating new forms of meaning. In retelling Dostoyevsky’s story in the polyphonic language of film, Scorsese seizes the opportunity to offer a precious lesson on the relation between intermodal translation and intersemiosis.

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The film only obliquely resembles the novella's plot. The correspondences between the two are elementary; they begin with an indirect, extratextual reference to Dostoyevsky's biography. At the time of the writing, Dostoyevsky was an indebted gambler under the pressure of a deadline to finish the novella in order to pay off a debt. Similarly, the film's protagonist, Lionel Dobie (Nick Nolte), is a prominent New York artist under pressure to finish a set of paintings for a coming show. The novella's protagonist, Alexei Ivanovich, is hopelessly in love with beautiful Polina. Similarly, Lionel professes unconditional love for Paulette, a beautiful young woman (Rosanna Arquette) who "has" a room in Lionel's Manhattan loft and works as his assistant. Both Polina and Paulette challenge their respective lovers, Alexei and Lionel, to do self-destructive acts (to insult an aristocratic couple in the novella, to kiss a policeman in the film). At one point Scorsese uses the film's written register to fleetingly signal Dostoyevsky's addiction to roulette (and to Lionel's manipulative love games): we briefly see the words *Russian Roulette* written on the door of Lionel's truck.

The transposition into film adds complex semiotic dimensions to Dostoyevsky's novella. One of the themes of the film is the artist's effort to compose a series of abstract paintings for an upcoming exhibition, and we see this creative process in colorful close-ups. We could say that one of the central characters in the film is abstract art, and in particular a large work-in-progress that we see evolve through its rhetorical stages: preliminary sketches (*inventio*), various levels of organization (*dispositio*), and finally "the show," its exhibition in a Manhattan gallery (*elocutio*). This is a large canvas to be read from left to right; in the sweeping panned depiction of its early sketches, the faintly painted word FIN can be seen at the right end of the canvas, a gesture that signals linearity.

The film also adds circularity to the novella's structure. By the time the paintings are done, Lionel and Paulette's love story has ended. In the final scene at the exhibition in the gallery, however, Lionel's conversation with another smitten beautiful young woman suggests that the story will repeat itself ("I need an assistant. I pay room and board, give life lessons that are priceless, plus a salary. You wouldn't know anybody who needs a job, would you?"). This circular structure is marked throughout the film by a series of shrinking iris wipes.

Beside the novella's basic plot elements, Scorsese's film is organized around a major intermodal axis: the semantic juxtaposition of music and abstract art. We witness Lionel responding to a repertoire of rock-and-roll tunes in the abstract language of forms and colors.<sup>21</sup> In a series of close-ups, a seemingly random disposition of bright colors fills the shifting frame of the screen, creating new abstractions. Some shots display the painter's palette, which in Lionel's case is the back end of a large metal garbage lid. It becomes apparent that Lionel uses his art to sublimate his unrequited

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desire for Paulette, that he uses his desire for Paulette to fire up his creativity. This transmutation of Lionel's libidinal impulses has correspondences with the transposition of musical stimuli into art—the creative play of his palette displaces, redirects, and consumes his desire for Paulette. “Sometimes I feel like a human sacrifice,” she complains at one point.

### *7.2 Intermodal Intersemiosis*

The film's visual messages are juxtaposed to the sound of rock-and-roll tunes—only one classical music piece is played in the film, Puccini's aria “Nessun dorma” from *Turandot*. This is a significant exception. The aria is framed by the music of Procol Harum's “Conquistador” on one end, and by Bob Dylan's “Like a Rolling Stone” on the other. This minus-device (the significant absence of the expected rock-and-roll) comes at a pivotal place in the film, at a time when Lionel appears to have given up. Snubbed by Paulette—who is sleeping with Toro, a promising young artist—Lionel has reached an affective low emphasized by the framing angle: we see him from above, sitting in an old armchair, looking tired and diminished. But everything changes next morning. When Toro comes down to the studio with a gratified look, Lionel offers him a cup of coffee and resumes playing Puccini's aria. Cranking up the volume, he begins to add energetic brush strokes of color on the large canvas, pausing only to give Toro a satisfied, victorious grin.

The rock-and-roll songs and the operatic aria are in themselves both expressions of intersemiosis in that they are composed of a combination of introversive (music) and extroversive (lyrics) semiosis. Additionally, the contrast between the two sets of musical expressions, classical and rock-and-roll, is so marked, the codes of their languages so different, that we may also consider it an indicator of a difference in semiosis. In the effort to distinguish the frontiers of different kinds of semiosis within a single artistic modality, in this case music, we are faced with a slippery but important theoretical problem.

We mentioned earlier (2.1) that the dialectics between what rhetoricians call the *naked* and *adorned* levels of verbal communication could be considered an example of intermodal intersemiosis. Is a sonnet constructed on the same kind of semiosis as a newspaper article simply because they are both verbal texts? The answer is yes and no. They both respond to the semiosis of what Barthes calls a typical sign system, namely verbal art, but they are distinguished by the degree to which meaning is generated internally, within the system. In this sense, the aesthetic function, what Jakobson calls an orientation (*Einstellung*) towards the message, can be said to add a new form of semiosis to the text.

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We may ask a similar question regarding Scorsese's juxtaposition of markedly different expressions of music. Can this kind of musical montage be considered a form of intersemiosis? The question, as we said, leads us to consider the boundaries between typical forms of semiosis. It also illustrates the proximity between a theory of intersemiosis and a *broad* understanding of the notion of montage, one not limited to film's visual register, as it is often the case. This, however, is a discussion that must be left for other studies.

### *7.3 Interpretation and Intersemiosis*

Here we would like to pay particular attention to the relation between interpretation and the principal forms of intersemiosis in *Life Lessons*. The film starts by suggesting a series of interpretative stages—from novella, to script, to film—, the creative rewriting of Dostoyevsky's text. At a higher level of abstraction Scorsese draws correspondences between these and other levels of interpretation and the 'hot' forms of meaning generated by the juxtaposition of two asymmetrical, mutually untranslatable forms of semiosis—music and abstract art.<sup>22</sup>

*Life Lessons* can be seen as a study of the distinction, coexistence, and tension between interpretative and intersemiotic processes. Scorsese is careful to heighten the level of intersemiotic complexity of the artistic modalities that intervene in the film. The film's music is not pure or absolute music<sup>23</sup>—it has lyrics, and hence it responds to both intro- and extroversive forms of semiosis. Besides, the lyrics are often poetic ("adorned") and open to abstract forms of meaning (consider for instance the music of Procol Harum's oneiric "A Whiter Shade of Pale," prominent the film). At the level of the visual register, Scorsese is careful to show subtle representational signifiers in close-ups of Lionel's abstract work. We see in them vague figures and bridges, for instance. These kind of extratextual links are much more obvious in Paulette's work, where Lionel notices "a nice little irony" in the tension between two depicted human figures.

*Life Lessons* thematizes the structural correspondences between the semiosis of music and abstract art. Jakobson's distinction between *introversive* and *extroversive* semiosis, which has been redefined by various authors (cf. Nattiez: 102-129), remains a key to understanding the production of meaning in music. Jakobson found in music the prime example of *introversive* semiosis, concluding that the *dominant*, or "focusing component," of the language of music was the *artistic* or *aesthetic function*.

He explained music's introversive semiosis in terms of Peirce's famous division of signs into indexes, icons, and symbols. If the indexical sign is based on factual, or existential contiguity, the iconic on factual similarity, and the symbol on what Peirce calls "imputed" contiguity; the musical sign, Jakobson suggests, is based on a sort of "*imputed similarity*." What Jakobson does, in effect, is to

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propose a new category to Peirce's scheme in order to fill a logical and theoretical vacuum. "The interplay of the two dichotomies—contiguity/similarity and factual/imputed—," he writes, "admits a fourth variety, namely, imputed similarity" (1968:704).

When applied to music, the notion of imputed similarity evokes a nonrepresentational, that is, a non-factual "image" that can also be used, as Jakobson proposes, to describe abstract art. In *Life Lessons*, Scorsese juxtaposes these two kinds of semiosis to generate new, powerful forms of meaning, particularly charged, as we said, because the semiosis of the film's score includes both imputed similarity (music) and imputed contiguity (lyrics). Moreover, Lionel's art—in particular the large painting—is composed, as we mentioned, around a series of loosely marked sequential frames that bring into otherwise absolute abstractions an inclination to tell, a narrative property typical of verbal art.

*Life Lessons* offers itself as an ideal example of the coexistence and differences between interpretation and intersemiosis, but it is also a consummate illustration of the artistic play and blur of these frontiers. Which modality translates which? Is Lionel's art interpreting the music or is the film's music acting as supporting commentary on the art? Is it possible to tell where interpretation ends and the untranslatable intersemiotic play starts? And since for the most part they are simultaneous operations, how are we to distinguish their semiotic frontiers?

### ***7.4 Intersemiosis and Film's Multiple Registers***

A final note on the function of the polyphonic language of film is needed. The intricate play of levels of interpretation and powerful forms of meaning are made possible by the multimodal nature of film. The elementary semiotic structure of film consists of five basic registers, which were originally identified by Christian Metz: images, spoken language, written texts, sound effects, and music. Each of these can serve as conduit for various forms of semiosis (seemingly supportive sound effects can have multiple signifying functions in the broader context of a sound design that includes music).

None of these interacting systems, in any given shot or in the entire film, can be said to necessarily interpret any other, nor are they necessarily semantically independent of each other. As Scorsese's film shows, various degrees of interpretation may come into play alongside rich new forms of meaning arising from a combination of asymmetric systems.

The musician Philip Glass complained about the subordinate function of music in film: "There's usually a script and they do what they call spotting, or finding places where the music goes. No,



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actually something even worse happens. Usually what they do is they've edited the movie before you've gotten there [using] a *temptrack*, which is a temporary soundtrack which could be anything from Bach to the Beatles." And the composer has to "fit" the music to the edited film (273). This can be compared to the traditional subordinate function of illustration in relation to the verbal text that we discussed in section 2.1.

### 8. At the Outskirts of Interpretation

#### *8.1 Towards the Limits of Interpretation*

*Life Lessons* shows that some of the most engaging forms of meaning are produced when highly asymmetric systems enter into a complex play of correspondences that extends beyond the limits of interpretation. We have seen how mutually untranslatable semiotic systems, such as absolute music and abstract art, can enter into a creative play that generates high levels of information. To simply call this "effects" does little to help understand the powerful semantic and organizing functions that marked forms of intersemiosis often have.

Lotman's notion of semiosphere allows us to place this problem within a broad theoretical model. But there is also a way to study it in the narrower context of a systematic approach to a much better studied semiotic operation. Jakobson's tripartite model of translation in "On Linguistic Aspects of Translation" leaves us at the edge of a divide that at once differentiates and links the spheres of translation and intersemiosis. Perhaps being careful not to step beyond the scope of linguistics, Jakobson's typology, as we have seen, does not account for the interpretation of nonverbal signs by means of nonverbal signs. To do so would also imply going beyond the limits of interpretation.

Let us consider in this light the theoretical problem Jakobson faced as he followed the logical progression of his typology in a path leading towards increasingly asymmetric combinations. His typology, as we saw in Section 5, ends with this definition:

- (3) Intersemiotic translation or *transmutation* is an interpretation of verbal signs by means of nonverbal sign systems.

To account for the interpretation of all forms of semiosis we must begin by adding reversibility to this last definition—as some critics have assumed automatically (the two previous definitions, of intralingual and interlingual translation, are implicitly reversible). This reversibility could be done by simply adding "and vice versa" at the end of the definition—this would account for *ekphrasis* and

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other kinds of transpositions of non-verbal into verbal texts (I have marked the revised category with an asterisk).

- (3\*) Intersemiotic translation or *transmutation* is an interpretation of verbal signs by means of nonverbal sign systems and *vice versa*.

The next logical category would have to consider *an interpretation of nonverbal sign systems by means of nonverbal sign systems*. We could call it *nonverbal intersemiotic translation* and define it as follows:

- (4) Nonverbal intersemiotic translation is an interpretation of nonverbal sign systems by means of nonverbal systems.

### **8.2 Beyond Interpretation**

To go any further would be to step beyond the horizons of translation and thus outside the scope of Jakobson's essay. He preferred not to go beyond the domain of linguistics, but this absence is also an invitation, for it incites us to see what would in theory lie beyond the problematic interpretation of nonverbal sign systems by means of nonverbal systems. And this turns out to be an instructive semiotic venture.

We are led to consider the interaction of heterogeneous systems where the meaning of each is produced exclusively by an internal play of their elements (introversive semiosis) or, as Eco puts it, where "the signatum of these entities is bare otherness, namely a presumably semantic difference between the meaningful units to which it pertains and those which *ceteris paribus* do not contain the same entity" (1970:48). Interpretation is no longer possible in this case.

Consequently, we could add the following category, which may also serve as a definition of semiosis in the context of translation:

- (5) Intersemiosis is the non-interpretative interplay of heterogeneous systems of introversive semiosis, which generates *sui generis* forms of meaning. Intersemiosis is also present in and can coexist with interpretative processes of extroversive forms of semiosis.

This last definition, which places intersemiosis in the context of Jakobson's model and of translation theory in general, required an open-ended coda: *Intersemiosis is also present in and can coexist with*

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*interpretative processes of extroversive forms of semiosis.* This is why: Although the production of intersemiotic meaning is perhaps most noticeable in the encounter of fully introversive systems such as absolute music and abstract art, understood broadly intersemiosis can exist, and often does, as Scorsese's film shows, alongside interpretation. The following succinct definition refers to Lotman's model:

*Intersemiosis describes non-interpretative forms of meaning produced by the interaction of systems with significant levels of asymmetry.*

### 9. New Media Intermissions

#### *9.1 The Intersemiotic Code*

Intersemiosis, we said, is quite prominent in the new media, *the third screen*. Human communication processes are largely defined today by the exchange of a shifting repertoire of intermodal messages. But it was in *the first screen*, in the long creative process of cinema's development as an art form, where the expressive possibilities of the interplay of different kinds of semiosis were honed. Film's multiple semiotic registers offered a laboratory and a playground for exploring the universe of meanings sparked by the de-automatized interaction of the principal systems of human communication, namely, of verbal (both spoken and written), visual, and musical systems.

Thus, from the perspective of the study of intersemiosis, it is right to conclude, as Lev Manovich's does in his carefully developed thesis, that "cinema, along with other established cultural forms" is a code in the new media (333). To be more precise we could say that it is the primary code informing intersemiotic processes in the new media. If language is our *primary modeling system*, as Lotman famously put it, *cinema is certainly the primary modeling system of today's 'screens'*.

Among the various manifestations of culture, cinema has evolved as one of the most flexible and complex systems for the meaningful interplay of different forms of semiosis. Referring to "the variety of constructed, complexly organized and maximally concentrated information" in film, Lotman remarked that the study "of the mechanics of this effect is the basic task of a semiotic approach to film" (1976:41). We may add that this is also one of the basic tasks of the study of the various intersemiotic systems that are at play in 'screens'. When we consider the array of intersemiotic phenomena in the new media, a reference to cinema is unavoidable.

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### ***9.2 Body Canvas***

Let me conclude by citing two interesting examples of intersemiosis in contemporary media. “Somebody That I Used To Know” (2011), by Belgian-Australian singer/songwriter Gotye, is a four-minute musical video that became sort of a sensation in the ‘little screen’.<sup>24</sup> As of January 2018, the video has been viewed over 1.0 billion times on YouTube—and we must keep in mind that more than half of YouTube views come from mobile devices.

Four primary forms of semiosis are at play in the video: music, lyrics, visual art (by Howard Craft), body painting, and corporal language (that of the two performing artists: Gotye and Kimbra, a New Zealand singer). The video begins synecdochically with a frame of part of Goyte’s body. He sings a plaintive song that is rhythmically juxtaposed with shots of a neo-cubist painting in-progress. By means of stop motion animation the painting gradually extends into the expressionist canvas of the couple’s nude bodies. A series of intersemiotic juxtapositions (painting/music, body/painting, body language/lyrics, etc.) produce rousing forms of meaning untranslatable by a language of description.

As in *Life Lessons*, it is also possible here to identify interpretative processes—the visual art can be said to interpret the emotions expressed by the music (the red rhombus under Goyte’s eye is all but literally a sign of sorrow). But the relational meaning generated by the series of juxtapositions (the code of the system) cannot be reduced to interpretation. Neither can it be considered a residual aspect of the message—to call it an *effect* would be to diminish the magnitude and impact of its meaning.

### ***9.3 Eloquent Silence***

*Drone*, the 2014 English-language documentary film directed by Norwegian director Tonje Hessen Schei shows how video games are being used as recruiting tools for drone operators. War as a fun game, and killing for pleasure and reward are dominant themes in today’s video games market. They serve as a way to help future adults forget that sometimes the people on the other side of screen are real, actual human beings.

In the broad scope of the language of video games, there are few significant exceptions to the dominant trend towards violence. An example is Jenova Chen’s *Journey* (2012). Players enter a magical and somewhat mystical visual environment accompanied by a meditative sound design that blends the musical score with other sound effects. No verbal—written or spoken—signs are used; the players cannot even know their names. The only method they have to communicate and make meaningful choices are a series of sounds (chimes) that affect the shapes, colors, and the enigmatic symbols discovered during the long journey.<sup>25</sup>

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Based on the progression of Joseph Campbell's monomyth in *The Hero's Journey*, the game leads the player into a peaceful but challenging journey that reflects a quest for personal transformation. It is an emotional journey to be completed by following, discovering, and inventing a system of nonverbal intersemiotic markers. And since the players make their own paths and ascribe their own meanings to the intersemiotic messages they make, we could say that with every new journey a new language is invented.

### 10. Indices

Every journey in intersemiosis ultimately leads us back to the elements of semiotics. As I type these concluding lines I pause to notice my index finger pointing to a system of signs (I am using an iPad), and wonder how many other index fingers in the planet are pointing to a visual representation of the alphabetic code (or to an alternative keyboard input method).

Before I paused my finger was just another element in the medium I use to send this message; the reflective pause turned it into a sign, an indexical sign in parasynonymic relation with the code of this message—a sign pointing to a system of signs. The alphabetic code it points to is itself a silent representation of the spoken word, a *virtual sound*, as Irmengard Rauch reminds us (2012:5). My index finger is thus signaling our primary system of communication, the spoken word. It is showing me my voice.

But it is also pointing to a 'screen', an elegant portable machine that can do much more than transmit and receive verbal messages to be heard in the silence of our mind, which is the act of reading. With a few touches the screen becomes a colorful new keyboard. My finger now points to a display of apps that respond to new layers of algorithmic codes that can enable, organize, and distribute (as well as disable, control, and censor) the exchange of vital or trivial information in various kinds of semiosis (pictures, videos, movies, music, games, multimodal messages, etcetera). If information is power, power quickly learned to be vigilant of 'screens', hence today's levels of disinformation, surveillance, and secrecy.

I pause. I see myself looking at an incandescent screen. My finger is pointing metonymically to new horizons of intersemiosis, and metaphorically to the vast and mysterious universe of signification.

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<sup>1</sup> There are only three references to related terms in the 1990 edition of Windfried Nöth's *Handbook of Semiotics*. Two of them in reference to Greimas's idea of the correspondences between the semiotic and the nonsemiotic realms, one to Sebeok's critique of the translatability of nonlinguistic signs into language.

<sup>2</sup> See note on Peirce's "On a New List of Categories" (23).

<sup>3</sup> Anthroposemiotics studies the signifying processes of humans; zoösemiotics studies the signifying processes of speechless animals.

<sup>4</sup> Demographic studies indicate that the use of visual social media—platforms such as Instagram, Pinterest, or Snapchat—is rapidly gaining ground over Facebook among users under thirty.

<sup>5</sup> *La vuelta al día en ochenta mundos* (1967). An abridged English translation was published under the title *Around the Day in Eighty Worlds*, 1986.

<sup>6</sup> The term intersemiosis has been variously used in a number of other fields, often to account for the growing function of combined verbal and visual modalities in the media and the arts—most notably, by a relatively new school based on Michael (M.A.K.) Halliday's linguistics. These studies generally bypass any mention of the semiotic tradition or to the fact that the term derives from *semiosis*, a fundamental concept in the ancient science of semiotics. See for instance Gunther Kress and Theo van Leeuwen (1990, 1996, 2001).

<sup>7</sup> Reproduction of some of the editions of this out-of-print book are available online.

<sup>8</sup> It was McLuhan who introduced the concepts of global communication and media environment, among others.

<sup>9</sup> I am grateful to my colleague, Dr. Kyle J. Holody, who suggested the distinction between the *first*, *second*, and *third screen*, and also for a number of valuable suggestions he made regarding aspects of this study.

<sup>10</sup> The phenomenon of 'screens' extends far beyond sphere of socio-cultural communication; it also encompasses emerging developments such as telepresence medicine, "surgical" drone attacks, and massive surveillance operations.

<sup>11</sup> According to information theory, a signal with a higher number of alternatives has less information than one with few or none. The meanings generated by intersemiosis are often rare, *sui generis*, forms of meaning.

<sup>12</sup> Originally published in Milan as *Trattato di semiotica generale* (1975).

<sup>13</sup> See for instance "The Task of the Translator".

<sup>14</sup> According to Hjelmslev all languages have in common an amorphous "thought-mass," which he calls *purport* or *continuum*. He uses the analogy of the color spectrum to describe "the amorphous continuum" of sound on which "each language arbitrarily sets its boundaries" for the designation of colors (1966:52).

<sup>15</sup> As the melancholic music of the Andean *quena* does in Jorge Sanjinés's film *Ukamau* (1966), a rhetorical device that Sergio Leone would effectively use two years later in *Once Upon a Time in the West* (1968) to the tune of Morricone's "Man with a Harmonica". See Sanjinés, 2015.

<sup>16</sup> *Ekphrasis* is the verbal re-creation of visual art, a practice dating back to antiquity.

<sup>17</sup> Jakobson uses the Latinized version of a tripartite division identified by the Stoic philosophers: *signum*, *signans*, *signatum*. This ancient distinction is the source of Ferdinand de Saussure's division of the sign (*signum*) into *signifiant* (*signans*) and *signifié* (*signatum*).

<sup>18</sup> See the chapter on "The Problem of Meaning" in *The Structure of the Artistic Text*.

<sup>19</sup> In many instances—such as in literary or poetic texts—introversive semiosis coexists with extroversive semiosis, a structural complexity that increases the level of information of the text.

<sup>20</sup> The film was released as part of *New York Stories*, an omnibus film composed of three short films tied together by the theme of New York City. Francis Ford Coppola and Woody Allen direct the other two films.

<sup>21</sup> This short montage clip gives an idea of these intersemiotic correspondences [https://www.youtube.com/watch?v=9v\\_4SJ4lZxk](https://www.youtube.com/watch?v=9v_4SJ4lZxk). The art featured in the film is that of American artist Chuck Connelly.

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<sup>22</sup> Referentiality in music is always problematic. Various notions of referentiality have been used to describe music's extratextual bonds with the world of objects and phenomena (see Nattiez 118-29; Nöth, *Handbook* 431-32).

<sup>23</sup> Meaning in absolute music, also called abstract music, is produced within the system. It is devoid of semantic bonds with elements of the world or of other texts.

<sup>24</sup> This is the official video's URL: <https://www.youtube.com/watch?v=8UVNT4wvIGY>

<sup>25</sup> The following clip shows a play-through of the game: <http://www.youtube.com/watch?v=bkL94nKSd2M>