

Umberto Eco
Thirty Years Later: A New (and More Modest) Recognition of Semiotics

It's obvious that the title of my discussion is a quote from Garroni's book, *Ricognizione della semiotica* (1977). As we'll see step by step in the course of my discussion, the parenthetical expression "more modest" doesn't exactly represent a manifestation of false modesty, in the sense that it considers my recognition inadequate with respect to Garroni's. Even if that were the intention, none of you would believe it and you would understandably call me a hypocrite. I only wish to say that my recognition is considered tied to of a very modest notion of semiotics (in which *modest* certainly doesn't mean *weak*), while Garroni's recognition was considered tied to an ambitious semiotics (which at the time we all followed). I have the advantage then, to write retrospectively, thirty years later.

The symptomatic value of Garroni's recognition is due to the fact that, having written it five years after a book the he later considered too ambitious, *Progetto di semiotica* (1972), he later confessed that after the recognition of '77 he had decided to no longer work on semiotics in order to return to aesthetics one the one hand, and to Kantian sources of problems of knowledge on the other. To that end, I cite from his last given interview with Fiorenzo Ferrari, just before his passing, for his thesis *Estetica e filosofia in Emilio Garroni, 2004-2005*:

I had a real and true crisis of theory after having written *Progetto di semiotica*, a book that was semiotically too ambitious. The crisis was resolved with *Recognizione della semiotica*, which is a declaration of substantial abandonment of semiotics and a more determined opening toward other orientations, even if they are already present in previous writings.

If one considers that *Ricognizione della semiotica* began with the warning that it didn't constitute a libel against semiotics, but rather a critique of semiotics in a Kantian sense of the word, it appears that the confession of the last interview was possibly too radical. Personally, I believe that Garroni didn't actually abandon the reflections that he began under the aegis of semiotics, and that he simply conducted them under a different label, a common mishap in the academic world (I recall that my first reflections on semiotics were carried out in the department of architecture in a class on the topic of "Decoration".)

I mostly share the critique carried out in *Ricognizione*, but these same reflections prompted me on the one hand to continue to work in semiotic terms, and also pushed me to return to Kantian reflections (*Kant and the Platypus*, 1997) on the other; such a Kantian return was certainly influenced by Garroni.

In fact, our respective discussions have developed in parallel and continuous dialogue. It wasn't so much a physical dialogue, because in the end we lived in two different cities and we didn't meet every evening at the bar, but if I go back now and reread all of our respective writings, I note a sort of continuous Ping-Pong with similar serves and at moments, an unexpected close shave to the net.

Already, Garroni's *La crisi semantica delle arti* prompted a polite but polemic dialogue with my work, *Opera aperta*, and it wasn't a coincidence that in a following edition of *Opera aperta* I included "Postscript 1966", in which I wrote: "The objections that I have tried to answer in this postscript were for the most part raised by Emilio Garroni, author of one of the few exhaustive and scientifically sound critiques of *Opera aperta*¹." Today we won't go into his objections, nor which ones became mine. What matters is that this began a dialogue that never ended.

Semiotica ed estetica of 1968 addressed one of my more debatable explorations of film territory, through the proposal of a third cinematographic articulation, which serves to show how the linguistic model dominated every semiotic reflection at the time. I published *Struttura assente* myself, also in 1968, so it followed that some of those themes were discussed in *Progetto di semiotica* in 1972. But it is really Garroni's book that influenced my reflection on the differences between verbal language and non-verbal languages that I addressed again in my *Trattato di Semiotica generale* in 1975, obviously explicitly referencing Garroni. And so, with the *Trattato* in mind, Garroni wrote *Ricognizione della semiotica* through a dialectic of consensus and dissent, on one hand developing a critique of what he calls general semiotics, and on the other ending his second lesson with another explicit reference to my proposal that semiotics is not just a discipline, but rather a field; a theme I will return to shortly. But I recall that one of the first paragraphs of my *Trattato*

¹ Translation of quote from Umberto Eco, *The Open Work*. Tr. Anna Cancogni (Cambridge, MA: Harvard University Press, 1989. pp. 69.

was indeed called “Field or discipline?” and that my book appeared in a series of publications called “The semiotic field’.

And now let me stop for a moment on the first two essays of *Ricognizione* because I believe that I can say two things (which I have realized in the previous weeks while rereading the marginal notes marked in my copy of the book): (i) In general I shared Garroni’s concerns, his doubts, and his critiques of the pursuit of formal semantics, of the Hjelmslevian kind²; (ii) in my following works I believe that I provided my response to the problems laid out by Garroni, beginning with the preface to my *Semiotica e filosofia del linguaggio* (1984, that however collected the entries recorded for the Einaudi Encyclopedia between 1976 and 1980). The fact that I continued to develop my reflections dedicated to semiotics, and Garroni did not, has purely academic significance for me: he was working on semiotics but his professorial appointment was in aesthetics, while I worked extensively on aesthetics but my appointment was in semiotics – I therefore defended a label that Garroni was not required to defend. Simply stated, we both did philosophy and all the rest is conventional lies for hiring purposes. These are things I think of now and that I can say without hesitation, now that I am retired.

What then, were the principal problems Garroni racked his mind over in that book?

In the first place, the suspicion that semiotics wanted to imagine itself as the science of sciences, on one side striving for an irreproachable formal apparatus, and aware of all the phenomena of signification and communication from the perspective of a unified science – and here Garroni had in mind various research carried out in a structuralist environment, in order to see if every semiotic phenomenon could be analyzed with the thoroughness of the linguistic method (that is, in the most ambitious cases, with the thoroughness of the phonological model) and on the other side if this linguistic model could be the most formal of them all, that which most strived to achieve an axiomatic structure, the Hjelmslevian model. To that end, the Garronian critique served to register everyone else’s abandonment of these claims. And the detailed analysis of non-linguistic systems had revealed the impossibility of reducing the semiotic to the linguistic. But if this was the case, what substituted the linguistic model?

² Louis Hjelmslev

Two roads were opened. The first, was constructing a model that despite not reducing the semiotic to the linguistic drew the same axiomatic structure from the Hjelmslevian model, and, I'm thinking along Greimasian³ lines, whose siren call never attracted Garroni – which I therefore prefer to gloss over for the moment, except to note my suspicion that because of its generality, it facilitates the discovery of the same universal x-coordinate of the signification in almost every statement and almost every text, making it impossible to find a difference between a Mickey Mouse comic and the *Divine Comedy* – or at least this is how it works in the STENTERELLI-AN Greimasism, because obviously the maestro was more flexible and prudent. Second, Greimasian semiotics is a theory of action that seeks to find narrative structures deep within every textual manifestation, but doesn't assume the perceptive phenomenon as an object of study (Greimas didn't ask himself what a dog is and why we see it as such, but rather he assumed it as already a given inasmuch as a figure of the world). Therefore Garroni could not be interested in the Greimasian perspective when in reality, he would have problematized the **ESTESICO** moment even more in the later works, the Kantian schematic as a way of organizing perceptions.

Commentato [CB1]: aesthetic?

Another option, for me and for others, was to confront the general problem of semiosis from the Peircean point of view⁴. I recall how in the first essay of Garroni's *Ricognizione* he examines the principle lines of semiotic reflection, and next to the referentialist and the structuralist, Garroni places the Peircean, even if it doesn't seem like he drew all of the possible conclusions from this awareness. And yet it is Peirce who considers the problem of a semiotic of perception. And, as we'll see, it is in Peircean terms that Garroni could have written his essay on *reformulability*, and further, could have done so given the emergence of a new summary of the Peircean theory of interpretation by Niccolò Salanitro at the end of the '60s, in a similar school of thought.

The second problem that emerged from the first essay is if, wanting to constitute itself as a super science, semiotics had really “produced applicative results, that were at once new, useful, and productive, and to what degree these had incrementally contributed to our knowledge”? Garroni didn't conceal that there were numerous and conflicting

³ Algirdas Julien Greimas

⁴ Charles Sanders Peirce

problems in the field of semiotic research of the time, but he advanced the doubt that these cognitive increments were, to so say it, accepted by the semiotic super science. Rather, he questioned if they could manifest themselves, and actually they were manifested, but in a range of different disciplines. In fact, he asked, “what new thing did semiology say about figurative arts or about cinema compared to Wölffian methodology, or to Panofskian iconology, or to the research of a Wittkower, or to the theoretic-analytic instrumentation of an Eisenstein⁵?”

I believe that were semiotics not necessary for ascertaining the syntax and semantics of the waggle dance⁶, or the way that the Finno-Ugric languages are structured, then the semiotic problem emerges when we ask ourselves if by chance there is a common aspect between the system of communication of the bees and the phonological system of the Finno-Ugric languages. This is the fundamental problem of semiotics.

Years ago I had a debate with one of those typical representatives of philosophical Taylorism of the American analytics, that is, Gilbert Harman, according to whom if one works on verbal language one can't also work on images, at the risk of being expelled from the department of linguistics or of philosophy of language. Harman had legitimately argued that there is a large difference between the phrase “soon it will rain” and a cloud that could be interpreted as a sign of rain – but he concluded it as a reason to support the claim that if one works on the first question, one can't work on the second. My response to this objection was that, if there weren't any difference between a verbal expression and a cloud, there would be no reason to do semiotics: the challenge emerges when the differences are made evident and nevertheless one seeks to understand if there are rules, or cognitive mechanisms that preside over both the interpretation of a phrase as well as the interpretation of a cloud.

To return to the question of whether semiotics has borrowed from the discoveries of other disciplines, for me, the question isn't whether semiotics takes an idea or a

⁵ Francis Wolff (?), Erwin Panofsky, Rudolf Wittkower, Sergei Eisenstein

⁶ Technical term in English for Eco's “danza delle api”. It is a particular figure-eight movement or dance performed by honeybees in order to share information about resources.

conclusion from iconology or one from ethology, but rather how it puts them together in a perspective unknown to both iconology and ethology.

This implies however, that we no longer aim at a semiotics like a science, but, to use Garroni's terminology of the time, "broadly speaking, a cultural system more than a true and real scientific discipline."

Broadly speaking, what does a cultural system mean? I believe that for Garroni this specifically meant what I defined as a *field*, so I cite the conclusion of his second lesson: "Finally, one could say that everything— the atypical codes, actual codes, and sub-codes, collectively constitute the semiotic field through which the study of codes develops. It's enough that it's clear, on one hand, that the semiotic field doesn't indicate a true and real epistemic object, that is unequivocally defined, and on the other, that semiotics is not a unified or homogeneous discipline." But here I abandon the role of Garronian commentator and I explain how I understand it in my own terms.

The dominant tendency in twentieth century philosophy has been spoken of as a *linguistic turn*. In discussing the linguistic turn, Rorty intended to refer to the rut that occurred in the analytic tradition, from Frege to the encyclopedia of unified science, from the analysis of ordinary language to Quine and naturally to himself.

In reality, the decision to centrally position the linguistic problem (but naturally we should call it the semiotic problem) occupied all of twentieth century philosophy, occupied phenomenology, occupied the Heideggerian *Kehre*, and occupied the entire hermeneutic branch. But beyond philosophy, it also occupied the mathematical sciences with Shannon and Weaver's theory of communication, and (even with questionable outcomes in which the distinction between the triadic relationship of signification and the dyadic relationship of stimulation-response was not observed with sufficient rigor) it managed to occupy the biological sciences, from the theory of the genetic codes to the semiotic reading of immunological phenomena and so on. It doesn't suffice to say that there are profound differences between the way in which Bertrand Russell considered the problem of meaning and the way in which Heidegger considered it; yet again the philosophical stimulus emerges from the conscious decision to observe different phenomena from a unified perspective. We mustn't forget that philosophy was born when the philosopher *placed*

Being as the objective of his own research, which no one else realized, whereas common people *found* ants, planets, apples, and sunsets.

The central problem of the twentieth century was semiosis, in the Peircean sense of the word, in which something stands (according to someone's view) for something else in some respect or capacity. But this is still what Jakobson called *relation of deferment*. Nevertheless, in the Peircean concept of semiosis, there is more. There is the fact that the way in which something stands for something else, and the respect or capacity with which it stands, is determined by an interpretation so that the meaning of any sign is clarified through another sign that constitutes its interpreter, and so on infinitely.

I overlook the fact (one that is not in the least unremarkable and is also extant in Garroni's reflections) that Peirce's limitless semiosis doesn't imply a sort of reduction of reality to pure semiotic fantasy, because not only is every attempt at interpretation born from the need to recognize a dynamic object that is beyond semiosis (and for Peirce this dynamic object is very similar to Kant's thing itself), but in the process of interpretation forms *habits* that permit us to intervene in the reality that had stimulated the interpretation and modify it. But if even the question is theoretically fundamental, I judge it to be secondary to the historiographical perspective, because in the context of the twentieth century's *semiotic turn*, there were also versions that at one time we would have called idealisms of unlimited semiosis (that is to say, summed up in formulas such as 'there are no facts but only interpretations', or 'there is nothing outside the text').⁷

In any case, the novelty and philosophical importance of that which I will call the semiotic gaze was to put forth the relationship of deferment as a fundamental subject – mediated through interpretation – that presented itself in different forms in philosophy, linguistics, anthropology, and even in the natural sciences – and from this point of view it was obvious that semiotics took voracious possession over the findings in other disciplines, precisely because it was philosophical reflection on that which these disciplines had in common. We could say that the semiotic gaze sheds light on the idea of semiosis as characteristic of the *Zeitgeist*.

⁷ Derrida reference.

This was my notion of a general semiotics and I agree that in my *Trattato* of '75 this appeared again as a proposal of a sort of *mathesis universalis* that could recognize all the phenomena of semiosis with the same exactitude and the same rigor with which, for example, linguistics was able to recognize the phonological system of the Finno-Ugric languages.

But in my introduction to *Semiotica e filosofia del linguaggio* (1984), I distinguished specific semiotics from a general semiotics. The specific semiotics are the grammar of a particular system of signs, and when they are constructed well they have a descriptive component, sometimes even a prescriptive component, and to some degree a predictive component, at least in a statistical sense, inasmuch as they should be able to predict how in normal circumstances the user of a certain system would generate or interpret messages exchanged according to the rules of that system. As an example of a great specific semiotic, I would cite the grammar of the visual signage outlined by Luis Prieto in *Messages et signaux*.

This allows me to respond to one of the questions brought up in Garroni's *Ricognizione*, that is, if there were typical discoveries in the semiotic approach that couldn't have been carried out in the realm of another discipline? The analogies or the articulatory differences between various systems of signage studied by Prieto couldn't have been determined except from the point of view of a unified approach. One could contest that in that case the semiotic apparatus led to relatively modest results, because it described very elementary systems for us, so that, after Prieto had analyzed the system of naval signage, of stoplights and even of the white walking sticks of the blind, in light of Martinet's articulatory model, there was nothing left to say about those systems. But to say that the description of the functioning of an elementary system doesn't allow further in-depth analysis doesn't mean to negate their scientific precision and their social utility: take for example the Pythagorean table – once invented, there was no possible modification. It continued to work well without possible improvement – and yet it's an admirable tool.

The grammar of Italian or Finnish is a specific semiotics that is naturally more complex than the analysis of stoplights, but so is narratology (first developed on the impulse of those pre-semioticians that were Russian formalists and then became a recognized branch of literary semiotics). It was possible in a semiotic perspective to not

only perfect the narratological rules as they manifest themselves in the universe of verbal texts, but also to extend the results of narratology to non-verbal systems (noting for example, how the same narratological structures were transferrable from a novel to film or vice versa).

And yet the instruments with which the Finno-Ugric languages are analyzed are different that those used to analyze the narrative function or the various relationships between statements, the subject of statements, the author, the narrator, and the character... This is yet again an example that we are facing different semiotic phenomena that, at least for the time being, require further different categorical apparatuses in order to be described.

On the other hand, it describes a general semiotics. While specific semiotics somehow find their own subjects as already given (sounds, gestures, flags, and so on), general semiotics *put forth* subjects as philosophical categories. Sign, semiosis, and interpretation, which should give reason to various phenomena drawn from specific semiotics, are philosophical concepts and theoretical constructions. Without understanding this, we begin to debate the difficulty of considering a trail of *smoke* and the word smoke from one singular perspective.

As such, general semiotics presents itself as a branch of philosophy or even (at least for me) as an entire philosophy inasmuch as it deals with reflecting on the problem of semiosis.

And here we complicate things: by making the concept of semiosis central, general semiotics has authorized seeking out semiosis everywhere, not only in artificial languages and in various cultural phenomena, but also in the universe of natural phenomena and non-intentional phenomena, even at the cellular level, and even in the animal world. General semiotics makes this choice because it is, to say the least, driven from the bottom. Even if it hadn't been proposed in various sectors, rules for meaning in corporeal postures had already been pursued, as well as in gestures, and even in culinary arts – and it's not because of books on semiotics that the geneticists began to discuss the genetic "code".

General semiotics therefore acknowledged that semiotic interests existed even there, where those who practiced it didn't think, or didn't know, or even didn't want to do semiotics. In this way, a sort of ecumenical tolerance was developed, in the same sense in

which the tolerant missionary decides that even the unfaithful, whatever idol or superior being he adores, is *naturaliter* Christian and will therefore be saved.

It couldn't be otherwise. I'd like to cite the example of *Pertinence*, by Sperber and Wilson. It's a book on semiosis as an inference that has fascinated semioticians of Peircean descent, convinced of never saying differently. And yet the book opens with a violent anti-semiotic debate. It even deals with *ignoratio elenchi*, seeing as how the authors identify semiotics with the first French structuralist semiotics of the '60s, and not even all of it, but only that which they accidentally came to understand, and they also ignored that Peirce developed the main theory of inference. What can be said? Semioticians are like the tolerant missionary: it's not their fault if they haven't received the Revelation, because they are *naturaliter* semioticians. They are saved, even if they don't want to be – and in fact, as such, they are sometimes invited to speak to our students, who benefit from them, while the semioticians don't gain any advantage from the questions of our students who don't understand the material.

But to unify this mass of spontaneous work, only one general semiotic would be needed that puts itself forward as the capper, that regulates, and that guarantees a homogeneous terminological apparatus. Such that on the one hand it would be like asking the indigenous *naturaliter* Christian to adapt himself to the Gregorian theological tables; and on the other hand, if a general semiotic is a philosophical approach, it can't be the only one. Even semio-philosophical discourse develops like other philosophical discourse, in a variety of often-incompatible perspectives.

So on the one hand, the wild prospering of individualization of semiotic areas further encouraged general semiotics to sanction a broadening of the field; on the other hand, it encouraged the philosophical attempt to found the unity of the field around a theoretically wide subject such as semiosis, and to form a federation under the semiotic aegis of a pleiade of research specifically inspired by different methods.

A look at the proceedings from the first international congress of semiotics (Milan 1974) shows that they are divided into 13 sections. After a general section, which starts with Roman Jakobson's "Coup d'oeil sur le développement de la sémiotique", there followed a philosophical one, dedicated to the Foundations, to the relationship between Linguistics and Semiotics, Formalized and Scientific Languages, Semantics and Pragmatics,

Semiotics of literature, of visual arts, of film, television and theater, architecture, music, semiotics of culture, non verbal behavior, and psychopathology.

It was a lot. But it was too little. Twenty years later, the program of the fifth international congress of semiotics (Berkeley 1994) was bewildering even to the experts, due to the immense variety of topics. I will mention only a few, omitting the most obvious ones, or those similar to the topics of the first congress: Meta-Theory, Bio-Semiotics, Artificial Intelligence, Cognitive Sciences, Analysis of Political Discourse, Temporality, Japanese Pragmatics (sic), Semiotics of Silence, Semiotics of Death, Cyberspace, Legal Semiotics, Media, Body, Religion, Symmetry in Crystallography, Marketing, Writing and Calligraphy, Humor, Pedagogy, Man-Computer Interaction, Postmodern, Library and Information Sciences, Sexual Diversity, Analysis of the Cold War, Medical Semiotics...

Evidently, this did not correspond to a theoretical subdivision of fields of research, but only to an empirical and very pragmatic attempt at collecting within apparently homogeneous sessions a variety of contributions coming from every possible direction. And they were certainly selected (and actually accepted) on the basis of political correctness, meaning, with unprejudiced tolerance for every possible opinion – the very least one could expect from a congress taking place in California (where, as the joke goes, it takes sixteen people to change a light bulb, one screwing in the light bulb and fifteen standing by *to share the experience*). But even in this perspective, those hundreds of people who had gathered to give a talk at a congress on semiotics had found a familiar atmosphere. As though they were all candidates to collaborate in a new *Encyclopedie*, this time from the perspective of semiotics, in which everything from Theism to Gobelin's tapestries, the Egyptian language and windmills were to be taken into account; without aspiring to outline a system, but simply (as the *Encyclopedists* intended to do, after all) to present a thorough overview of topics through a variety of perspectives, maybe even mutually in contrast as far as method and convictions, but all representative of the spirit of the times.

Since *Ricognizione*, which undoubtedly issued a warning cry, we are authorized to believe that semiotics does not exist as one single discipline, and a scientific one at that. To employ academic terms, we have to be open to accepting the term "semiotics" not as the name of a discipline but as the name of a department, or course of study. Just as there is no

single discipline but rather a department of medicine: medicine used to be a single discipline, when it was that of either Galenus or Paracelsus, at its childhood stage; nowadays the common subject of the medical sciences is the health of the human body, but this goal is pursued through extremely varied methods and specializations, including plastic surgery and nutrition, gastroenterology and dentistry, and even space medicine, which are constantly evolving.

Medicine developed over the centuries in its immense number of variations around a fundamental intuition, the same one that is expressed in the Hippocratic oath: the physical health of the human being and the preservation of his vital functions are the paramount value. It does not seem like a lot, but in a society based on human sacrifices this idea would not be as clear. This key intuition is sufficient to grant unity to all of medicine's ramifications. However, medicine's various ramifications (at least those of Western medicine) assume a number of common discoveries as indisputable, for example the dynamics of blood circulation, the anatomic specificities of the human body, the names of the various muscles. Can we say the same thing about semiotics?

I think that among the participants of that congress in Berkeley there were a few areas in which a common terminology could have been employed, and a few years ago Ugo Volli compiled a small dictionary for first year students with the terms that, notwithstanding the different schools and theories, by now appear to be of common usage, such as denotation and connotation, signifier and signified. But we know just as well that there are fierce conflicts between schools regarding the concept of connotation, that some semiotics professors consider notions such as sign or communication to be outdated or harmful, and furthermore that the history of contemporary thought is full of philosophers who have striven to prove to everyone that something called meaning does not exist.

Nothing too dramatic. We're willing to accept differences that are just as radical in other fields and Garroni has reminded us many times, by professing a discipline academically called aesthetics, that to some philosophers (like Dewey, for example) phenomena such as a good dinner in a Paris restaurant constitute an aesthetic experience, whereas for Croce that dinner would be of aesthetic pertinence only if it had been depicted by Leonardo.

And so if we are to assume the idea of a broad semiotic field, the main reflection, we can call it general semiotics or otherwise, is a philosophical activity that, rather than finding unity in a system of terms and methodologies scientifically unassailable and shared by everyone, accepts the need to decide its loyalty to a side.

Garroni made a philosophical choice in the second lesson, to refuse the excessively narrow concept of communication as the central concept of semiotics, as well as the concept of formation or structuring, in general, by now untenable in his view. Instead, he decided to select as basic criterion that of *reformulation*. You will remember how he interpreted this concept: one has reformulation when a meaning expressed in a specific semiotic system can be translated into another one, even if the relationship is not necessarily symmetrical. It seems to me that Garroni's criterion of reformulation was exactly (or at least could be translated as) Peirce's criterion of "interpretant". Furthermore, the criterion of reformulation is not valid only between semiotic systems, but also within one system, as happens in that apparently elementary process of interpretation that is the linguistic definition of a linguistic term.

I find myself disagreeing with the Garroni of that time on two points. The first is when he writes that "general semiotics has usually overlooked the criterion of reformulation in various ways" whereas general semiotics is based precisely on this very concept (if the general semiotics he was speaking about was my own, and if I am correct in saying that the criterion of reformulation is none other than Peirce's criterion of the interpretant). One has semiosis when something not only stands for something else but can be translated into another expression that provides the same meaning.

The second point of disagreement is that for Garroni the fact that reformulation is never adequate and therefore that it is never complete and in any case never completely symmetrical (a traffic sign can be translated into words but a verbal discourse cannot always be adequately summarized by a visual signal), and that therefore every reformulation necessarily leaves what he called a residue, this appeared to him a limitation of semiotic science. Instead, if there is a fruitful element in Peirce's notion of interpretation it is precisely that every interpretation allows us to know something more about the object. For example, an interpretation of dog as mammal allows us to know more than what someone who sees it only as animal that barks at robbers can know, and an interpretation

of dog as animal that barks at robbers allows us to know more than what someone who considers it only a mammal can know. At the same time it restricts our knowledge in some way. For example, the interpretation of dog as barking animal cancels the fact that its female nurses the puppies, and so on.

This variety of reformulation is a fruitful motivation for a philosophical reflection on semiosis, whereas at the time Garroni considered it a limitation of every approach that claimed to be general semiotics. I really do not want to waste time, thirty years later, in a dispute with a friend who is not here to offer a rebuttal. I simply wish to clarify what my position is today, which I tried to make as evident as possible, by devoting an entire book to the concept of translation (*Saying almost the same thing*). Although in that work I argue against the idea that every interpretation is a translation (this may appear to be my opinion, but I simply claim that every translation is a case of interpretation, and the reversal between genus and species is not of little importance), all of the semiotic inquiry into the modes of so-called inter-semiotic translation (from linguistic text to film, from music to ballet, from sculpture to ekphrasis) is precisely what semiotic inquiry can say about the problems of reformulation that is new, interesting, unheard-of, not said by previous disciplines. What I mean is that, unless we assume an ambitious and excessively formalizing and formalized notion of semiotics, semiotics doesn't become interesting when the process of reformulation leaves no residue, but rather at the very moment in which one reflects on these residues.

Finally, in the first two chapters of *Ricognizione*, Garroni observed that the real problem of semiotics was the problem of meaning – and it was exactly in dealing with the problem of meaning that Garroni, at the end of the first essay of *Ricognizione*, tackled the problem of reflecting on the a-priori of signification and on the conditions of possibility of signification. Except that, as Kantian as he was already, he glimpsed the fact that this intellectual apparatus might have biological roots. Which was a way of imagining, in 1977, that the fundamental problems of semiotics should be faced within the realm of cognitive science. Something that has actually happened.

One of the most scientifically rich bookstores around Harvard University, Harvard Bookstore, reorganized its shelves at least twenty years ago. In many American bookstores, works on semiotics were usually placed in the most bizarre sections, rarely with linguistics,

more often with literary criticism, sometimes in a section that was initially called “structuralism” then “post structuralism” or even “post modernism (I remember that in a not marginally important New York bookstore in the Eighties I found Augustine’s works on the New Age bookshelf). Instead, at Harvard there is, or at least, there was until a few years ago, a single section, very broad, that includes Artificial Intelligence, science of the mind, logic and analytic philosophy, psychology of perception, linguistics and semiotics, and it goes by the name of Cognitive Science.

Many of us do actually pursue research on general semiotics in close contact with cognitive science, and Peirce’s semiotics has actually been defined as a cognitive semiotics. No one has ever stated that cognitive science is a specific discipline and the consensus is to consider it a sort of interdisciplinary aggregate with a common core, involving scholars of all the areas represented on the Harvard Bookstore’s shelves. Semiotics was correctly placed in that confederacy, even though some have questioned whether semiotics is a cognitive science or cognitive science is a branch of semiotics. The point is that semiosis has become the central concept of the contemporary scientific paradigm, in the same way that the concept of nature of the *res extensa-res cogitans* opposition might have been for other paradigms. But in order to say this, a discourse that we will continue to call general semiotics is necessary nevertheless, to define up to what point a common subject (be it even a *genus generalissimum*) can be found for all of these disciplines as well as the conditions for its theoretical construction.

To sum up: the semiotic gesture consists in identifying a phenomenon that we called semiosis at the heart of many different human activities (say, such as the sound with which the child calls his mother, the writing of the Odyssey, the interpretation of the clouds in the sky, the reading of an x-ray, and not only this, but also at the level of the perceptual and cognitive process itself), and therefore at the heart of the various disciplines that study these phenomena. Semiotics must show this problem to those who cultivate other disciplines, while ignoring it. And among my greatest pleasures as a scholar I include the visit from a radiologist who confessed to me that only after reading some pages of mine on sign and interpretation he understood why he had caused many people to die. But semiotics as philosophical reflection must first and foremost study the *conditions of possibility of semiosis* – and therefore how it can be that the recognition of semiotic

phenomena depends on our cognitive structures themselves. However you reformulate or face it, this is Kant's problem and it implies a return to the Kantian topic even if one were to decide that Kant's solution is inadequate in solving the problems it creates.

And this is why I believe that after *Ricognizione* Garroni didn't really abandon semiotics but rather he returned to it a different form and under a different name. But since I don't have the right to commit to this important decision in his name, I will only insist on the fact that this has marked the last years of *my own* semiotics – at least between *Kant and the platypus* and the essay "The Threshold and the Infinite: Peirce and Primary Iconism" in my latest book *From the Tree to the Labyrinth*.

I will try to offer an example of how a philosophical reflection on the conditions of possibility of semiosis can start from the results of other sciences on one hand and on the other try to clarify to these same sciences the conditions or limitations of validity of some of their theoretical conclusions. I will take the case of two sciences in which the semiotic and para-semiotic problem is not raised unbeknownst, so to speak, to the scientists, who actually borrowed concepts from semiotics, such as happened in the field of immunology, or even proposed concepts in a pre-semiotic phase that later semiotics assumed as its own in the first decades of its life, as happened with the notion of *code* in genetics.

In 1986 an international conference took place in Lucca in which scholars of semiotics and immunologists came together and found themselves in the following opposition: the immunologists present, who had already written extensively on the subject, cited texts of semiotics to prove that within immunological processes actual examples of communication, and of reference from signifier to signified take place. Instead, part of the semiologists had the tendency to claim that to transpose semiotic concepts at the immunological level was simply metaphorical and thus incorrect.

Immunologists deal with the mediated ways in which a lymphoid cell recognizes an anti-gene and consequently produces an adequate antibody – as though it were a police officer identifying a potential killer, detaining and arresting him. Naturally the two terms at play here need to undergo a thorough inspection: one is *to recognize* (what does it mean that a lymphoid cell recognizes an anti-gene?) and the other is *consequently* – meaning that we have to understand if this consequence is necessary and inevitable or rather the object of a decision. For example, the policeman is not compelled to arrest the killer, he may not

recognize him due to error or distraction, or avoid arresting him due to compassion, fear or corruption.

Since I believe that most of my listeners are more familiar with the genetic code than with the immunological one, I will go straight to the genetic code, where the same problem is posed from a theoretical perspective.

Geneticists use the term code because for example, in the passage from DNA to messenger RNA, the system “knows” (and again *to know* is like *to recognize*, a crucial expression) that it will have to substitute adenine with uracil, thymine with adenine, guanine with cytosine and cytosine with guanine, according to a system of precise equations, such that

A stands for (or if A then)>U

T – stands for (or if T then)>A

G – stands for (or if G then)>C

C – stands for (or if C then)>G

This certainly seems like a perfect semiosis system in which something stands for something else and substituting the first element with the second appears like a process of interpretation – we can say for example that uracil is the adequate interpreter of adenine. But let us not forget that, even though the interpreters are not empirical interpreting subjects but rather the theoretical possibility (and in some way collectively recorded or recordable) that a sign may adequately substitute another sign, this passage is however always empirically mediated by one or more subjects – at the very least because there could be many interpretations of a given A, all equally possible and legitimate, and we have to presume an agent choosing one over the other or even in some cases refusing to interpret.

None of this happens with the genetic or with the immunological code. The nucleotides do not know that A “means” U, nor can they decide not to react. They simply react by substituting A with U. We cannot say that the nucleotides behave semiosically because we are not able to prove that they can refrain from interpreting or can choose alternative interpretations. We are facing a dyadic process of stimulus-response and not a semiotic and therefore triadic process that implies stimulus-interpretation-response.

Certainly, to claim that a semiotic process must be triadic is a philosophical decision. Many people tend to consider dyadic processes to be semiotic as well. But in doing so – by excessively unifying their perspective – they miss the differences between different phenomena, such as the difference between raising your leg when the doctor hits your knee with a little hammer and raising it because you have decided to run or to dance. The semiotic approach must not only aim at showing the profound unity between different phenomena but also at pointing out the differences and highlighting the importance of the residues, to use Garroni's terminology.

Naturally at the Lucca conference the scientists attempted to prove that even at a molecular level forms of choice can be present, nor do I intend to discuss their argument now. I simply want to show that only from the perspective of a few key concepts of general semiotics could their semio-scientific problem be clarified and enlightened. And it was only by embracing these concepts that they could render their theory more or less persuasive. They had a semiotic problem (even if they had been unaware of it), semiotics took it on as its own and by making it part of its syllabus transformed it by rendering it comparable and commensurable with other problems. It reformulated it in exclusively semiotic terms and offered it as such to the reflection of specialized scholars.

In this sea of differences and identities, reformulations and residues, it is rather difficult to find one's bearings and common languages, and certainly the time has not come for semiotics to form an encyclopedia of unified science. Semiotics still has a lot of work to do and has not yet unified its methods because it has not yet finished identifying its problems. It may simply appear paradoxical to say that semiotics is only slightly more than two thousand years old and we can't expect it to have understood everything. But ultimately even physics, from the pre-Socratics to our times, is slightly more than two thousand years old and does not yet know everything about nature and the origin of the universe.

Semiotics is starting now, or maybe it will start tomorrow. It's a shame that Garroni is not here with us for the inauguration.