

Georges Chapouthier is currently Research Director Emeritus at the Centre National de la Recherche Scientifique (CNRS) in Paris, after an astonishingly multifaceted fifty-year career. He has in effect combined a career as a neurobiologist with philosophical speculation. Armed with a double “doctorat” in biology and philosophy, he has directed a research group specializing in the study of memory and anxiety in mice, while developing theories on the complexity of living organisms and animal rights. This activity has been disseminated in numerous books: *Introduction au fonctionnement du système nerveux* (with Jean-Jacques Matras, Medsi, 1982), or *Biologie de la mémoire* (Odile Jacob, 2001), or again *Kant et le chimpanzé* (Belin, 2009) for the philosophical aspect. In his last book, *Le Chercheur et la souris – La science à l'épreuve de l'animalité* (in collaboration with Françoise Tristani-Potteaux, CNRS Éditions, 2013), he relates the difficulties he has experienced in experimenting on animals while at the same time being an animal rights advocate. Finally, under the pen name of Georges Friedenkraft, he has been an intensely active poet and promoter of poetry, notably in the framework of the review *Jointure*, where he is one of the principal editors. Hédi Bouraoui has asked him to describe in detail this very rich, but particularly atypical career.

Georges, as I wrote you, I have very much appreciated the interview you had with *L'Archicube* (the review of the students, former students and friends of the École Normale Supérieure of Paris), entitled: “De la Biologie à la Philosophie: Parcours d'un Naturaliste.”

Your history at the École is fascinating, but since it is limited to your earliest studies, and to your career at the École, it left me hungry for more. It is for that reason that I have asked you to grant me an interview to complete, in a manner of speaking, your career.

### **1. Let's begin with your family environment permeated with classical letters. In what direction did they orient you? Can you describe the memorable moments of this family atmosphere?**

We are always very marked by the childhood milieu. My father was a Professor of ancient Greek at the Sorbonne and an archaeologist dealing with the Cretan civilization. Two streets are named for him in Crete, one in Malia, the site of the dig,

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the other at Heraklion, the great city of Crete. My mother, a teacher of “classical letters” (that is, French, Latin and Greek) in a lycée, had been his student. The household atmosphere was thus particularly literary! All the more so because my father adored word games, in which he initiated me when I was very young. On the death of my paternal grandmother, when I was five years old and beginning to read, they gave me a collection of little books of poetry which had belonged to her. At that age, when one begins to flip through books, I discovered a passion for short poems, with a rigorous meter close to song – Paul Fort, Richepin, Maeterlinck – which made a considerable impression on me. All these elements doubtless contributed to my literary education and to my future taste for poetry and philosophy. But, meanwhile, another trait of my character began to manifest itself and play an essential role in my career: an everlasting love for animals!

**2. You speak of your “everlasting love for animals.” Can you give us a few examples of this love, and of the experience you lived with animals? What lessons did you draw from them?**

I think there are people who are born, more than others, with the love of animals. I noticed it as well in my oldest daughter. When she was two or three years old, a menacing, drooling dragon appeared on the television screen. She threw herself towards it with a spontaneously sympathetic movement. I was also myself one of those individuals who move spontaneously towards all the animals I encountered. Except perhaps snakes, for which, as early as my infancy, they induced in me a completely excessive fear, to the point that, even today as an adult, I am afraid to catch, in nature, an inoffensive snake! It’s one of my great regrets. (Fortunately, I am less afraid of domestic snakes). In my maternal grandparents’ village, where I spent my vacations, in Saintonge, I knew the names of all the neighborhood dogs. Cats, dogs, chickens, cows, appeared to me then like people, just a little different morphologically from myself, my parents, my neighbors. I did not see any absolute line of demarcation between animals and humans.

Later, I created, with dead insects that I found, a cemetery for insects, where each tomb was covered with a little piece of tile. My grandfather, a country doctor, was a butterfly collector, and I remember having difficulty getting to sleep after seeing a butterfly fight for its freedom and its life in his net. My love of animals led me also to an impressive collection of teddy bears with which I spent the best part of my childhood. At an age when, we are told, little girls are interested in dolls and little boys in soldiers and cars, I was almost exclusively interested in a toy bear, which I played with as if it were a flesh and blood person.



**Chapouthier in 1951 with his teddy bears**

I did not learn the lessons of this empathy for animals until much later, when I became an animal rights activist. During my adolescence, under the effect of social pressure, I parenthesized this love for animals. Since, in effect, they repeated to me ceaselessly, both at the secular school and in the religious catechism: the animals are entities, that is to say “objects,” simply destined for the use of man, who can use them however he pleases. Then I developed a passion for natural science and I (for the time being) forgot that the animal is a sensitive being. But, over the years, my sympathy for animals shaped me into becoming an animal rights activist, while at the same time pursuing a scientific career as a biological researcher. This is the theme of my last book, written in collaboration with the philosopher Françoise Tristani-Potteaux, *Le Chercheur et la souris* (2013).

**3. Setting aside your secondary and university teaching, I would like to ask you who are the philosophers who really influenced you? Can you name three or four from ancient times, and three or four modern philosophers? In what ways did they influence you? And what impact have they had on you?**

I began my studies in philosophy at Strasbourg where I prepared, on the other hand, my scientific thesis on the biology of memory. During my studies in philosophy at Strasbourg, I met and sympathized with one of my Professors, Louis Bourgey, a specialist on Aristotle, who was very much interested in modern biology. It's with him that I worked on my first “mémoires” for the licence and the Master's. As a biologist and philosopher, the most noteworthy philosopher, of whom I am the

natural disciple, is of course, evidently, the great Aristotle. Moreover, I did much of my work within a neoAristotelian School, created by the Russian physician and philosopher Konstantin Khroutski. For this School, Aristotle's conception of the universe is fundamentally biological. That being said, it evidently does not mean that the universe must be conceived like a great ape in the manner of King Kong! Saying that means that the architecture of complexity everywhere in the universe is probably the same as the architecture of complexity of the most complicated structures we can observe on the earth, living organisms, a conception called "Bio-cosmologic."

For my part, I have been able to show the universality of the construction of complexity according to a model that I have called "mosaic," and to which I have devoted numerous books and articles. In a mosaic, in the artistic sense of the term, the "whole," an image, leaves autonomy to its diverse parts, its tesserae, which keep their form, their color or their brilliance. In the same manner, the complexity of living organisms is constructed like a mosaic where, at each stage, the "whole" leaves autonomy to its component parts. Thus, for example, the organism leaves autonomy to its cells or its organs, and the population leaves autonomy to the individuals composing it. I have analyzed the two great principles which lead to this mosaic construction (the juxtaposition of similar entities, then the integration of these entities in a more complex "whole" of which they then become parts), and I have especially shown that the same mode of construction is applicable to other phenomena of the "universe": memory, consciousness, language, literature, music, morality. The application to the stellar structures of astrophysics has been developed by my colleague Jean Audouze.

But let us look beyond Aristotle. The history of philosophy demands that, to the traditional Aristotelian concepts, it is nonetheless necessary to add more modern concepts, like that of evolution, which is called in philosophical terms a dialectic, Hegelian if one is interested in the movement of thought, and Engelsian if one is interested in the movements of matter. These two philosophical currents have marked me equally, as well as structuralist thought and phenomenological description, two philosophical aspects that the structures of the living, and their existential lives cannot avoid. Finally, concerning the respect for animals and for nature, a point which has interested me a great deal, but which did not interest Aristotle at all: one must find the roots of this modern preoccupation in the philosophers of Antiquity, such as Plutarch or Porphyry, taken up again by the great Michel de Montaigne, and in modern philosophers like Schopenhauer. We must also find our human responsibility and its practice concerning animals and the environment in thinkers like Hans Jonas or Jürgen Habermas.

In short, if we want to summarize my philosophical position, I am a modern Aristotelian, who has adopted a certain number of supports, ancient or recent, rather different from Aristotle's preoccupations, or, if you prefer, an Aristotelian who aims to adapt the message of Aristotle for the modern world.

**4. You wrote your philosophy thesis “under the direction of François Dagognet, the famous student of Canguilhem.” This latter name resonates in my mind, for he came to the Collège Maréchal Lannes in Lectoure to inspect my philosophy professor, M. Castanet. Did you ever meet him? If you did, what impression did you have of him? Tell me about the rapport between professor and student especially in your own case.**

As my Strasbourg supervisor, at that time retired, could no longer be my supervisor, on the administrative level, for what was called at that period the “thèse d'état,” a long work over several years, he advised me then to approach François Dagognet, then a Professor at Lyon, to whom I wrote and who agreed to direct my thèse d'état in philosophy on “*Essai de définition d'une éthique de l'homme vis-à-vis de l'animal*.” I also had the opportunity (and the honor) to meet his master, Georges Canguilhem, who was already at that period a famous “icon.” Lunch for four in a Latin Quarter restaurant in Paris comes back in my memory, which allowed me, on Canguilhem’s invitation, to have a discussion with him, with Suzanne, the daughter of Gaston Bachelard, and with the philosopher Claude Debru. Just a few of these unforgettable memories!

**5. You have had a great career as a researcher. Could you indicate to me your activities in this domain? Could you illustrate these activities by their highs and lows, the satisfactions and frustrations of this career?**

My complete research career was at the Centre National de la Recherche Scientifique (CNRS) in France, an institution which finances researchers and research in every domain. Our status and our remuneration were exactly the same as those of university professors, but we were under no obligation to teach (even if teaching courses in addition to our research was not forbidden!). This career at the CNRS did not prevent me from having a few “expeditions”: to the United States, to the Baylor College of Medicine in Houston for a post-doc, and to the Service de Santé des Armées, in France, for my military service, during which I passed a marvelous year with chimpanzees.



**In 1973 with chimpanzee friends**

Thus I made my entire career at the CNRS with highs (international recognition for publications in prestigious journals, promotions, invitations to international congresses...) and lows (when internal jealousies in all human society result in not obtaining a promotion or a recompense which would normally come to you, or which you were in line to obtain). I will willingly pass over the mistakes, alas present in all human life, to insist on my career, a career completely oriented towards disinterested knowledge, discovery, and thus a passionate vocation, where one encounters passionate people, from the Nobel Prize winners to enthusiastic, passionate novices. A vocation which, in biology, nonetheless asks essential ethical question on the legitimacy of the treatment of experimental animals, questions that I have studied intensely as philosopher and moralist and on which I have written a great deal.

**6. You say that you have been influenced by Althusser, which prepared you, yourself and your friends, for the events of May '68. Can you relate to us your personal experience of this important event in French history? What conclusion can you draw from it?**

At this period, in the years 1964-66, Althusser, who was still completely sane, was the great master of thought of the École Normale. Not that he did not have enemies, but because a large minority of the "Normalians" leaned towards his theses and those of his friends and relations. Thus Lacan came to conduct a famous seminar remarked in the vicinity of the École. The movement then was "anti": anti-capitalist, anti-colonial wars (Algeria, Vietnam...), anti-"bourgeois thought," anti-system. Mao Tse Tung, whose bloody excesses were not yet known, was a star, as was Jean-Paul Sartre, who moreover, at the end of his life, espoused Maoism. It is in this sense that I

said the events of May '68 were prepared in part at the École. During my two first years at the École, I was captivated by this movement, of which the voyage of the École to China in 1965, just after the exchange of ambassadors, was one of the seminal moments.



**In China in 1965**

But I distanced myself fairly quickly from this movement when I saw the excessively extremist and sectarian direction it was taking. My departure for Strasbourg to begin research in the third year of the École was salutary, and I therefore escaped May '68 in the Latin Quarter and its violence. At Strasbourg the student movement, which did exist, was much more peaceful. There were occupations of certain sites, certainly, with their consequences. Thus the telephone switchboard of the faculty was occupied by the students and, during the return, after the "events," the Dean had to pay the telephone company an enormous bill. But, taken altogether, the Alsatian town did not know the excesses of the capital.

**7. I have also learned that you were “very susceptible to the charms of Asian women.” In addition to having married “a Chinese woman from Malaysia,” can you name personal existential, and other influences the continent of Asia and its peoples had on you?**

First of all, we need to take Asia in its largest meaning, and not only refer to the Far East. My father died when I was eight years old and his great friend, the archaeologist Henri Seyrig (the father of the actress Delphine Seyrig), who at that time was the Director of the French Institute of Archaeology of Beirut, invited me to spend a year in Lebanon. Therefore I spent, as an adolescent of 12 or 13, a year in Beirut. A city at that time relatively peaceful, with an extremely mild climate, where all the cultures,

languages, religions mingled harmoniously. For me it was an unforgettable discovery and education: that of cultural diversity, a mosaic of peoples, a point which, by the way, brings me very close to the thought of Hedi Bouraoui! At this crucial period of my life, adolescence, this stay in Beirut was, for me, certainly one of the most formative events. The Far East I only discovered later, notably during this famous voyage of the École Normale to China in 1965. Was it at that point that I became, for the first time, susceptible to the charm of Asian women? Very probably, even if this aesthetic choice doubtless took several years to ripen, before I met at Strasbourg, at the beginning of my career, a Chinese woman from Malaysia who came to learn French, and with whom I have spent the rest of my life.



**With his wife in 1976 at the Snake Temple in Penang, Malaysia**

After that, certainly, my relations with my wife have more and more familiarized me with the Far East. In poetry, a point to which I will return soon, I have worked a great deal to develop connections between Francophonie and Asia. I have presented numerous poets and writers from the Far East in the columns of the international journal of poetry, *Jointure*, of which I am one of the editors. And in the columns of French or foreign journals, I have written frequently in Asian poetic forms, such as the haiku, the renga, the tanka, the haibun, the Malay pantun... I have also published a great deal on Asia in French journals and, in collaboration with my wife, on France in reviews and magazines of southeastern Asia, where she is a journalist. With my wife, I finally participated in the success, in 2013, of the 33rd World Congress of Poets in Ipoh, Malaysia, my wife's birthplace, a congress she herself had organized as President...

**8. Scientific research has allowed you to write books and articles in this area. Can you tell us the major times of your publications? Their elaborations? Their impact and their reception? We intend, moreover, to reprint one of your articles already published in Tunisia.**

In this area, we must distinguish between articles which are properly scientific, which relate an original piece of work or a discovery, and books and articles of popular science. As for the first, those which constitute the “backbone” of a scientific career, certainly, I have published a great deal, on questions of memory and anxiety in mice, on their pharmacological or genetic bases, not only alone, but together with my team, in numerous reviews in the neurosciences. These publications are almost always in English, which has become, as we know, the language of scientific communication. Among these, our group has managed to publish twice in one of the most prestigious of these reviews, the English journal *Nature*. The most noteworthy accomplishment of our group has been the very strong connection which unites memory and (mild) anxiety. The normal state of the brain is a mild anxiety, and we need this mild anxiety to learn correctly, while a stronger anxiety (too strong) has, to the contrary, harmful effects on memory. I have also written in the realm of popular science on the questions of neurobiology and ethology, especially in francophone reviews like *Pour la Science* or *Cerveau et Psycho*, as well as numerous books on the biology of memory, and on the brain.

In the domain of philosophy – what concerns me, of course, is the philosophy of biology – we find the same dichotomy between purely “scientific” creative productions and, on the other hand, popularization, even if the difference is less marked than in the “hard sciences” like biology. For the “scientific” part, original and creative, of philosophy, I developed the model of complexity as a mosaic described above, that I have also presented at numerous international congresses, and I have analyzed in depth the important moral question of animal rights compared to human rights, in international reviews in English. I have also popularized, in French, these same questions in journals and magazines of major publishers, as well as books.



**Chapouthier (left) with Serbian philosopher Milan Tasic at a Biocosmology Neo-Aristotelism meeting in Germany (2012)**

**9. I have known you as a literary man and poet. Can you outline how you came to literature? Who are the literary figures who have influenced you? What does poetry mean to you? Can you give a few definitions of it?**

Yes, we came to know each other through poetry. It's at Strasbourg, where I began my scientific career, that I began to publish poetry, which inspired my Alsatian pen name "Georges Friedenkraft" ("Friedenkraft," in Alsatian dialect, means "a force of peace," a whole program!). For myself, poetry is an exploration of the paths of dreams, of the imagination, of the irrational, in opposition to the rational constraints of scientific thought. Poetry is, it follows, in human thought the necessary complement of rationality. For the scholar, the world is a blue planet. For the poet, as with Éluard, it can be blue like an orange. The biologist François Jacob has written that the human being has as great a need of dreams as of reality. As an adolescent, I was very influenced by the symbolists. In addition, my wish that poetry not abandon totally metrical experiments and a certain musicality of the verse led me, at the start, towards metric forms in short verses, like those of Verlaine.

My opening up to the surrealists then liberated me in part (though not totally) from my search for formal constraints. And the discovery of Asian forms like the haiku was an important moment in the evolution of my writing, for I could then effect formal and metrical experiments, without being imprisoned within the somewhat outmoded mold of classical alexandrines or "octosyllables". The teachings of one of my professors at the Lycée Louis-le-Grand in Paris, Lucien Chauvet, contributed to this evolution, as did my encounter at Beirut, as an adolescent, with the poet Georges Schéhadé, and then the more direct influence of my master of poetic thought, the late poet Jacques Arnold. Lucien Chauvet showed his students how, since the surrealists,

word associations could communicate something completely different from their explicit semantic content. Schéhadé, a friend of Henri Seyrig, created strong images, one of which has remained in my mind since my adolescence: that of the child in tears crouched behind a flower. And when I think today of the charms and miseries of Lebanon, this image comes back to me, mixed with that of a promenade in a grove of flowering citrus fruits north of Beirut, and of the idyllic olfactory sensations which marked unforgettably the child that I was.

As for Jacques Arnold, a synthesizing mind open to all the possibilities of poetry, he led me into the editorial adventure of the *Revue de l'Acilece* ([https://fr.wikipedia.org/wiki/Revue\\_de\\_l%27ACILECE](https://fr.wikipedia.org/wiki/Revue_de_l%27ACILECE)), created by Charles-Henri Sieffert with the help of the poets Maurice Fombeure and Jacques Arnold himself, and which, between 1962 and 1983, had about one hundred issues. Eclectic, the *Revue de l'Acilece* was open to, inclusive of, all the literary styles and all the talents. Then, after the demise of this review, I participated, in the same eclectic spirit, with Jacques Arnold, Daniel Sauvalle, Jean-Pierre Desthuilliers, Michel Martin de Villemer, Liliane Loan and a few others, in the creation of the poetic association "La Jointée" and of its publication, the poetic review *Jointure* ([https://fr.wikipedia.org/wiki/Jointure\\_%28revue\\_litt%C3%A9raire%29](https://fr.wikipedia.org/wiki/Jointure_%28revue_litt%C3%A9raire%29)), which, despite the death of several of its founders, is sailing towards its number 100. The association "La Jointée" has also published a few books, and it thus gave me the opportunity, in the framework of the difficult promotion of books of poetry in the hexagon, to publish by subscription my principal work, *Images d'Asie et de femmes* (La Jointée, 2001), which was awarded the Blaise Cendrars 2002 Prize of la Société des Poètes Français.

## 10. Which French or foreign poets did you prefer?

Those of openness and diversity. Those of the cultural and literary mosaic, which you yourself no doubt belong to, Hedi, poet of three continents and creator of the "narratoème," a fusion of prose and poetry, is one of the best examples. I had the opportunity to write about it elsewhere ("Des parcours littéraires en mosaïques", *Revue indépendante*, 2013, 338). In a more general way, the *Revue de l'Acilece* and the review *Jointure*, which were on principle, as I recalled to you, very eclectic in their literary choices, opened their columns very generously to poets from all horizons, young or less young, beginners or famous writers, from the hexagon or from the widest possible Francophonie. Prose poems or totally free writings shared space with poems in more classical forms. The implicit of the surrealist spirit or of the symbolist sensitivity encountered sometimes the explicit of daily life. Bi- or multilingual texts even presented foreign, non-francophone; poets in the original and in translation, and, as I have said to you, I worked hard in this way to present poets from the Orient and the Far East (China, Japan, Malaysia, India...). I cannot cite here evidently all the countless poets who pleased us, and whom we have published during our nearly fifty years of activity. I will only mention, to conclude, a few of those who

have left us: Pierre Esperbé, the Chinese poet Jiang Huosheng, a specialist in contemporary French poetry at the University of Wuhan, whose poem published in our columns won a prize, Jean Cussat-Blanc, Simonomis, the very delicate poet Liska... All of whom, through their writings, bore witness that poetry remains, for a contemporary man, imprisoned in science and technology, the way to follow towards dreams, imagination, towards liberty. Among foreign poems, one of my favorite poems is "If" by Rudyard Kipling.

### **11. Finally how would you judge this life spent in exploring such different domains? Have you been happy with this multidisciplinary choice?**

Certainly! If I hadn't been, it would have been easy to abandon one of the facets, poetry for example, which I wrote under another identity. Therefore I have found much satisfaction in these multidisciplinary paths, where the activities "science versus philosophy," or "scientific knowledge versus poetry," were often complementary and mutually enriching. With some humorous stories, and it is with one of those I would like to conclude. A Vietnamese artist had created, near me, an art gallery and I had written a complimentary article on this gallery, under my pen name Georges Friedenkraft, in the columns of a local review. At an opening, this Vietnamese lady took photos, including one of myself which she presented, during a later opening, to the guests, including two ladies who lived in my apartment building: "There is a photo of Monsieur Friedenkraft," she said proudly, "who wrote a beautiful article on my gallery!" Confounded, the two ladies replied, "But no, not at all, it's a photo of Monsieur Chapouthier, who lives in our building!" The temperature rose and the protagonists almost came to blows, so certain were the two parties that each was correct!

**Translated by Elizabeth Sabiston  
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