



Secretariat of the Soul and Certainty

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Editor's Note:

The quest of science over the past several centuries has been to replace the no longer sacred truths of religion with a new source of verifiable and authentic knowledge. During its nascent period, science chose carefully its subjects for investigation, confining itself to the most obvious clockwork cycles, repetitive patterns and apparent similarities in physical nature. Yet, its very success in charting the elements, classifying living species and deciphering the rhythm of the heavens led it to venture further into less certain realms until it happened upon the surprising discoveries of quantum physics. Thus, in place of the foundational faith in natural law, certainty and predictability, which characterized the scientific outlook of the 19th century, physical scientists in the 20th century ventured to explore the enigma of uncertainty, unpredictability, irregularity and complexity inside the atom, in shapes and forms, turbulent flows and other apparently chaotic phenomena. Even today the social sciences cling to shallow coastal regions where law, order and certainty appear to prevail in human affairs, avoiding to venture into the inexplicable realms of uncertainty. No subject is as far afield from the safe shallows of certainty than the remarkable phenomenon known as individuality. On the face of it, uniqueness and individuality appear to be the very antithesis of what science is qualified to examine, no less understand, yet in these distance seas so far from the safety of solid land lie greater truths and richer discoveries than any so far known. This brief essay and short dialogue, written with reference to the social sciences in general, have profound implications for revealing the laws and unraveling mystery of individuality.

Culture is the bedrock of social evolution. Strong signs of change in both society and culture are anticipated in literature. The profound shift in thought that took place during the last century regarding the infallibility of scientific certainty is an example of such a profound cultural and social change. One of the greatest innovations of the early 20th century was the overturning of deeply-seated beliefs in the natural sciences, particularly in physics. It all began when Einstein's discoveries challenged the Newtonian view of reality, though Einstein did so reluctantly and spent the last years of his life attempting to prove that physics could once again be built on some certainties fixed and definitive in space and time. "God doesn't play dice," he once remarked about quantum theory.

Since then, indeterminism and uncertainty have occupied an increasingly greater space in the fortress of the philosophy of science. We find them, for instance, permeating the thought of philosopher Karl Popper on empirical falsification and Nobel physicist Ilya Prigogine on complexity. Both strove in their own ways to reconcile the apparent contradiction between certainty and uncertainty, which constitute two halves of an elusive still greater truth.

Ironically, if we look instead at the human sciences, particularly economics, we do not get the impression that this profound development in thought and culture has yet been recognized. Still today, my fellow economists aspire to be taken as seriously on the scientific plane as the physicist or biologist. They were almost convinced of that attainment several decades ago when a Nobel Prize was introduced for economics. The ambition of this discipline has been, until very recently, to seek to provide social economic analysis with a presentation as sure and accurate as the natural sciences were thought to be equipped with. Psychology too has fallen prey to the lure of scientific respectability, focusing largely on typical characteristic of human personality and repetitive patterns of behavior, leaving the distinctive and unique to artists and poets.

These developments in philosophy and science have had profound practical significance. The 20th century marked a struggle between two contradictory worldviews over which two world wars were fought – one founded on belief in the power of the collectivist State backed by modern science, industry and centralized power; the other founded on faith in the power of the free individual and free society, founded on human rights, aspirations, creativity, idealism and spirituality. An interminable battle was fought for greater freedom and awareness and responsibility in freedom. Today we find ourselves in a new world – culturally, socially and psychologically – capable of dealing with uncertainty, yet filled with the thirst for security which lures us into the arms of blind conformity and uniformity.

The notion of uncertainty has progressively replaced that of certainty. Modern science, for most scientists, is no longer conceived of as a structure where once and for all a certain definition of reality is established and remains valid forever in time and space. Science is no longer viewed as a permanent edifice to which additional bricks of knowledge are continuously added and fixed forever. Every time science produces a new brick, a new building material, the whole structure of existing thought is subject to question and review. It is a dynamic vision that makes itself felt, no longer a vision in which truth is eternal, universal and immutable in time and space. ‘Truth’ is never found; only greater truth is. Every ancient truth is continuously redefined and modified into new ‘truth’.

The very history of evolution seems ever less like a series of equilibrium situations, and increasingly like a system perpetually leaning toward non-equilibrium. The identification of an “imbalance” highlights the fact that numerous possibilities for development always exist. The definition of “balance” implies a purpose that can easily prove to be an “imbalance” if our observation and perception of circumstances change. Some modern mathematics books can be cited, such as Kline’s for example, which highlight how for a given problem tenable logic and mathematics can be applied to arrive at multiple solutions, each equally valid. Thus, we learn that we cannot apply ideas about natural science from the determinist period of the last century to justify determinist views, or views in which every future can only consist of the inevitable development of an evolution with only one way out, to which we apply the term “scientific”. Evolution can take several directions: they appear determined only *a posteriori*, while everything that will happen in the future is uncertain – fortunately!

Paradoxically, it is by accepting the notion of uncertainty in the natural sciences that a link is generated for forging a union, a new alliance, between the “humanities” and the so

called natural sciences. The natural sciences, which are only exact for a limited period in time and space, differ from the human disciplines or humanities only in the degree of uncertainty.

It will take a little time for culture to acquire the courage and maturity to fully welcome these ideas: to accept uncertainties without turning to drugs – physical, intellectual or ideological – and lead the way in eliminating life's challenges and pluralism, both in day-to-day living and in the historical dimension.

Let us, therefore, avoid building new medieval castles with the false hope that by hiding behind these ramparts we can enjoy greater security. Uncertainty forms part of the order of things. It is through uncertainty that a real possibility for progress exists. Fully conscious of the risks, overcoming every kind of frontier, our best survival and development are made possible. It is on this uncertainty that the future of Europe and the World hinges.

It is for this reason, that two decades following the Club of Rome's report on *The Limits to Growth*, I submitted to the Club my report on *The Limits to Certainty*, an economic analysis closely linked to some cultural fundamentals.

Balance Sheet for a Secretariat of the Soul and of Certainty

The tension between the two world views and the process of reconciling them is reflected in the literature and art of the past century. The writings of Robert Musil, an early 20th century Austrian, have been a cultural reference point for me regarding this quest for reconciliation between certainty and uncertainty. He represents the culture of "Mitteleuropa", of central Europe, to which Trieste Italians like me are particularly sensitive. He is best known for having written a book entitled *The Man Without Qualities*. This translation of the title constitutes a betrayal. The German term is "Eigenschaften", for which the term "qualities" is an incongruence. It would be better to use the word "properties" in the chemical meaning of the term. The book describes the state of a man who, in a world dominated by science and the determinist view of things, refuses as a person to be limited to one specialty, to be tied exclusively to one label. The drama is even more powerful when one knows that Musil had a scientific education and that in his time education in the humanities and in the sciences were completely separate. This inner conflict between scientific determinism and the individual's freedom of choice gave rise to his conception of the man without qualities, who feels far from the world that arose immediately after the First World War, – when even political theories tried to become "scientific" – which was on its way towards one of the greatest disasters in history.

The book begins in a paradoxical manner: Ulrich, the protagonist of the long novel, is tasked with setting up a "Secretariat of the soul and of certainty". The date is August 1913. Some German patriots decided it was important to celebrate the anniversary of William II. Austria had not succumbed to the charm of Prussia and Germany, and wished to prepare great celebrations for Franz Josef who, in 1918 would celebrate 70 years of his reign, an impossible event given that when Musil wrote his book it was already known that the emperor and his empire no longer existed. The 70th anniversary of the reign of Franz Josef was meant to have taken place on the basis of the idea that it was possible to overcome the cultural barriers which at the time (and in part still today) divided what Musil called the two half-truths. On the one side is a world founded on the scientific ambition to arrive at some certainties through

physics and mathematics; it is the world of science, understood as the realisation of the 19th century utopia that aimed at assuring society of a future made up of certain, definitive and absolute knowledge. On the other side, Ulrich is condemned to impotence because human reality and the species' becoming are made up of more or less irrational deductions and intuitions that are not ascribable to Cartesian type definitive certainties, and which challenge the mechanistic and deterministic forecast towards the inevitable.

Two “half-truths”

Musil opens up the path to a new culture where science is no longer only deterministic, but presupposes a dialogue with indeterminism rooted in the soul, in the uniqueness of the individual. And on this path he represents the beginning of the possibility of rebirth. Musil alludes to “two half-truths” because he knew them both very well. He had written a thesis on Mach, was an engineer and had a mathematician's ambitions. At the same time Ulrich himself, in the novel, remembers ever so often that mathematics is the field in which he tries to make concrete his aspirations towards precision. From his previous book *Young Torless*, it can already be seen that Musil is very attracted to the intuitive and impulsive aspects of human existence. Nevertheless, he does not allow himself to be taken in by stereotypes or by the Viennese atmosphere of that age, of which he is often harsh in his criticism. The judgment expressed by Musil about Vienna derives from the idea that it was a decadent provincial world, incapable of planning its own survival in contemporary reality. The place where a more solid European culture was to be found at the beginning of the century was Berlin.

The Man without Qualities begins with an account of what was strange in the kingdom of “KAKANIA” (Kakanie = Kaiser und König, Emperor and King), a world which no longer believed enough in itself to fight and to propose a synthesis “of the soul and precision”. Ulrich feels alone and abandoned in such a world. The whole of Europe seems to be falling into ruin in its wild attempt to transform a half-truth of mechanistic certainty into a total and all-absorbing truth.

As the novel progresses, one realises that what Musil is trying to free is the New Man, the emerging individual who will arise amidst the crisis in Europe - Europe as an extrapolation of the Viennese world of the Austro-Hungarian empire of 1913, on which few hopes could any longer rest. There was not enough breath yet to give rise to a new culture, a new model capable of dealing with uncertainty rather than being subjugated by it.

Another proof of Musil's positive and optimistic will comes from a fierce criticism of Oswald Spengler and his thesis on the decline of Western Civilization. For Musil, this crisis was not inevitable; it was not registered among the inescapable “scientific” facts. We must learn that we are not an absolute truth, that man is not complete, that man is a project in search of himself, and that a civilization cannot give itself or create for itself a future if it separates, in a schizophrenic way, the aspiration for precision of the scientific type from the idealistic cultural aspiration in the broad sense. A surrender of our individuality would create an irreparable split and civilizational collapse.

Why evoke today the balance sheets of a secretariat and its activities which, as Musil's novel takes shape, end up disappearing in the reader's hands like sand that runs through the fingers and is scattered? There is an underlying cultural wave that can be found in hundreds

of publications, which justifies the conclusion that the secretariat of precision and of the soul created by Musil in this novel has effectively accomplished its task a century later. Despite having begun with an idea that has never been made concrete organisationally, one can now speak of a positive balance sheet. The two half-truths are no longer schizophrenically separate. We now live in a post-Cartesian reality in which ideas are no longer distinct. If they remain so, they often become irreconcilable and unproductive. There is an ever growing consensus on the fact that between one field of human knowledge and another there are grey areas, overlapping areas. Between poetry and literature, economics, political sciences, chemistry and physics, there are no longer any definitive irreconcilable divisions. The poet's inspiration is close to the physicist's intuition. The custom of cutting reality into slices was, after all, simply a tool of convenience to help promote research in a certain number of sectors, until the details could be integrated into the whole. This old method of thought is what caused the European disasters of the last century. It was the exclusive State-Nation and the lack of understanding of political federalism, condemned because "confused", that admitted and even stimulated a division of sovereignty.

Paradoxically, this secretariat that in the end was no more than a plan, today, almost one hundred years later can discover signs of its realization. We now have the potential to discover the means of reconciling these contradictory half-truths – that which conforms to universal law and that which is unique, that which binds us together as members of a single species and that which distinguishes the individuality of each. In that reconciliation lies an immense power for the advancement of civilization, science and culture and for the promotion of human welfare and well-being.

I pictured the following dialogue as an "Intermezzo".

Intermezzo: Dialogue on the Foundation of a Secretariat of Certainty¹

"Did you say Ulrich, Ulrich Tuzzi?"

Having left the office I took about a quarter of an hour to get to the Grangettes clinic at Chêne-Bougeries, a district of Geneva. Near the car parking area, to the west of the building, I found an old two-storey house, surrounded by trees among which perhaps had survived four pines, already old at the time, and two birches described by Robert Musil in notes recounting the last years of his life. Unless, of course, those had been sacrificed to make way for the car parking area. I was just about to check whether the half-moon shaped pool was still there, when I became aware of the presence of a friend, a research Fellow from CERN (European Centre for Nuclear Research). He was a physicist and was accompanied by a person of about forty, a man with a decisive air, a high forehead and black hair brushed straight back. Both of them seemed to be looking for something in the area around the old house.

A handshake and my friend performed the introductions: "One of my colleagues from CERN, Ulrich Tuzzi".

He then explained that they had come to see if it would be possible to rent the ground floor of the house with the veranda so as to set up a general secretariat of certainty there.

¹ This dialogue was originally published in French in Orio Giarini's *Itinéraire vers la retraite à 80 ans*, Economica, Paris, 2002.

“You see,” Ulrich Tuzzi explained to me, “a few years before the outbreak of the First World War which was to put an end to the Austro-Hungarian Empire (I’m of Austrian origin), my grandfather dreamed of creating a General Secretariat of certainty and the soul.”

“I seem to remember reading somewhere...”

“---but he didn’t succeed. He wanted to reconcile culture and the European scientific tradition, which from Descartes through Newton to our time has never ceased widening the gap between the soul and the body, between knowledge resulting from the natural sciences, and – something more difficult to define – that engendered by artistic perception, between certainty and uncertainty. He often used to say that in his universe, until then, every truth appeared to be divided into two half-truths.”

“No! You who work in a highly prestigious centre of fundamental research are not going to tell me that the discoveries are only half-truths!”

“In a certain sense, yes. Some things were not so clear in my grandfather’s time – a time dominated by positivism and by a great number of absolute and universal cognitive elements. As Popper said, Science progresses thanks to a process of falsification. It studies Newton’s laws until it realizes that under certain conditions these laws are partially false. Up until the time when Einstein arrived on the scene and revealed that they were not completely relevant. After Einstein came Heisenberg and then Prigogine. Research is a dynamic process and does not stop with the acquisition of eternally valid details. With every new synthesis, every new detail, the meaning of the component parts and the theory of reference changes.”

“But a chair will always be a chair, a tree a tree, an atom an atom.”

“In a certain sense, and under certain conditions, yes. Heisenberg’s uncertainty principle makes us recognize that at the level of the infinitely small, the equivalent of a chair can, at a determined point in time, appear as something absolutely different.”

“Yet, it is true that technology becomes increasingly more efficacious and that I’m able to distinguish – in a manner of speaking – ever more clearly the infinitely small.”

“There comes a time when the simple act of observing the infinitely small changes it because the energy released by the observation interacts with the object observed. A little more progress is made thanks to some mathematical models and formulae, but for the moment the situation is increasingly complex and the numerous hypotheses are often contradictory.”

“My dear Mr. Tuzzi, if that is the case are you perhaps telling me there is no longer any difference between human and social sciences (in which we ourselves are immersed) and natural sciences, subject as they are by definition to clear and objective observation?”

“This designation has its limits. The exact sciences and social sciences are ever more frequently found in the same situation: they both deal with different degrees of uncertainty. But thanks to this we have a possibility of filling the hole that obfuscated my grandfather’s view. From this it is clear that it is now possible that the creation of a centre for reflection on uncertainty would lead to something of which the general secretariat of certainty and the soul would have been incapable at a time when it was thought that these two poles were always separate. This is the reason the secretariat never came about and my grandfather lived this

infinite romance, split by the contradictions between the nature of man and that of a certain positivistic science, in pursuit of a synthesis that seemed impossible. Today, however, the word “End” can be placed on the word impossibility, thanks to a new age that is opening on research and knowledge.”

“What you are telling me now is that your grandfather’s life, or rather his romance, comes to an end precisely because it can continue...”

“There isn’t a paradox. Concerning this, Musil wrote that ‘men of this type certainly exist today, but there are not many of them, and for this reason it is difficult to assemble what is dispersed’. Currently a new culture is developing and spreading around the world, a culture in which it becomes increasingly less common to find isolated elements. A culture in which a New Alliance is forming, and as the Nobel recipient Prigogine states, it is a culture of a process of integration and construction.”

“As a matter of fact it seems rather problematical to me that all this springs from uncertainty, and makes me wonder if the little certainty that remains in the world – some scientific certainties – is hidden beneath our feet.”

“On the contrary, all the dogmas and pseudo-religions that are often transformed into political ideologies have totally exploited the concept of an exact, certain and inevitable science. From it they have deduced a great many legitimisations with no foundation. In the Middle Ages wars and massacres were justified in the name of God. Still more horrible, particularly barbarous massacres were perpetrated last century in the name of society’s scientific laws. Never before had chaos been so efficiently orchestrated.”

“But how is it possible to live and give life while proclaiming that uncertainty has a positive value?”

“It’s not a matter of spreading uncertainty. The problem is recognizing that life is uncertain. Sooner or later humanity must decide to create a truly civilised world, built by people of proven maturity. This means recognising reality. It is an act of deep cultural awareness, essential if we want to avoid the manipulations of those who offer us definitive certainties. It is a matter of learning to live better, of accepting one’s own responsibility, of facing uncertainty and accepting it. It will be the best of psychotherapies...”

“I see...It’s not for nothing that you’re Viennese...”

“Yes, but a Viennese who accepts reality, and who demands that there should be a speedy investigation into what in Freud is false.”

“I must admit, my dear Mr. Tuzzi, that I’m a little, well actually, very puzzled. I understand that you feel great affection for your grandfather. But couldn’t you perhaps say that your attitude is due, in large part, to a world in crisis, to a world in a state of decomposition? If I remember correctly, your grandfather lived in Vienna mostly during the years immediately before the fall of the Austro-Hungarian Empire. Could not his desire to found the general secretariat of certainty and the soul - I hope you will not hold it against me if I speak frankly – have perhaps come from a desire to flee reality, of taking part in the political breakup of his country and also, perhaps, of being to some extent responsible for it?”

“Clearly the Austro-Hungarian Empire had fallen into a serious crisis and was incapable of facing the historical developments of the time, and particularly the rise of nationalisms.”

“A period that lasted several decades which appears to have coincided with the great development of the Industrial Revolution.”

“Exactly, Cartesian and Newtonian logic corresponded to that of industrial specialisation, of material manufacturing productivity, of people specialisation and consequently that of nationalism and of the classes. The drama occurred when the line of demarcation between dialectic and conflict was broken and the breach became beyond repair. The incompatibility between these two poles is once again one that exists between certainty and the soul. The Cartesian method of subdividing the world and life reveals an approach that is intrinsically incapable of stimulating the differences in a positive way. Here in Switzerland it is accepted that the State guarantees and protects the individuality and sovereignty of the Cantons. This federalist system combines autonomy and supra-nationality, and reinforces them. It is the path, perhaps, that Europe is taking, in order to fully make the most of its peoples and their diversity.”

“But an independent State can at least defend its freedom.”

“It depends on its strength. Independence of unequal countries puts the weak at the mercy of the stronger. Only the strongest State can consider itself truly independent. Currently there are more than 150 ‘independent’ States in the world. They all represent only half truths while international imbalances represent the other half.”

“So, for you the fall of the Hapsburg Empire was a historic disaster. Don’t you think this shows a little nostalgia on your part? You aren’t by any chance creating your Centre to commemorate the anniversary of Franz Josef’s birth?”

“I have to admit you are right on one point. On the one hand the many reasons for which the old Empire of the Hapsburgs had to disappear are soon told: its inability to present a valid plan for modern federalism, its indecisive management of the destructive effects of the Industrial Revolution, the clumsy renewal of the social structures... However, on the other hand it is necessary to underline the positive aspects of the co-existence of different peoples, not forgetting that the disintegration of the empire also opened the way to Nazi-ism. The essential point consists in finding in this new culture that is spreading throughout the world, a new possibility of overcoming the current situation, of progressing, of recreating an image of the future and of opportunities that the old cultures and ideologies (which are no longer those of the Austro-Hungarian Empire, but rather those that destroyed the Empire) have increasingly greater difficulty in promoting.”

“Your Centre of certainty certainly isn’t lacking global ambitions. I’m afraid however that you’re looking for a humanity that simply doesn’t exist.”

“Of course, in all of this there is a great challenge to be met. If no one takes it on it will be difficult for our planet to survive adequately, as it may become a prey to vulnerability of every kind and provenance. But it’s true it’s a question of human quality, of good sense and intelligence.”

“Everything depends on what you mean by quality. My grandfather used to say that he had none. He refused to see himself confined in a restricted vision of life. A one-dimensional life with a single truth that quickly resembles a form of blindness. To have many truths and subject them to checks is much better than having only one truth. What is necessary is to want it and to want to improve it.”

“Perhaps it’s true. I too tend to define myself as a man without qualities.”

“If you want to help me with the Centre of certainty you are welcome.”

Night had fallen and someone had lit the lights in the veranda of the house on chemin des Grangettes (nr. 29 to be exact).

It is there that we can even now imagine Robert Musil still walking around, perhaps pleased with the developments of the 21st Century which he perceived in vision long before they became a reality.