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The rationalism beyond science: The politic and religious activism of the Union Rationaliste

(1) Introduction

Political activity can have various forms. It can mean a more or less active involvement in a political party (as Paul Langevin with the French Communist Party in 1944) or a mere stand on a social debate (such as contemporary scientists about the genetic manipulations). But does the practising of science as a profession imply *de facto* taking a political stand?

I will try to provide some answers by studying a French scientists association named the *Union Rationaliste* (*Rationalist Union*). This *Union* was born in 1930 and charters members were the most important French scientists of the 30's. A year after its birth and in order to achieve its goals, the *Union* started to publish a monthly review: the *Cahiers Rationalistes* (*Rationalist Drafts*).

I propose to see how in the first issues of these *Cahiers*,¹ the assumed and clearly expressed will of popularisation of science hides an active polemic against a definite dogmatism. Which political and religious activism hides behind the rationalism?

(2) What claimed the Union to be?

First, we shall examine what kind of association the Union is.

It's a non profit association. Its constitution and its financing didn't depend upon a public institution: its' a private initiative. It's a large recruitment association: Charters members came from multiple disciplines and scientific organisation.

About disciplines, the *Union*'s charters members counted 5 physicians, 4 mathematicians, 2 chemists, 2 naturalists, 4 historians, 2 philosophers, 1 linguist, 1 psychologist, 1 anthropologist and 1 moral philosopher.

The first aim of the Union is to explain the science but the names of the members of the Studies Committee attested that the Union had a larger vision of its mission. Indeed the philosopher Alain (aka Emile-Auguste Chartier 1868–1951) and the novelists Gaston Cherau (1872–1937, member of the Academie Goncourt), Georges Duhamel (1884–1966, member of the Académie Française) and Luc Durtain (1881–1959).

Scientific organisations to which they belonged were just as diverse.

The 3 French Academies are represented. The *Union* counts 8 members of the *Académie des Sciences* (Academy of Medicine and Sciences), 1 member of the *Académie des Inscriptions et Belles-Lettres* (Academy of Epigraphy and Humanities), 1 member of the *Académie des Sciences Morales et Politiques* (Academy of Political and moral Studies).

But all the most prestigious official scientific institutions are also represented: *Collège de France*, *Muséum d'Histoire Naturelle* (Museum of Natural History), *Conservatoire National des Arts et Métiers* (National Conservatory of Arts and Crafts), *École des Hautes Études* (High Studies School), *École des Hautes Études commerciales* (High Commercial Studies School), parisian and provinces Universities of medicine, sciences and humanities.

Charters members were famous scientists. For example, members of the Honour Committee were the mathematicians Paul Appel (1855–1930), Émile Borel (1871–1956), Jacques Hadamard (1865–1963) and Gabriel Koenigs (1858–1931), the professors of medicine Louis Lapique (1866–1952) and Charles Richet (1850–1935), the physicist Jean Perrin (1870–1942), the chemist Georges Urbain (1872–1938).

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¹ *Cahiers Rationalistes*, 1–27 (January 1931–December 1935), Paris.

Humanities were also represented by the linguist Ferdinand Brunot (1860–1938), the anthropologist Lucien Lévy-Bruhl (1857–1939) and the professor of History of Christianity Charles Guignebert (1867–1939).

The only woman in the Committee was not a scientist but a “scientific muse”: countess Anna de Noailles.

So there must be deep affinity between these personalities about the nature of science and what one can expect from it. We may even speak of an invisible college that is taking shape.

The statutes of the association seem to explain what the Union members’ view about the science were:

This association, without any political character, aims at spreading the rationalist spirit and the experimental scientific method. Its ways of circulation are: lectures and publications of scientific and philosophical order. The publications are intended for those who, without being specialists, wish to widen their general culture. The *Union Rationaliste* will make them available to all, by the lowness of their price.²

The Union like this is an association aiming at popularising science for the layman public. In the tradition of the public and free courses of astronomy of Auguste Comte, the Union calls on specialists to expose the state of their disciplines. For example, Paul Langevin gave lectures for the Union’s members about science and determinism in May and June 1930.

The *Cahiers Rationalistes* also were created for popularising science. What makes the characteristics of this review? It’s a specialised review: it relates only to science. During the 30’s, scientists are indeed the object of the attention of journalists only at the time of the external demonstrations of their careers (trips, receptions, distinctions) and not according to the contents or the range of their discoveries.³ The latter are often summarised in

the advertisement of fantastic discoveries, spread out in the front page and which are almost always either very well-known facts, or short-lived wonders (Marcel Boll, *Les quatre faces de la physique*, Bibliothèque rationaliste, Reider, Paris, 1939, p. 37).

Moreover, the *Cahiers* are meant to speak about the topicality of sciences, that is research in progress, contemporary questionings, of the partial state of some scientific explanations. Titles of some articles show the actuality and speciality of *Cahiers*. For example in the issues of 1932, Henri Mineur wrote about “The Universe as the astronomy reveal it”, Albert Bayet studied “Salvation Religions and Christianity in Roman empire” and Ch. Champy explained “The Growth of animal tissues”.

We cannot fail to notice the waver of a review which approaches science from another point of view than its practical in which the general public is much more interested. Marcel Boll, chemist and member of the *Union Rationaliste* is clearly aware of it. He noticed the difficulty

of transcribing for all, the contents of the scientific truths, because mathematical symbolism can not be brought back to a conventional, superfluous language, likely to be completely translated in the simple grammatical language.⁴

The *Cahiers Rationalistes* wanted to be one of the first scientific review intended for general public.

The second most important characteristic of the Union is that scientists themselves deal with the spreading of their knowledge. Thus, the best specialists are the ones who will present the state of their discipline.

We can consider that the *Union Rationaliste* gains from this point of view an honourable success since one year and two month after its birth it counted 1265 members and 582 subscribers in the *Cahiers Rationalistes*.

² “Programme de l’Union Rationaliste” (Program of the Union Rationaliste), *Cahiers Rationalistes*, 1 (Paris, January 1931).

³ See P. Marage et G. Wallenborn, (directors), *Les Conseils Solvay et les débuts de la physique moderne*, Université libre de Bruxelles, Bruxelles, 1995

⁴ Marcel Boll, *Les quatre faces de la physique*, Bibliothèque rationaliste, Reider, Paris, 1939, p. 39.

(3) Aren't these scientific aims linked with social commitment?

As a matter of fact, until then the *Union Rationaliste* has been presented in the form of an educational association. But can its social commitment be summed up to that?

Albert Bayet, the general secretary, claims in the programme opening the first issue of the *Cahiers*, that the Union aim at “defending and spreading in the general public the spirit and methods of science.” Speaking of defence supposes an attack. Thus, the *Union Rationaliste* would be a counter attack. On what or who? The birth of the Union seems to be a reaction as if the popularisation of science was a kind of ideological commitment in itself. What cultural situation could explain that necessity to defend science?

The Union claims that it will not take a stand in any political debate. Bayet insists on this point by saying that:

Undoubtedly, that is superfluous to say that our Association does not and will never have any political character. Besides, when we subject to a critical scrutiny the doctrines which are opposed to rationalism and the scientific mind, we will keep this serenity which is the very heart of science.⁵

Neutrality, rational examination, objectivity. Even with its enemies, the union seems to keep its scientific mind!

But if we look beyond these statements, we can find the traces of a rivalry between two explanations of the world: on the one hand that of science and on the other hand that of religion. Science as a way to understand the world is in question, worse, it is in a time of troubles.⁶ At the beginnings of the 30's, the consequences of World War One still exist. The material and human destructions, on which scientists are accused to collaborated, spread a bad idea on the science itself. Science is in a social crisis, that's why the Union must justify the way science works.

Marcel Boll did it in the report of two books: one of Karl Darrow and the one of Arthur Eddington. Boll write:

the author immediately these interested despisers who believe to see everywhere ‘failure of science’ and who insist heavily on the infirmity of the human intelligence.

Who are those scorning science and why speaks of failure? Boll more directly named its adversaries in the report of the Volkringer's book. He refers to the catholic publication the *Revue des lectures* (Review of the readings). In October 1930, this review directing by the clergyman Louis Bethlehem, criticised the ideas of science “limited of the laboratory and of the instruments of physics.” Boll answer that this article is an insult. It is not a question of misunderstanding modern science, but of a bad will to disfigure it. He put the question not on an epistemological level but on an ideological one. The critic of scientist, and more precisely of the physicist is not indeed an epistemological one. The place of science in the modern knowledge is questioned. Science could not answer the questions of the modernity. The *Revue des lectures* expressed a common anti-positivist reaction.

Now it is possible for us to specify how the Union is rationalist. Indeed rationalism is not a philosophical position without a doubt. Indeed, at the time of the General meeting of June 23, 1932, Henri Roger begins a lexical precision which leads to a philosophical stand concerning the very name of “rationalist”.

Several of our correspondents criticized the very title of our association. One claimed our ignorance and one reproached us for having diverted the words rationalism and rationalist of their true meaning.

Roger then notes with humour that these words are not in the *Dictionnaire de l'Académie Française*.

⁵ “Programme de l'Union Rationaliste” (Program of the Union Rationalist), *Cahiers Rationalistes*, 1 (Paris, January 1931).

⁶ See Enrico Castelli-Gattinara, *Les inquiétudes de la raison, épistémologie et histoire en France dans l'entre-deux-guerres* (Paris: Vrin-EHESS, 1998).

However, it seems that the word “rationalism” keeps in Henri Roger’s speech a certain character of neologism or at least that its meaning is not sufficiently fixed not to make any controversy. Roger continues his intervention by claiming that:

we are the illiterate ones and barbarians and our Association is thus banished to the *index verborum prohibitorum*. However, I still hope that the academy will want one day to greet positively these two exiled and grant them with letters of naturalization.

Roger proposes his own definition with the help of his “personal memories”, i.e. two philosophical references. The first meaning of the word suggested by Roger is:

the effort made by certain philosophers or theologians to give a natural interpretation of the miracles [...]. One accepts the reported facts, however amazing they may seem and one tries to strip them off of their supernatural nature. This attempt, intended to explain the unexplainable one is extremely old.

Roger refers then to Anaxagoras and Plato. Anaxagoras of Clazomenae (500–428 BC) can be regarded on two accounts as a guardian figure, a patron saint for the rationalist Union. Anaxagoras was, like Thales or Anaximander, one of the first *physiologoi* or “philosophers of nature”. The fragments which reached us as well as the doxography propose rational explanations to phenomena which could be regarded as divine demonstrations. For example, fragment 19 affirms:

We call rainbow the reflection of the sun in the clouds. Now it is a sign of storm; for the water that flows round the cloud causes wind or pours down in rain.⁷

We are thus far from the mythological explanations in the tradition of Homer where the rainbow is the scarf of the Iris goddess, “messenger of the immortal gods”. This weather phenomenon is interpreted in the *Iliad* (XVII, 547) as a prediction of disastrous for the men:

Just as for mortal men
Zeus bends his coloured rainbow down from heaven,
an omen prophesying war or some harsh storm,
upsetting flocks and stopping men from work
upon the earth [...]

With this mythological explanation, Anaxagoras proposes to substitute a causal and strictly material explanation thanks to its theory of the homeomerics. Thus he is one of the first materialists. For this reason, he can appear in the speech of Roger like the first martyr of a rationalist attitude about the natural phenomena. Diogenes Laertius recounts that Sotion:

in his *Succession of the Philosophers*, says that he was persecuted for impiety by Cleon because he said that the sun was a fiery ball of iron.⁸

Anaxagoras is really a pre-Socratic in the way that his sentence of atheism in Athens during the rule of Perikles precedes the one Socrates will be a victim of.

Henri Roger seems to draw a parallel between the condemnation of Anaxagoras, especially for his friendships with Medes and the rationalists “accused” of socialism by the catholic right party.

Rationalism need to be precisely specify because it is identified only in reference to what it fights against. The meaning of rationalism isn’t singular because the irrational one is polymorphic. Thus, the rationalism of the Union is specified only in opposition to an irrationalism that is a dogmatism. The influence of this last being due only to ignorance. Albert Bayet clearly named the enemies of science :

There is not only the belief in the various revelations teaching dogmas opposed to rationalism, there are not only the taste for marvellous and supernatural, this faith in undemonstrated which is so common; there is not only the alarming success of certain doctrines which

⁷ Translation by John Burnet, in: John Burnet, *Early Greek Philosophy* (3rd edition; London: A & C Black Ltd., 1920).

⁸ Diogène Laërce, *Lives and Opinions of Eminent Philosophers*, livre II. Translated by C.D. Yonge, (Whitefish, MT USA: Kessinger Publishing, 2006).

represent, in various forms, the anti-intellectualism. There is something more serious and more widespread: ignorance.⁹

It is thus necessary to claim again the possibility of reaching and of understanding reality by reasoning. To the dogmatism of the belief, the Union wish to oppose the method, that is the activity of the reason. To the immediacy of dogmatism, the rationalists oppose the mediation of the effort of thought. To the not-examined acceptance of dogmatism, the rationalists oppose the free examination by the reason of the validity of every terms. The propaganda for science which the Union carries out is a fight against religious dogmatism.

The thematic bibliographies composed by the members of the Union and published in the *Cahiers Rationalistes* make this point obvious. These bibliographies want to be, of course, independent of all ideological or political standpoint. But we find in the “History of religions” section the name of Solomon Reinach and his book, published in 1909: *Orphéus, general history of the religions*.¹⁰ This book was a success as well in general public as in scientists groups. Suggesting the reading of this book is at least an ideological but maybe also a political standpoint. Reinach is indeed the model of the school and academic success of a man educated in the respect of the values of the Third Republic. His book was scandalous because it is the work of a man who did not receive any religious education and which considers religions as a set of principles which oppose the free exercise of man’s faculties. Reinach says what Bayet in its program thinks without clearly saying it by fear of the polemic.

Thus, a community of thinkers takes shape. The *Union Rationaliste* seems to be developed from *La Libre Pensée* (Freethinking) founded in 1847 by Jules Simon and Amédée Jacques. This association, born with the review of the same name, aimed at defending the free examination by the thought and the tolerance. It claims reason and science. It criticizes the dogmas and did of the Falloux minister one of its principal enemies. Propaganda for science which the Union carries out is a fight against religious dogmatism. The reason is a tool to demystify the religious speech.

This is why one of the collaborators of the Union, the historian François Sartiaux, made even available to all readers of the *Cahiers* a selection of the works of Joseph Turmel, a priest excommunicated in November 1930 for heresy. After having taught the dogmas in a seminar, Turmel became aware that the biblical texts were built on falsified sources. His work of historian of the sacred texts made of Bible a literary work whose authors could be identified and not the fact of a divine revelation. It is not longer question of recommending a reading because these works are at the disposal of the public. The Union fully assumes its role of association of propaganda such as it is defined in the Call of the *Union Rationaliste* which appears in the first issue of the *Cahiers*.

The popularisation and the diffusion of science, as a paradigmatic demonstration of the reason, are not a simple propaganda but a true counter-propaganda. But is this polemic only an intellectual one? If the clericalism is well identified as the enemy to fight, so is it possible to set the work of the Union on the political chessboard of France in the Thirties?

(4) Where is the Union on the French politic scene of the 30’s?

The French parliament and government life in the 30’s was very agitated. The last decade of the Third Republic counted brief cabinets and majors political and financial scandals that each time made the government failed. Camille Chautemps was certainly the briefest Président du Conseil (i.e. Prime minister): only 4 days in February 1930. For the street, members of Parliament and politicians are all bribed. The crisis of the republican system is obvious. Tardieu, President du Conseil in 1929 and 1930 tried fruitless to reform the political system. Scientists are convince that France takes a clear and moral direction. It’s the failure of the classic political system and of the politicians. It’s interesting to notice that the Action Française, a catholic right party, shared this political diagnostic with the Union.¹¹ Thus,

⁹ *Ibid.* Henri Roger and Charles Richet fought again spiritism. See P. Maléfan, “Richet chasseur de fantômes: l’épisode de la villa Carmen”, in *Des savants face à l’occulte 1870–1940*, B. Bensaude-Vincent director, La Découverte, Paris, 2002.

¹⁰ Salomon Reinach, *Orphéus, histoire générale des religions* (Paris: L’Harmattan, 2002).

¹¹ See Dandieu Arnaud et Aron Robert, *La décadence de la nation française* (Paris: Rieder, 1931).

scientists could take part in the political power and in the government.¹² For example, Jean Perrin and Paul Langevin, members of the *Union Rationaliste*, made political propositions to finance the scientific research and to create the CNRS (National Scientific Research Center). The Union think that science could have a part in moral regeneration. Because science could on facts and conclusions built a foundation of a new morals. Science could guide human actions. Indeed Langevin affirms in a conference summed up the *Cahiers*¹³ that:

science is able from now on to determine what must be the attitude of each one of us, not only with respect to nature but also with respect to the other men.

He joined the position of Henri Roger, president of the Union, who recalls in his short speech closing the annual report of the Union that scientists:

endeavour to make triumph their ideal, an ideal of justice, work and peace (*Cahiers Rationalistes*, 5 (May 1931), "Allocution du president HERNI Roger").

This belief wasn't a new positivism? August Comte's legacy isn't forgotten. Thinking that science is able to solve social problems, can it even allow us to speak of scientism? Anyway, there is a firm confidence on the power of science, which was in trouble times such as the 30's in France, already an important commitment.

Politically speaking, Union' members shared two ideas. First the anti-clericalism which has two origins. A general idea of science as activity of reasoning, that is the human faculty to find truth. The second origin of the anti-clericalism is French history. When the 1905 law of separating state and church was promulgated, the debates and social agitation were very violent. In 1924, Pope Pie XI finally yielded this law.¹⁴ The Union seems to be developed from *La Libre Pensée* (*Freethinking*), founded in 1847 by Jules Simon and Amédée Jacques. This association and its review aimed at defending the free examination by the thought and the tolerance. It claims reason and science. It criticizes the dogmas and did of the Falloux minister one of its principal enemies.

The second political idea shared by the Union is left wing.¹⁵ For example, Bayet belongs to the Radical Party. This party had republican ideas: secularism, anti-clericalism, social reform and pacifism. Langevin is known for being a member of the French communist party but this occur only in 1944. In the 30's he is a fellow traveller. Others members of the Union Rationaliste expressed inside the *Cahiers* their communist commitment.¹⁶ Sometimes a feature of the *Cahiers* became a forum to expose political ideas.

Now we can conclude that the philosophy of the *Union Rationaliste* implies a representation of the society and legitimate actors of the political power. By limiting the claims which religious dogmatism wants to play in the French political life, the *Union Rationaliste* in spite of its declarations of neutrality, assumes a political position. The assertions of this association are significant of the scientist's will of neutrality but also of the acute conscience of the need for social commitment. Science is called to express its beliefs and by doing this to involve in the political and social life.

The political activity doesn't necessarily imply being involved in the political party game but before that being involved in the polis, in English the city. The *Union Rationaliste* is an association with political aim because it want to recognize the scientists' speech beyond the limited group of specialists. Exposing the developing of science is for *Union Rationaliste* a way of making the future of society. In this way, doesn't the Union lead a messianic idea of science? We can even wonder if the foundation of the *Union Rationaliste* isn't a non-rational idea? Anyway, I propose as a conclusion the hypothesis that the French rationalism in the 30's isn't above all epistemological but political.

¹² See J. Touchard, "L'esprit des années 1930: une tentative de renouvellement de la pensée politique française", *Tendances politiques dans la vie française depuis 1789* (Colloque de Royaumont, 23 mai 1959; Paris: Hachette, 1960).

¹³ *Cahiers Rationalistes*, 3 (Paris: March 1931).

¹⁴ See G. Cholvy et Y.-M. Hilaire, *Histoire religieuse de la France contemporaine*, t. 3, 1930–1988 (Paris: Privat, 1988); P. Christophe, *Les Catholiques et le Front populaire*, Paris, Éditions ouvrières, 1986; R. Rémond, *Les Catholiques dans la France des années trente* (Paris, Cana, 1979).

¹⁵ See C. Prochasson, *Les Intellectuels, le Socialisme et la Guerre, 1900–1938* (Paris: Éditions du Seuil, 1993).

¹⁶ See D. Caute, *Le Communisme et les Intellectuels français 1914–1966* (Paris: Gallimard, 1967).