

## Chapter 40

# The Energetic Imperative

*The categorical imperative.* Kant's fame and influence are based to a large extent on his "Critique of Practical Reason" which, in the edition of Hartenstein is a little book of 169 pages in which he presents the concepts of God, freedom and immortality in an extremely clever manner and by doing so rescues them from the floods of "pure reason" which had threatened to drown them. He did this by constructing next to pure reason an independent form of practical reason in which they could be embedded. By doing so he won over, in addition to those few who admired his research into areas of logic and psychology, masses of people for whom this book satisfied their thirst for metaphysics.

His basic idea was that practical reason must be based on purely formal arguments divorced from any factual elements. In this sense then he formulated the proposition which has become famous as the "categorical imperative":

Act so that the maxims of your will could be taken as the principles of a general law.

At first glance this proposition does indeed seem to be entirely formal since the demand for general applicability appears to be purely logical and it is so formulated by Kant. However, if one looks closer then the generality that is demanded is not logical but social: this law is there to regulate human interactions and is far from being merely a general concept.

Thus here one comes across the social nature of ethics in a place you would least expect to find it. This hidden social aspect is what makes the categorical imperative so fruitful.

Since I of course was not satisfied with Kant's idea of the inborn nature of moral laws, I asked where the source of ethical and social fair-mindedness might be. Here I came across a much older thought. Much earlier, when I had realised that the second law of thermodynamics applied to everything including human actions, I'd looked at it in the light of the concept developed by theological ethics of the sin against the Holy Ghost. As everyone knows this is the only sin which can never be forgiven, although, as Lessing pointed out, we don't really know what this sin consists of. This sin therefore has certain similarities to the dissipation of energy whose consequence, the reduction of energy can never be made good. This idea was

more or less just a game until I realised that all cultural activities are directed towards restricting the dissipation of energy in nature so that it can be used for human purposes. Unregulated energy dissipation is the squandering of energy and so quite naturally the categorical imperative of energetics becomes: Don't waste energy, use it.

The line of argument which is given here briefly had in fact taken 10–15 years to develop.

It clearly demonstrates the relationship of the categorical to the energetic imperative. The categorical imperative is claimed to have its source in the supposed inborn conscience and hence to be absolute. The energetic imperative has its source in the inescapable natural circumstances into which man is born and it defines his relationship to the environment and to the level of culture which he has attained. Culture, however, is a product of society and Kant's imperative turns out to be an answer to the question, "What limitations does the second law set for the prospering of society?" The answer is fairness because every unfair act results in opposition and hence in the dispersal of energy. Thus the categorical imperative turns out to be simply a special case of the energetic imperative. These brief hints will be fleshed out with a more detailed account later on.

*The pyramid of the sciences.* For me the way from physical chemistry to the science of culture (which is often less usefully referred to as sociology) went by way of energetics. Already in my first attempt to organise my thoughts for the lectures on natural philosophy at the beginning of the twentieth century, it had become apparent that the scientific investigation of human affairs was the most difficult, but also the most important challenge. Then I came across Comte's organisation of science which had driven him to propose the existence of a highest level of science which didn't exist at that time and which he proposed should be called sociology.

A great advance in my thinking came with the recognition of the fact that the simpler and general sciences are prerequisites for the higher specialised sciences but that the reverse is not true. In this way chemistry is essential for psychology but you don't need to know any psychology to understand chemistry. Earlier I liked to depict the totality of science as a net in which the connections between the knots are known. Now I understood that this image is imperfect because it does not reflect the essentially hierarchical nature of the relationships.

Now it seemed to me that science was more of a pyramid in which the lower levels support the higher ones but not vice versa. Though this idea is very simple it turns out to have important consequences, because it allowed an overview of the entire corpus of human knowledge. Later as we go along I'll have a number of opportunities to point out some of its applications.

The idea first struck me in 1903 during my first journey to America (Part II, Chap. 27, p. 319) as I prepared my address for the opening of J. Loeb's new institute. Since, as a chemist, I had to say something about biology I first of all had to get the relationship of these two areas of science clear in my own mind. To avoid any errors in this assessment I needed to clear up the relationship of all the sciences to each other. In doing this I constructed the pyramid of science for the first time.

I was soon able to make a significant advance on Comte by making not mathematics but the science of organisation as the most general of all sciences. However, at that time, because of the special nature of the talk I was to give, I only worked my way up to the level of psychology.

I'd already applied the concept of energy to psychology in the lectures I'd given on Natural Philosophy by defining all mental processes as energetic that is to say as processes driven by the transformation of chemical energy present in the nerves and brain. This idea was at odds with the then current dogmas as can be seen from the comments that the psychologist W. James made about it in a letter to me (Part II, Chap. 26, p. 309). What was important to me was that it got rid of Dubois-Reymond's<sup>1</sup> notorious "riddle of the universe" which was concerned with the question how the mechanical motion of atoms in the brain could be converted into thoughts. Leibniz had already pointed out the impossibility of this idea. However, instead of recognising that processes in the brain could not be based on atomic motion—a view that the dogmatic mechanic Dubois-Reymond had been unable to grasp—he confused his own incompetence with the unlimited possibilities of human thought and romanticised it all as an eternal "puzzle of the universe".

No such puzzle was required for the energetic explanation of mental processes, because it became merely part of the natural phenomenon of energy transformation. We cannot currently devise and test useful hypotheses over the details of these processes because our current knowledge of the chemical dynamics of the brain is so rudimentary.

I first included sociology in the pyramid of science in 1904 for my lecture in St. Louis (Part II, Chap. 29, p. 370). In the meantime I'd come across Comte when I'd started to take an interest in earlier attempts to deal with the problem of the organisation of the sciences. As the highest science which encompasses all the so-called humanities, sociology makes use of all the other sciences and these can be divided into 3 groups; organisational, energetic and physiological-psychological sciences and these in turn are further subdivided into the different branches of these sciences. For me the energetic basis of sociology was the most interesting part.

*Sociology.* To begin with sociology was for me was just an empty frame that contained no graphic picture. I first began to see something in it during the journey to St. Louis (Part II, Chap. 29, p. 362) when I met the sociologist F. Tönnies and heard from him some interesting arguments. Once I'd resigned the Leipzig professorship and had time to do what I wanted, I slowly began to formulate a set of interrelated thoughts on the subject.

Part of this was driven by the request from the publishing house of J.A. Barth that I write an article for the first volume of a collected edition entitled "Knowledge and Competence". I agreed provided that I might use the title "Energy" and this they were happy to accept. In this way I put together for the general reader a short description of the meaning of the term energy. This was different from everything that had gone before, firstly because I kept it free of the kinetic hypotheses which were till then

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<sup>1</sup>Ostwald misspelt this name. The correct form is du Bois Reymont.

inseparable from this concept, and secondly because I strongly emphasised the fundamental importance here of the second law (Part II, Chap. 21, p. 238). The little work was widely read so that it had to be reprinted and it was also translated into other languages. It contributed significantly to bringing the ideas of energetics across to the average reader.

In the last part of the manuscript I included a section on “sociological energetics” in which I tried to lay out the basis of this new and very wide field of study.

*Legal energetics.* Among the new fields which now awaited further work was one that I had already started on, namely the law. In my last years in Leipzig the backwardness of legal concepts had been underscored by the fact that in the following case no reason for punishment could be found. The accused had secretly tapped into someone else’s electricity supply and used it to power a lamp for his own use. This was clearly theft but the judge refused to refer to it as such because the *Corpus juris*,<sup>2</sup> and hence all the law books, defined a theft as the illegal appropriation of some movable thing belonging to someone else. In this case “electricity” had been stolen but since this is not something you can grasp or weigh it cannot be described as a thing. The confusion was even greater because not even electricity (in the physical sense of an amount of electricity) had been stolen because this had remained unchanged in the main circuit. What therefore had actually been stolen? Of course it was clear that not even the most serpent tongued lawyer could argue that using someone else’s electricity to run a lamp or a motor or whatever, is a fundamental human right.

To me the case was very welcome, because here what had been stolen was the electrical energy which is the article of value that is produced from coal by machines in the electricity works and has to be paid for by those who use it. In this case energy, which was widely viewed merely as an abstraction was something real that was produced and sold as a product and hence could be stolen.

I wrote an explanatory essay for the German Legal Journal, but it was not well regarded by the jurists. Their comments took the quaintest forms which merely went to show the severe deficiencies of a legal education. The result of this case was that a new law was passed which provided for the punishment of those who illegally expropriated energy.

I made the following point in discussions about this with my Leipzig colleagues from the law faculty (though I could endure only the most infrequent and subtle contacts with them). As the sciences awoke at the end of the Middle Ages they had to free themselves from the earlier prejudice that the Greeks and Romans had reached an unsurpassable level of achievement. Modern physics began with Galileo’s struggle against Aristotle’s preconceptions in mechanics, astronomy with the rejection of the ancient belief that the earth was the centre of the universe and so on. Every modern science underwent not a renaissance but rather had to be born anew and only managed to unfold once the ancient views had been overthrown. One can see this in every branch of science—with the sole exception of

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<sup>2</sup>The legal term *Corpus Juris* refers to the entire body of law of a country, jurisdiction, or court.

jurisprudence. Just as the doctors in the Middle Ages swore by Hippocrates and Galenus and the mathematicians by Euclid and considered it a sacrilege to go beyond these sages, so the lawyers considered the *Corpus juris* to be the epitome of all legal wisdom, though its failings were all too obvious. The senior member of the Leipzig law faculty, Windscheid, had energetically contributed to the lawyer's bible—The Imperial Civil Law Compendium—and had made it so useless that the whole thing had had to be completely revised.

I should point out here that the situation I am referring to was that of 25 years ago. I am well aware that in the meantime the essential work of removing ancient prejudices has begun and has made some headway. How much progress has been made is something I am not able to judge.

I have recounted these things because they made me think continuously about these questions and in particular because they led me to understand that they are part of sociology which was an area that was then coming into the forefront of my mind. I became a member of a society for the philosophy of law which had been founded by the Berlin lawyer Josef Kohler. I'd read about his progressive views which he was very successful at getting aired in the daily newspapers. It was this society that invited me in 1910 to hold the lecture on the topic of "Function and Value" in the context of the philosophy of law which led me for the first time to articulate the energetic imperative (see below). However, as so often in these situations, I soon run up against the determined opposition of the experts in the field. Kohler himself had no interest in getting himself involved with a line of thought which he had not initiated. Gradually it became clear to me that the society was really just a private enterprise to generate influence and prestige for Kohler and so I no longer associated myself with it. In any case I had too many other things to do at the time.

All this had however directed my attention to the cultural consequences of the second law. In the first brief sketch of energetic sociology with which I had closed the little book on energy (This chapter, p. 545). I had already gone so far as to recognise that the maximisation of the efficiency of energy transfer from a lower to a higher level is a general task of the entire culture. In this way I had enunciated a law which not only permitted a broad general understanding of these things but was also something that could be directly applied to specific problems.

This sort of law can be expressed in a number of different ways depending on the point of view. I instinctively looked for the shortest and most demonstrative version and found it in the energetic imperative.

*The energetic imperative.* I've already described how the idea of the energetic imperative developed (Part II, Chap. 21, p. 227). By putting together the first and second laws of energetics for the purpose of developing practical applications I came to the formulation: "Don't waste energy, use it" which I called the energetic imperative and which has in the meantime become part of the normal way of thinking of every thoughtful work right up to the highest levels.

I've tried to remember when I first used this name for it, but without much success. It certainly arose first in 1908 during discussions I took part in concerning the social significance of the second law—a matter that was of great interest to me at the time. The results of my thoughts on the matter were published in the little book “The energetic basis of Cultural Science” whose preamble is dated April 1909. However neither there nor in the “Bridge” book of Bühner and Saager, which was published 2 years later and contained my thoughts on the matter, was the energetic imperative referred to as such.

On the other hand I clearly remember that during the discussion after a lecture I held in Vienna in 1910 in the Society for Legal Philosophy on the subject of “Purpose and Value”, I summed up my thoughts on the matter in the form of the energetic imperative. This may have been the time that it first saw the light of day before an admittedly rather small audience.

In discussing the work of Lichtenberg, the intelligent physicist and writer of popular literature, Goethe remarked that whenever he made a joke you would be sure to find a problem lying hidden behind it. I quite often do something similar: when I formulate a new idea it is often in form that I like because it comes across as really novel and yet later I see in it new and fruitful relationships. To begin with I tried to convince those I was talking to of the importance of behaving in a way that took account of energetics by putting it on the same level as Kant's famous “categorical imperative” by referring to it as the “energetic imperative”. Only later, after due consideration, did it become clear to me that the energetic imperative was not only equal but was in fact superior to the categorical imperative. The categorical imperative is restricted to the social interactions of individuals while the energetic imperative applies and governs all of the actions of an individual.

The first place I can find where I used the term before a broad public was in an essay that I published the following year (1911) in the Berlin newspaper “Tageblatt”. In the same year I published a second essay under the explicit title, “The Energetic Imperative” which explained its content and breadth of application. The term soon became popular so that in 1912 I put together a collection of essays most of which had been published in newspapers and gave it the title “The Energetic Imperative”. The roughly 50 essays on a whole set of different topics nevertheless could all be quite naturally incorporated under this title. From this time on it became possible to use the term without putting it between inverted commas.

*Ernest Solvay.* I got a new impetus in terms of social-energetic thinking when Ernest Solvay sent me the publications from the Institute of Sociology which he'd founded. They showed that this remarkable man had worked his way towards a form of energetic thinking and in doing so he had come up with some highly individual and important ideas. I had been happy to review them positively in the “Annals” and this led to the development of a personal relationship which must be counted as one of the most outstanding of the many valuable and enthralling experiences I have had.

In particular he had thought widely about the application of energetics to social questions. As always with talented but self-taught amateurs his results were a

mixture of far-reaching good ideas together with some pretty primitive errors. Since superficial reading tended to make the latter stick out he had come across only polite rejection when he'd tried to interest other researchers in his work. To provide a home in which these ideas might develop he had built his own institute and funded it well from his vast fortune. It was typical of him that he knew that he shouldn't do this just to push ahead his own hobby, so he'd at the same time founded two other institutes; one was devoted to physiology and the other to business education. Each of these institutes was given a large house with all the appropriate, even magnificent, fittings and a scientific staff. The directors of the three institutes were paid a salary such that there was no need for them to earn money elsewhere in order to keep themselves and their families in comfort. They were also guaranteed in their contracts complete scientific freedom so that their jobs did not depend on their acceptance of the founder's views.

"Apart from these institutes Solvay was always ready to help finance other projects which were of general value and for one such project—a new Institute for Sociology"—he visited Berlin. I too had been invited to take part in the discussions. The idea had been initiated by an original but rather limited thinker called Pollack who had written a book on organisation with the title "Political Methods". It had been sent in for review in the "Annals" and I had read it through and written a largely positive review.

However, this time things did not work out. The problem was that the organisational ideas put forward by the sociologists who attended the meeting were primarily aimed at making sure that the new institute should provide them with the basic data which they needed for their own current work or the work they planned to do in the future. Solvay thought that this was too narrow and showed no interest in supporting their plans. As the meeting came to an end he invited me to dine with him so that we could talk about questions relating to social energetics. Though my French was very rusty and Solvay knew no German we spent an interesting evening together. At the meal he proved to be very abstemious for he neither drank alcohol nor smoked.

This was the beginning of a closer professional and personal relationship which became something like a cordial friendship based on mutual trust.

*Personal matters.* Solvay was a few years over 70 when I first met him. He was slightly under middle height with a thin but wiry figure and with short but full grey-blond hair and beard and blue eyes. His forehead was deeply furrowed from much thought. He didn't look his age because he was agile and moved with an air of determination. This was the result of his sporting activities which he undertook to maintain his equilibrium amongst his numerous diverse business interests. As he told me once later when I visited him in his lovely country house near Brussels, his best relaxation was the roughly 15 km walk to his apartment in the city. He said "These are the only hours in which I can think seriously about science, because only then can I be sure that I will not be disturbed". A little later he sent me some photographs of himself together with his guides on a difficult ascent of a snow-covered peak in Switzerland. I wrote back to tell him that I would have felt

jealous at the sight of the card if I not much earlier worked hard to banish as far as possible this mean-spirited emotion.

Later on he survived the world war, though the occupation of Brussels by the Germans hit him hard, and he died in 1922 at the age of 84.

Because of the matter of the World Association of Chemists, which I related above, I was in constant contact with him and was several times at his house in Brussels or at the country house for days on end. Though both houses were built like palaces and richly furnished he lived very simply, he had no interest in showing off his wealth. He too belonged to that happily not so small section of the rich who treated their wealth as a duty rather than as a source of pleasure.

Typical of this was the celebration he held in 1913 for his 75th birthday, his golden wedding anniversary and the 50th anniversary of the introduction of his soda ash process. The numerous soda ash factories in Belgium, Germany, Austria, France, Britain and so on were represented by their directors and Solvay had asked them not to bring any personal gifts. Instead he suggested that any money set aside for that purpose should be used to support the workers in the factories. It pleased him a lot that three million francs were raised for this purpose.

The celebration was however more or less a state affair and Solvay just had to accept this. I attended because it amused me to see an idealist in this situation. It consisted as these things always do of speeches and banquets and so on and ended with a theatrical presentation given by around half a dozen members of the Paris Comédie Française who'd been brought to Brussels at an outrageous cost. I'd most kindly been given a seat in the first row so that I'd miss nothing.

I must confess that I have seldom seen anything so childish in all my born days. Perhaps it was due to the then current Ultramontane movement or perhaps due to Solvay's wife (which is saying much the same thing) that the one act sketches were so harmless that they bordered on fatuity and the stilted way in which the verses were recited only increased this impression. It was a bit like the school leaving play at a very pious girls' school.

However, perhaps because they'd known what was coming, the number of guests dramatically decreased, and so I was rewarded with fifteen minutes chat with the birthday boy. I left for home the next day with the satisfied feeling that here in this man external success and inner values went hand in hand.

*Energetic cultural science.* In the meantime so many new thoughts had come together that in my usual manner I organised them into a book so as to make a bit of space in my brain. This was in 1908 and in the following spring the "Energetic basis of Cultural Science" was published. It was dedicated to Ernest Solvay the founder of social energetics.

The content of this little book (it was 184 pages long) is clear from the chapter headings. Work, Efficiency, Raw energy, Life forms, Mankind, Mastering external energy, Conquering time and space, Socialisation, Language, Law and punishment, Value and exchange, The state and its power, Science.

As always these new thoughts received an unfriendly reception from the experts. A few of the crushing reviews by well known sociologists convinced me of the



necessity of my work because these critics were simply unable to follow the arguments presented. I can't say whether in the meantime that has changed much for I haven't kept up with the newer sociological literature. In current practice one does come across numerous example of the application of energetic views, though it doesn't necessarily follow that this is a direct or indirect effect of my book. Where survival of the fittest is the rule, what's right quite naturally wins whether or not it had been previously analysed theoretically or not.

Soon after this I was given an opportunity to check the applicability of my idea. In the summer of 1909 an international sociology congress was held in Bern and Ludwig Stein, who was professor of philosophy at the university there, had seen to it that I was invited. Since this fitted into travel plans to Geneva where I was to be awarded an honorary doctorate I was happy to accept.

Stein had a large circle of pupils in Bern and though he originally worked on the history of philosophy he now tried to teach them all the recent developments in the subject. He was the first of the professors of philosophy there to repeatedly use energetics as a subject both for seminars and for dissertations. He was always looking for connections between the ancient Greek philosophers and current trends and was overjoyed to find the seeds of recent concepts in Aristotle.

He offered to put me up for the duration of the meeting and I thankfully accepted. Since he was very well off he had bought a grand house in a beautiful part of Bern and there I was given a wonderful room. Although, as organiser of the meeting, he had a lot to do he found the time to have long and detailed discussions with me and these resulted in the inception of a number of wide ranging charitable social projects. Like me he was by temperament and scientific conviction an optimist but he was even more optimistic than me and he thought that by applying his vast fortune and his influential connection he'd be able to start a movement of cultural energetics the outlines of which we formulated together. Unfortunately these plans had to be delayed because his doctors said that he should take a longer break to recover from over work, and then the world war destroyed everything.

At the congress it was easy to see how uncertain the sociologists were about where their field fitted into science. I think this was the reason that they were so ready to accept my explanation of the pyramid of science and the place of sociology at the very top being dependent on all the other sciences. I was elected to membership of the Paris based International Institute for Sociology and I later wrote a number of articles for its journal.

I got to know and respect a large number of interesting and independently minded thinkers and researchers at this meeting though, since no longer term relationship developed from them, there is no need for me to list their names here. The one exception is Ludwig Stein with whom I have remained ever since in friendly contact, particularly after his move to Berlin in 1910 which brought us geographically closer together. I am indebted to him for his untiring readiness to help and for his support in a number of academic and personal matters.

*The peace movement* . With the energetic imperative I was in possession of a means of judging the cultural value of the various movements that applied to me for support. For example I was unable to see any way in which the German Language Society was going to reduce the waste of energy and so I did not do anything for them, even though I'd considered it important throughout my entire career to try to make my lectures and papers as German and as expressive as possible. In fact I have enriched our language with a number of new terms which were generally accepted without any opposition and these I introduced when necessary without asking anyone's permission.

War, however, was a waste of energy on a massive scale and so I did not fail to answer the call to join the public opposition to it. My contact with the movement was through the dignified figure of Wilhelm Förster.<sup>3</sup>

I'd got to know him in Paris in 1907 where I was involved in the world language meeting. By chance the managing committee of the International Office for Weights and Measures was meeting there and Förster was Germany's representative. He was staying at the same hotel as I was so that I often met him and some of the other delegates. He was very interested in our work on the world language but turned out to have been indoctrinated by a number of convinced Esperantists.

Wilhelm Förster was a lively old man, short and thin with white hair and beard and blue eyes which reflected his kind-heartedness. He was already 75 but wasn't worn down by his age and with his open and confiding way made a winning impression.

What particularly attracted me to him was the fact that long before me he had reorganised his life much as I, without having heard of him, was to do later. He'd had a respected scientific position as professor of astronomy and director of the observatory at the university in Berlin and had given this up in order to be able to devote his life to practical idealism. I often took him up on the offer to drop in on him in Berlin and never left without the feeling of having breathed the fresh sunlit air of the mountains.

What led me to collaborative work with him started with certain technological questions. In the winter of 1909 I'd published an essay in the New Free Press in Vienna in which I pointed out that with the conquest of the air, which was just beginning, the third dimension of space was being opened up. For as long as mankind had been restricted to the two dimensional land surface, border lines had been enough to separate countries from each other and these could usually be controlled and closed. Now that man was learning to move through the air the border lines would have to become fences which were high enough that they could not be over-flown. That was naturally technically impossible and thus this development must inevitably lead to the abandonment of political and economic borders which were of course responsible for a huge waste of energy.

Baroness Berta von Suttner read the essay and soon wrote me to suggest that I might present these and any other similar thoughts to the Austrian Peace Society

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<sup>3</sup>Ostwald misspelt this name. The correct form is Foerster.

which, under her leadership, was very active. I readily agreed because in any case I was often in Vienna on other business and so I got to know her. The idealism which characterised her made my dealing with her very pleasant and after that I never missed the chance to drop into the old house on the Zedlitzgasse whenever I was in Vienna.

At that time Mrs von Suttner was already almost 70 but with her slightly plump figure and average height she was a lively and amiable person. The apartment was filled with beautiful old furniture. In the middle of her drawing room stood a table on which under a glass plate was the certificate of the Nobel Prize which she had won for her services to peace. She was rightly proud of this.

At around the same time I had a long talk with the Japanese ambassador in Vienna (his name escapes me now) who had questioned me for hours for detailed information about the world language. As thanks, he invited me round for the evening and apart from me the other guests were Mrs. von Suttner and a number of other Vienna internationalists. Later we were joined by the Japanese ambassador to Petersburg who was on an official journey together with his wife. She was a graceful still young looking Japanese woman who was my dinner companion but she unfortunately was wearing European dress. We had to speak French because this was the language the Asiatic diplomats were most at home with. Mrs. von Suttner spoke it fluently while the rest of us had only a smattering. Despite this the evening passed in cheerful and interesting conversation.

In particular I had asked the Japanese if the rapid assimilation of the foreign European culture by the Japanese people would not lead to a serious reaction, comparable to digestive problems, as had happened in similar cases elsewhere. They replied that their people had managed this several times in the past as, for example, when they absorbed Chinese culture and they were sure that also now the assimilation would be painless. Till now the results seem to show that they were right.

Another city in which the peace movement was strong was Frankfurt am Main. There the peace movement was already 25 years old when I was invited to the celebrations which took the form of a general meeting and I was asked to give a presentation. I used the opportunity to initiate a number of useful and pleasant relationships with people, both in and beyond the peace movement there, who made me like this vibrant city.

I still have very lively memories of the peace conference in Stockholm in 1910 where I got to know the movement's international leaders of whom I remember best the Danish Nobel Prize winner Bajer, who in his personality resembled Wilhelm Förster. I met Gaston Moch again there whom I'd become friends with earlier in Paris (Part III, Chap. 35, p. 467). At this meeting too I held a lecture this time to the title "Culture and War" which was met with loud applause. Afterwards the Swedish philosopher of culture Ellen Key congratulated me most kindly.

I think I have never met a more mixed bag of congress participants. Here some Parisian ladies made themselves obvious by their luxurious dresses and make up, over there were long haired men looking like farmers, and in between faces which ranged from stubborn fanaticism to cherubic benevolence.

The town had arranged for a banquet so long as no alcohol was drunk. This was unhesitatingly accepted and I've never attended a banquet at which there was so much discussion, much of it at a very high standard. When we'd finished with the meal and the fruit lemonade the discussions were not nearly finished. In the garden there was a sort of natural pulpit on a rock and from there the talks carried on for some hours till the audience eventually drifted away. A Chinese who spoke good German had joined me and I tried to convince him of the necessity for his people to join world culture by learning the world language.

At some of these meetings I'd been rather embarrassed that apart from the energetic imperative I hadn't been able to add much to the well known reasons for pursuing world peace. I was therefore more than happy to seize a new and unexpected opportunity.

The French monthly magazine "Grand Revue" asked me to write something for them and left the subject matter up to me. I answered right away that I'd be happy to oblige but that I rather feared they'd send the manuscript straight back. They asked again and I wrote an essay, "The Great Step" in which I developed the following line of thought.

The political role of France on the European continent had always been to try out new political experiments on itself. For example they had invented the absolute monarchy 500 years ago and the people's revolution a 100 years ago. The French nation was now in a position to make the greatest achievement in this area by signalling the start of world peace. All that was needed was that the French unilaterally disarm. France should not fear attack from any of its neighbours and in particular Germany did not seek war with anybody because there was nowhere a goal for which the working people would be prepared to go to war. As proof of this was the fact that when in 1905 Russia lay paralysed by revolution and defenceless, Germany had not attacked her to gain control of the Baltic provinces with their German speaking populations.

The essay was very well translated and it was published. It caused a lot of debate and a number of letters from both sides of the argument were published in the following issues. Had the suggestion bourn fruit, what tragedies the French might have spared themselves and the rest of the world!