

Michael Frauchiger
Wilhelm K. Essler (Eds.)
Representation, Evidence, and Justification

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Edited by Wilhelm K. Essler and Michael Frauchiger

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Representation, Evidence, and Justification

Themes from Suppes



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General Foreword

Henri Lauener and the Lauener-Stiftung*

Mr. President of the University of Bern, dear colleagues, ladies and gentlemen:

Thank you very much for taking part in this great event. For this is the first presentation of the Lauener Prize by the Lauener-Stiftung.

Well, what is the Lauener-Stiftung, and first of all, who is Lauener?

Of course, this question is somehow wrong; it should be reformulated either as:

* “Who *was* Henri Lauener? ”, or as:

* “Who *is* Henri Lauener *to me*? ”.

Well, I do not intend to answer the question “Who *was* Henri Lauener? ” right here and now; for that would be somehow like a belated obituary.

And, in any case, you know him: You are familiar with what he did for developing philosophy in Switzerland, and for opening this beautiful country’s philosophical activities to the philosophical world of the 20th century in several respects: by the results of his own research, presented in impressive publications, by his teachings esp. at this central university of Switzerland, and – last but not least – by the numerous conferences he organized in Switzerland. He invited important colleagues from over its borders to these conferences. Thus he gave students and colleagues of this country the opportunity to become aware of the way these guests philosophized as well as the opportunity to establish contact with them and remain in contact with them.

By the way: I am sure, you are aware of the fact that Lauener and his contributions to contemporary philosophy are considered absent – from California to India – at least [to be repeated: *at least*] as much as in his native country.

* Address of the President of the Lauener-Stiftung at the Lauener Prize Award Ceremony 2004.

But let me try to give a short answer to the second question: “Who is Henri Lauener to me?”

Well, when he died, I lost a friend, a real close friend, a comrade! Of course, he was not my *only* friend, by far not. But, by far, he was my *best academic* friend, or, to be more precise: He still *is* my best academic friend. Of course, with regard to his body, he is dead. But with regard to his mind, in some sense he is still accompanying me.

Maybe, in *some* respects it seemed *very hard* to become his friend as well as discussing with him. But, as *I* see it, it was *very easy* to become his friend and also to discuss with him. For his behaviour was not unpredictable, by far not.

To Henri Lauener, philosophy was not a mere job, a Beruf, but a Berufung, an inner call that he had to obey. And to him, therefore, presenting philosophy was much more than holding some position at the university. For him, philosophizing did not stop when he left his office; on the contrary: he insisted that a philosopher never ever must be thinking A, speaking B, and doing C. In this way, by continuously *practising* this *basic attitude*, his way of life was straightforward. And therefore, it was very easy for me to become his Freund, since in this respect we were on the same wavelength. In *this* way – and, of course *only* in this way – it was very easy to be his Freund.

How to be kind and firm at the same time is what I learned from him in being a Freund. And especially in *this* sense and in *this* aspect, Henri will still be with me as long as I am alive.

Along with that basic attitude, it was very easy to discuss with him: starting during early evening in some small restaurant at the Lac Léman, and ending that discussion perhaps sometime late after midnight. But, while it was easy to discuss with him, it was by far not easy to in the end win such a discussion. Of course, he did not use any rhetoric just for the sake of winning; nevertheless, his voice was somehow powerful. But things of that kind do not impress me.

What *was* indeed impressive to me was the following: During these discussions regarding the relations between philosophizing and developing one’s way of life he presented the sounder arguments almost every time – well, *not* exactly *every* time; in the few cases when my arguments turned

out to be more profound he eventually accepted them.

Also, it was easy to discuss with him detailed problems of philosophy, despite occupying slightly different standpoints. For his epistemological point of view was something like an undogmatic holism, whereas my position is a strictly non-holistic one, accepting of course the *accurate* results of holism as being helpful. Differences of that kind never ever became obstacles within our discussions or conversations.

Living and philosophizing, these two things were indivisible for him, like the two sides of the same coin; and he maintained both at least up to that time when he lost his beloved small daughter, his beloved wife, his beloved mother, and his beloved dog in rapid succession.

Up to that time he regarded accurate philosophizing as being most valuable to life in general and to his own life in particular, and vice versa. Of course, after the above mentioned bereavements he still regarded philosophizing and living, both being firmly interrelated, as most valuable. But with regard to his own life, an unfortunate pessimism began to arise and settle within his mind. Contrary to all that he had done and effected, he increasingly clung to the misconception that his work and therefore his life were without any value.

This was the first and, according to my experiences, the only time where he became inaccessible to well-founded rational arguments and attempts to encourage him.

Nevertheless, the *value* of *accurate* philosophizing, *this* he continued to promote and to support with all his heart. Therefore, in his last will, he decreed that all his mobile and immobile properties should be sold after his death, and that a Stiftung – a foundation – for the purpose of promoting accurate philosophizing was to be his legacy. While visiting him at Alexandra hospice, where he spent the last period of his life, as well as during telephone conversations, he explained the objective and procedure of his will:

The objective of this Stiftung is twofold: on the one hand the objective to present deserving representatives of accurate philosophizing to the younger talents so as to encourage them; on the other hand the objective to support these young talents themselves. This is to be done in the following manner:

In the 1st, 3rd, 5th year etc. the prize winner will be a deserving philosopher honoured for his life's work.

In the 2nd, 4th, 6th year etc. the prize winner will be a young talent in *accurate* philosophizing.

In exactly this sense the Stiftungsrat of the Lauener-Stiftung decided unanimously that the prize winner of this year – and therefore also the first prize winner – is to be Professor *Patrick Suppes*.

Wilhelm K. Essler

Preface

Most contributions to this book were originally talks given at the 1st International Lauener Symposium in Berne, Switzerland, on 09 and 10 September 2004. The Symposium, organized by the Lauener Foundation, was held in honour of Patrick Suppes (Lucie Stern Professor of Philosophy, Emeritus, at Stanford University), who was awarded the first Lauener Prize for an Outstanding Oeuvre in Analytical Philosophy on the same occasion.

The present volume, though, is not designed as the proceedings of that symposium nor as a Festschrift for Suppes. It is meant, instead, as a series of extended academic conversations with Patrick Suppes, which mostly started long before the Symposium in 2004 and have been carried on since. The authors have been encouraged to implicitly respond, in their articles, to what had been debated in the substantial discussions which followed their lectures. In addition, Patrick Suppes has shown himself ready to write detailed commentaries on each of the articles. His comments do not only put a different critical perspective on each paper's topic and argumentation, they also illuminate some crucial aspects of Suppes' own work which are not easily available in the existing primary and secondary literature. The interview with Suppes at the end of the book was originally made during the Symposium and has subsequently been expanded by correspondence, thereby fitting well in the frame of a prolonged academic conversation. The book's purpose is to give the reader ample scope for finding out about the present development of a wide range of philosophical and methodological themes on which Suppes has set out seminal ideas.

This collection opens a new series by ontos verlag - the *Lauener Library of Analytical Philosophy* - which will present further constructive dialogues with distinguished philosophers. The new series provides an opportunity for leading authors in the field to connect their own problems and projects with the themes and perspectives of some classical exponents of analytical philosophy – those who have been awarded the Lauener Prize for an Outstanding Oeuvre in Analytical Philosophy.

But, what does it mean to deal with analytic philosophy today? Is ‘analytic philosophy’ not becoming an increasingly inclusive label, which gets constantly stretched, growing less and less significant and eventually pointless? It appears, indeed, that there is a trend towards an inflationary use of the term ‘analytic philosophy’, but that’s exactly what makes it appropriate to assemble influential analytical philosophers of exceptional merit, making them to stand out. For their exemplary oeuvres may illustrate those elements of the analytic tradition which are clearly worth retaining and developing further.

It is true though that the analytic tradition in philosophy has always been very heterogeneous, as regards the quite different metaphilosophical, epistemological, ontological, ethical, political, etc. positions which have been advocated within it. There has of course never been any analytic school of thought, apart from some variable movements (such as logicism, neopositivism, and naturalism) that never became universal within the tradition, so that a certain openness, pluralism, and pragmatism have always prevailed at last.

On the other hand, there has always been a common methodological denominator, since philosophers fully representative of the analytical tradition have always shown a strong concern for the clarity of their concepts, the neatness of their methods, and the conclusiveness of their explanations, that is - as Suppes puts it in a nutshell in the interview - a “concern with justification, evidence, and argument”. In particular, analytical philosophers have been making a serious effort to benefit, philosophically, from the manifold developments within mathematical logics and semantics, so as to establish standards of truly intersubjective communicability, soundness, and reliability (standards which need not necessarily be universal but contextually appropriate). There are undoubtedly some significant philosophers in the 20th century, such as Husserl and Cassirer, who are not usually classed to belong to the analytical tradition, but whose works clearly have the above-mentioned characteristics of analytical, or rather accurate, philosophizing.

Surely all these qualities of an analytical philosopher are in an exemplary way possessed by Patrick Suppes. In spite of their partly opposing philosophical views, the “undogmatic naturalist” Patrick Suppes and the “open transcendentalist” Henri Lauener are both truly analytical philoso-

phers who have critically and selectively tried out, improved, and sometimes exhausted the intellectual possibilities accessible to them, without really getting confined to them.

At this point, Wilhelm K. Essler and I would like to thank the authors assembled in this collection (Nancy Cartwright, Dagfinn Føllesdal, Steven French, and Stephan Hartmann) for their exceptional commitment to the project of this book. Many thanks also to our fellow members of the Foundation Council of the Lauener-Stiftung (Alex Burri, Stephan Hottinger, Dieter Jordi, and Daniel Schulthess) for their friendly consideration and encouragement. Furthermore we'd like to sincerely thank Rafael Hüntelmann at ontos verlag for his support and willing cooperation in setting up this new series, which is being edited on behalf of the Lauener-Stiftung. Finally, we'd like to express our very special thanks to Patrick Suppes for his extremely generous, open and active way of collaborating with us on this book.

Michael Frauchiger

Laudatio for Prof. Dr. Patrick Suppes

Lauener Prize winner 2004

Dagfinn Føllesdal*

I am grateful to the Lauener Foundation for inviting me to give the Laudatio for Patrick Suppes today. It is one of the pleasant tasks of my life, both because of Henri Lauener, whom I appreciated greatly, and because of Pat Suppes. I shall now try to present Pat's contributions in 30 minutes. This will not be easy.

I have known Pat for exactly forty years, from the beginning of September 1964. Since I first met him I have greatly appreciated him as a friend and colleague, and over the years we have taught numerous seminars together at Stanford on a large variety of topics. However, I have to make a confession: Although Pat has been such a good friend and colleague over so many years, I have never come around to reading more than a fraction of his work. This does not mean that I have read very little, on the contrary, I have read and enjoyed a very large number of his articles and books. However, I must make a new confession: not even Pat's bibliography I have read in full. In preparation for this laudatio I have, however, made some counting, and have I found that so far Pat has published more than 300 articles, written 30-40 books and edited a similar number of volumes. I am here not counting his numerous mathematics text books and popular works.

These articles and books fall within a variety of fields, and within each of them Pat has made important contributions. When Pat was appointed to Stanford in 1950, still a very young man, in his twenties, he came to the Philosophy Department. But he was very quickly also made a Professor of Statistics and of Education. However, when we look through his bibliography and vitae, a curious oddity about chronology emerges: in 1972 Pat won the Distinguished Scientific Contribution Award of the American Psychological Association. This award is given for the best research in psychology that year and it would be a pride for every psychol-

* Stanford University

ogy department to have a winner of this coveted award on their faculty. However, at that time Pat was not a member of the Psychology Department, so the award went to the Philosophy Department. This may explain why the next year the Psychology Department belatedly came around to making him a member of their department.

As impressive as the number of his contributions and their quality is the broad variety of fields in which Pat has played a decisive role. When we look at Pat's work within each of the many fields in which he has worked, and also when we survey his work as a whole, there are two things that strike us about Pat. One is his openness, he is always very eager to hear about new developments, to learn something new, and he is in fact particularly interested in perspectives different from his own. This is, of course, a good thing, but it can be overdone. One can become superficial and uncritical. Pat fortunately compensates for this openness with a second feature which is equally characteristic of him. As soon as he recognizes what is maintained from that very different perspective, he starts asking: "What is the evidence?" This combination of enthusiastic openness and critical questions about evidence is typical of Pat. It is also a character trait he shares with Henri Lauener, who devoted his life to promulgate the use of arguments and evidence in philosophy.

This emphasis on evidence brings me to an early episode in Pat's life which I will mention.

Pat's mother died when he was four and a half, and he was raised by his stepmother, who married his father before he was six. This stepmother encouraged him in a variety of ways to pursue his intellectual interests. One of these ways was, however, unintended by her. I will quote from Pat's autobiography:

She was devoted to the Christian Science of Mary Baker Eddy. From about the age of eight to fourteen years I attended Sunday school and church regularly and studied the works of Eddy as well as the Bible. The naive epistemological idealism of Eddy's writings stirred my interest, which turned to skepticism by the age of thirteen or so. I can remember rather intense discussions with fellow Sunday-school students about how we were supposed to reconcile, for example, the bacterial theory of disease with the purely mentalist views of Eddy. No doubt our arguments were not at all sophisticated, but our instinct to distrust the flagrant conflicts with common sense and elementary science was sound.

Before I turn to Pat's work in philosophy I will mention a couple of other noteworthy features of his early years: he attended public high schools in Tulsa, Oklahoma, where he was born, but had the great luck of participating in a six-year educational experiment. He writes about this:

My public school education was more influential on my development than is often the case mainly because I was a participant in what is known as the Tyler eight-year study of the Progressive Education Association. On the basis of examinations given in the sixth grade, able students were selected to participate in a six-year experiment of accelerated education. In many respects the most competitive and ablest classes I ever attended were those in high school. One of the important aspects of this special educational venture was the extended attempt to get us as young students to talk about a wide range of current events and everything else that interested us.

A second important period in Pat's pre-philosophical life was his participation in the Second World War. After having majored in physics at the University of Tulsa he was called up in the Army Reserves in 1942 and then had a short break in which he received a BS degree in meteorology from the University of Chicago in 1943. He writes about this:

Knowledge of meteorology has stood me in good stead throughout the years in refuting arguments that attempt to draw some sharp distinction between the precision and perfection of the physical sciences and the vagueness and imprecision of the social sciences. Meteorology is in theory a part of physics, but in practice more like economics, especially in the handling of a vast flow of non-experimental data.

Pat then went on to three years of service in the Army Air Force in the South Pacific. We Europeans are immensely grateful to the United States and its soldiers, like Pat, whose participation in the Second World War was decisive for saving us from barbarism. This gratitude is, of course, fully compatible with our despair over USA's present involvement in Iraq and in the Israel-Palestine conflict. Particularly for us philosophers the kind of "evidence" that was presented as a reason for going into Iraq was utterly disturbing.

However, now back to Pat and his career in Philosophy. After his discharge from the Army Air Force in 1946 he entered Columbia University as a graduate student in philosophy in January 1947 and received a PhD in 1950. He there was influenced by Ernest Nagel more than by any-

one else, but he also continued to take courses in areas outside philosophy, such as topology and group theory and also relativity theory, and together with some other students he organized a seminar on von Neumann and Morgenstern's theory of games, which at that time was not offered at Columbia. Pat writes about these excursions outside of philosophy:

I thus developed early the habits of absorbing a wide variety of information and feeling at home in the problem of learning a subject in which I had not had much prior training or guidance.

Because of his background and interest in physics, Pat wanted to write his dissertation about the philosophy of physics, and he decided to write on the concept of action at a distance. A good deal of the dissertation was devoted to an analytical study of these concepts in the works of Descartes, Newton, Boscovich, and Kant. The part on Descartes was published in 1954, but some of the historical scholarship that went into the dissertation has later come out in other studies, notably in a 1967 article on Kant and in a long article on Aristotle's theory of matter, from 1974, in which Pat also reviews the theories of matter of Descartes, Boscovich and Kant.

In the many seminars I have taught together with Pat I have again and again been struck by his broad and thorough knowledge of the history of philosophy as well as the history of science. I remember in particular a seminar we gave a year ago on Aristotle's *De Anima* and the medieval discussion of this topic. Pat there brought in highly pertinent material from sources that even the specialists on the Middle Ages who participated in the seminar had not heard of. These were sources that Pat had studied in his early years in college and which still stayed fresh in his mind.

However, Pat is not primarily known as a historian of philosophy, so let us now turn to the core of his work. In this *laudatio* I will divide his work into six fields, with various subfields:

- 1. Methodology, Probability and Measurement**
- 2. Psychology**
- 3. Physics**
- 4. Language and Logic**
- 5. Computers and Education**
- 6. Mind and Brain**

1. Methodology, Probability and Measurement

This has in many ways been Pat's main field, one to which he has contributed during the whole of his long career, from his first article, "A set of independent axioms for extensive quantities" in 1951 to his latest book *Representation and Invariance of Scientific Structures* for which he won the Lakatos award at the London School of Economics last year. This latest book is the culmination of several decades of work on set-theoretical structures in science and Pat there argues that these structures supply the right framework within which to investigate problems of representation and invariance in any systematic part of science. Also the problems mentioned by the President of the Swiss Science and Technology Council, Professor Susanne Suter, in her Address that we just heard, concerning measurement and evaluation in science policy and education, have been dealt with by Pat.

2. Psychology

Psychology is the second of Pat's main fields of research, scientifically and philosophically. His contributions there cover such a vast range of problems that I can mention only the four main subfields to which he has contributed: learning theory, mathematical concept formation in children, psycholinguistics and behaviorism. Within each of these fields he has made important contributions, several of which have revolutionized the field. I will here only say a few words about the last of these four subfields, behaviorism, since here there are many misunderstandings both among philosophers and in the general public. "Behaviorism" is used as a label for many different views; one of these is *ontological* behaviorism, the view that there is behavior, but nothing mental. There are some philosophers who have this kind of reductionist position, but they are few and are getting fewer. Pat has never had this view. He is and has always been an *evidential* behaviorist. That is, he holds that we have no direct access to the mental states of others, for example through telepathy or mind-reading, but that the evidence against which we must test our theories of the mental is behavior, in addition to whatever evidence we can get from the biological sciences, through study of the brain and our neural networks. All this behavioral and biological evidence provides boundary conditions, which our philosophical theories have to satisfy.