## KAREL BERKA

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#### **Abstract**

Berka was born into the family of a high school teacher. He attended a grammar school in Brno; His schooling was interrupted by internment in various concentration camps. From 1948 to 1951 he studied English and philosophy at the Masaryk University. From 1951 to 1955 he worked as a high school teacher. From 1955 he worked at Charles University and in 1957 he received the title of Candidate of Sciences. In 1963 he habilitated at Charles University and in 1965 he became an associate professor of logic. From 1962 to 1968 he was an intern at the universities of Berlin and Leipzig, later a lecturer and visiting professor, and in 1969 a visiting professor at Pennsylvania State University. From 1968 to 1991 he headed the Theory and Methodology of Science Department at the Academy of Sciences. In 1981 he received the title of Doctor of Science and in 1989 he became Professor of Logic. He devoted himself to logic, philosophy and theory of science. He was interested in the history of logic (Aristotle, ancient propositional logic, B. Bolzano's interpretation of logic, modern logic – Frege, Russell). His translations of cybernetics, logic, and philosophy of science are also extensive.

**Key words:** Karel Berka, philosophy, logic, theory of science, application of logic

**JEL Code:** B26, B49, C69

### Introduction

Karel Berka dealt with various problems of logic, its methodology, philosophy and scientific theory. At the same time, he was primarily interested in the history of logic beginning with Aristotle, ancient propositional logic (Stoics, Galenos), the interpretation of logic and philosophy by B. Bolzano, the development of modern logic and the theory of science in the basic works of G. Frege, B. Russell, L. Wittgenstein and others. A number of his publications have been published abroad with great success. In addition, Berka managed the annual journal Teorie a historie vědy (eng. Theory and History of Science), and was a member of various editorial boards at home and abroad. His translations of cybernetics, logic, and philosophy of science are also extensive. In his works focused on the methodology of science, he focused on the problems of measurement and quantification, especially in the social sciences, the

applicability of formal methods in sociology and economics, and the problems of changes in the foundations of science and science policy. He performed a number of scientific and organisational functions, e.g. he was the chairman of the organising committee for the celebration of the 200th anniversary of the birth of B. Bolzano (1981) and he also contributed to the dignified course of the celebrations of this anniversary with considerable publication activity in this direction.

# 1 Biography

According to Kreiser (2009), Materna (1994, 1998), Müller & Miltová. (1988), Filkorn & Viceník (1988) and Viceník (2003, 2005), Karel Berka was born on May 4, 1923 as Kurt Bermann in Břeclav. He was the son of a secondary school teacher of mathematics and physics, PhDr. Josef Bermann, and Greta Bermannová (née Körnerová). From 1929 to 1933 he was educated in elementary school. In 1933 he began studying at a grammar school in Brno, where he was forbidden to finish his studies in 1941 because of his origin. In October 1941 he was deported and imprisoned in concentration camps. At first, he was in a camp for agricultural work on the territory of the Protectorate of Bohemia and Moravia, where he worked until March 1943, when he was transferred to the ghetto in Terezín, where he remained until March 1944. In March 1944 he was transferred to Wulkow, where he worked in the camp until February 1945 as an unskilled labourer and concrete worker. From February 1945 to May 1945 he was again imprisoned in the Terezín ghetto. After the liberation of Terezín by the Red Army, he enrolled in a three-month course ending with a high school diploma. It was also at this time that he changed his name to Karel Berka. From 1946 to 1948 he completed his basic military service in the Czechoslovak Army, which he completed as a non-commissioned officer. From 1948 he studied english and philosophy at Masaryk University in Brno, where in 1951 he passed the 2nd state exam for teaching at secondary schools. In 1952, he was awarded the scientific degree of PhDr. From 1951 until his transfer to the Faculty of Arts of Charles University in Prague in 1955, he worked as a grammar school teacher in the district of Jablonec nad Nisou. From 1 February 1955 he worked as an assistant in the Department of Logic at the Faculty of Arts, Charles University. In 1957 he was awarded the scientific degree of Candidate of Sciences (CSc.). On 1 January 1958 he became an assistant professor at the Department of Logic at the Faculty of Arts, Charles University.

From 1962 to 1963 he completed an internship with Professor Karl Schröter at the Institute of Mathematical Logic and Foundations of Mathematics at the Humboldt University

in Berlin. Then, in 1963, he habilitated at the Faculty of Arts with a study of Aristotelian logic, and in 1965 he was appointed associate professor of logic. From 1963 to 1965 he was a visiting lecturer in logic at the Institute of Philosophy of Karl Marx University (hereinafter referred to as UKM) in Leipzig, from 1965 to 1968 he worked as a visiting professor at UKM. In 1969 he worked as a visiting professor at Pennsylvania State University in the USA.

From 1968 to 1991 he was the scientific head of the Department of Theory and Methodology of Science of the Institute of Philosophy of the Czechoslovak Academy of Sciences (hereinafter referred to as ČSAV), which he founded together with Prof. Tondl. In 1981 he received the scientific degree of Doctor of Science (DrSc.), at the end of 1988 he was elected a corresponding member of the ČSAV and at the beginning of 1989 he was appointed professor of logic. In addition to the Faculty of Arts, he also taught at the Faculty of Law, the Faculty of Education and the Faculty of Journalism of Charles University, as well as at nonuniversity institutions. He also used his pedagogical and professional experience as a trainer of postgraduate researchers. He performed a number of scientific and organizational functions. He was the chairman of the organizing committee for the celebration of the 200th anniversary of the birth of B. Bolzano (1981) and also contributed to the dignified course of this anniversary with considerable publication activity in this direction. For a number of years he was the chairman (or vice-chairman) of the Czechoslovak National Committee for Logic, Methodology and Philosophy of Science and represented the ČSAV at congresses of the International Union for the History and Philosophy of Science. From 1979 to 1983 he was an assessor of the Department of Logic, Methodology and Philosophy of Science of the International Union for the History and Philosophy of Science. He represented ČSAV at many congresses, conferences and symposia. A number of his works published in foreign languages have had a considerable response and great success abroad, where translations of his monographs published in Czech have also been published. He was for many years the editor-in-chief of the scientific journal Teorie a metoda (eng. Theory and Method; later Teorie vědy / Theory of Science), which, together with prof. Tondl founded and started publishing. He has been a member of various editorial boards at home and abroad (Filosofický časopis, Československá informatika, The Problems of Science of Science, Poznań Studies in the Philosophy of Science and Humanities). With regard to the difficult situation in which modern logic found itself in our country, he also helped to promote it by systematic popularization. For example, as part of the Prague Group for Mathematical Logic in the Mathematical Scientific Section of the Union of Czechoslovak Mathematicians and Physicists, he gave stimulating lectures broadening the horizons of its members.

Until the last days before his sudden death on 24.11.2004 in Prague, Professor Berka was scientifically active and enthusiastically translated scientific publications. To this day, he is one of the top personalities of Czech history and philosophy of science as well as logic.

## 2 Berka's scientific and publishing activity

He devoted himself to various problems of logic, its methodology, philosophy, and scientific theory. At the same time, he was primarily interested in the history of logic, beginning with Aristotle, ancient propositional logic, Bernard Bolzano's interpretation of logic and philosophy, and the development of modern logic and philosophy of science.

Ancient logic carries great weight in his investigations of the history of logic. He dedicated to Aristotle the articles Berka (1956, 1978b, 1979), the monograph Berka (1966) and the commentaries on translations Aristotle (1958, 1959, 1961, 1962, 1975, 1978), and he wrote the article Berka (1958b) and a commentary on the translation of Galenus (1958). The contributions of Berka (1955, 1957, 1958, 1958a, 1958c, 1962, 1964, 1981e) are also devoted to this area. These works are referenced by Borzien (2019) and Borzien & Shogry (2020). Furthermore, the history of logic is studied in the essays Berka (1967, 1982, 1970a, 1972a, 1977) and in the monograph Berka (1994). Modern logic and philosophy of science is presented in the contributions of Berka (1968, 1970, 1978, 1988, 1991, 1991b, 1993, 1999a, 2001, 2004), Berka & Kreisser (1968), Berka & Pauza (1988) and Berka & Tondl (1970, 1971), excellent translations of Carnap (1991) and monographs Cassirer (1989), Körner (1970) and Russel (1967, 1975, 1993). Hajičová (2017) refers to the results. Logic and the teaching of logic are presented in the articles Berka (1972, 1973, 2003) and the writings of Berka et al. (1985), Berka & Jauris (1978), Berka & Kreisser (1971, 1973, 1982, 1984), Berka & Mléziva (1962), Berka & Pauza (1988), Berka & Tondl (1967) and Berka & Rybová (1988).

He devoted a large part of his scientific and publishing activities to Bernard Bolzano in the articles Berka (1976, 1978a, 1980, 1981a, 1981b, 1981c, 1981d, 1983, 1998, 1999, 2001), Berka & Prokešová (1979, 1990), the monograph Berka (1981) and commentaries in Bolzano (1963, 1981). These works were echoed in the monograph Vopěnka (2004), articles by Coufal & Brezina (2019) and Makovský (2019).

In his works focused on the methodology of science, he focused on the problems of measurement and quantification, especially in the social sciences, the applicability of formal methods in sociology and economics, and the problems of changes in the foundations of science and science policy. This appears in the articles Berka (1971, 1971a, 1983a, 1991a, 1995, 1995) and in the monograph Berka (1977a).

Of his extensive translation activities, it is necessary to mention the excellent translations of monographs on cybernetics by Wiener (1963), Ashby (1961) and Beer (1966).

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### **Conclusion**

Professor Berka was a Renaissance-minded logician and philosopher, because the scope of his scientific activities is very extensive. If we take them logical and devoted to the history of logic, which concern ancient logic from its foundation by Aristotle through the Stoics to Galen, then to Boethus, who mediated the logical knowledge of antiquity to the Middle Ages, they provide an unusually deep and broad basis for his exploration of logic in Comenius' works, in Lambert's logical activities and especially in Bolzano's writings (especially Bolzano, 1963, 1981). This formed the basis for research into modern logic and philosophy. Berka's deep scientific interest in Bernard Bolzano is expressed in his publications. The field of theory and history of science is also highly appreciated, e.g. the treatise Berka (1977a) was translated and published not only in English in 1983, but also in Russian in 1987. His translations are characterized by excellent Czech, which brings readers closer to understanding the presented text. His scientific achievements and positive attitude towards life were certainly hard to come by. Let us mention that this year we commemorate the 20th anniversary of the death of Karel Berka.

### Acknowledgment

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