

MULTIPHASIC PROFILE: A SELECTIVE AUTOBIOGRAPHY (1)

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INTRODUCTION

I was sorely tempted to write a "mini-autobiography", focused on my involvement in the history of psychology, perhaps with emphasis on quantitative approaches (historiometry), and my interaction with Latin America and Spain. The editor pointed out that this would be a severely truncated portrait, and he was correct.

In part, the degree of distortion could be documented bibliometrically, using the results of an earlier citation analysis (TABLE I).

For the segment of time that has been analyzed, in contrast to 77 psychological citations there were 434 citations of non-psychological contributions - a ratio, in rounded figures, of about 1:6! Clearly, in terms of the citation criteria (which have their severe limitations), the contributions to human biology had a much larger impact.

Within the psychological area, the dominant topics - in decreasing order - were Nutrition and Behavior (42 per cent), Aging (31 per cent), Performance and Fatigue

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(13 per cent), and Soviet Psychology (9 per cent). Within the biological area, the dominant themes were Body Composition (76 per cent) and Nutritional Anthropometry (16 per cent).

As a compromise, in the bibliography all the areas will be represented in the sections "Books and Monographs" and "Edited Proceedings", but the professional interest areas considered in the text will be limited to psychology.

CHRONOLOGY-GENERAL

Disregarding some initial complications, the writer's life can be divided into 4 unequal parts. Infancy (Warsaw, 1913-1915), Childhood (Siberia, 1915-1920), the school years (Czechoslovakia, 1920-1937), concluded with a Ph.D. in philosophy with concentration in psychology) plus two years of "school of life" (Zlin, Moravia, as psychotechnologist in a large shoe factory), and the American phase (1939-). The details are given in TABLES II & III.

Earlier biographical and autobiographical accounts are available in the form of paragraphs (1.1 - 1.5), journal articles (2.4, 2.7), and a book chapter (2.5).

AVOCATIONS

My initial intention was to make this autobiography strictly intellectual, impersonal, and objective. Friendly critics of an early version of the present account insisted that it should contain at least a modicum of humanness. This accounts for the inclusion of the present section.

Interests and avocations are the condiments of one's life. Some, like philately, I have never undertaken seriously, although at times it was and still is a pleasurable pastime.

Cooking is for me a more serious but still a minor hobby. I especially like to hunt wild mushrooms and then cook them in ways that preserve the distinctive flavors and textures of the different species. My other specialties are soups (tripe soup, red beet borscht, garlic soup) and calf liver in a white wine sauce. My culinary high point is making the festive Czech Christmas Eve dinner, with fish soup, breaded carp, special potatoes, and cold compote; Mrs. BROŽEK contributes the special Czech Christmas bread (vánočka).

I shall say more about four deeper interests: the love of nature, passion for languages and for music, and three forms of psychotherapy (practiced without licence).

NATURE

In my pre-teens I brought nature into our town house in the form of flowers (fuchsias, begonias, geraniums, mockers flowers) which grew in the windows on the street side of the house. Since early childhood I have loved wild flowers, especially the primrose (*Primula veris*), scented violets, wild roses, the fall crocus (*Colchicum autumnale*, called in Czech "the naked one"), and *Trollius europaeus*. They still thrill me.

My deepest psychological roots are in the countryside of northeastern Bohemia (bordering on Silesia and more precisely, the district Kladsko, now a part of Poland),

with its woods rich in mushrooms and berries, its mountains, deep gorges, and high, eroded sandstone towers (or "needles") that are grouped into fantastic rock cities.

I do not find it strange that men, deeply moved when leaving their home country or returning to it, would kiss the ground. And the awesome experience, on a starry night, of the melting of the barriers between myself, the Earth, and the Universe belongs to my deepest "religious" experiences. I have had similar experiences of the unity of mankind -one of them in the Friends Meeting at Makarere College in Kampala, Uganda, in which I was the only white person.

LANGUAGES

Languages have long fascinated me for technical reasons -structure and etymology- but they also have served as windows into the wider world, as sources of professionally relevant information, channels of communication, and an endless source of pleasure, especially in the form of poetry and folk songs (particularly true for the Slavic languages).

However, my passion for learning languages came from my parents, especially my mother. Their native tongue was Czech, but my mother loved to sing Slovak folk songs, and when she sang Ukrainian songs our Ukrainian friends refused to believe that she had been born outside the Ukraine. But all of this came much later. In school, when she was about 14, she taught herself the Russian (Cyrillic) alphabet and practiced it by writing Czech words in the Russian script; a few years later she found this skill very useful. Both of my parents sought opportunities to learn German, in their late teens, by working in the German speaking areas of northern Bohemia. My mother decided to learn to speak French as well. How? By doing embroidery for the family of a local Protestant minister, whose wife taught her French in exchange.

Years later my mother's French proved to be a great asset, and it made possible a small miracle. In the early summer of 1920, when I was seven, we made the long sea voyage from Vladivostok through the Indian Ocean, Suez, and the Adriatic to Trieste. On the ship, my two younger sisters and I were "adopted" by the work-crew of French-speaking Africans. For me, this experience acted as a powerful, long-lasting reinforcement of the firm belief in the basic unity of mankind. I was deeply impressed by the kindness of our black friends (including the afternoon glass of ice-cold limeade when crossing the infernally hot Indian Ocean), by their strength and their stamina in being able to withstand the heat of the furnaces that generated the steam, by their humanity. Sixty years later I was able to repay their kindness and to welcome men from Ghana, Tanzania, Ethiopia, and the Sudan to the UN University's World Hunger Program at the Massachusetts Institute of Technology (MIT) in Cambridge, where I served as the Resident Coordinator of the Program in 1980 and 1981.

As a toddler in Warsaw I heard Czech and Polish, and as a young child living in various parts of Siberia I spoke Russian. I understood Czech because my parents spoke to me in Czech, but I answered in Russian. My first stimulus for learning French was Martha PIREAU, who was about 5 years old and lived next door to us in Ust'Katav in 1917-1918. Her parents were French-speaking Belgians (Waloons), and I saw Martha PIREAU last in the summer of 1918 when my family started on our long trek east. About 1927, when my French was good enough to compose a letter, I wrote to her at the old,

pre-war address in Belgium, but there was no reply. It is very likely that the family perished in the chaos of revolution and counterrevolution.

I began to learn German in the third grade of the elementary school, and Latin in the *prima* of the middle school or Gymnasium when I was 11 (1924-1925). In *tertia*, French became a part of the curriculum and we also were introduced (lightly) to Serbo-Croatian, Polish, and Russian. I fell in love with Serbo-Croatian and, from the saved crowns and hellers given to me to purchase wieners and buns in the school, I bought, in 12 installments, Dragutin Prohaska's *Serbo-Croatian in 1000 words*.

Linguistically, the academic year 1932-33 proved to be the year of years. It was my first year at Charles University, where I was studying in the Faculty of Theology. In addition to New Testament Greek and Hebrew, I threw myself into the study of Old (Church) Slavonic, the language of all the early Slavic church literature.

"After hours" I worked with native speakers on Ukrainian and Upper Lusatian (Sorbian). A Hungarian Benedictine monk helped me to understand the nature of the "agglutinative" languages, like Hungarian and Finnish.

In subsequent years, at the Faculty of Philosophy, I worked intensively in Upper and Lower Lusatian; I took courses in Slovak and in Bulgarian, and participated in a course on the history of Ukrainian literature given in Ukrainian. In studying applied psychology I relied heavily on books in Polish. During these years I also began to work in earnest on my English, and in 1936 I took an excellent, intensive course in Italian at the Italian Institute in Prague. In the academic year 1935-36 I actively participated in the psychology seminars given at the German University of Prague.

While mastering English was my primary task upon arriving on the Western shore of the Atlantic, I soon began to work, lightly at first, on Spanish as well. Dutch, never mastered fully, was a much later addition; I was interested in the work of F.C. DONDEERS, an experimental physiologist who also did work in experimental psychology (cf. 3.5). Portuguese is a recent preoccupation.

Several moments of linguistic glory stand out in my memory. After taking a semester of Old (Church) Slavonic, I was invited by Prof. Josef VAJS -an international authority in the field- to participate in his seminar, which in those years was focused on the preparation of "reconstructed" texts of the gospels. And in 1957, as visiting professor at the Hospital for Nutritional Diseases in Mexico City, I gave all my lectures and seminars in Spanish for two months.

Some of the linguistic peaks were briefer experiences. One was a presentation in Croatian, of a report at the Yugoslav Congress of Public Health (Bled, Slovenia, fall 1954) on my fieldwork in Yugoslavia a year earlier. Another was giving papers, in Russian, on the history of psychology at the Moscow Institute for the History of Science and Technology, and in Leningrad at the I.P. Pavlov Institute for the Study of Higher Nervous Activity, in 1969. In 1971, in Slovenian, I introduced a meeting held in Ljubljana and commemorating a dear friend and co-worker, Božo ŠKERLJ, an anthropologist. And in 1972 in Skopje, I translated for two hours from Macedonian into English at a meeting of American health authorities with Macedonian nutritional investigators interested in collaborative research.

MUSIC

I appreciate the works of art and architecture, but music always has been the art form most central to my life. The impetus came from my mother, a skillful zither player and a fine soprano. She loved to sing for her pleasure (and, not infrequently, for her consolation). She sang when she was working around the house, in putting children to sleep, in the church and in nonchurch choirs. It was my mother who insisted that I begin to learn the violin and enforced the tedious practicing when I would have strongly preferred to use the time for playing cops-and-robbers with the neighborhood children. Brief but important reinforcement was provided by her father, an excellent instrumentalist and innovative violin teacher; he had me first *sing* the music and then play it on the violin. My "regular" violin teacher was my mother's brother, also a very fine musician.

During adolescence I was immersed in music and, except for my classmates, all of my friendships were tied to music: I played violin duets with the miller in a nearby mountain valley, a place that became my second home; other friends provided a much appreciated piano accompaniment; and I became at 15 the youngest member of the local chamber-music orchestra. We lived a half hour by train from the town of Náchod, where I attended the first five classes of Gymnasium, and I went to all the evening chamber-music productions that were available, although this meant that I returned by train at midnight and reached home, by foot, half an hour later. The next morning I had to rise as usual at 5:30 AM, a daily routine between my 11th and 16th years.

At the age of 15 I had to decide whether I should apply for admission to the conservatory, in distant Prague, or to continue at the academically oriented Gymnasium; I followed my mother's advice to go on with my academic studies.

In 1930-31, when I was 17, a chronic, severe bronchitis kept me out of school for extended periods of time. I used the enforced leisure to learn the guitar (to accompany folk songs) and the viola. Later that year the gift of a violoncello shifted my allegiance from viola to this instrument. During the last (8th) class of the Gymnasium, I played cello in a piano trio and in the orchestra of the city of Plzeň (Pilsen).

During the university years (1932-1937), there was little time for active music making, but my musical culture was enriched by attending concerts and opera performances. I also enjoyed greatly the "high masses", with choirs and orchestras, given in the beautiful churches of Prague.

When I came to America, music was a continuing source of pleasure and friendship. Near Philadelphia, the Bradbeers, a Quaker family, provided a warm and friendly "home away from home". I enjoyed playing Baroque violin music, especially Vivaldi, to Rebecca's sensitive piano accompaniment, and I sometimes babysat with the children. I earned my first \$4 playing Czech Christmas carols on the violin for a group of young Quakers, and I played solo violin at the services of the Second Baptist Church in Media (near Philadelphia) to thank the Black congregation for their hospitality in 1939-40, when the world as I knew it was falling apart.

In Minnesota I continued to play both violin and cello in duets and quartets, but gradually the singing of Slavic folk songs to my guitar accompaniment became my main musical activity.

I have a large collection of gramophone records, many of music written by Czech composers. For much of it, especially the string quartets, I also have study scores: I love to listen "analytically", with a score in front of me.

My favorite composer is the Moravian Leoš JANÁČEK; I regard his string quartet "Intimate Letters" as one of the most beautiful works composed in the 20th century.

In addition to chamber music, I greatly appreciate performance of unaccompanied male choirs, in any language, Roman Catholic and Orthodox Catholic masses, and organ music. I am willing to travel long distances to hear a well-sung Gregorian mass in Latin.

THREE PSYCHOTHERAPIES

I have had neither the inclination nor the appropriate training to practice clinical psychology, but I have used two therapies to pull myself out of the depths into which at times I was sinking - music and laughter. Neither is a true invention, although the specific procedures are "home-grown". Laughter is also an important ingredient of the third form of therapy directed towards other through the writing of letters.

I shall never forget a letter I received many years ago from an old man living abroad. "Write us something encouraging!". Other correspondents, in different parts of the world, could have made the same request for a variety of reasons. The times have been such that at almost any point, it seemed, somebody somewhere has been facing severe difficulties and discouragement.

While there is no way to gauge the effectiveness of endeavors directed to others, music and laughter contributed significantly to my psychological survival.

Only occasionally did the musicotherapy involve listening to music, although certain compositions, such as DVOŘÁK's *Slavonic Dances*, could always lift my spirits. More typically, I would improvise on the violin, with the Czech folk songs providing an inexhaustible supply of *motifs* on which to generate variations through free association.

At times singing folk songs and playing the guitar proved more effective. I would find myself starting with sad songs and moving out of the darkness toward light.

I had several props for laughter and encouragement: For years, both before and after coming to America, I carried in my pocket Heinrich HEINE's *Buch der Lieder* (Book of Songs, in German). In the very difficult times of the late 1930s and the early 1940s, my most important source of encouragement was a tiny volume in Czech, entitled *Půjde To!*, "We shall make it" (literally, "It will work out"). It was one of the very few publications I brought with me.

Later my sources of inspiration included a thin volume of epigrams by Karel HAVLIČEK-BOROVSKÝ, a Czech writer, poet, and intrepid journalist of the 1850s; a book of classic Spanish epigrams; and a bilingual, Greek/German volume of *Greek Humor*.

PROFESSIONAL INFLUENCES

In a real sense, I have had no academic teachers in any of the research areas in which I became involved. I had my "patron saints", to be sure - William STERN and

Edouard CLAPARÈDE in differential psychology, W.R. MILES in applied psychology, Jindřich MATIEGKA in physical anthropology- but all of them were "role models", not teachers, and their effect on me was through action-at-a-distance, in time as well as in space.

In Prague, as a student at Charles University, I took the available courses in experimental and differential psychology, but I quickly realized that I had to seek additional sources of information and specific skills *extra muros*.

I deepened my familiarity with experimental psychology through rewarding contacts, in seminars and laboratory courses, with Prof. Johannes LINDWORSKY and Doc.F.SCOLA at the German University of Prague. Josef VÁŇA, director of the Psychotechnological Laboratory of the Electrical Works of the City of Prague, introduced me to statistical methods of data analysis. In the Psychotechnological Institute of the Masaryk Academy of Labor, directed by the dynamic Jan DOLEŽAL, I became more thoroughly familiar with paper-and-pencil tests and their uses, while in the Psychophysiological Laboratory of the Military Aviation Institute in Prague I learned the apparatus methods. Some of my important "teachers" were far away: Franziska BAUMGARTEN, whose books on applied psychology I read and studied in Polish, was in Solothurn, Switzerland. Through the kindness of an American exchange student from the University of Nebraska, I received J.P. GUILFORD's outstanding volume on *Psychometric Methods* shortly after it was published in 1936; it was one of the three books I brought with me to the United States in 1939. M. VITELES' *Industrial Psychology* was the third one.

The contact with GUILFORD's work proved to be important in many ways. Not only did I become acquainted with contemporary American methods of data analysis but, a few years later, Prof. GUILFORD wrote a letter of recommendation on the basis of which I obtained a tuition scholarship at the University of Nebraska, where he was teaching (with a second semester to be spent with Prof. Morris VITELES at the University of Pennsylvania). On the basis of this document I was granted a U.S. visa. This was a critical event in my life, the full significance of which I could not fully appreciate nor predict at that time.

Upon arriving in America, I had much to learn as well as unlearn. I had to free myself of a host of stereotypes, the most amusing being the idea that all American men wear caps and that all American houses have flat roofs. I had to work hard on my English. I had to learn that it is considered bad manners not to attend classes religiously. The blunt warning "publish or perish" was transmitted to me in a gentle intelligent and convincing way by Prof. John G. DARLEY, director of the Student Counseling Center of the University of Minnesota. But in regard to research methodology, statistical analysis, and innovative applications of psychology, I arrived at the Western shores of the Atlantic pretty well "Americanized".

The Second World War affected profoundly my personal and professional life. In 1939 my plans were to return to Czechoslovakia after a year of postdoctoral study of applied psychology in the United States. The war, its consequences and complications changed everything.

In the area of psychology, books, accidents and "human factors" played a role. My long-lasting interest in the history of psychology grew out of an encounter with

Hans HENNING's *Psychologie der Gegenwart* (Contemporary Psychology, 2nd ed., 1932) in the mid-1930s. Several years later, in 1940-41, this interest was reinforced by Prof. Richard SCAMMON, a quantitatively oriented human anatomist turned historian of medicine.

My interest in the behavioral effects of inadequate nutrition was awakened in 1938 when, as an industrial psychologist working in Zlín, Moravia (today's Gottwaldov), I came across a group of men from a nearby mountain area with a low measured intelligence. There were strong indications that this may have been due to an inadequate iodine intake. Unfortunately, the chaos of the years 1938 (German occupation of the border areas of Bohemia and Moravia) and 1939 (total occupation of the western parts of Czechoslovakia and formation of the "Protectorate Bohemia-Moravia") made it impossible to carry out a systematic study of the phenomenon.

However, I was "sensitized" to behavioral effects of inadequate nutrition, and late in the fall of 1941 I eagerly accepted the opportunity to join the Laboratory of Physiological Hygiene of the University of Minnesota, which was expanding its facilities and personnel in preparation for a broadened program of experimental research in human nutrition. Prof. D.G. PATERSON, with whom I shared an interest in the study of individual and group differences, recommended me for the position. Earlier, in the summer of 1940, he had been instrumental in my obtaining free access to all the academic offerings at the University of Minnesota.

The man from whom I learned most in daily, direct contacts over many years was Ancel KEYS, director of the Laboratory of Physiological Hygiene, a man of rare vision, outstanding organizational talent, and of incredible work capacity, all combined with esthetic sensitivity.

CHRONOLOGY-PROFESSIONAL

Tables serve well to present discrete events. The chronologies that follow bear on activities and events in and out of the United States, and deal with editorial responsibilities pertaining to journals; other professional responsibilities and offices; research, study, and work abroad; participation in conferences, congresses, symposia, and workshops abroad; teaching, lecturing, and advising abroad; and missions to evaluate research potentialities or performance abroad (TABLES IV - IX).

ONGOING CURRICULAR ACTIVITIES

Five main professional activities have continued, in changing forms, through the years: teaching, reviewing books, organizing conferences and editing the proceedings, building bridges, and research.

TEACHING

I began to teach Latin as a private tutor when I was about 14. Later I also tutored in Greek and philosophy, and I taught violin, but Latin was my favorite. For a while I studied Latin at Charles University, with the idea of teaching it in the Gymnasium,

but after a year (although I did well on a special examination in classical Greek), my academic interests turned in other directions. Yet a deep appreciation of Latin and Greek has remained, with a special interest in the medieval student (Goliard) poetry and the humanist literature written in the Slavic countries in Latin.

My first formal university appointment, as an assistant in the Department of Philosophy of Charles University in Prague, included little teaching, my main responsibility was for the departmental library.

At the University of Minnesota my major focus was research, and for a number of years my teaching was limited to a section on special senses in an introductory course in human physiology. At the graduate level, I took active part in seminars offered by the Laboratory of Physiological Hygiene, within the framework of the School of Public Health, primarily in the area of human nutrition. For several years Dr. Ernst SIMONSON, a specialist in industrial physiology, and I combined forces and taught an elective course on "Human Factors in Industry" in the Department of Industrial Engineering.

When I became chairman of the Department of Psychology at Lehigh University in Bethlehem, Pennsylvania in 1959, I experienced some academic "culture shocks". For the first time I was teaching introductory psychology to several hundred students plus a large black dog who arrived, unfailingly, at 8:05 and slept happily through the lecture until the bell rang. In time I became quite comfortable in teaching large classes and developed a special technique to solve the problem of effective discussions. A panel of "volunteers" was invited to join me at the podium, and we had an unrehearsed discussion of the assigned readings. At the end of the period, a short time was allotted to additional questions from the floor. As a departmental chairman, I taught what needed to be taught, including courses in engineering psychology and in physiological psychology (this, with a historical approach).

In 1963 I stepped down as chairman of the department and was appointed a Research Professor. This gave me a welcome opportunity to concentrate on scholarly work. My teaching was limited to an upper-level course on the history of psychology, open also to graduate students, plus occasional seminars on different topics. Although I have taught the history of psychology about 20 times, each time I have approached it in a different way, using different textbooks and collateral reading materials, in order not to become "stale".

Personally, I regard the organization of two Summer Institutes on the History of Psychology, supported by National Science Foundation Funds and designed for college and university teachers of the subject, as my most important teaching activity. Serving as book review editor of *Human Biology* and as editor of numerous conference proceedings provided important additional channels for "postgraduate" teaching.

REVIEWING BOOKS

I wrote my first published book review when I was a student at Charles University (5.1), and I expect that the last piece of writing to come from my pen will be a book review. Reviewing books has been a response to deeply felt needs: to expand my horizon, to think critically and responsibly (one has to sign or at least initial the

product), to keep up-to-date in my professional reading, to share information with colleagues and students, and thus -to teach. I may have done more graduate teaching by writing book reviews (and helping others to write them effectively) than I did *ex cathedra*.

As it happens, my first university "teaching" in Prague, was a bit unorthodox: it was an extensive presentation and discussion, in the six weekly sessions, of the previously mentioned Hans HENNING's *Psychologie der Gegenwart* in the philosophy seminar of Prof. J.B. KOZÁK at Charles University. It was, literally, "teaching through book reviewing".

For close to two decades I have served as advisory editor of *Contemporary Psychology*, a journal devoted to book reviews. I have written many book reviews myself, especially on books published in languages other than English, and I also have worked with many younger scientists in the firm belief that writing critical book reviews is the best form of life-long learning.

ORGANIZING CONFERENCES AND EDITING THE PROCEEDINGS

In America, arranging symposia and conferences is a fairly complex activity, with the organizer being responsible for most or all of the steps between the formulation of an idea and the published proceedings. This includes, importantly, the provision of funds.

Why would anybody go to all that trouble? For me, one of the most powerful motives for organizing conferences was the need to learn what was happening at the cutting edge of research areas in which I was working. Another frequent consideration was as much esthetic as it was scientific: to provide a "closure" -temporary, to be sure- on a problem. The proceedings of the conferences for which I was responsible, alone or with a colleague, are listed in part 4 of the appended Bibliography. They clearly reflect my concern with varied areas of science and the shifts in interests.

This work placed heavy demands on my time; most of it was done during the "second shift", after regular working hours. But I view this phase of my professional activities as one of my central contributions to American and international science.

Most of my personal reward has come from intellectual exchanges with the participants, at all the stages of each project. These contacts, world-wide in scope, vitally supplemented my direct interaction with professional colleagues, especially when I moved, in 1959, from the Laboratory of Physiological Hygiene -with its diversified staff and frequent visitors- to the quieter waters of Lehigh University. But Lehigh gave me the freedom to pursue my broader interests in a way that would have been impossible in a team-oriented research organization.

BUILDING BRIDGES

Bridge building, in the scientific and cultural sense, is perhaps the most important, overarching theme of my activities, closely tied to a concern for world peace, international understanding, and cooperation. The fact that most of my early childhood was under a heavy shadow of armed conflict may have provided a long-lasting stimulus

for these concerns; in Warsaw, in 1915, I was present for the first aerial bombings of an open city.

But there were positive models as well. In 1915-1916 my father was literally building bridges. He was a prisoner of war in a Siberian concentration camp, and he asked to be permitted to take part during the day in the building of railroad bridges in the area of the Altai Mountains, on the border of Mongolia. He went back to his prison camp at night.

In turn, during much of my life I have been engaged in building communications across barriers, gaps and, at times, chasms. Whenever feasible, I have made the exchange of scientific information two-directional.

In the 1940s and the 1950s in St. Paul, Minnesota, and since 1959 in Bethlehem, Pennsylvania, our home has been a "house of hospitality" for scientists and scholars from abroad, especially from the Slavic countries. In turn, I spent substantial amounts of time doing research (mostly in the history of psychology) in Czechoslovakia, France, Germany, Italy, the Soviet Union and Yugoslavia. In Yugoslavia I was involved in biological studies as well. Various aspects of the "bridge building" are reflected in TABLES 4-9.

An important part of bridge building was the exchange of scientific literature, especially with the countries of Central and Eastern Europe. Since the end of the Second World War with the active cooperation of the whole family, I have sent abroad well over 20 tons of books and journals, many of them in various areas of medicine. Much of the material received in exchange has been deposited in the Bierce Library of the University of Akron, Akron, Ohio, as a part of the collections of books and journals paralleling the holdings of the Archives of the History of American Psychology.

ENGAGEMENT IN RESEARCH

To me, research can be described most appropriately as a way to satisfy disciplined curiosity. The adjective "disciplined" is critical. On the other hand, without active involvement in problems, research can deteriorate into a dull routine. My curiosity and excitement about and devotion to problems and issues at hand (and around the corner) always have been in ample supply. In a desk drawer I have kept a notebook for writing down research ideas, and over the years I have had far more ideas than there are hours available to pursue them.

Inescapably, research is a form of problem solving. Over time, the nature of the problems that engaged my attention (and the appropriate methodology) have varied widely. At times, most of my friends and especially my European friends must have raised their eyebrows at the shifts in my professional interests and at heterogeneity of my bibliography.

Since my early university days, I have had the good fortune to have first-hand experience with humanistic, as well as natural-science research. My first collaborative, scholarly endeavor involved a reconstruction, on the basis of the best available manuscripts, of the 9th-century translation of the gospel according to Mark from the *koiné* ("New Testament" Greek) to the Old (Church) Slavonic. By contrast,

my first independent research, after a statistically oriented Ph.D. thesis on "Measuring Memory", involved a large study, utilizing the "computers" of the day (the Hollerith card-sorting machines), on age changes in body dimensions, especially height and weight, from late adolescence to middle age.

My first three research projects in the United States, preceding my association with the Laboratory of Physiological Hygiene, varied widely. Only one of them belongs 100 per cent to the category of self-realization. It was carried out during 1940-1941 in the Department of Psychology of the University of Minnesota, my last full-time "student" year. At that time my earthly needs were reduced to an absolute minimum and I could afford to purchase the parts needed for building the equipment from earnings in low-paying, part-time jobs. The problem itself, bearing on the details of methodology for measuring motor functions, represented a continuation of the *problématique* I brought with me from Europe; it was the only one of the three projects that resulted in a publication, be it with delay (5.1a).

The first paid research, undertaken during the summer of 1941, involved the use of a new technique for a quantitative study of eye movements that did not require the subject's head to be rigidly fixed. This made it possible to study the eye movement patterns in women viewing full-page magazine ads. The applied part of the study called for comparing the eye movements of women observing different advertisements of Wheaties, the "breakfast cereal of the champions" (and 40 years later, still my favorite), and advertisements for the competing brands. Clearly, this would not represent publishable data.

I returned to the study of eye movements some 5 years later, with special reference to the motor control of repetitive, rapid eye movements between two targets, and the appearance of "deteriorative" changes in the patterns of eye movements indicative of "fatigue", I still wonder what is happening in the brain at the time the eye movements are "blocked".

I have felt, since my university days, that motion pictures could be used more effectively for the study of behavior than they have been. Consequently, early in the fall of 1941, I was pleased to be able to work on a related problem: the assessment of the effectiveness of a film on the history of the State of Minnesota as a teaching device. When America became engaged in 1941, in the war, research priorities shifted radically, and I welcomed the opportunity to become associated with the Laboratory of Physiological Hygiene, later a unit in the School of Public Health of the University of Minnesota.

I thrived in the Laboratory. I was able to use all of my professional interests and skills -in statistical data analysis, in languages, in applied psychology and, somewhat later, in "functional" anthropometry. I welcomed the Laboratory's interdisciplinary orientation, and some of my earliest "nonresearch" publications, written in collaboration with Ancel KEYS, the Laboratory's director, concerned problems encountered in the comprehensive study of man (5.2, 5.3). I felt the change keenly when, in 1959, I moved to a traditional department of psychology.

In the early 1940s the Laboratory was engaged in research of the effects, including behavioral ones, of long-term dietary restriction in B-complex vitamins and calories, and of non-nutritional stresses, such as enforced bed rest, high environmental temperature, heavy physical work, lack of sleep, and restricted water intake. When the

war ended, the Laboratory (and the country as a whole) was facing the travail of reconversion to peace-time operations. There was a brief excursion into visual research, but the scope of the research program was too narrow. The Laboratory needed to identify a problem complex that would utilize the multidisciplinary skills of the personnel and would command financial support to cover a substantial portion of the Laboratory's operational expenses. This new focus was found in a longitudinal study of aging, with emphasis on factors constituting the person's "mode of life" (such as habitual diet, physical activity, and smoking) and their role in the etiology of degenerative heart disease. The initial concern with hypertension quickly shifted to coronary heart disease.

There was another short period of concern with survival rations in the 1950s, but coronary disease was becoming more and more the dominant theme. Furthermore, while the level of physical activity received special attention, through an extensive study of several groups of railroad workers in the US, it was becoming clear that the most important issues lay in two areas to which I could make little contribution: a detailed experimental analysis of the relationships between dietary fat and blood lipids, and field studies on the epidemiology of coronary heart disease. As I saw it then, I had a choice of hanging my psychological hat in a dark closet, devoting all of my attention to the area of anthropometry and research on body composition, or of making my way, academically and occupationally, as a psychologist.

But I was a strange kind of a psychologist. I had a large volume of research publications, but these were mostly in narrow areas, and I had no experience in teaching in a "regular" department of psychology. What I would have preferred to do was to focus on research and teaching in the area of "psychodietetics" but such positions did not exist. To my regret, Cornell University was not ready at that time to appoint a psychologist in the Division of Nutrition, and there were no similar such openings elsewhere.

I welcomed the appointment as professor and chairman of the Department of Psychology of Lehigh University in June 1958 but I asked to take up the position in 1959, after I had spent the autumn in Yugoslavia fulfilling my long-standing commitment to participate in an international field study on diet and coronary heart disease - a study built on an exploratory research project that I had organized and carried out, with the help of Yugoslav colleagues and public health authorities, five years earlier. As the appended bibliography (Part 4, Edited Proceedings) attests, it took another seven years to complete my intellectual commitment to research on body composition and the biology of human variation.

Slowly, these topics were replaced by involvement in Soviet psychology and the history of psychology. Interest in the effects of malnutrition on behavior persisted through the years, even though its expression took other forms than experimental research (see the section on Chronologies-Specific and, again, the Bibliography). Concerns with selected areas of experimental research and scholarly activity are illustrated in the next section of this account.

AREAS OF PROFESSIONAL INTEREST WITHIN PSYCHOLOGY

PSYCHOLOGICAL EFFECTS OF EXPERIMENTAL NUTRIENT AND FOOD DEFICITS

Behavioral responses were studied under three sets of conditions:

- (1) Vitamin restrictions (cf. 5.13)
- (2) Prolonged food restriction (semistarvation; cf. 5.14)
- (3) Briefer, severe food deficits (5.8), including maintenance of soldiers on survival rations (5.10).

Here I wish to speak about the second category and, particularly, the collaborative two-volume monograph on *The Biology of Human Starvation* (3.1). The primary reason for undertaking the study was the acute need to provide information on the effectiveness of post-starvation nutritional rehabilitation regimens. The work started in November 1944 and the experimental phase of the study was carried out in 1945, with follow-up examinations made on more than half of the subjects after some 8 and 12 months of the recovery period. I was deeply involved in this study - the most thrilling and most difficult one in my career - from the selection of the subjects, through the experimental phase of the study, to the subsequent four years of data analysis, literature research, writing and, finally, working closely with the publisher, the University of Minnesota Press.

The share in the writing of the monograph is indicated in TABLE X. The specification of "roles" is not precise. For one thing, as Principal Investigator and Director of the Laboratory of Physiological Hygiene, Ancel KEYS reviewed all the chapters, and some were read critically by other staff members as well. The contribution to collaborative chapters varied within wide limits. Importantly, the large volume of psychological data could not have been obtained without the full-time participation and whole-hearted cooperation of Harold GUETZKOW and Joseph C. FRANKLIN, and the assistance of Prof. Burton C. SCHIELE, a neurologist and psychiatrist. These collaborators had an important share in the preparation of journal articles dealing with different facets of the study and cited in the monograph in full.

What are some of the noteworthy aspects of the study?

1.- Realism, both in terms of the duration of the restriction phase (6 months) and the magnitude of the dietary stress, reflected in the loss of one-fourth of the initial (preexperimental) body weight.

2.- Large size of the study group ($N = 32$) and their total devotion to the project; the men were volunteers, recruited from Civilian Public Service camps for conscientious objectors.

3.- Rigorous dietary control, reinforced by daily weighing of the subjects.

4.- Appropriate research design, including a 3-month preexperimental, control period; 6 months of uniform food restriction; 12 weeks of controlled, differentiated nutritional rehabilitation (with calories at 4 levels, and vitamins and protein at 2 levels each), and up to 58 weeks of follow-up examinations.

5.- A comprehensive coverage of "experimental human biology" (morphology, biochemistry, physiology, and psychology) with the cooperation of additional specialists.

6.- A clear demonstration of the diversity of responses of different behavioral functions; absence of deteriorative changes in sensory functions; essentially no change in intelligence, variously measured (in contrast to a marked reduction in self-initiated

intellective activities); substantial changes in some aspects of personality; and complex deterioration of motor functions (with largest decrements in strength and small changes in different measures of the speed of movements).

It is my strong conviction that when all of our other writings have turned to dust, the experimental data on behavioral changes (and the monograph as a whole) will continue to be cited. And it is my fervent hope that there will be no need, ever, to repeat the study.

ILLUMINATION, VISUAL PERFORMANCE, AND FATIGUE

In the late 1940s, my colleagues and I published a number of papers that dealt with these topics. Two aspects are of particular interest: the use of "miniature work situations" as a tool for the laboratory study of visual performance and fatigue (5.5), and the data on performance level and performance decrement over time (fatigue) at different levels of illumination intensity (5.5, p. 528).

Elsewhere (5.6) we discussed the concept of miniature work situations as a research tool. In this connection we reviewed the world literature (especially in German) on their use in connection with studies of selection, training, fatigue, effects of environmental factors, and the reciprocal adaptation between man and machine. Miniature work situations make it possible to combine the realism of industrial research with the systematic variation and control of variables that are characteristic of laboratory studies.

Our study dealt with inspection, an important industrial operation, not readily robotized. The actual visual work involved the recognition of letters pasted on a long moving belt and briefly visible through a slit. The experimental arrangement allowed six men to work simultaneously in "booths" separated by partitions; the illumination characteristics could be controlled for each workplace independently. Tests of visual functions were carried out before and after each work period. Regular work periods lasted two hours, but in some studies they extended to four hours, thus closely resembling real-life conditions.

Unfortunately other responsibilities made it impossible to exploit fully the research potential of the experimental setup. Of special interest would have been the relationship between the duration of exposure of visual details, their features, and performance.

PSYCHOLOGY OF AGING

The initial studies, carried out around 1950, involved comparisons of the responses of college students and healthy middle-aged business and professional men (aged 45-55) to individual items of two inventories: a psychosomatic questionnaire developed for the study of "hypertensive personality" (5.7) and the Minnesota Multiphasic Personality Inventory, MMPI (5.9). The results characterize the age differences between successful, healthy middle-aged men living in a North American metropolitan area and a younger group of men who could have been their sons.

Fourteen years later, in the older group we found that among the 258 men for whom valid initial personality data had been obtained, 31 had died or developed "hard" evidence of coronary heart disease, while 138 men remained clinically normal; for statistical analysis, the latter group was considered a control group. The men who later developed coronary heart disease had, at the outset, significantly higher mean scores

on the Hypochondriasis scale of the Minnesota Multiphasic Personality Inventory, and were more "masculine" in their interests. In the Thurstone Temperament Schedule, their score on the "activity drive" scale was significantly higher (5.15).

SOVIETICA

By accidents of history, the first language I spoke was not Czech or Polish but Russian. I have retained the skill, and continue to find it useful in many ways.

For the volume on psychology in the USSR, edited jointly with Dan I. SLOBIN (3.6), I contributed six papers, dealing with various aspects of the development of Soviet psychology and published earlier as journal articles. Actually, my first paper on Soviet science (5) dealt not with Soviet psychology, but with the medical aspects of semistarvation in Leningrad during the siege of 1941-1942.

In the neurobehavioral area of nutritional research, a small monograph (3.3) summarized Soviet studies that used the Pavlovian approach to characterize brain function. In psychology proper, two extensive chapters in the *Annual Review of Psychology* (5.11, 5.12) reported on the then-current Soviet research.

A number of my papers dealt with the Soviet historiography of psychology, and this brings us to the next section of this report.

HISTORY OF PSYCHOLOGY

The history of psychology was one of my early intellectual loves, dating back to the mid-1930s. But during my first two decades in the United States, activities in this area were limited mainly to book reviews, especially for the journal *Isis*. When I moved to Lehigh in 1959, I began teaching a course in the history of psychology and became involved in organizational and scholarly activities in this field. The professional responsibilities included the organization of the first (1968) and second (1970) Summer Institutes on the History of Psychology and the presidency (in 1973-74) of the Division 26, History of Psychology, of the American Psychological Association.

In 1974 I initiated a collaborative research project on "Explorations in the History of Psychology in the United States" which has taken almost 10 years to mature in the form of a collection of monographs, dealing with such topics as the origins of American academic psychology, transition from the "old" to the "new" psychology, and pioneer laboratories in clinical setting.

My varied historical interests have led to book-length publications on the history of Soviet psychology (3.6) and on the Dutch scientist, F.C. DONDERS, and his approach to the quantitative study of mental processes ("mental chronometry", Utrecht, Holland, c. 1865; cf. 3.5). In cooperation with R.B. EVANS (3.8), I prepared a volume of selected works of R.I. WATSON on the history of psychology. An international volume on the historiography of psychology grew out of a year spent at the University of Würzburg (3.10).

SUMMER INSTITUTES ON THE HISTORY OF PSYCHOLOGY

The Institutes were held in 1968 at the University of New Hampshire, in Durham, and in 1971 at Lehigh University. They represented a vital step in the development and

institutionalization of the history of psychology in the United States, and they complemented three major steps taken in 1965: the establishment of a division of history within the framework of the American Psychological Association, the Akron Archives of the History of American Psychology, and the *Journal of the History of the Behavioral Sciences*. All of these developments owed much to R.I. WATSON. It was only natural to hold the first Institute at WATSON's new base of operations, the University of New Hampshire, and have him function as host and co-director.

The Institutes have been described in detail (5.16, 5.23). I feel that the Institutes achieved fully their immediate goal to help the participants become more effective, more informed teachers of the history of psychology.

The Institutes also had indirect benefits for the field. They helped the American historians of psychology to develop a greater sense of cohesiveness and an awareness of the existence of colleagues interested in the field. They stimulated scholarly pursuits. There were organizational benefits as well: in 1968, the enthusiasm generated by the program, and by Julian JAYNES in particular, led to the organization of an International Society for the Study of the History of the Behavioral and Social Sciences, later mercifully rechristened Cheiron. The society is broader in scope than APA Division 26 and has played a positive role in cross-disciplinary contacts, reinforcing the scholarly interests and activities of its members.

A particularly fortunate feature of the Institutes was the inclusion of a small number of graduate students, who subsequently have made significant organizational and research contributions to the study of the history of psychology as a discipline in its own right.

INVOLVEMENT IN ARCHIVAL RESEARCH

The details were spelled out in the introduction to a Symposium on Archival Research, presented on 31 August 1973 in Montreal within the framework of the 81st annual conference of the American Psychological Association, joined by the Canadian Psychological Association (5.24).

So far, the yield in publications reflects only part of the time and effort devoted to archival research in Akron's Archives of the History of American Psychology (5.22); in Ljubljana, Yugoslavia (5.17, 5.18, 5.19); in Yugoslavia's Dubrovnik, Split Zadar and Zagreb, Italy's Venice, Padova and Rome, and Hungary's Budapest (5.20, 5.21); in the U.S.A., Archives of Bucknell University and the University of Rochester (5.29); and elsewhere (especially in Utrecht, Holland, with a focus on F.C. DONDEERS, and in Prague, with reference to J.E. PURKYNE's unpublished psychological manuscripts).

I plan to return to several unfinished tasks, including a systematic study of the orthographic variants of the term "Psychologia" in manuscripts of the biography of the Dalmatian scholar and writer, Marcus MARULUS (1450-1524), written by his younger colleague, Franciscus NATALIS; a critical edition of that biography; and an examination, with Marina MASSIMI, of *De animorum medicamentis*, by Tydeus ACCIARINUS, a teacher of Marcus MARULUS. Two copies of ACCIARINUS's work are held in the Biblioteca Vaticana in Rome.

HISTORIOGRAPHY OF PSYCHOLOGY AROUND THE WORLD

This project goes back to 1965, when I was the organizing chairman for the first scientific program to be presented by the recently born Division 26, at the 1966 annual meeting of the American Psychological Association. I needed to determine, systematically, what were the recent and current interests of the Division's members; the results of the survey, plus later information, were published in the new *Journal of the History of the Behavioral Sciences* in 1968. Subsequently, attention was devoted to Soviet writings (five papers), contemporary West European work (with a separate paper on Italy), and contemporary East European historiography of psychology. A progress report (5.25), up to 1977, is included in *Historiography of Modern Psychology* (3.10); the report presents, in a tabular form, information on 18 countries that had been covered up to that time, including page references. This volume contains, in addition to contributions by other authors, papers on Germany (5.27), the Soviet Union (5.26), and Spain (5.28).

In press is a small monograph supplementing the bibliographic information by data on recent institutional and organizational developments (3.14).

I hope that some other hand or hands will carry on this project. If possible, I would like to update the information on Western Europe (with special reference to Germany, Italy, and Spain) and on the Soviet Union.

WIDER HORIZONS

It took me a long time to go, literally, around the world (in 1965, when I was associated as Temporary Advisor with the World Health Organization), but my international, humanist orientation goes far back. As a young child, I traveled long distances, in strange places, and met and enjoyed people of many nationalities, religions, facial forms, and skin colors. I have continued to value my relationships with people of diverse backgrounds.

During my early adolescence I deeply appreciated the kindness of our Jewish neighbors, who encouraged me to come to their house and to share their joy in classical music. I had close Jewish friends in the Gymnasium and, later, in my professional work and in playing music. At the same time, even during the difficult middle and late 1930s when Hitler was on the rise, I continued to have rewarding professional and human contacts with some of the professors at the German University of Prague.

In America in 1939-40 at Pendle Hill, a Quaker graduate center in Wallingford, Pennsylvania, my close friend was Hugh Moore, a black Jamaican journalist, and in the summer of 1940 I came to St. Paul to participate in a work camp organized by the Quakers in the Black section of the city. It was an important learning experience, and I made lifelong friends. Part of what I enjoyed at the Laboratory of Physiological Hygiene was the opportunity to know and work with scientists from many lands.

In terms of issues, in recent years I have expanded my professional concerns about malnutrition in two important ways: by viewing the problem of malnutrition on a global, world-wide scale, and by becoming aware of the necessity to resolve world hunger, both at the theoretical and practical level, as a component of the web of interacting crises (FIGURE 1).

POSTSCRIPT

This account has been mainly historical; what about the present?. Despite my retirement from the university, the spring and summer of 1983 have been so busy that I sometimes wondered where to turn first. To complete a small monograph on "Studies in the History of Psychology around the World: Recent Institutional and Organizational Developments" (3.14), I was involved in an intensive, world-wide correspondence. A collaborative volume of six monographs on *Explorations in the History of Psychology in the United States* (3.13) required attention in many ways:

At the same time, the proceedings of an international symposium on *Malnutrition and Behavior: Critical Assessment of Key Issues* (4.13) were being prepared for the printer.

Looking toward the future, I have signed a contract for a volume on *Behavioral Effects of Malnutrition* (4.14), to be published in the Hutchinson Ross's series "Benchmark Papers in Behavior" as an overview of 100 years of research in this area, documented by selected papers and excerpts from critically important monographs. On a back burner, but still simmering, is a literary excursion into a dramatic phase of my life, to be entitled *A Child's Siberia 1915-1920*.

SELECTIVE BIBLIOGRAPHY

The selectivity refers to the categories of the entries. Within the first four categories (Biographical entries, Autobiographical materials, Books and monographs, and Edited proceedings) a comprehensive coverage was attempted. Category 5 contains additional references, cited in the text and not included in the preceding categories.

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- 3.- Jacques Cattell Press (Ed.): *American Men and Women of Science: Social and Behavioral Sciences*. New York: R.R. Bower, 1978, p. 157.
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- 29.- (With R. León): "Spain". In 3.10, pp. 141-151.
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NOTES

- (1) Bibliographical note: In the text, the references are given in the form "3.1". The number before the period indicates the section of the appended bibliography; the number after the period, the position of a reference within a section.

TABLE I: REFERENCES TO PUBLICATIONS OF JOSEF BROŽEK CITED IN THE CITATION INDEX FOR THE YEARS 1964-1970 (from 2.5, p. 72, Table 2.2), BY AREAS AND TOPICS

Psychology (N = 77)	Other areas (N = 434)
Nutrition and Behavior 32	Body Composition 331
Aging 24	Nutritional Anthropometry 68
Performance & Fatigue 10	Nutrition-Other 17
Soviet Psychology 7	Soviet Science 9
Varia 4	Biology of Human Variation 4

TABLE II: EUROPEAN BACKGROUND

Conception:	late in 1912. Warsaw, in Russian-occupied Poland.
Birth:	14 (15) August 1913. Mělník-on-the-Labe, Bohemia.
Early Childhood:	Early Fall 1913 to late 1915. Warsaw, Poland. Late 1915 to mid-1916. South-Central Siberia (Altai Mountains, on the border of Mongolia). Mid-1916 to mid-1918. Province of Ufa, Central Ural Mountains. Mid-1918 to Spring 1920. From the Urals to the Pacific, via the Transsiberian Railway. June to July 1920. By the ship "America" from Vladivostok via the Indian Ocean to Triest, Italy. Mid-July 1920. By railroad from Triest to Prague and Mělník, Czechoslovakia.
Elementary School:	School year 1920/21, second grade, Mělník (Central Bohemia). Years 1921/24, grades 3 to 5, Police-on-the-Metuje (North-Eastern Bohemia, on Silesian border).
Middle School: ("Gymnasium")	Years 1924/29, classes 1-5. Náchod (North-Eastern Bohemia). Year 1929/30, class 6. Mělník (Central Bohemia). Year 1930/31, class 7. Brno (Central Moravia). Year 1931/32, class 8. Pilsen (Plzeň, Western Bohemia).
University:	Years 1932/36, Charles University, Prague (Praha). Ph.D., June 1937. Year 1935/36, German University of Prague (Psychology).
Early Employment:	Year 1936/37, Assistant in the Department of Philosophy, Charles University. Spring and Summer 1937, Psychologist, Vocational Guidance Center, Prague. Summer 1937 to early Fall 1939, Psychotechnologist, Bat'a Shoe Co., Zlín (East Central Moravia).
Departure for USA:	Early November 1939

TABLE III: UNITED STATES

Early Learning:	November 1939 to May 1940, Pendle Hill (a Quaker Graduate Center), Wallingford, PA, and University of Pennsylvania (Philadelphia, PA, applied psychology).
Early Teaching:	Summer 1940, Experimental Summer School, Stillwater, MN (Italian, vocational guidance).
Learning:	Academic year 1940/41, Honorary Fellow, University of Minnesota, Minneapolis.
Early Research:	Summer 1941, perceptual study of magazine advertisements, Knox-Reeves Advertising Co., Minneapolis, MN. Early Fall 1941, assessment of a historical film as a teaching device, Bureau of Educational Research, University of Minnesota.
Academic Career:	University of Minnesota, School of Public Health, Laboratory of Physiological Hygiene, Minneapolis, MN. Late 1941 to June 1943, Junior Psychologist. 1943/44, Associate Scientist. 1944/49, Assistant Professor. 1949/56, Associate Professor. 1956/59, Professor. Lehigh University, College of Arts and Science, Department of Psychology. 1959/63, Professor and Chairman. 1963/79, Research Professor. Retirement, June 1979.
Post-retirement:	Academic year 1979/80, Senior Fulbright Research Fellow, University of Würzburg, Fed. Rep. of Germany. August 1980 through December 1981, Resident Coordinator, United Nations University's World Hunger Program for Advanced Study, at MIT, and Senior Lecturer, Department of Nutrition and Food Science. Jan. 1982 -Adjunct Professor, Lehigh University.

TABLE IV: EDITORIAL RESPONSABILITIES (JOURNALS)

1954-1965:	Book Review Editor, <i>Human Biology</i> .
1960-1979:	Advisory Editor, <i>Contemporary Psychology</i> .
1961- :	Member, Advisory Committee, <i>Soviet Psychology</i> .
1976- :	Member, Editorial Board, <i>Journal of the History of the Behavioral Sciences</i> .
1980- :	Member, Advisory Board, <i>Archiv für Psychologie</i> .
1980- :	Member, Comitato di Consulenza, <i>Storia e Critica della Psicologia</i> .
1980- :	Member, Consejo Editorial, <i>Revista de Historia de la Psicología</i> .

TABLE V: PROFESSIONAL RESPONSIBILITIES AND OFFICES

1951-1955:	Secretary, Committee on Nutritional Anthropometry (Food and Nutrition Board, U.S. National Research Council).
Early 1950s:	Representative of Division 26 (Maturity and Old Age), American Psychological Association, to the Council of Representatives.
From late 1960s	Member, Board of Advisors, Archives of the History of American Psychology, University of Akron, Akron, OH.
1963-1967:	Member, Nutrition Study Section, U.S. National Institutes of Health.
1964-1968:	Advisor (Nutrition), World Health Organization.
Summer 1973:	Advisor (Nutrition), World Health Organization.
1967-1973.	Member, Special (Malnutrition) Study Section, U.S. National Institutes of Health.
Summer 1968:	Organizer and Co-director, Summer Institute on the History of Psychology, at the University of New Hampshire, Durham, NH.
Summer 1971:	Organizer and Director, Summer Institute on the History of Psychology, Lehigh University, Bethlehem, PA.
1973-1978:	Member, US-Japan Malnutrition Panel, US-Japan Cooperative Medical Science Program.
1974-1979:	Member (1979-1980 Chairman), Committee on Nutrition, Brain Development, and Behavior (Food and Nutrition Board, National Research Council-National Academy of Sciences).
1979-1981:	Chairman, Committee 2, Mental Development and Behavior, Commission III, Human Development, International Union on Nutritional Sciences.

TABLE VI: RESEARCH, STUDY, AND WORK ABROAD

June-November 1953:	Yugoslavia Visiting research worker, Institute for Medical Research, Yugoslav Academy of Arts and Sciences, Zagreb (child growth and consanguinity, the nature of dietary fat and serum cholesterol).
December 1953:	Italy, Department of Physiology, Medical School, University of Naples, Naples (methodology of skinfold measurement).
Fall of 1958:	Yugoslavia, Member, International Cooperative Study on Cardiovascular Epidemiology. Field Studies in Dalmatia and Slavonia (liaison, anthropometry).
July 1967:	World Health Organization (Nutrition), Geneva, Switzerland (work on a manual "Nutritional Status of Populations: Appraisal of Long-Term Trends in Child Growth").
15 May - 14 August 1969:	USSR, Inter-Academy Exchange Scholar, USSR Academy of Sciences, Moscow, Leningrad, Tbilisi, Kiev (history of psychology).
15 May - 14 September 1970:	Yugoslavia, Inter-Academy Exchange Scholar, Ljubljana, Zagreb, Zadar, Split, Dubrovnik (history of psychology).
16 March - 19 May 1973:	Western Europe, NATO Senior Research Fellow in Science (contemporary historiography of psychology).
20 May - 19 August 1973:	Czechoslovakia, Inter-Academy Exchange Scholar, Prague, Czechoslovak Academy of Sciences (J.E. Purkyně's psychological manuscripts).
15 May - 14 August 1976:	Federal Republic of Germany, Senior Fellow, German Academic Exchange Service (DAAD) (lectures on history of psychology, Soviet psychology, and effects of malnutrition on behavior, research on contemporary German historiography of psychology).

16 September 1979 - 15 July 1980: Federal Republic of Germany, Fulbright Senior Research Fellow, University of Würzburg (historiography of modern psychology, in and out of Germany).

May and July 1983: Switzerland, Nestlé Foundation, Lausanne (editing proceedings of an international symposium on Malnutrition and Behavior).

TABLE VII: PARTICIPATION IN CONFERENCES, CONGRESSES, SYMPOSIA AND WORKSHOPS ABROAD

September 1954:	Third International Nutritional Congress, Amsterdam (experimental psychodietetics).
October 1954:	Yugoslav Congress on Public Health, Bled, Slovenia (field studies on dietary fat and serum cholesterol).
July 1963.	Second All-Union Congress of the Soviet Psychological Society, Leningrad (observer).
September 1963:	International Congress of Gerontology, Copenhagen (personality characteristics and the development of coronary heart disease).
June-July 1966:	Seventh International Congress of Gerontology, Vienna (Minnesota longitudinal study of aging in men).
August 1966:	Eighteenth International Congress of Psychology, Moscow (contemporary historiography of psychology in the USA).
September 1968:	Eighth International Congress of Anthropological and Ethnological Sciences (chairman, Symposium No. 6, "Anthropological Aspects of Human Growth").
December 1968.	WHO (Nutrition), Geneva (meeting on the use of data on child growth as criteria of trends in nutritional status of populations).
August-September	1969: Anthropological Congress on the Occasion of the 100th Year of Birth of Aleš Hrdlička, Humpolec and Prague (trends in the nutritional status of populations).
Early July 1970:	International meetings devoted to Gregor Mendel and the development of genetics, Brno (session chairman).
October 1971:	Fourth Congress of Psychologists of Yugoslavia, Bled, Slovenia (research on the history of psychology in Yugoslavia). Memorial meeting on the occasion of the 10th anniversary of the death of Božo Škerlj (active participant).
August 1973:	Burg Wartenstein (Austria) Symposium # 60, "Physical Anthropology and Nutrition Status" (speaker).
August 1973:	WHO Workshop on "Methodology in Studies of Early Malnutrition and Mental Development", Saltsjöbaden, Sweden (sensory functions; session chairman).
October 1974:	Joint Conference, US-Japan Malnutrition Panel, "Influence of Environmental and Host Factors on Nutritional Requirements for Health in Asian Countries", Yamanaka-ko, Japan (session cochairman).
October 1975:	Conference on "Longitudinal Studies on the Effects of Malnutrition, Nutritional Supplementation, and Behavioral Stimulation", Cali, Colombia. Sponsored by the NRC-NAS Committee on Nutrition, Brain Development, and Behavior.
December 1976:	US-Japan Malnutrition Panel, "Nutritional Deficiencies Secondary to Inborn Errors of Metabolism: Their Relationships to Physical and Mental Development", Sendai, Japan (session chairman).

- November 1978: USSR-USA Workshop on "Effects of Environmental Factors on the Central Nervous System and Behavior", Suzdal' near Moscow (introductory comments; session cochairman).
- November 1981: Member, Project on "Nuevas Metas para la Humanidad" (New Goals for the Humankind), International Reunion, Madrid, Spain.
- November 1982: "Nuevas Metas", Meeting of Work Group 2, "Changes in the Value Systems in the Developed and the Developing Countries", Madrid, Spain.
- March 1984: Advanced course on psychomotor development, intelligence and nutrition. Instituto Internacional de Estudios Avanzados, Caracas, Venezuela.

TABLE VIII: TEACHING, LECTURING, AND ADVISING ABROAD

- Spring 1957. Visiting Professor, Hospital of Nutritional Diseases, Mexico City (nutritional anthropometry).
- July 1963: Lectures in Brno, Olomouc, and Prague.
- Feb.-March 1973. IBRO/WHO/UNESCO Teaching Workshop on "Nutritional Influences on Functions of the Brain", University of Ibadan, Ibadan, Nigeria.
- September 1975: First Course of the International School of History of Science, Ettore Majorana Center for Scientific Culture, Erice, Sicily (quantification in the history of psychology).
- May-August 1976: Lectures in Germany, under the sponsorship of the German Academic Exchange Service (DAAD) in Berlin, Bochum, Bonn, Cologne, Giessen, Hamburg, Mainz, Mannheim, Marburg, Munich, Münster, Würzburg.
- Early July 1979: Advisor to the Caribbean Center of Advanced Study, Santurce, Puerto Rico.
- Late July-August: 1979 Facilitator, Colloquium on "Malnutrition in Southern Africa". Institute of Behavioral Sciences, University of South Africa, Pretoria; Lectures in Johannesburg, Cape Town, and Stellenbosch.
- Spring 1980: Lectures in France (Strasbourg), Spain (Barcelona, Valencia), Italy (Rome, Bologna, Padova, Trieste), Turkey (Ankara, Istanbul), and Germany.
- March 1984: (from bottom of Table VII).

TABLE IX: MISSIONS TO EVALUATE RESEARCH POTENTIALITIES ABROAD

- Spring 1965. Journey on behalf of the World Health Organization (Nutrition) re "Child Growth and the Nutritional Status of Populations": Mexico City, Guatemala City, Bogotá (Colombia), Geneva (Switzerland), Accra (Ghana), Kampala (Uganda), New Delhi and Hyderabad (India), Manila (Philippines), Taipei (Taiwan), Tokyo and Sendai (Japan).
- June-July 1966: Journey for WHO, 2nd part: London, Paris, Geneva.
- July-August 1966: Continuation, 2nd part: Belgrade, Novi Sad, Zagreb (Yugoslavia), Warsaw, Cracow (Poland), Moscow (USSR), Cairo (United Arab Republic), Geneva (Switzerland).
- Late 1960s: Journeys to Mexico, Guatemala, and Colombia on behalf the (US)
- Early 1970s: National Institutes of Health.
- May 1971: Journey to Yugoslavia on behalf of the (US) National Institute of Child

Health and Human Development (research programs under Public Law 480): Belgrade, Skopje, Sarajevo, Zagreb, Ljubljana, Novi Sad.
 June 1972: Journey to Poland on behalf of the NICHD: Warsaw, Toruń, Cracow.
 December 1976: Visits on behalf of the US-Japan Malnutrition Panel: Chiang Mai (Thailand), Dacca (Bangladesh).

TABLE X: SHARE OF JOSEF BROŽEK IN THE WRITING OF
THE BIOLOGY OF HUMAN STARVATION (3.1)

<u>SECTION</u>	<u>CHAPTER NUMBER AND TITLE</u>	<u>ROLE</u>
MORPHOLOGY	6.- Body weight	Author
	7.- Physical appearance and external dimensions	Contributor
	8.- Body fat	Contributor
	15.- Compartments of the body	Contributor
PHYSIOLOGY	32.- Special senses	Author
	33.- Neuromuscular function and motor Performance	Contributor
	36.- Psychological problems in starvation	Author
PSYCHOLOGY	37.- Behavior and complaints in natural starvation	Author
	38.- Behavior and complaints in experimental starvation and rehabilitation	Author
	39.- Intellective functions	Author
	40.- Personality	Author
	41.- Psychological case studies	Author
	42.- Psychological effects - Interpretation and synthesis	Author

FIGURE 1: THE WEB OF CRISES: A MACROPORTRAIT

