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SECURITY FOR ALL
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*A Summary of the Social Philosophy
of Josef Popper-Lynkeus*

SECURITY FOR ALL AND FREE ENTERPRISE

*A Summary of the Social Philosophy
of Josef Popper-Lynkeus*

Edited and with notes by

Henry I. Wachtel

With an Introduction by ALBERT EINSTEIN



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NEW YORK

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To my wife

ELIZABETH WACHTEL

whose cooperation and assistance made

this work possible

Fundamentals for an Ethical Social Order

When someone, be he ever so humble or insignificant in the social scale, someone who never intentionally harms or jeopardizes the life of another human being, loses his life without his consent or against his will, this is a more important event than all political or national events, more than all scientific, artistic, or technical achievements of all peoples of all times.

Whoever should consider this an exaggeration, let him think of himself, or of someone dear to him, as if he were about to lose his life; he would then understand, and immediately believe, what we mean.

POPPER-LYNKEUS' *The Individual and the Evaluation of Human Life.*

INTRODUCTION

It is a truly praiseworthy service on the part of the author of this study to acquaint the English-speaking public with a noteworthy personality. Popper-Lynkeus was a prophetic and saintly person, and at the same time a thoroughly modern man. In love with the natural sciences and modern technology, he remained throughout a long, strenuous, and difficult life steadfastly true and dedicated to the aim he set for himself—that of contributing to the improvement of the lot of mankind and to their moral advancement. He was no theoretical moralist but an artist in whom clear thinking and poetic fantasy found a happy conjunction.

He affirmed passionately the technological advancement of our age as a liberator from soul-destroying physical labor and as the originator of cognition and creativeness which he loved for their own sake, for their own beauty. As an extreme individualist he prized man's freedom from want and dispensable constraint as the highest aim.

He viewed the state as no *more* than a utilitarian association to assure security of existence for individuals living on a common soil, and to lighten the burden of their lot on this earth. He rejected compulsory military service; no one should be compelled to kill or to be killed. Even the freedom of criminals should be curtailed no *more* than the protection of society requires. However, every man should give a decade of his lifetime to work for the state ("*allgemeine Nährpflicht*" ["obligation to work for securing a guaranteed subsistence for ALL"]), in order to assure—through organized production of all truly necessary means—a secure existence to each individual for the rest of his life. All other economic endeavor should be completely free.

I find the significance of Popper's work in the convincing statement of *aims*. One cannot expect a child of the optimistic nineteenth century fully to evaluate the difficulties of the social problems which are, in the first place, rooted in the hereditary

inadequacy and shortcomings of the species. Security demands organization, that is, concentration of the executive power in the hands of a small minority, the control of which is an *everlasting* and difficult problem. On the other hand, we know that, with the present state of technological development, to meet the continued existence of mankind without organized planning (even planning on a supranational basis) is inconceivable. However, as a prerequisite for rational planning we must have clarity of the aims to be set. Therefore one of the imperative requirements is to overcome blindness of purpose. Therein, Popper-Lynkeus can be of great service to us.

Albert Einstein

Princeton,
July, 1954

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Monument erected by the City Council in City Hall Park,
Vienna, Austria.

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H.I.W.

JOSEF POPPER-LYNKEUS

A Biographical Outline

SECURITY FOR ALL AND FREE ENTERPRISE

YOUTH AND UNIVERSITY YEARS

Josef Popper (pseudonym "Lynkeus"), engineer, scientist, and social philosopher, was born in Kolin, Bohemia, in 1838; he died in Vienna, Austria, December 22, 1921. Until the age of twelve he attended the elementary school, where he was educated in a devoutly religious environment. He later entered the Unterreal-schule, preparatory to taking up a technical career. In 1854 he was admitted to the Polytechnikum in Prague, Bohemia, where for three years he majored in physics, mathematics, and mechanics, and also attended lectures in electricity, magnetism, and acoustics. In 1856, at the age of eighteen, he was proposed by two of his teachers of mathematics and physics, Professors Jel-linek and Koristka, for assistant professor in higher mathematics and practical geometry, but because of the then existing Concordat he could not, for religious reasons, be given the position.

Popper's parents were small tradesmen, who eked out a precarious existence, doing their best to support and educate their children. They had great veneration for learning and scholarship, as was traditional in their environment. Popper's mother, and particularly his maternal uncle, Selig Korn, a kindly disposed person who wrote under the pen name of Friedrich Nork, and possessed an enormous reading knowledge of world literature, greatly influenced the education of young Popper. This uncle was the author, in 1836, of a *Comparative Mythology*, a *Biblical Mythology* (1842),¹ and an *Etymological Dictionary of Symbolisms* (1843) very modern themes for that period. The personality of this uncle Nork, whom Popper never met but who was in frequent correspondence with the family, inspired Popper with a great veneration and esteem for science and literature, an influence that took form through conversations with his mother. Both parents had a deep love for music and evinced profound respect for men of learning; and, though Popper in his early youth

¹ *Allgemeine Deutsche Biographie*, (Universal German Biographies), 1887, Vol. 24, Page 16. Verlag Drucker und Humblot.

showed little of the appreciation for poetry which he manifested in later years of his life (in the *Phantasieen eines Realisten*), he had great admiration for poets and men of letters and learning, for the "Book" as such was to him something exalted. In addition to his social consciousness and his high esteem for learning, he had great interest in all sorts of inventive ideas, especially in the way of machines, and the tools and instruments used in the study of physics. This inclination served him well in various degrees, in his later years of successful scientific researches.

The love for literature and music was a constant theme indulged in by Josef Popper and his brother David, and their parents. These two boys were the only surviving children in the family, four sons having previously died. In 1858 Josef went to Vienna, Austria, where his studies at the Imperial Polytechnikum included mathematics, geodetics, hydraulics, physics, and statistics. From 1866 to 1868 he continued his studies at the Vienna University and majored in mechanics, physics, and astronomy. On leaving the University he entertained no hope of getting a professorship, and being unacquainted with the ways of the world and without friends, he was compelled to take a minor clerical position in the freight department of the National Railways, in the Banat district of southern Hungary. But a recurrent fever, which he tried to cure with large doses of quinine, forced him to return home to Kolin to regain his health and to secure rest and recuperation. Later he returned to Vienna, where he became a private tutor in mathematics and physics. During this time, too, he occupied himself with much reading in social economy, the history of culture and esthetics, and also in Chinese culture and literature, chiefly the ethical system of Confucius; this latter pursuit he continued for the rest of his life. At the same time he attended lectures at the Vienna University, so as to continue his study of mathematics under Professor Petzval; he also attended the lectures of Ettinghausen and Reitlinger, in experimental physics at the Institute for Physical Sciences, and those of the younger Littrow in astronomy. Reitlinger introduced Popper to Ernst Mach, and there developed a close and uninterrupted lifelong friendship between them lasting over a span of fifty years.

To supplement his meager earnings, Popper established a bureau for scientific and technical reviews, attending the various

A BIOGRAPHICAL OUTLINE

scientific lectures and conferences, and taking notes in longhand; these he rewrote with carbon paper, making ten to twelve copies, which he peddled around at night from one newspaper office to another; but this was for him a very exhausting kind of work. In spite of all his efforts, he was barely able to eke out a living, comparable only, as he says in his autobiography (1917), with that of the lowest-paid unskilled laborer.

BEGINNING OF HIS SCIENTIFIC WRITINGS

At the termination of his position as a private tutor, he decided, because of his former unsuccessful experience in securing an instructorship at the University, to set out for himself by utilizing his technical knowledge and skills. In 1860, when Popper was twenty two years old, he wrote in *Die Ostdeutsche Post*, Vienna, Austria, a treatise "On a Motor for Flying Machines."

In 1862, when Popper was only twenty-four years old, he conceived the idea of electrical power transmission from streams, waterfalls, and flood and tide. He wrote a dissertation, "*Über die Benützung der Naturkräfte*" ("On the Utilization of Natural Forces"), describing the principles of electric power transmission. He conceived this idea while attending a series of lectures by Professor Edmund Reitlinger at the University of Vienna, on Dr. Julius Robert Mayer's discovery "On the Transformation and Preservation of Energy," *i.e.*, the mechanical equivalent of heat, which theory he applied to the solution of problems in physics. ("Report of the Vienna Imperial Academy of Science," 1875.)

The Imperial Institute of Physical Sciences in Vienna was not very receptive to Popper's idea of electrical power transmission, and did not provide the meager funds he needed to purchase and install the two electromagnetic machines required to demonstrate his theories. He then sought the assistance of the only electrical mechanic in Austria, who worked in an outlying suburb of Vienna. This technician, too, was sceptical of the practicability of Popper's ideas. He was unwilling to risk time and money on someone else's inventions, notwithstanding the facts, pointed out to him by Popper, that there were many practical demonstrations of the use of electromagnetic machines, as, for instance, the "Alliance Machine," used in coastal lighthouses; and that the transmission of electricity for use in lighting and in

power, and in its use in chemical plants, would be remunerative for both of them and of immense value to industry. The technician could not be convinced, and refused to advance the labor and money needed to purchase and install the two electromagnetic machines. As Popper had no means of his own, he did the nearest sensible thing by securing for himself the intellectual priority of the idea of electric power transmission from natural forces, though he realized that the idea alone was not of much value; it needed demonstration in practice by being put to use. In this case all the principles for the practical realization of the idea he had theoretically worked out—all that was lacking was the complementary factor in the form of two electromagnetic machines. This might have been supplied by securing two nearly identical electromagnetic machines and connecting them with a wire of any length. Then the power transmission would have been an established fact. On November 6, 1862, Popper therefore submitted his thesis "*Über die Benützung der Naturkräfte*" ("On the Utilization of Natural Forces") in a sealed envelope to the Austrian Imperial Academy of Sciences in Vienna, to be opened twenty years later. It was subsequently published in 1882, in Volume 26 of the Academy's annual report. In that year, during a demonstration at the electrical exposition at Munich, Germany, the great sensations were Edison's incandescent lamp and his electrical dynamo, and also the demonstration by the French engineer Marcel Desprez of the transmission of electricity of 0.4 horse power from Miesbach to Munich, a distance of forty kilometers. When Popper, who witnessed the demonstration, stated that he had conceived this idea twenty years earlier, his statement was received with smiles of skepticism. Thereupon he requested the Imperial Academy of Sciences in Vienna to publish his thesis deposited with it in 1862.² Following this publication Popper was officially awarded the intellec-

² In 1883, Popper delivered a series of lectures (November 10 to 17) before the "Österreichische Ingenieur- und Architekten Verein," and at the electrical World's Fair in the Rotunda in Vienna, Austria, "*Über die physikalischen Grundlagen der elektrischen Kraftübertragung und ihre Berechnung*" ("On the Fundamental Physical Principles of Electric Power Transmission and Their Computation"). These lectures were published in the official journal, *Zeitschrift des Österreichischen Ingenieur- und Architekten Vereins* (Wien, 1883, Vol. VIII; 1888, Vol. XIII; 1890, Vol. XV; 1891, Vol. XVI). Subsequently they were published in book form by A. Hartleben (Wien, 1884, 56 pages).

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tual priority of having conceived and formulated the idea. (We may observe parenthetically that these were not accidental ideas with Popper—they were acquired by a thorough study and knowledge of physics; the most fruitful ideas suffer the fate of not being acknowledged when the conditions for their practical utilization are not ripe or circumstances are not propitious.) Popper was the first to recognize the importance of Julius Robert Mayer's principles of the mechanical equivalent of energy embodied in his thesis on the source and magnitude of energy produced through balloons, craft lighter than air—*“Die Quelle und Betrag der durch Luftballons geleisteten Arbeit.”* This brought Popper into correspondence with Mayer, for whom he reviewed the latter's treatises on *“Die Mechanik der Wärme”* (The Principles of the Mechanical Equivalent of Heat,” viz., “The First Law of Thermodynamics”). This Popper published in the Cotta scientific weekly *Das Ausland*.³

In his treatise on “The Fundamentals of Electrical Power Transmission” (1882), Popper was the first to develop the general concept that all energy to be conceived is the product of two factors, mass and level. Georg Ferdinand Helm,⁴ who made Popper's findings the basis for his theories on energetics, and also the physicist Ernst Mach, acknowledged Popper's priority in this field. In his correspondence with Mach, whose acquaintance and friendship Popper made during his student years at Vienna University, he raised the question, in 1884, of the relation between matter and energy, and this was even before Planck's enunciation of the quantum theory. Popper here discussed the existence of quanta of energy and tried to deduce

³ Robert Julius Mayer (1814-1878) of Heilbronn, Germany, physician and physicist, discoverer of the principle of the “conservation of energy” which has acquired such fundamental significance for natural sciences. In 1840, while serving as a ship's physician, he observed in the Dutch East Indies that the venous blood of the crew members had a lighter hue when in tropical regions than when in temperate zones. The endeavor to explain this observation led him to the formulation of his law concerning energy, the fundamental importance of which was realized immediately and which resulted in the postulation of the law of the conservation of energy in general. From it he deduced the equivalence of heat and work, and calculated the mechanical equivalent of heat. Mayer ran up against strong resistance with his theory, and Popper came to his aid with the above-mentioned paper, “On R. J. Mayer's ‘Mechanics of Heat.’” The scientific works of Mayer were generally recognized in 1876.

⁴ Author of the *Historical Development of the Principles of Energetics* and of the *Theories of Electrodynamics*, 1851-1923.

from these the periodic table of elements. In the years to follow he devoted much time to the study and writing on various problems in electricity and energetics.⁵

INVENTIONS OF "KESSELEINLAGEN," BOILER SHEATH INSERTS, AND OTHER INVENTIONS

Popper's first gleam of hope to earn a little more money for a more secure living came in 1867, when he was thirty years old. This was the time of the beginning of industrialization in Austria, the change in smaller and larger workshops from manual labor to steam-driven power machines. Insignificant as the invention appeared to Popper himself from a technical or scientific aspect, it nevertheless came into general use in industry. One of the great obstacles and disturbances in the use of boilers for steam-driven machines was a frequent recurrence of sedimentation and incrustations on the inside walls of the boilers, known by the trade name of "fur," which required frequent stoppages of work for the cleaning and removal of this sediment. These sheath inserts which he called "*Kesseleinlagen*," were supplied with a series of nozzles through which live steam from within the boiler was driven against its walls, washing them and forcing all sedimentation to the bottom of the boiler, where it could be easily removed. This helped to improve the work of the boiler, the circulation of the water, the efficiency and life of the boiler, and safety from explosions.⁶

His only living brother, David, helped Popper market his boiler sheaths (*Kesseleinlagen*). They traveled around Austria and Germany, visiting various factories to sell these sheath inserts, thus making a bare subsistence—hardly enough to meet their daily provision of food and lodging. Popper says: "One

⁵ Ernst Mach, 1838-1916, once professor of physics in the University of Prague and later professor of the history and theory of inductive science in the University of Vienna. His theories remain to this day of great influence upon modern physics.

⁶ Report in *Zeitschrift des Österreichischen Ingenieur- und Architekten Vereins*, (1869). Described also by Naprávil in *Dingler's Polytechnical Journal* (1870, Vol. 199); also in Popper's own thesis in the same journal (1887, Vol. 228), under the title "*Zur näheren Kenntniss der Kesseleinlagen*" ("Approximate Information on the Boiler-Sheath Inserts").

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can hardly realize the strain involved in marketing an invention designed as an inner lining for boilers. I had always to be present when the boiler was opened for inspection after a period of use. I had to creep into the boiler while it was still hot in order to ascertain the results and to anticipate the arrival of the boiler-makers, who were interested in preventing the demonstration of any favorable results from my invention. They opposed me vehemently because its success meant a loss of their cleaning fees. My boiler sheath inserts interfered with the previous need for frequent cleaning of the boilers, by prolonging their use and life. More than once I was in danger of suffocation and death during these inspections inside the hot boilers. I often fainted from the heat, especially when, on account of narrow passages and complicated construction of the pipes crisscrossing the upper and lower parts of the boilers, I was unable to work fast enough. Sometimes the manhole was so small that I could barely free myself from the boiler. Once my helper brought the oil lamp too close to my head. My hair, dried out by the heat, began to burn, and I had to extinguish the flames with my bare hands."

With his brother's sales assistance, over one thousand of these boiler sheath inserts were in the course of a few years sold and installed in industrial plants in Austria-Hungary and Germany.

He continued his experiments and researches for the improvement of steam engines, and in 1887 patented "Popper's Condenser," which, too, found extensive application and use in industry and mining operations. The construction principles for this invention were systematic theoretical and experimental researches on the cooling effects of agitated or circulating air, which was at that time not quite familiar to engineers in its practical use. These researches and inventions earned for Popper additional financial rewards. In 1891 he constructed his "*Selbst-ventilierende Gradierwerk*" (a natural self-ventilating draft tower), which effected repeated cooling of heated water in the engine with an unusually large saving of space and fuel. This invention, too, gradually much improved by the inventor, found extensive use wherever steam-driven power was being used or newly installed in industry. Thus the never-tiring Popper toiled for thirty years, meeting with many setbacks and disappointments through illness and otherwise, until he accumulated a modest competence, enabling him to retire from practical me-

chanics and devote himself to purely scientific and philosophic contemplation, which was closer to his heart.

During the next few years many dissertations and papers on theoretical physics and mechanics, written and published in various scientific journals, chiefly in *Zeitschrift des Österreichischen Ingenieur- und Architekten Vereins*, bear witness to the universality of Popper's genius. That his intellectual interests lay in directions other than mechanical engineering, was manifest in his early adult life. However, we may state without exaggeration that his socio-philosophic thinking, his clear analysis of statistics of the economic conditions in Germany as manifest in his major sociological study, *Die allgemeine Nährpflicht als Lösung der sozialen Frage*, bears witness to the disciplined mind of an engineer and physical scientist.

Popper originated the suggestion of airports for dirigibles, and contributed much to the development of lighter-than-air aircraft, balloons, and heavier-than-air flying machines.

From the sixteenth to the seventy-third years of his life, Popper was interested in aerial navigation, and worked for many years, until 1910, with much time and effort, toward the solution of the problems it presented. In these years, knowledge of aerial navigation did not go beyond the utilization for balloons of steam-driven engines, requiring storage of water and thus adding to the weight and decreasing the carrying capacity of lighter-than-air aircraft. He devised a method of constructing lighter engines and of utilizing the exhaust steam through condensation, by contact with the outside air, thus turning it back into water and returning it to the engine for further utilization as steam and power. This idea, as he says, was not original with him, but his solution of the problem was to construct small and durable condensers light enough to be adaptable for use in steamships, balloons, and factories. He thus made it possible to produce lighter engines, and brought a step nearer the solution of the problem of the navigation of lighter-than-air aircraft. He published his findings in 1887 in the "Journal of Austrian Engineers and Architects," "*Zeitschrift des Vereins*," "*Osterr. Ing. und Arch.*") under the title, "On Condensers and Cooling Machines by Means of Agitated Air." He says: "I spent much of my time and effort, an enormous strain on my ailing body, in trying to market and install my technical inventions. I was for weeks at a time exposed to heat in

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summer and severe cold in winter, when, in factories and in their cooling-water towers, I had to help mount the steam condensers. Here, as in the case of the sheaths for boilers (Kesseleinlagen), in order to prevent the accumulation of 'fur,' my life and limbs were often endangered."

Though the idea of condensers and air-cooling machines by means of agitated air, as stated above, was not new with Popper, the general problem posed was to construct less voluminous light-weight cooling apparatus, which could be cheaply produced and used also in steamships. Problems such as these confronting the engineer are of a nature not easily solved, as is the theoretical conception of a new machine to be utilized for practical purposes.

STUDIES OF VARIOUS COOLING SYSTEMS FOR STEAM PLANTS

Popper first studied all known existing cooling systems and made many experiments on a small scale to get a clearer insight into the practical phases of the subject, such as the dimensions of such machines for their quantitative, prescribed performance. He published his findings in 1888 in the above-named journal under the title "*Über die Versuchsergebnisse und Betrachtungen betreffs Dampfkondensation mittels bewegter Luft*" ("On Considerations and Experimental Results of Steam Condensation by Means of Agitated Air"). When he had found a practical solution and application for the above problem, he submitted it to the electrical machine and engine manufacturing firm of Siemens and Halske, well-known in Austria and Germany, and they erected this air condenser, of 60 h.p. in volume. As these experiments were a great success, Popper published the results in 1890, in the journal cited above, as "Report on Popper's Air Condenser in the Establishment of Siemens and Halske." As a result of this the Austrian Government Department of Agriculture and Mines ordered a much larger condenser to be installed for the silver mines in Příbram, Bohemia; this was, in 1891, described in the *Österreichische Zeitschrift für Berg und Hüttenwesen* (Austrian Journal for Mining and Smelting), with the title "*Über einen Luft-*

kondensator in allgemeinen und insbesondere den bei der dreihundertpferdigen Fördermaschine auf dem Prokopschacht aufgestellten Luftkondensator" ("On an Air Condenser in General, and in Particular on the Three-hundred-horsepower Hauling Machine Installed in the Prokop Pit Air Condenser").

The construction principle of the condenser, which was later imitated by others, consisted in utilizing large, very flat boxes, made of zinc placed in inclined positions one over the other and yet separated from one another—all to be connected by two pipes joined together, which serve to let the steam flow into all boxes and to discharge vapor or uncondensed steam at the terminal box. The air, which is being heated in the spaces between the boxes, rises along the inclined planes of the boxes and flows into a high chimney, which accelerates draft, causing suction from below and bringing in cool atmospheric air between the broad, flat surfaces of the zinc boxes; the draft serves as a cooling ventilator. A patent was granted Popper for this invention by the Austrian Government on April 3, 1889. His next work was the devising of a cooling apparatus, effective through the condensation of steam-heated water by means of free atmospheric air, continuously repeated, which would free the engines from having to store large quantities of water. This was long before the working out of the internal combustion engine, which requires water only for the cooling portion and not for the production of steam also.

Popper invented an air-cooling apparatus which cooled the water compressed in the condenser. After repeated experiments on a small scale he succeeded in fashioning "*Das selbstventilierende Gradierwerk*" ("The Self-ventilating Natural Air-cooling Tower"), which was patented in Austria, April 22, 1891; an account of the process was published in 1892 in *Die Zeitschrift des Österreichischen Ingenieur-und Architekten-Vereins*.

This last invention found an immediate and large market, and, after several improvements to eliminate frequent cleansing and servicing, many of the condensers were installed in industry and are functioning even to the present day. Many other similar cooling towers were designed by others, but none of them used so little ground space as the one designed by Popper.

The construction principle of the cooling tower is based on the fact that the warm air to be cooled is led from a tall tower, through a series of several levels of sieve-like boxes, the openings

of which are so close to one another that the running water draws with it the atmospheric air. In this way the water is cooled, and the heated air is carried along by the water to the next level and given off through a slit into a chimney, where suction accelerates the ventilation; this process, where air is carried along by means of falling water differs from the stream of the "waterdrum-blast-cylinder," which may here come to one's mind; the air in Popper's cooling tower is carried along the many streams of water by means of the friction along the wires of the sieve, and not, as one might suppose, by hydraulic principles.

Besides the water-cooling apparatus, he invented a surface condenser, which was built into the water-cooling towers and served also, as do all other surface cooling condensers, to provide distilled water for use in boilers. This, too, was extensively used in industry, and a patent was granted in Austria, November 2, 1892.

Popper next published in the *Zeitschrift des Österreichischen Ingenieur- und Architekten-Vereins*, in 1893, a very valuable and useful formula—"Formel für den Einfluss verschiedener guter Luftleeren auf den Dampfverbrauch" ("An Equation for the Effect of Various Favorable Theories of Vacuity on the Consumption of Steam").

Besides effort and time given to scientific studies, Popper, with the help of his brother, continued his visiting of the industrial plants of the country, in order to sell and install his inventions. Meditating on these trying efforts, he says in his autobiography: "When one contemplates the time and effort I gave to mechanical work and commercial exertion, how often I was in danger of being injured or losing my life during these experimental demonstrations of my inventions, and the fact that these experiments consumed twenty-five of the best years of my life, which I might have utilized for the purely scientific or literary pursuits which were closest to my heart—time lost to earn a bare living and a modest assurance for the future—in such contemplation, everyone who follows scientific or intellectual pursuits will consider himself fortunate if he has even a very modest assurance of security, so that he may not suffer such losses of time, of health, and of energy as I had to suffer. However, I would add the observation that, though I gave much of my time to the perfection of such of my technical inventions as were accepted and used in industry, I considered these as of rather minor importance. I was

always hoping that through these inventions I would become financially free to pursue purely theoretical, scientific, and philosophical studies. During the many days and nights on my business travels that I spent in various lodging places I utilized my free hours to read extensively in science, philosophy, and belles-lettres ”

STUDIES IN AERONAUTICS

Toward the end of 1897, because of the continued failure of his health, Popper had to discontinue all business and traveling efforts to market his inventions.

Having retired from his activities in the field of mechanical engineering, he devoted himself to purely scientific, theoretical studies in which he became interested through contact and correspondence with Julius Robert Mayer, who gave a new insight into the then existing concepts in the physical sciences.

As far back as 1875, Popper published in Volume 71 of the annual report of the Imperial Academy of Sciences in Vienna, Austria, a thesis on the “*Quelle und Betrag der durch Luftballons geleisteten Arbeit*” (“On the Source and Amount of Labor Performed by Means of Air Balloons”), which was a physicist’s work rather than aerotechnical; here for the first time Julius Robert Mayer’s principles of the mechanical equivalent of energy were applied to the happenings in balloon gases. These were purely theoretically technical observations, a calculating inquiry into the problem of how to utilize the warm-air balloon as a power motor. Next he projected a “*Sonnenmaschine*” to use the heat radiation from the sun as heating material for various ends.

In September, 1879, he published in *Die Neue Freie Presse*, Vienna, Austria, an exhaustive article—*Über die gegenwärtigen Kriegsvorbereitungen im Gebiete der Luftschiffahrt* (“On the Present War Preparations in the Field of Aeronautics”), and in July and August, 1880, there appeared in the same journal a treatise—*Über die Flugmaschine von Edison und das Programm aeronautischer Versuche im Allgemeinen* (“On the Flying Ma-

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chine of Edison and the Program of Aeronautical Experiments in General"). The first thesis was a mere report, but the latter contains evidence of the improbability of successfully constructing a flying machine with the technical knowledge and resources then at hand.

In 1888 he published in the *Zeitschrift für Luftschiffahrt (Journal of Aeronautics)* a series of articles which later, in 1889, appeared in book form under the title *Flugtechnik, (Aerodynamics)*. Here he discusses the problem of the dirigible balloon as also the dynamo-propelled flying machine: in the latter he also examines the very important aerodynamic problems of gyroscopic motion and aeronautics, used in flying kites; these were first postulated by Alphonse Penaud.

In 1896 Popper published his *Flugtechnische Studien I* ("Studies in Aeronautics I"), in the *Zeitschrift des Österreichischen Ingenieur- und Architekten-Vereins*; and a treatise, *Flugtechnische Studien II: Über Sinkverminderung* ("On Deceleration of Descent"), also his observations on the critical evaluation of Friedrich v. Lössl's "Sinking Formula."⁷

As far back as 1875 Popper formulated the mathematical laws which paved the way for successful experiments in flight of heavier-than-air machines. He dwelt on these problems repeatedly between 1899 and 1902, when he wrote on the development of aerial navigation with kites and motor-driven machines; these articles contributed greatly to the development and construction of heavier-than-air flying machines.

In 1910 he wrote in the *Zeitschrift für Flug- und Motoren-Technik (Journal for Aviation and Motortechneic)*, a treatise, *Über das Sinusproblem und das Verhältniss der Flugarbeitsgrössen bei ebenen und gewölbten Flächen* ("On the Sine Problem and the Magnitude of Flight-Labor Performance in case of Plane and Vaulted Surfaces"). This latter problem has been more exhaustively treated by Otto Lilienthal, German aeronautical engineer and pioneer in experiments with heavier-than-air machines, whose theory was the imitation of the flight of birds; Lilienthal made important experiments with the flight of gliders, the practical importance of which is apparent to every designer and builder of flying machines.

In these essays Popper treats of several obscure and subtle

⁷ Physicist, honorary president of the Vienna, Austria, Aeronautical Society.

aerodynamical problems, of importance to the theory of flight, which have today, since flight by heavier-than-air machines is a common means of transportation, greater importance to the physicist than to the aeronautical engineer. The scientific findings and facts there disclosed have to this day validity for the proper evaluation of new theories pertaining to flight, and they also lay down fundamental principles for the construction of flying machines.

When, later, the Vienna School of Aeronautics remained the only place of its kind in Europe, and with French and American aeronautical developments the only ones of importance, this school became in the following years the point of departure for the growth and development of German aeronautical endeavor. This remains a credit to Popper's efforts and to those of his friend, the physicist A. Jarolimek, who kept alive the sagging interest in aeronautics and to whom Popper dedicated a beautiful tribute in the treatise on *Aerial Navigation and the Flight of Birds*, a book characterized by an unusually high conception of the nature and importance of technical and aeronautical research.

Finally, in 1911, Popper published his major work, *Der Maschinen- und Vogelflug, eine historisch-kritische Untersuchung* ("Machine Flight and the Flight of Birds, an Historical-Critical Analysis"), in which, besides the historical information, he clarifies and solves many important controversial and fundamental problems of flight.

Of the new theoretical ideas in the field of aeronautics which remain of permanent import are his scientific analyses found in his "*Flugtechnische Studien I und II*," quoted above, of "Air Shock on Solid Surfaces." The thesis that a propeller exhibits an increased effect on a wind side stroke and the formula for this (*Flugtechnik*, page 119) were subsequently verified through practical experiments by Dr. Riabouchinsky of Moscow; afterward this principle was utilized by A. Jarolimek in his thesis on "The Dynamics of Aerial Navigation." It was a simple task to define the practical aerodynamic application in flying machines and the flight of birds; it was a plain and new physiological method to calculate the flight energy of birds in "*Flugtechnische Studien II*" ("Studies in Aeronautics II") and in *Maschinen- und Vogelflug* ("Machine Flight and Flight of Birds").

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Of practical importance among Popper's first newly conceived ideas was that of "*Kaptiv-Schraube*," the captive propeller, an auto-gyro-plane which was to replace the captive balloon; in the patent application of this (January 10, 1880), Popper was to write on a rapidly rotating circular mass the object of which was to increase stability. He was therefore the first to evolve the principle and the application of gyroscopic motion in aeronautics. He was also the first to propose landing ports for dirigible balloons—*Flugtechnik I (Studies in Aerodynamics)*. He never had enough capital to engage in practical experiments, as did Otto Lilienthal⁸ or the Wright brothers; consequently he suffered the disappointments previously known to Leonardo da Vinci in his efforts at solving the problem of flight, in the sixteenth century, and later on to Alphonse Penaud in the nineteenth century. All Popper's researches and labors in the field of aeronautics were therefore in the realm of theoretical physics—to further the progress of aerodynamics; he also experimented similarly in other branches of technical science. When the first examples of a flying machine and of the rapidly moving dirigible balloon of Rénard were presented to the world, Popper was pleased to see his own intellectual efforts in this direction put to practical application. He visualized not only the peaceful uses these technical advances were put to, but he was also aware of the potentially destructive purposes they might have; these he described in 1866 in his essay, "*Die technischen Fortschritte nach ihrer aesthetischen und kulturellen Bedeutung*" ("Technical Progress in Its Esthetic and Cultural Implications"). *Zeitschrift des Oesterreichischen Ingenieur- und Architekten Vereins*, in 1888, Vol. XL, pages 79 to 92 inclusive.

He reminds us that in the evaluation of our rapid transportation by rail, ship, and air, we must of necessity also remember that all such transportation is likewise used for military and war purposes; nor can we overlook the weakness of the reasoning engaged in by many pacifists when they assert that transportation will bring people closer to one another for more peaceful pursuits and international amity.

⁸ German inventor and aeronaut, 1848-96, to whom belongs the credit of demonstrating the superiority of arched over flat surfaces for reducing gliding flight to regular practice.

STUDIES IN PHYSICS

In the fields of mathematics and physics, Popper published in 1865, at the age of twenty-seven years, a lengthy treatise in the annual report of the Imperial Academy of Sciences, Vienna, Austria: "*Über die Konvergenz unendlicher Reihen*" ("On the Convergence of Infinite Series"). In this work he made an attempt to formulate a universal criterion of convergence, but he was unsuccessful, as many mathematicians before him had been. He failed here, as he says in the very difficult chapter in mathematics, "On the Infinite." While writing of this in his autobiography in 1917, he expressed the hope that, if he were to regain his health, he would renew his efforts—he hoped to have more success in the solution of the fundamental ideas of his above-stated thesis on the graphic presentation of the "infinite series."

He returned to work in physics, which was his preferred field of study, namely, thermodynamics and electricity. His first publication was the above-mentioned "*Über die Quelle und den Betrag der Luftballons geleisteten Arbeit*" ("On the Source and Quantity of Output of Labor Performed by Means of lighter-than-air Balloons"). This is to be viewed mainly as an application of the then new law of the mechanical equivalent of energy; this he submitted to the great discoverer of the theory, Dr. Julius Robert Mayer, of Heilbronn, Germany, as a modest application of Mayer's significant fundamental ideas. As a reply, Mayer asked Popper to review his newly published second edition of the *Mechanik der Wärme* ("The Mechanical Equivalent of Heat"). The review, as stated above, appeared in 1876 in the scientific Cotta weekly *Ausland*, and contained, besides the purely scientific views, Popper's own cognitive theoretical studies, partly in the realm of physics and partly in the realm of philosophical thought, chiefly the part dwelling on the field of natural science.

In 1884 there appeared, too, the above-named book, *Die physikalischen Grundsätze der Kraftübertragung*, which had been published earlier, in 1883, as a shorter thesis in *Zeitschrift für Elektrotechnik* (*Journal for Electrotechnics*). The essentially new idea in this work was a detailed treatment of the concept of the

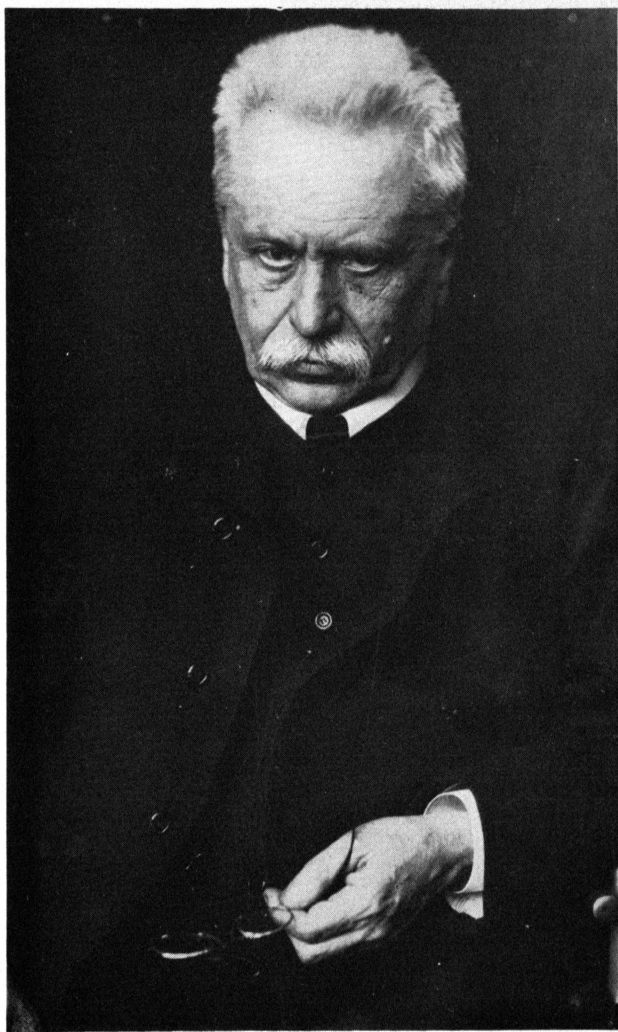
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"mode" of expressing work, any form of energy, as a product of two factors: first, mass; second, the modality of labor (*Arbeitszustand*). This thought had been previously enunciated by Ernst Mach. A special chapter on energetics was shaped out of this new idea independently of one later formulated by Georg Ferdinand Helm, which was further developed by the natural scientist Wilhelm D. Ostwald into a system of natural philosophy.

Georg Ferdinand Helm, 1851-1923, in his history of *Energetics*, devotes an entire chapter to Popper's intellectual priority in this field, as does Ernst Mach in his *Mechanics*. So also do Ostwald in his textbook on chemistry, and Orestes Danilowitsch Chwolson, 1852-? in his *Physics*.⁹ These ideas of Popper's came rather belatedly to the knowledge of physicists throughout the world, because of his mistaken policy in having his findings published in journals devoted to electrotechnical studies, whose readers showed little or no interest for "theoretical speculations" in the realm of higher physics.

Popper mentions briefly a few points which otherwise would forever remain doomed to oblivion. First and above all: In the choice of the factor of quantity or mass in the general equation of work, his intention was to stimulate speculation about the following questions: "Are the quantities or masses encountered in the different fields (in the form of energy) really different from each other, or could they not, by any chance, be reduced to any given one of them? Furthermore, to which one? To a ponderable mass perhaps? Is the latter always constant, everywhere in the universe? Is the theorem of its indestructibility or of the impossibility of creating it from nothing a fact of experience or a research postulate?" But the queries enumerated above are linked also with the question posed at their conclusion, namely: "Is therefore the law of the conservation of matter utterly unrelated to the law of the conservation of work, or is there a connection between the two?" Popper states that to the best of his knowledge this extremely important question was never brought up by anybody before him, nor has it been answered accurately. In 1884, his question aroused no interest at all, even among the physicists who read his treatise, and Professor Josef Stefan, 1852-1925,

⁹ Instructor of Physics, University of Petrograd, Russia, 1919-1923. Elected honorary member of the Institute of Physical Sciences of Germany, 1923. Author of a textbook on physics, 1918, 5 volumes.



Josef Popper-Lynkeus

Josef Popper-Lynkeus, photograph, 1916



Tombstone on Honorary Grave in Vienna Cemetery

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cloth mixed with new wool would yield a "processed" wool, known in Germany by the name of "*Kunstwolle*." This could meet the requirements of the population for a sufficient quantity of cloth of a fairly good quality.

These ideas were, in later years, put to practical use by the Central European nations when, during World War I, 1914-1918, they were shut off from foreign imports by the Allied blockade. Goods were then manufactured from the "processed" wool, which served as a substitute material for cotton.

From the age of sixteen, Popper began reading Montaigne, through whom, he says, he learned to know life in all its diversity; through him he was initiated in the study of the ancient classics, statesmen, philosophers, and men of letters. Montaigne remained forever for Popper the source of his great respect for the dignity of every human being and of his regard for the human body and for its improvement.

Montaigne, in his eminence over all conventional views, manners, and aspects, in his freedom from all kinds of vanities, prejudices and affectations, seemed to Popper free from all religious, national and political fanaticisms. He was a cosmopolitan in the sense that every man of character and ideals is pan-national. He had a deep regard and a well-intended interest for all men, for all nationalities. As by Montaigne, Popper was also profoundly influenced by another great thinker, philosopher and ethical leader, Georg Christoph Lichtenberg, 1742-1799, the German physicist, publicist and scientific journalist. It was through Lichtenberg that Popper came to be introduced to the philosophy of Spinoza. Later on, he read Rousseau's writings, which awakened in him feelings for the greatness of democratic principles. Through his study of the writings of Rousseau and Friedrich von Schiller, Popper states, he first began to cultivate ideals for the betterment of the human lot.

Just as we owe respect for the political integrity of the individual to Rousseau, respect for the moral purpose and dignity of the individual to Kant, so too do we owe to Popper the respect for the physical existence of the individual.

FANTASIES OF A REALIST

Joseph Popper was deeply interested in literary pursuits, in esthetics, and in music, where his favorites were Bach, Haydn, Mozart, and Beethoven. He was almost sixty years old when he retired from active participation in the production and selling of his mechanical inventions. Then, having accumulated a modest income, which he had hoped would secure him against want, he turned to the literary endeavors which were close to his heart.

It was in 1865, when he was 27 years old, that he made his first attempt at poetry. In this he indulged when he had time free from scientific work, or from the business of selling and installing his inventions; he wrote during his travels on railroads, on business trips, and during his sojourn in hotels—under conditions most unfavorable for creative thinking and writing. He collected these poetic stories over a period of thirty-five years. One sixth of them, as he states in his autobiography, were conceived and committed to paper from his dreams. In all, eighty of his narratives were published in 1889 by Carl Reissner, Dresden, Germany, under the pen name “Lynkeus,” and with the book title, *Phantasien eines Realisten* (“Fantasies of a Realist”). The name “Lynkeus” was that of the mythological helmsman of the Argonauts, renowned for the keenness of his sight. Parts of the book were translated into several foreign languages and had twenty-one German editions, though it was banned by the Austrian Government for moral reasons.

These stories in prose and verse are fascinating on account of their charm, poetic feeling, and originality. They are of a freely imaginative invention, and reminiscent of Chinese and Persian narratives. Their charm lies not only in their originality but also in their versatility and in the unusual material dealt with. They are written in the lucid and factual language of the scientist, which reads more like the report of a naturalist than does the writing of the usual author of fiction. They have, therefore, a more profound impression on the reader.

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To give an idea of the nature and artistic quality of the *Fantasies*, we may state that they do not describe familiar themes, as do for instance the narratives of Boccaccio, author of the *Decameron*, or the Arabian stories of *A Thousand and One Nights*, which deal with the familiar themes and experiences of life. The situations Popper dealt with in the *Fantasies*, as well as the happenings narrated, are not derived from ordinary occurrences. The characters, as well as the problems introduced, are freely imagined. As we observed above, one-sixth of the stories Popper transcribed from his dreams, and it is a not uninteresting pastime to consider whether the poetry or fiction which pleases the reader may be ascribed to the author as a talent, or credited to him as are the conceptions and fiction written in a waking state. Both classes of his poems are the creations of the same author, of the same mind, and when one contemplates the fact that very often ordinary people, without talent or education, have dreams of a highly dramatic content and quality, we must appraise the literary and poetic products of the dreams as ranking somewhat below those written in the waking state.

We may, however, conclude that a higher grade of education, and the more sensitive nature of the individual will induce dreams of more general significance.

Nearly everybody possesses a measure of inventiveness. According to the intrinsic value and significance of the dreams, it may be said without reservation: "As man thinks, so he dreams." The shaping of the dreams and their reproduction are purely artistic functions.

Many of the narratives are based on Popper's familiarity with themes from his studies of Chinese literature, from his readings of Klemm's *History of Chinese Culture*, and from his studies of the *Ethics* of Confucius. In using his factual, reportorial manner of telling the stories in the *Fantasies*, Popper deliberately expressed a reversed anthropomorphism, describing all human beings and their actions as the naturalist would events occurring in nature. And yet, in most instances, his poetry describes natural phenomena, imputing to them human emotions and attributes.

The *Fantasies*, to quote Richard von Mises, in his "Biography of J. Popper-Lynkeus,"¹⁰ "is, without exaggeration, Popper's

¹⁰ *Neue Österreichische Biographie, 1815-1918*, Vol. VII, pages 206-217 (Amalthea Verlag, Vienna, Austria, 1931).

most widely known and read work. The charm of these conceptions lies in their originality and in the versatility of the material used; and also in the clear language of the scientist, which enhances their influence on the reader." And, as Schopenhauer observes: "The reader is immediately faced with the question whether this is a work of genuinely high literary quality, which will add meaning and content to existing literary values, thus contrasting with the fluid evanescent, ostensible literature which is yearly published with much clamor and shouting by the participants, thousands of whose books are brought to market, soon to disappear." This is a moot question, which may not readily be decided. But what interests us most is how these narratives fit into the picture of the totality of Popper's personality. In his autobiography he speaks of his peculiar inclination for writing verse, for which he had never thought or believed he had either the talent or sufficient self-confidence. "But I felt," he says, "a peculiarly strong urge to express my sentiments, my thoughts and perceptions about many personalities, about circumstances and events in human society—to express them through poetic forms." We shall therefore not err in assuming that in writing these narratives, and putting them in these forms, Popper wished to find release from many thoughts which troubled his conscious and unconscious mind. We realize that one so highly gifted by nature in many directions was also granted the healing gift of being able to say, "How much I suffer!"

The wonderful clarity of mind, the poise, kindness, and inner harmony which characterized him in the last decades of his life can, no doubt, be ascribed to the fact that he found satisfactory adjustment and reconciliation in poetic expression, after all his experience of the purely rationalistic and scientific work of the engineer, mathematician, and physicist.

In one of the fantasies, "*Träumen wie Wachen*" ("Dreaming like Wakeful Thinking"), he anticipated the fundamentals of the interpretation of dreams, and thus contributed to the development of psychoanalysis. This fact was acknowledged by Sigmund Freud in a tribute to Popper contained in an article ("*Meine Berührung mit Josef Popper-Lynkeus*" — "My Contact with J. P.-L."), written for the tenth anniversary of Popper's death in 1932 for the *Journal* of the "Society for the Propagation of the

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Ideas of a Guaranteed Minimum for Subsistence," of Vienna, Austria.

In this tribute Freud states: "My explanation of dream-distortion seemed to me new: I had nowhere found anything like it. Years later (I can no longer remember when) I came across Josef Popper-Lynkeus' book, *Phantasien eines Realisten*. One of the stories contained in it bore the title of '*Traümen wie Wachen*' ('Dreaming like Waking'), and it could not fail to arouse my deepest interest. There was a description in it of a man who could boast that he had never dreamt anything senseless. His dreams might be fantastic, like fairy tales, but they were not enough out of harmony with the waking world for it to be possible to say definitely that 'they were impossible or absurd in themselves.' Translated into my manner of speech this meant that in the case of this man no dream-distortion occurred; and the reason produced for its absence put one at the same time in possession of the reason for its occurrence. Popper allowed the man complete insight into the reasons for his peculiarity. He made him say: 'Order and harmony reign both in my thoughts and in my feelings, nor do the two struggle with each other . . . I am one and undivided. Other people are divided and their two parts—waking and dreaming—are almost perpetually at war with each other.' And again, on the question of the interpretation of dreams: 'That is certainly no easy task; but with a little attention on the part of the dreamer himself it should no doubt always succeed.—You ask why it is that for the most part it does *not* succeed? In you other people there seems always to be something that lies concealed in your dreams, something unchaste in a curious way, a certain secret quality in your being which it is hard to express. And that is why your dreams so often seem to be without meaning or even to be nonsense. But in the deepest sense this is not in the least so; indeed, it cannot be so at all—for it is always the same man, whether he is awake or dreaming.'

"Now, if we leave psychological terminology out of account, this was the very same explanation of dream-distortion that I had arrived at from my study of dreams. Distortion was a compromise, something in its very nature disingenuous, the product of a conflict between thought and feeling, or, as I had put it, between what is conscious and what is repressed. Where a conflict

of this kind was not present and repression was unnecessary, dreams could not be strange or senseless. The man who dreamed in a way no different from that in which he thought while awake was granted by Popper the very condition of internal harmony which, as a social reformer, he aimed at producing in the body politic. And if Science informs us that such a man, wholly without evil and falseness and devoid of all repressions, does not exist and could not survive, yet we may guess that, so far as an approximation to this ideal is possible, it had found its realization in the person of Popper himself.¹¹

"Overwhelmed by meeting with such wisdom, I began to read all his works—his books on Voltaire, on Religion, on War, on State Provision of Subsistence, etc.—till there was built up clearly before my eyes a picture of this simple-minded, great man, who was a thinker and a critic and at the same time a kindly humanitarian and reformer."¹²

The sagacity and understanding of the thinker, on the one hand, and, on the other, fantasy, poetic warmth, and humanitarian sentiment distinguished these singular narratives, which deal with the foibles, vanities, and weaknesses of human nature. Human beings, their different states of life, and their various fates, pass before us in the endless kaleidoscopic diversity of a rich imagination. Popper-Lynkeus walks with us through the abyss of life and exposes all the noble and also all the base emotions that motivate human hearts.

All these short stories, written in a masterly and artistic style, briefly indicating the experiences and events of human life, assume through his pen an increased depth and significance. They awaken in us a longing for the new and better world of which Popper was dreaming.

¹¹ Another short paper of Freud's on the same subject written some ten years earlier (1923c) ends with the words. "I believe that what enabled *me* to discover the cause of dream-distortion was my moral courage. In the case of Popper it was the purity, love of truth and moral serenity of his nature"—the epithets which Popper himself applied to the man in his story.

¹² From *Sigmund Freud, M.D., LL.D. Collected Papers*, Vol. V, translated and edited by James Strachey, of the Institute of Psychoanalysis. No. 37, Pages 295-301, in *The International Psychoanalytical Library*, edited by Ernest Jones, M.D. Published by Clark, Irwin & Co., Ltd., Toronto, and Robert Maclehose & Co., Ltd., University Press, Glasgow. All rights reserved. (Hogarth Press, 42 William IV St., W.C. 2, London, England.)

DREAMING LIKE WAKING

No one has, indeed, ever met with a single human being—although we shall speak of such a one here—who could say of himself that in all his life he never dreamed anything senseless.

This man, who was unmarried, led a very modest and uneventful existence, and he achieved nothing of importance in life. All memory of him would have been completely erased—no one would have known that he had ever lived—but for a remarkable peculiarity which he was told that he possessed. This was that he never dreamed anything senseless.

He never dreamed, as many of us often do, that we are at one and the same time in many places; or that some one whom we know to have been dead for a long time is still living; or other similar things. This man did dream, as many of us often do that men can fly, or meet with creatures that, while we are awake, we do not know to exist. But such things do not really contradict our waking state of mind, so that we can with certainty say that they are absurd or impossible.

However, this man was so proud of possessing this trait, and at the same time so happy because of it, that he was convinced that his cheerfulness and his inner contentment were due to this peculiarity of his. He was, however, in error as to this, because his cheerfulness and sense of happiness came from a deeper source, to which source was due the fact that he never dreamed anything senseless.

He often spoke of this trait of his to his friend. "My whole being," said he, with glowing eyes, "—my whole being is clear to me. In my thinking, as well as in my feelings, complete order and an inner harmony prevail; they are never in conflict with one another, and I always make every effort to keep this concord secure. Though I am not one of the great minds, I can nevertheless well say that my mind was never defiled by anything absurd or unwholesome, either in the waking state or in my sleep. My thoughts and dreams are branches from the same stem, and agree-

ably complement one another. I am *one*, indivisible; all other people are divided, and their two states, Waking and Dreaming, are nearly always at war with each other. Others reckon their lives according to their waking hours, about fourteen, or at most sixteen, out of the twenty-four; I can claim for my life all twenty-four hours. And always in harmony! No hour of my sleep ever blots out any hour of my waking state.

"What is, however, particularly agreeable is that I enjoy a wonderful variety in my existence: I enjoy life equally while waking, in uninhibited conversation, and during my dreams, when such conversation is restrained!"

But since his words were not clearly understood by all, he added: "I mean that I live prosaically and poetically: waking and dreaming bring to me often one and the same thing, however different in form and in representation. And you can hardly conceive how lovely all this is!"

SONG OF YOUTH IN THE DEPTH OF NIGHT

In the silent night man feels his great loneliness,
More lonely than in the endless desert, than in the wide open
sea.

Unutterably lonely within himself

He then peers into the depths of his soul.

Man rejoices to listen at night to the song of the nightingale.

He rejoices not in the song but in the melody.

The song of the nightingale awakens joy for life and the urge
to love.

However, how can the song of the nightingale compare with
the song of youth in the dark night?

While the darkness of the night shrouded the houses and embraced man in deep slumber, an old man of waning strength lay awake in his bed. Lying on his back, he stared rigidly at the ceiling of his room. A young girl, his grandchild, sat close to him, clasping his left hand in both of hers, looking at him steadfastly in the fading lamplight, while his labored breathing continually raised and lowered his chest and his long white beard resting on the bedcovers.

The expression of the old man's face, on which age, illness, and the stillness of the night weighed heavily, had retained without change the features of tired repose; when suddenly a song from afar was heard through the window, and a gentle movement of the sick man's face was noticed.

This song, which gradually became more audible, came from the throat of a young boy who, tired by his long playing with comrades all the evening, had fallen asleep in the street and, upon awaking in the late night, was singing in the darkness as he walked toward his home.

This song embodied no definite melody, but it came forth with peculiar clearness and great tonal quality; it expressed a child-like, healthy joy of life and innocence as it resounded in the deserted street and was lost in the endless distance.

The old man, whose face became more and more animated, although he was too weak to raise his head, gazed with inquiring, rolling eyes at the girl beside him; thereupon she turned her head quickly toward the window and back again to her grandfather, and said, "You mean the song of the boy?"

The old man made no reply. But in the meantime the boy came nearer to the sick man's house; his song rang out clear in the night. The invalid lightly clasped the hand of the girl and listened. He felt relief from an inner oppression that weighed heavily upon him; a powerful vision rose triumphantly in him; his eyes began to shine; his face became more animated; he was emotionally moved by a growing joy and delight in the world around him. As if in a trance he recalled the days of his youth: first, there appeared to him the image of his mother, then that of his father, both standing by his bed; then he saw his sister, and all their games and plays; then his friends; last, his sweetheart in her fairy-like form. His grandchild, who was sitting close by him, blended with all his dear ones into one loving group. He was deeply moved and stirred to affection for all the world, and his breathing became heavier and more rapid. Breathing thus for a long interval, his eyes filled with tears and from the depths of his being he uttered a deep joyful cry:

"May this boy be forever happy!
May all human beings be happy!"

The girl thought these cries to be fantasies of a fevered mind and gazed sadly at the old man, who gradually quieted down and soon thereafter fell into a deep sleep. The girl too, tired from wakeful nights, fell asleep; deep silence fell upon the room; the boy turned the corner into another street.

In a house on this street, in a brightly illuminated room, a man sat at his desk, pen in hand. Lost in deep thought, he had an embittered look on his face, for he was a disgruntled hater of the affairs of the world. On the upper margin of a page of a large folio before him, he had written in large, bold letters:

"WHAT SOURCES OF HAPPINESS ARE OPEN TO MAN?"

He had penned repeatedly this same question on all previously written pages, for every night, as tonight, he placed this question above all the observations he made of the events of the day.

He usually wrote the following reply under the question:

"A SOURCE OF HUMAN HAPPINESS IS THIS OR THAT."

He then sat silently lost in his own thoughts and continued his meditations; and at the end of these meditations he came to this conclusion: "This also is not a source of human happiness." Then he crossed out the written sentences of his observations, and wrote in haste and in anger the reason for his conclusions.

In this manner he had spent his time for over twenty years, with nothing definite to confirm his profound thoughts. And now, though he contradicted it many times, he wrote repeatedly the following:

"LOVE OF MAN IS A SOURCE OF HAPPINESS."

For a long time he remained lost in his thoughts, shuffling his ideas hurriedly back and forth. With a sudden motion he crossed out this sentence, hastily writing under it the following words:

"Sentimental man, beware of your need and desire to love men! Devotedly you give of yourself to them, but you never return from them as blessed as you went to them."

After a while he wrote again: "Should a man ever wish to call himself perfect, it would require at least two perfect men, as an imperfect one would not be able to evaluate properly the perfect one. Can one expect that they who meet should both be perfect human beings? . . . But peace! The world alone needs no other world; remain a hard-hearted hero, like the world—one, alone, and complete!"

Here he stopped, stretched the upper part of his body, turned his head to the window with his pen still in his hand, and listened to the song coming from the distance. Furrowing his eyebrows in a dark, angry mien, he rose from his seat, opened the window, and gazed into the dark night. Darkness reigned over the world; no stars were visible; the boy's song became more audible the closer he came to the house; but, as he continued his walk, it gradually faded and was lost in the distance.

After futile efforts to see the boy the man turned from the window. "An audacious boy!" he exclaimed, as he paced the room several times back and forth. Then he returned to his desk, sat down, and continued his writing on a new sheet, in slow, bold letters:

"Adults grope in the dark night to find their homes, with peace therein, and there they seek their happiness. They fear to walk

in the darkness; they stretch their hands timidly before them; they fumble with their staffs and their steps are uncertain; fear oppresses them, and they walk slowly. But this boy—he walks boldly ahead, paying no heed to darkness. This boy does not grope his way; he fears no obstacles, seeks no aim; he even sings! And he does not know that he seeks nothing and fears nothing! Confounded boy! I must call you a happy one!”

The man rose from his seat, walked again to the window, and listened. “Some day thou wilt cease singing!” he shouted into the darkness, in the direction of the boy. Then he shut the window and extinguished the lamp.

FRIENDSHIP UNTO DEATH

A man in advanced years lay on his deathbed. Slowly the door of his abode opened and another ancient, leaning on his staff, hobbled into the room; with difficulty he moved over to a chair and sat down close to the bed of his lifelong friend, to take final leave of him.

He bent slightly forward. The other raised himself a little, and put his left arm on his friend's shoulder.

These two had spent sixty years of their lives in close friendship.

The dying man stared with piercing eyes into the eyes of his friend. Now his friend had at times cherished evil thoughts toward him, thoughts never brought into the open. Suddenly these all came into the friend's consciousness: he could not endure the clear, honest, and loving look of the dying man's eyes—he turned his eyes anxiously aside.

Suddenly the dying man instantly understood what he had not realized in the sixty years of their association. All his remaining strength was roused once again, and concentrated in a final effort; his hands shot angrily and quickly toward the neck of his fancied friend, whose real attitude toward him was now disclosed. The latter, dead from fright, fell from his chair to the floor; the sick man fell back into his bed, utterly exhausted, sighed, and his spirit passed into the unknown.

KING ASOKA'S TEST

It is well known that no ruler contributed so much to the propagation of the teachings of Buddha as did King Asoka.

He himself, formerly a most cruel ruler, became, after accepting the teachings of Buddha, one of the mildest, most sympathetic, and most tolerant of kings; and this to such a degree as was not to be found among the rulers either of the East or of the West.

Under the name of Pijadasi, he issued edicts graven on rocky cliffs to perpetuate and to teach his people the authentic doctrines of Buddha. One of these writs graven on the rocks, which he issued in the twelfth year of his reign, was on a pillar at Guirna. It read as follows:

"In the past ages one saw everywhere only malice, wickedness of one creature toward another, and the killing of living beings. But in our times, during and since the reign of Pijadasi, King of the Deva, the voice of the law is heard and listened to, and wickedness of man toward man and killings have ceased."

Soon after the publication of these edicts the King visited one of the tribes living in the foothills of the Himalayas, where the teachings of Buddha had but a short time before been spread among the people. To test the virtues of this tribe, King Asoka decided, against the prevailing custom, to appear among them with the greatest pomp.

The King was nearing the capital city, and all members of the tribe were already informed of the royal visit and of the unheard-of splendor of Asoka and his attendants. The curiosity of the people, both high and low, was raised to a high pitch that knew no bounds. Thousands of men, women, and children stood, crowding closely upon one another, stretching their necks as far as they could, standing on tiptoe to behold the royal pageant and make sure of seeing the great splendor of King Asoka and his courtiers.

Since only those in the front rows could see everything well,

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those back of them could see but little or nothing at all of the royal retinue, even though they stretched their necks over the heads and between the shoulders of those in the front rows. In a short time those in the rear began cursing those who stood in front, and in their increasingly impatient anger they expressed the wish that every one in front of them might lose his head.

King Asoka foresaw all this, and prayed for the magic power to be able to fulfill such wicked wishes and desires; and so, in a sudden moment, one saw thousands of heads begin to drop off the bodies of the people; of those who stood in front rows, only children and dwarfs were spared and retained their heads.

After meditating deeply for a while, King Asoka turned to his ministers and said:

"Thus shall it happen to all who do not abhor the taking of life, the killing of other beings! But I do not wish to violate the precepts of Buddha. My compassion is with these people, and I grant them forgiveness. Let them all return to life; let them repent and do penance!"

Thereupon all heads rose from the ground and each returned to the body belonging to it.

CONFUCIUS SPEAKS ON LAW AND VIRTUE

Kung-fu-tze went to Tschen, on a visit, to interrogate Lao-tse on the customs of the wise in making people happy.

Upon his return home his disciples said to him: "Master, you have spoken with Lao-tan. What do you, Master, think of his opinion that when all men become kind and perfect, no laws will be needed to govern them?"

After Kung-fu-tze left Lao-tse he meditated a whole month on the latter's opinions and became very much angered over them; because he perceived them to be false and harmful.

While the disciples were thus questioning him, Kung-fu-tze rose suddenly from his seat to his full seven feet of height, his two glowing eyes staring penetratingly, his forehead widened, his back broadened; there he stood like the sublime Fang, with all his forty-nine characteristics emanating from him.

Thus spoke Kung-fu-tze: "These are the teachings of a hermit, whom we do not wish to imitate. We disapprove of such doctrines, for we must not link ourselves with birds or with savages. We shall take as an example neither the Northern nor the Western barbarians. While human beings have possible evil in them, a happy peace and a higher and better order of living in society cannot be attained without laws; neither are these attainable if human beings should be good, virtuous, and perfect."

Thereupon Tschung-kung asked: "Master, how do you interpret this?"

Kung-fu-tze replied: "When many people wish to enter a house through the same door, all at the same time, and they are so inconsiderate and unruly as to push one another, so that none lets another pass before him, it follows that then no one can enter the house."

"When many people wish to enter the house at the same time, and they are so kind and considerate as not to wish to pass before one another, and when each one wishes to enter last, so

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that none would be able to enter in view of the thousands of courtesies, who should be the first, and who should be the last?"

"Our formula in such a situation is one of order: each one knows his rank. Every one knows that the father walks before the mother, the mother walks ahead of the son, the son ahead of the daughter, and the elders walk before youth. Without a previously set order no one knows what he is to give or what he is to take; when he should remain sitting, when he should stand. For an orderly and noble style of living we must have laws, rules, and regulations."

CONFUCIUS AND THE DEAD HART

Kung-fu-tze, when he was still an overseer for the imperial granaries, came once to an inn during one of his inspection tours.

He sat down to table.

A hunter entered with a killed deer slung over his shoulders; he threw the dead animal into a corner of the floor, sat down to table, and joined his companions in drinking.

While the hunter was falling into a cheerful mood, Kung-fu-tze rose from his seat, walked toward the dead animal, stood before its body, and fell into a deep meditation.

Thus, for long, Kung-fu-tze stood before the dead animal giving himself over to deep contemplation.

A BATTLE OF THOUGHTS

Two men walked along the highway,
Always in silence.

Their steps were large and sure; they crushed the dust under
their feet.

These were two brothers; they were going to divide an
inheritance.

Neither one was one inch behind or ahead of the other.

They walked powerfully, stretching their legs forward—always
in silence.

THE HOUR OF DEATH

In one of the large wards of the city hospital, a young physician was called to special night duty because several patients were dying. It was already past midnight, and only a faint light, shed by several small lamps, illumined the vast space, which seemed to vanish in an endless darkness.

The attendants sat half-asleep in their deep armchairs; several of the sick turned restlessly in their beds from one side to the other; from time to time sighs and groans were heard, then again sudden stillness prevailed; in such manner the night wore on. The doctor, who was not supposed to sleep, reclined his arm on a nearby small table, resting his head on his right hand; frequently he looked, with tired eyes, around the ward. Despite the fact that his feelings were blunted from his habit of spending his daily hours in these halls, he was this night overcome by a heavy, gloomy mood.

"Here," he thought, "I see man's supreme sorrow! Outside, on the street, there is hustle and bustle—people run in all directions to attain their aims, nor do they for one moment think—for that they have not time—that they too will face this last hour, that their time too will come. . . . A carriage enters the hospital driveway, the bell rings, the door is opened, and the carriage rolls silently into the courtyard. What can ail the poor man who is now being brought in? . . . Is not the sight of all this worse than that of a graveyard? There pain and sorrow take form no longer; here they have a thousand faces—and what horrors! What distortions! How many heads of Medusa meet our eyes here! Each is more horrible than its predecessor!"

One of the dying men begins to move. The doctor rises, jumping quickly to his feet, and goes on tiptoe to the sick one; the sufferer mumbles several unintelligible words and lapses into silence.

A short while later his neighbor too raised himself with difficulty, elevated his head a bit, turned back a little from side to

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side, slowly, as if he were searching for someone, mumbled something as if in sleep, and fell back again on his pillow.

The doctor returned to his table, rose again, and remained standing still in the middle of the ward, his eyes steadfastly turned toward the two dying men. The first one moved again, uttering a deep sigh; he began to murmur as if making an effort to talk; the doctor moved closer to him and asked: "Why do you sigh so heavily?"

"I, unfortunate," replied the sick one in hesitant sentences, "I am nearing my end!" and after a pause he continued: "It is not because of this that I mourn."

"Have you any pains? Where does it hurt you? Perhaps I can ease your pain."

"Yes, I am in great pain, but you cannot help me. You, with all your knowledge and art, cannot help me! And do you know why I sigh so heavily?" The sick man turned slowly from one side to the other and continued: "Because I was . . . because I was always told—I was told over and over again: 'Arrange your life in anticipation of your last, your dying days'; and, miserable creature that I was . . . I hearkened to those words, to this advice!"

The doctor opened his eyes wide; he could not believe the words he was hearing. "What do you want with all this now? Calm yourself and try to sleep." He spoke gently to the patient, softly caressing his bedcover.

"Here I lie now," continued the sick one; "in a few hours all will be over! Who will reimburse me for all the pleasures of which I deprived myself during my life? Who will return me all the opportunities I had to snatch a little happiness out of existence, which I let pass?" Having said this, he began to sob loudly. "What am I now? What was I all my life long? Less sensible than an animal, more stupid than a block of stone. Woe to me—why was I born? What have I lived for? To have lived so long, laboring, worrying, and struggling!"

Sobbing and groaning, he fell back into his former apathy, mumbled another few sounds, and seemed to fall back into sleep.

Silence fell over the ward.

After a while his neighbor raised himself in his bed.

"Woe! woe!" he screamed in terror, and raised his hands as if to ward off some one.

"What is it? What's happening to you?" exclaimed the doctor, who hurried over to his sickbed.

"Woe to me, unfortunate, poor sinner!" cried the sick man. "All my life long I ran endlessly after every conceivable pleasure and never gave thought to my last hour! What will happen to me after death? . . . I have always sought after pleasures only, giving no thought to the hereafter! . . . 'When my life is finished,' I thought, 'all will be an end'; so I ate and drank, loved and pursued all the joys of life, giving not a single thought to tomorrow—to what is to come. . . . But the hereafter is about to arrive! It comes now! Save me! Stand by me!"

Thereupon he uttered such terrifying cries that all the sick in the ward were awakened and raised themselves in their beds.

The doctor bathed the sick man's forehead with cold water, applied smelling salts to his nose, and soon he quieted down. Again silence reigned in the ward.

Toward morning both these sick men had passed.

But the young physician was deeply shaken by the experience of the night. He could hardly await the morning hour to relate these incidents to the chief of the hospital staff. The latter, an old and wise doctor, and as such also an important person, was like a father to everyone in the hospital—to the patients, the attendants, and the physicians—a leader to whom one could always come for counsel and advice.

"What do you say to this?" the young doctor asked him. "I find these two scenes too horrible to contemplate. The contradiction gives me no peace. I could answer neither sufferer—I could offer nothing to the dilemma they posed. For each may have been in the right. We human beings are therefore faced with despair!"

The old doctor replied: "You take these contradictions too seriously, because you take the whole episode too seriously. The last moments of our existence are of no greater significance—surely of much less—than other hours. Even the agony of death is very often surpassed by many of the sorrows and anguish of life. The suffering of death is only a naked border line—an extreme point—and nothing more. Beware of ascribing to it any lofty significance or any fictitious philosophy.

"It all depends on the totality, the sum of one's life—and this every one may arrange to his liking, as it appears best for him. We live for life—by no means for the hour of death!"

AFTER THE BATTLE

Night fell, the battle was ended.

Stillness came over the battlefield, which was faintly illuminated by the full moon; the wounded wailed; their strength was gradually weakening; occasional firing of cannon could still be heard in the distance; the ambulances, with doctors and their attendants, rolled slowly among the rows of dead and wounded to succor and bandage the latter and transfer them to nearby hospital stations.

Then not a single upright-walking human being was to be seen on the entire wide battleground, when suddenly a woman moved slowly forward on the field. As she passed along the rows of the dead and wounded she bent over every officer she found lying in the field, raised his head, face upward, and looked into his face; raising with difficulty from each gaze, she continued with staggering steps to the next officer, to view his face also; and so she continued her wanderings, but was always disappointed.

After nearly an hour of painful and fruitless effort, she sat down in exhaustion on a grass-covered slope, to rest and gather new strength for continuing her search. She sat motionless on the turf, listening to the whimpering of the wounded and staring rigidly over the expanse of the battlefield.

"Where can my Arthur lie?" she whispered to herself, and began to sob and weep. But suddenly a form nearby began to stir, a form that lay in the shadow of the grass-covered hill, where the woman had been unable to see. A head raised itself with difficulty and groaned, as the full moon shone brightly over the dead and wounded warriors.

"Arthur!" screamed the woman, with a piercing, penetrating cry, and fell dead beside her dying husband. The woman, however, was in the last months of pregnancy, and, in her terrible fright, she gave birth to a boy, who came into the world wailing and crying.

The woman's shriek and the wail of the newborn child were so unusual and stirring that the wounded soldiers scattered about became attentive, despite their own pains and sufferings. They raised their heads searching for the spot whence the baby's cries came.

A babe crying in such a place and at such a time—a crying that seemed never to cease—awakened in the wounded, until now able to think of nothing but themselves and their own sufferings, such great feeling and curiosity, such emotion and animation, that with their last feeble efforts they began to crawl closer to the child. Both soldiers and officers crawled on all fours with difficulty, groaning from pain with every forward move, all converging toward the place where the child lay. None of them were able to stand upright, but must crawl toward the baby on their knees, and then they noticed the corpse of the mother lying next to it. Thereupon they forgot their own pains and sufferings and all broke into tears.

An old officer grasped the dead woman's hand and pressed it reverently to his lips. All kept wiping the tears from their faces as the officer began to speak tearfully, in a weak voice, interrupted by the agony of his own wounds, to the kneeling soldiers around him.

"Comrades! my poor comrades! All of us here—all—all of us have today loyally fulfilled our duty! No one can reproach us in the least. We have wounded and killed other human beings, and they too have wounded and killed us. This was our duty—we fulfilled it on the field of honor; this was our task; for this we are gladly ready to die.

"But look you at this woman!"—at this moment all began to sob—"look at this poor child! We? We gave our lives to take the lives of others; this woman, however, gave her life to bring forth new life! What greatness is here in this woman! Who will erect a memorial to her? Who will inscribe an epitaph for her? Who will speak of her in books? Who will recount her sufferings?"

Thereupon a second officer began to speak in a trembling voice: "I die on the field of honor, and yet with a feeling of deep humiliation. Truly we have all fulfilled our duty; it was perhaps important that our country should place this duty upon us; but woe to us that we were not called on for loftier duties! How we

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boasted in time of peace of the important positions we occupied! How we exaggerated our importance! What do we amount to in the presence of this woman? What meaning is there to this great, horrible field of battle compared with the sublime place where a new human being is born!

"What high duty is conferred by nature on a mother! She knows she is being deceived by desire, perhaps to purchase short happiness by death; in joy she takes over, but in pains she fulfills her sacred duty!"

Shortly after another one spoke, who during this whole time had kept gazing at the child. "Thou small human creature," he said; "what are you doing amongst us? Do you perhaps cry because you are not pleased with us, because you are not pleased to be in our midst? Thou poor one, thou wilt some day be compelled to do as we are doing now. Surely your mother did not mean it thus, when she brought you into this world. Well for her that she passed away before she ever saw you, as she has heretofore seen us!"

As the strength of this speaker faded, no one else spoke, but one after the other took the hand of the deceased mother and pressed it to his lips with reverence and emotion.

When the last one of the soldiers had kissed the cold hand, an ambulance came rolling on the field—its crew had seen from a distance, in the bright moonlight, the kneeling group. They placed the dead mother and the child in the wagon.

THE WORLD'S OUTCRY OF ANGUISH

Two friends wandered through the night on a country road, which led through a plain into a small town.

A narrow sickle of the moon, often covered by passing clouds, faintly illuminated the countryside; there was no traffic on the road, all human activity was stilled, the many small villages were invisible, and no window showed any light.

The two friends, alone in this dark, endless plain, felt more and more lonely, as if in a different, unknown, and ill-boding world, which they now had to traverse. All subjects of conversation were already exhausted; they had discussed all phases of their own affairs, as also all possible themes of general interest, and now they wandered on, each lost in his own thoughts, as though they were miles apart. Each one brooded, half feeling, half thinking, in abstract aimlessness.

Suddenly they heard, as if from an endless distance, a prolonged cry which first swelled in the darkness and was then lost in infinite space. Both listened, turning around to see whence the cry had come. Then, without speaking, they looked straight ahead into the endless darkness and continued their walk.

After a short while another cry penetrated the night, a cry similar to the previous one, as if coming from some human giant in terrible agony. It rose gradually, then, as if in fearless effort, the cry fell and faded away, until at last silence prevailed. It was so soul-stirring that both wanderers became heart-sick.

"Have you heard this cry?" asked one of the other.

"I even heard it twice."

"I heard the first one too; at first I thought I was mistaken—I did not trust my ears; but it was really so. Some one actually screamed."

"What anguish, what agony was this! It gripped my heart; what could that have been? What kind of a cry was this? Was this a call for help? Could it have been a human being?"

"This cannot be the cry of a human being," replied the other.

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"It sounds human, but it could not be; no man has a voice so powerful."

"Then was it, perhaps, the cry of a beast?"

"It was not the cry of a beast. I know all the larger animals that roam through these parts. None of them has so powerful a cry as this."

Deeply shaken, they walked silently side by side. After a while one of them spoke anew:

"What do you think? Whence and from what direction did the cry come?" At this moment there rose again a long-drawn, piercing cry of anguish, bringing the two men to a standstill.

"This one came from the very depths of the earth," said one. "I noted carefully whence it came."

"I too," said the other; "but I believe it came down from the heavens, far beyond the clouds."

"If you believe it came down from the sky, and I believe it came up from the depths of the earth, I shudder to believe either, but say that both are true!"

"Do you recall any old legends?" began one again.

"Which legend could help us here?"

"The old Germans believed that Wotan hovers over the tree-tops, at night riding through the land mounted on a white steed. He is on a chase, and goes yelling through the night."

"How can Wotan help us here?" replied the other after a short pause. "But they would not have conceived Wotan as hunting and yelling through the night, had they not heard, as we have now heard, the terrible cry. . . . Besides, the hunter's cry has not this painful quality. What we have just heard cannot be a hunter's call; a hunter is a killer—the cry we heard was not a killer's; it may have come from one who was being murdered."

"I grant you this," replied the other, and they continued their walk in silence.

"Should what presently comes to my mind be true," began the last speaker soon after, "I would then understand the cry; it could really be the anguished wail of a murderer's victim. Don't you believe that the last cry of the Son of Man on the cross could be prolonged through the centuries? And through all eternity? Not audible in the bustle of life, in the daytime, but ringing in the silence of the night. Could it have been the wailing from the cross that we have heard?"

"No!" replied the other, whose fantasy was becoming more delirious than that of his friend. "The wailing of the Son of Man was audible only to those close to the cross who saw in him the human being. The greater the distance in space and time, the more it changed into a most glorious song; a most consoling and most sublime song of the spheres; a true harmony which always pervades our world, the divine Swan's gigantic last song! . . . No, that cry in the distance was not the cry of the Son of Man."

"I was once told," said the other in deep emotion and in a faint voice,—“it is, however, very odd: when the Son of Man was on the cross, yielding to his unbearable agony, and was about to ask for a revocation of his mission, entreating to be taken off the timber, a terrifying voice called over to Jerusalem:

“Do not surrender to your tyrannical father! Persist, endure! That is what I too did!”

“Who would supposedly have called?”

“His older brother, Prometheus, calling from the Caucasus, he, like the Son of Man, was sacrificed by his God-father, because he loved mankind and wished to make them happy. And when the Son of Man heard his brother's voice, it is said, he became silent and cried no more.”

“This is terrible to contemplate,” said the other.

Their talk ceased, and they continued their walk in silence, with more foreboding thoughts on their minds, thoughts darker than the black, dark night which enveloped them; every moment they expected and feared to hear again the fierce outcry.

They heard it once more—not quite so loud as before, but in a more wailing strain, more sorrowful and longer-lasting; so that both began to shudder.

“Hear,” one of them began again; “let us leave Prometheus and the Son of Man alone! I can now see what is happening to us: we feel and fear the atmosphere of a graveyard! Even right now in the night the world revealed to us its inner essence!”

“You are right,” replied the other; “what we have heard actually is the ‘World's outcry of anguish!’”

“The World's being's eternal cry. Behold, behold! how calm! yet in quiet, constant emanation the darkness extends into the infinite and absorbs the endless past of distress and crime all over the world, like an immense sack filled with the bones of

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the dead! Is it to be wondered why this world cries in anguish ten times daily?"

"I am dreadfully frightened!" said the other; "I hear the millions of sighs, agonies, laments, and the immeasurable volume of wild anger, wicked curses, and suppressed rage. Whither go all these terrifying sounds and cries?"

"They must remain within the universe, saturating it more and more!"

"All terrors of the past remain; the present brings forth new ones, leaving past ones ever unremoved."

"Is not the world bound to be suffocated eventually in this endless fullness of pain? When the world begins to sleep and dream at night, must not all this break through endless space and resound through all the universe?"

"And yet the sun mitigates the world's anxiety and deceives us easily as to its true nature. But the darkness of the night is in truth the light, which illuminates the world and shows us what is real and true."

"The sunlight of the day mitigates and deceives; but you have forgotten that we laugh too. May every moment of laughter be blest! Man's laughter eases our burdensome lives no less than does the sunlight, which in a measure dispels the horrors that fill this world. However, day must give way to night and laughter to crying. Night and tears alone endure."

"When the night wind sighs and the world anguish groans, whither shall man crawl to find shelter? It makes my heart ache!" said the other.

They continued in silent grief. Then one of them suddenly exclaimed: "O happy moment! I see light! I see human abodes; let us hurry; there perhaps we shall find relief."

It was well after midnight when they at last reached the first outskirts of a little village. With a deep sigh of relief the two travelers emerged from the darkness into a brightly lit tavern.

BAAL-SHEM'S "SANCTIFICATION OF A SABBATH" ¹³

As is well known, the Baal-Shem always had a great longing to visit the Land of Israel, the Promised Land of his ancestors. After prolonged uncertainties and delays he at long last decided to undertake the pilgrimage and started upon his journey.

He set out early one Friday morning on his way, and hoped, before the beginning of the Sabbath, to reach the nearest large congregation; here he had hoped to preach during the morning prayer service on the theme of the Land of Israel. The Baal-Shem, seated in his cart, devoutly said his morning prayers, while his starved beast—a frail little emaciated pony—trotted along, cheerfully drawing the cart while the driver, in a pleasant mood, playfully cracked his whip.

As long as the morning prayers continued, the weather remained clear and friendly. But they were scarcely finished when the skies became gloomy; dark, threatening clouds rolled over them and thunder and lightning followed. A torrential cloudburst made further traveling difficult and a continuation of the journey impossible. The Baal-Shem took this as an admonition from Heaven that he desist from the pilgrimage. "Why should the Eternal One disapprove of a journey to the Holy Land?" thought he, and in his doubts he prayed that the Lord might speak to him in a distinct voice. Immediately there resounded from above a Voice which proclaimed:

"Should the Baal-Shem come to the Land of Israel, the Messiah too would have to come, for whose Advent the time is not yet ripe."

¹³ Published in the *Wiener Morgenzeitung* (Vienna Morning Journal), 1920. Baal-Shem-Tov (1700-1760) Hebrew, meaning "the man with a good reputation"), founder of a Jewish religious sect known as Chassidim—pious, most rigid adherents of Judaism—was born in Okop, Russia, and taught in Galicia. Learned in Talmudic lore, he was in turn teacher, and worker in a clay-pit. He spent most of his time living as a hermit in a hut in the woods, where he learned of the healing power of various plants. He prescribed herb remedies and prayers to heal the sick in the villages, and became known as the Baal-Shem, the man with a reputation. His fame spread, and pilgrims from distant places visited him. The Polish nobility and the poor Jews and Gentiles alike came to Baal-Shem-Tov for miracles. He believed in

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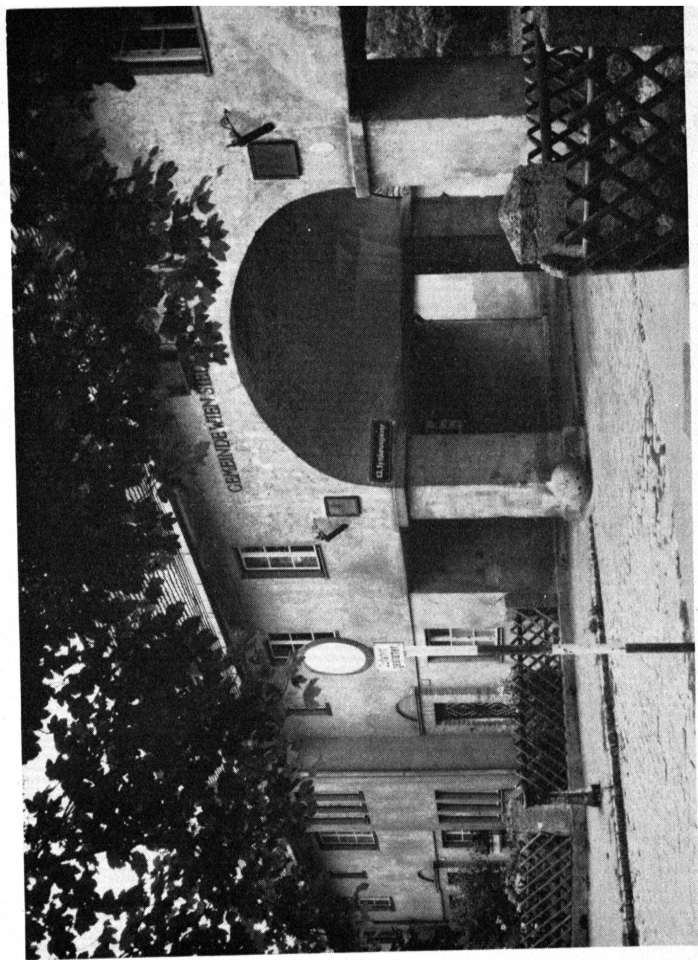
In consequence of this divine Voice Baal-Shem abandoned the continuation of his pilgrimage.

Since he was deeply grieved that he had not been able to see the Promised Land, Baal-Shem prayed to Heaven that he might, as a consolation, experience something very remarkable and beautiful, something that would gladden and elevate his heart; surely the Eternal One knows that the Baal-Shem never willingly grieves for long, but is grateful to God for every little joy, for is not all gladness a gift of the Lord, blessed be His name! And so he enjoined the driver to turn the horse and cart back and return home. On this day, indeed, the Baal-Shem was sixty years old, but his was a nature as cheerful as that of a twenty-year-old youth, so in a sure and cheerful mood he had faith that his prayer would be granted. During the entire return journey he meditated only on the unusual and beautiful experience that Heaven might grant him. "Probably," he thought, "some powerful prince may meet and greet me before the eyes of all people, as a reward for my obedience to the Voice of God. Who knows? Perhaps a very beautiful lady may especially inquire for me, and even congratulate me and invite me to meet her. One can never know!"

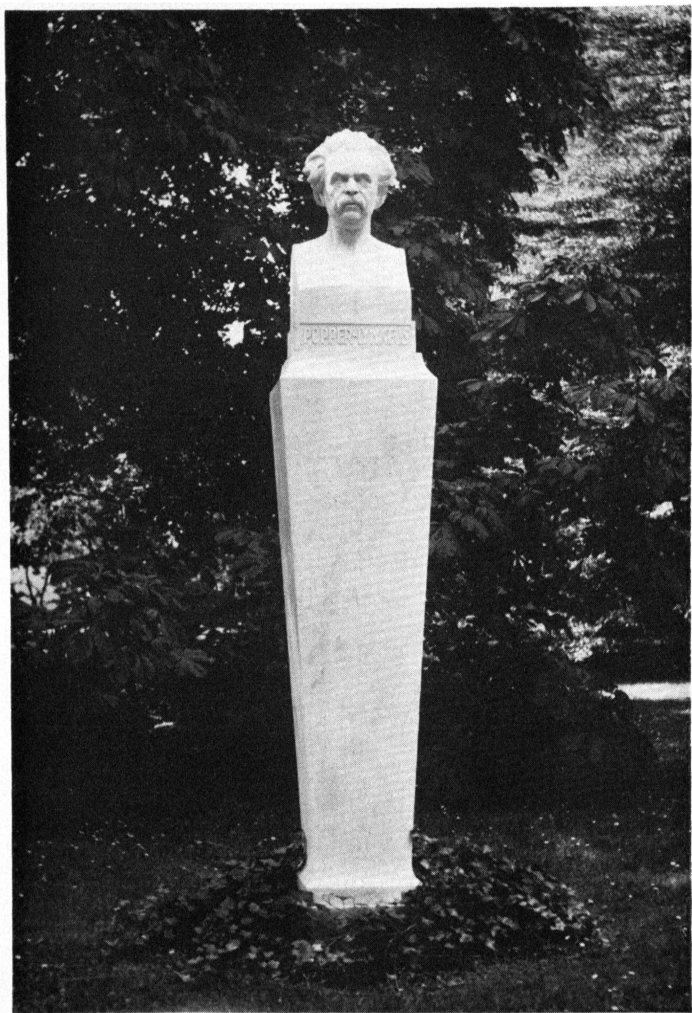
He urged the driver to travel a little faster, so that they might reach home before the beginning of the Sabbath; and so they did reach home on time. The cart was halted at the gate of the small front garden belonging to the house of the Baal-Shem, and the latter stepped out of it in a somewhat dejected mood because nothing unusual, nothing beautiful, happened to him on the road. He paid the driver, took friendly leave of him, opened the gate to the garden, and was about to enter his house. But hardly had he passed the doorway when he heard behind him the patter of the horse gradually coming close to him. Turning, he saw, to his great surprise, the diminutive horse shuffling

worshiping God joyously, and led others to believe that man is nearest God when he rejoices, not when he sorrows; wherefore it is well to eat and drink and make merry, that we may come close to God. Baal-Shem-Tov also taught that the doors of repentance are always open, so that one's occasional sins should not make one despair; and that learning is not necessary in order to gain favor with God—that the prayers of the unlettered, if they are happy, are as acceptable as are those of the learned. This new idea gave great comfort to the ignorant workers who had no opportunity to give much time to the study of Hebrew, and who felt that God is far from them and inaccessible. Baal-Shem-Tov's thousands of disciples showered him with gifts, and he, their leader, distributed everything to the poor.

(*The Columbia Encyclopedia*, Columbia University Press, New York, N. Y.)



View of Lynkeus Street in Vienna, Austria



*Monument erected by the City Council in City Hall Park,
Vienna, Austria*

along toward him. The Baal-Shem did not move from his place. The brave animal, however, stood before him and began to speak:

"See here. You took friendly leave of the driver, though he did nothing but crack his whip continuously to encourage me, which was entirely unnecessary. He sat there comfortably in the cart, letting me pull the two of you along. Me you have entirely forgotten. Have I not done all the laboring? Without me and my brave behavior, you would not have reached home in time; if I had not run diligently you would not have arrived before the beginning of the holy Sabbath. Why have you shown me no appreciation? Not even a friendly word of leave have you said to me."

After these words, while the Baal-Shem stood transfixed with surprise, the horse raised his right foreleg, extended his foot as if in greeting, and said: "Thus I give my greetings to you, but let us remain friends forever."

Thereupon the one thus addressed grasped with his right hand the little horse's hoof, shook it heartily, and declared: "Yes, you have worked gallantly, and you are deserving of my thanks! Praised be the Eternal One, who acknowledges and rewards all labor and knows how to admonish us not to forget the workman! Praised be the Lord, who manifests His glory, too, in the animal, and who has favored me in letting me behold this most unusual and beautiful thing!"

Thereupon the horse neighed joyfully, turned about, and ran back to its cart, to let itself again be hitched to it.

The Baal-Shem, however, stepped into his house, greeted his wife, and began to intone and to hum the melody of "Lekhah-Dodi,"¹⁴ and to greet the Sabbath more joyously and with a clearer voice than ever before.

¹⁴ "Lekhah-Dodi" ("Come, my friend"), hymn for the service at the beginning of the Sabbath, written about 1540 by Solomon Halevi Alkabetz. (*Universal Jewish Encyclopedia*, New York, N. Y., 1942.)

THE RIGHT TO LIVE AND THE DUTY TO DIE¹⁵

Josef Popper was forty years old when, for the hundreth anniversary of the death of Voltaire, he published his *Das Recht zu leben und die Pflicht zu sterben* (1878), in which he foreshadowed his socio-economic ideas afterward set forth in his major sociological study, *Die allgemeine Nährpflicht als Lösung der sozialen Frage* (1912). This earlier work contains the germ of all the ideals on humanism, for a better life, for a better social order, later enunciated by him. It contains the fundamental principles for the life work of this great scientist, poet, and philosopher. Here the main ideas of the absolute and inalienable right of each and every individual to esteem and protection are fully developed for all spheres of human existence. He speaks of the absolute right of the individual to the sanctity of his life, as against conscription for military service for war as an equivalent to a form of compulsory death in times of war. He speaks of a socio-economic order in society guaranteeing to each of its members the essential basic needs for a secure existence. He speaks of faith, of religion, of crime, criminals, and punishment, and for a new concept for a code of criminal law applying to offenders against the security of society and its citizens.

The climax of this thesis for a new, modern concept of a better world order, is found in the chapter on Voltaire, "the not sufficiently known and appreciated real liberator of man, the champion of civilized society."

¹⁵ "*Das Recht zu leben und die Pflicht zu sterben*" (i.e. "Compulsion to die in warfare through conscription").

PRINCE BISMARCK AND ANTI-SEMITISM ¹⁶

In an attempt to direct the socialist tendencies of the working people and of a large segment of the middle-class population of Germany, Prince Bismarck, the chancellor of the First German Reich, sought to turn their thinking and political orientation in an anti-Semitic direction, emphasizing what he termed "Christian thought" as the basis and foundation of the German state. In an objective and unbiased manner, Popper traces the development of anti-Semitic thoughts and tendencies directly to the political speeches of the German Reichschancellor.

To the masses of the people, men of science and learning, such as Eduard von Hartmann and Eugen Dühring, provided the pseudo-scientific confirmation. Popper, the great humanitarian and champion of human rights, sits here in judgment on these antisocial, anticultural tendencies and the economic and political foundations of anti-Semitism. Point by point he exposes all these untenable and unfounded attacks against the Jews. He appeals to the Christian world and likewise to Jews to exercise the sense of justice and fair dealing inherent in all right-thinking people.

This work of Josef Popper is as timely today as it was in the early era of struggle against hates and racial prejudices. It is admirably adapted to advance present-day ideals of peace and reconciliation among all peoples.

FUNDAMENTALS FOR A NEW CONCEPT OF A POLITICAL CONSTITUTION ¹⁷

In 1905, between his sixtieth and seventieth years, Popper published two works—*Voltaire* and the *Fundament eines neuen Staatsrechts*. He says: "The juridical concept of the state is founded, *a priori*, on the highest esteem for every individual

¹⁶ *Fürst Bismarck und der Antisemitismus* (1886).

¹⁷ *Fundament eines neuen Staatsrechts* (1905).

being—for the humblest and most insignificant among us, even for one of a low moral character, as long as he does not impair or jeopardize the lives of others.” This, Popper considered as a most fundamental concept for human relations, and also as the foundation for the concept of the state as a juridical entity. All reforms, all aims, within the state, therefore, must have in view the welfare of the individual, every individual, in society. He should be free to live happily throughout his natural term of life, within a society guaranteeing him a minimum for subsistence so far as this is feasible within the national economy.

If society, or the state in its name, should demand the life of anyone, in any way, it should be left to the decision of the individual whether he is willing to sacrifice his life for God, country, or science. If a large majority of the citizens express their desire for some social reform, to be accomplished by such means only, it would require but little effort to bring about its realization.

The abstract idea of the state is merely the sum total of individual men, women, and children living within the geographic limits of a certain territory and within the form of certain traditions. It is they who give the “state” its reality, its concrete form. The state therefore should guarantee each of its component members a secure existence, and free him from conscription for military, or war service, which is a form of compulsory dying.

The state must provide that each of its members may develop his personality harmoniously, and likewise his natural talents and abilities. From whatever point of view we may take of life, one thing stands out as a certain, undeniable fact—that we must live. Confronted with illness or want of the basic needs of existence, we realize that all our dreams, all our philosophies, art, science, and even often religion, come to naught in our daily struggle to sustain life. Raw, naked as nature itself, as if we had just been born, we are confronted with the inevitable question which must find an immediate answer—“How can I satisfy my physical needs and continue living? How can I provide my dependents with the means to sustain life?” This is the main problem—it cannot wait; it must have an immediate reply. All other problems pale into insignificance. The past, the future vanish as in a mist; they shrink to a single point in eternity. The present only seems endless, a limitless eternity.

When children are born it is our duty to nourish them, to shelter and rear them; when they grow older they are expected to shift for themselves. What if conditions in society are not equally favorable for all? Is not the duty of society as a whole—of the state, the sum total of society—to care for the well-being of all?

*VOLTAIRE: A CHARACTER ANALYSIS IN CONNECTION WITH STUDIES IN ESTHETICS, MORALS AND POLITICS*¹⁸

In this work Popper rescues for history the name of this great man, whom history has often neglected and forgotten.

It is the irony of historical facts that there must arise a man such as Popper to save Voltaire from his detractors. To have been able so deeply to penetrate into the life and history of another human being, to bring him to life again, revived for us—this was an accomplishment as outstanding as it was unusual. Two great men clasp hands across the centuries.

Josef Popper defends Voltaire against the lack of appreciation shown for him as a poet. "There is no other criterion," he says, "for the appraisal of a work of art, except through its influence on the minds and emotions of people. The influence Voltaire's poetry exerted on the chief thinkers of his time, marks him out as a great poet." Popper champions Voltaire against the malicious suspicions leveled against him. Voltaire's life was a continual battle for the freedom of all mankind. He fought to free men from the terrible influence wielded over them by the clergy of France, from the evils of superstition, and from the maladministration of many of the laws of the land. Last but not least Popper pleads for Voltaire as a human being. This is the main thesis of the book. He re-creates with loving hands the image of this great and noble man, whose faults and shortcomings are now intelligible as ordinary frailties of mankind—part of the total picture of all of us. Popper reveals to us the

¹⁸ *Voltaire. Eine Charakteranalyse, in Verbindung mit Studien zur Aesthetik, Moral und Politik* (1905).

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childlike nature of Voltaire; his foibles and shortcomings appear as those of an overgrown boy, a talented child, who retained his impulsiveness and naïveté to the end of his days.

When we consider that, except for Montaigne, no one contributed more, as far as human nature is amenable to restraint, to curb the savage fanaticism and intolerance of the European than Voltaire, we must conclude that no one like Voltaire encouraged man to use his reason and also to participate in the joys of life, which are far more essential to his well-being and a blessing to him than all that science, art or technical progress can offer us. It saddens us to see that Montaigne is considered only as a clever, informal essayist, while Voltaire, the great humanist and moralist, because of his peccadilloes, is considered a personification of all that is evil, and regarded also as a clever witticist. In this book Popper presents his entire system of social philosophy in all its various phases, and puts Voltaire in his true place among the great men of European culture, a place he justly deserves, but which has hitherto been denied him.

THE INDIVIDUAL AND THE EVALUATION OF HUMAN EXISTENCES ¹⁹

Here Popper emphasizes every individual's right to exist. All life is sacred; no man is justified in sacrificing the life of his fellow man against his will. No one should be compelled to die for an ideal except of his own free will. To kill another for one's own ideals is murder, in any case, no ideal is lofty enough to justify such sacrifices. Popper was equally opposed to capital punishment and to compulsory military service in time of war. He fought against the absurdity of the state's conduct in forcing its subjects to die, while it does not even guarantee them the necessary subsistence minimum for living.

This is where Popper the man reveals himself most strongly and clearly. He endeavors to awaken sentiments of the highest esteem and reverence for life and the dignity of men, whether

¹⁹ *Das Individuum und die Bewertung menschlicher Existenzen* (1910).

they be ever so humble or insignificant in the social scale, or even of a low moral level, or of superior qualities, physically, intellectually, or morally. He pleads for a system of education at home and in our schools which will develop these sentiments as a primary aim in human relations. He hopes for an awakening of a sense of piety among us which will form the basis for a culturally ethical existence.

Popper chose the following motto as an introduction for his book:

Fundamentals for the Ethical Social Order:

“When some one, be he ever so humble or insignificant in the social scale, some one who never intentionally harms or jeopardizes the life of another human being—when such a man loses his life without his consent or against his will, this is a more important event than all political or national events, more than all scientific, artistic, or technical achievements of all peoples of all times. Whoever should consider this an exaggeration, let him think of himself, or of some one dear to him, as if he were that individual who is about to lose his life; he would then understand, and immediately believe what we mean.”

*WAR, CONSCRIPTION FOR WAR AND THE STATE
CODE*²⁰

This last work of the social philosopher is the culmination of a lifetime of effort for the welfare of man and the assurance of the integrity, inviolability, and dignity of man's life. The rich content of Popper's ideas, which must impress us more deeply after the experiences of two world wars, shows such a keen mind, such a high ethical sense, above all, such a high regard and love for man, that for these things alone it deserves to rank among the great achievements of the human mind. The ideas set forth in this book will for centuries to come find their rewarding and appreciative echoes in the minds of enlightened men.

²⁰ *Krieg, Wehrpflicht und Staatsverfassung* (1921).

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This book contains an historical, critical analysis of the concept of the state of present political and diplomatic orientations. Popper here speaks on nationalism and patriotism, on the general aspects of military service, on conscription as against voluntary enlistment for warfare, and on politics and morals. He says: "We cannot, with any degree of certainty, foresee or affirm that war will ever cease to be a factor in international settlements."

However, should war as a mass manifestation among people forever continue to be a means of composing differences among nations, it is possible, Popper believes, to eliminate war as a factor in the life, destiny, and welfare of the individual citizen.

We must replace conscription for warfare, in the army, navy, and air force, with voluntary enlistment for war duty, and we must maintain this form of military service independently of all future changing social and political institutions. The voluntary war service that Popper visualizes has nothing in common with the various recruiting forms of present or past times; there are no mercenaries in any form whatever. However, every able-bodied man must in times of peace be trained in military practice after he has reached a prescribed age, over a period determined by existing laws. He must serve in the militia or in skeleton troop formations for internal national defense and as a reservoir for voluntary enlistment in case of war, if it should be forced on the country.

In case war is anticipated or we are attacked, members of the above-named military bodies or skeleton formations are called upon for voluntary enlistment for war service. No one should, against his will, be forced into war service; it should be left to the patriotism and conscience of each individual whether he is prepared and willing to risk and possibly sacrifice his life and limbs for any reason or purpose whatever. The call of the state for volunteers should be the only means of recruiting for war. This idea is fundamental with Popper in his respect for the individual and his reverence for human life as he enunciated it in *Das Recht zu leben und die Pflicht zu sterben* (1878) ("The Right to Live and the Duty to Die"). By "duty to die" Popper means virtual compulsion to die in warfare through conscription.

The advantage of voluntary enlistment will rest in the fact that every individual will decide for himself whether or not he will sacrifice himself in warfare. He is, therefore, in this fun-

damental question, independent in his decisions and free from all coercion. This idea, if universally approved and accepted by the family of nations, may help to minimize the frequency of war's occurrence. This follows because, if enlistment for war is left to the decision of the people, the statesmen and politicians will hesitate in their intrigues and warmongerings, since neither opponent in a dispute that may bring on war can be certain of the number of volunteers that may enlist for a war adventure; no certain calculation would be possible in that direction. Popper believes that there is an inherent justice in this proposed system, since he who advocates and desires war, and those like him, can participate in it, while those opposed to war need not participate.

Inasmuch as Popper advocates the protection of the individual against conscription, it is to be assumed that in case of war the opposing participants will respect international conventions and leave inviolate the health and life of noncombatants so far as actual conflict is concerned. (Unfortunately we have seen these conventions brutally violated in both the First and the Second World Wars, and recently with weapons of nuclear fission as instruments of colossal destruction; it may, therefore, be vain to indulge in Popper's pious hopes of saving human lives or of safeguarding civilian properties against the savage use of such instruments.) But even if international conventions should not be respected among so-called civilized nations in times of war, the introduction of voluntary enlistment for war, on an international scale, may greatly aid in reducing the frequency of wars.

"Another very important problem that has troubled man's mind is the moral consequence which wars invariably bring in their trail. This contradiction has always existed between war morality and moral concepts in times of peace. In peacetime we consider the sanctity of human life, of liberty, and of the property of our fellow man as inviolable. In times of war we are being encouraged to wound and kill as many of our enemies as possible or to take them prisoners, and to destroy as much as possible of enemy property. In times of peace dishonesty and reckless profiteering are considered immoral; in times of war all this is permissible and encouraged. It is to be practiced against the enemy, and since most of the nations, even in peace-

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time, continue to increase their armaments and preparations for war, this contradiction in moral values is being condoned among nations even in times of peace. There is always necessarily a possible antithesis between peace and war morality. . . .

"The two world wars, caused chiefly as a result of economic consequences in the beginning, enhanced to a degree the devotion, the patriotic virtues, of the people. However, in the course of the war, as it continued for a longer period, many of the nobler qualities began to deteriorate, and this resulted in ruthless power politics and the cruel efforts for total destruction of one's opponents, and disregard of all covenants entered into in peacetime among the family of nations; calumny and defamation became permissible means of combat. At the outbreak of war we saw devotion to the homeland and great personal sacrifices; later on we saw the qualities and restraints dominant in peacetime deteriorate and disappear. Profiteering and crimes for gain became matters of common practice. Selfishness and self-interests came to the surface and dire political changes were brought about by economic necessity. All the corroding effects of war-greed and debasement of man's character became evident everywhere. History's progress so far has not been able to bridge the crying contrast between the morals of peacetime and war morality. The last decades have shown a frightening increase in armaments competition among the nations of the world; this is creating a tinder-box that may explode at any given moment. . . .

"The predatory spirit of warfare, a heritage of man's primitive nature from ages past, has often consciously been cultivated by the leaders of the states, so that the deeds of valor on the field of battle may be deeply inculcated and planted in the education and bringing up of children."²¹

In his work *Zum ewigen Frieden* ("To Eternal Peace"),²² Kant quotes an ancient Greek saying: "War is herein evil, that it creates more wicked people than it takes away from us."

"Cannibalism is the shame of primitive societies, but some modern societies are sociophagous and enslave and consume whole peoples. Until war is outlawed and overcome, civilization

²¹ The quotation is from Wilhelm Jerusalem's *Einleitung zur Philosophie* (Introduction to Philosophy), 1919, Chapter on Sociology. (Excerpts from pages 249-250 and 344)

²² Hartenstein edition, Vol. VI, page 432.

is a precarious interlude between catastrophes: The possibility of a high social . . . state fundamentally depends on the cessation of war."²³

We are daily becoming aware of the sad truth of this when we contemplate the moral devastation that the two world wars have brought about. Therefore all men of good will who have the higher moral advancement of mankind at heart must with all their energies and with all the means at their disposal work not only toward economic, social, and political betterment of man, but also for a possible speedy moral reconstruction and improvement.

THE PHILOSOPHY OF PENAL LAW ²⁴

This work recalls to mind the words of Josef Popper about Voltaire. "Voltaire," he says, "manifested wrath against the injustices of man to man, love toward man, and understanding for him."

In the synthesis of these three characteristics—wrath against the injustices of existing conditions in our social order; boundless love for suffering humanity; and understanding of the ways and means to alleviate these injustices—Popper sees the highest conception for human betterment. He deals with the tyranny of the majority over the minority in society, and with the tyranny of society over its delinquent members. He is full of compassion for these unfortunates, full of a sagacity evincing his own high measure of human understanding. He raises his voice in behalf of the persecuted, disfranchised, and disinherited; he pleads their cause with deep sympathy.

According to Popper, all penal jurisprudence to date rests on an inherent feeling of vengeance; this manifests itself in a form of punishment which neither deters nor rehabilitates the offender. It is therefore unethical and senseless. He believes that there is but one basic principle to be considered in penal law. This is the protection of society against crime and criminals. Beyond this there should be neither persecution nor punishment of the offender.

²³ Herbert Spencer, *Sociology: Evolution of Society*, II, 663.

²⁴ *Die Philosophie des Strafrechts*, published posthumously in 1924.

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Popper proposes a new conception of criminal law and jurisprudence which will insure to society the highest measure of security against criminal acts, and to wrongdoers a minimum of punishment. His system would safeguard society against criminals, and also protect the latter against the infliction of arbitrary forms of punishment. He visualizes for the unhappy offenders a larger measure of rehabilitation.

Much cruelty still prevails in the field of criminal jurisprudence, while there is at the same time a considerable dearth of a practical and wise comprehension of life; this calls for a closer examination of penal laws. The fact that many difficulties and contradictions interfere with the application of these laws shows how great is the need for fundamental reform.

In the field of jurisprudence there are eminent scholars, leaders in their field of endeavor, men of intellect, philosophers and humanitarians; these are the very ones who sustain, in principle, a faulty system, as is the case in the realm of criminal law. Prejudices acquired in youth and indolence in thinking through to their consistent human conclusions the fundamentals of this problem retard the introduction of reforms. We refer especially to the general agreement on the concept of the assumed necessity (ignoring the question of its usefulness) of the principle of retaliation, or, as we often designate it, "justice," meaning thereby the repression by the state of those injustices which we more precisely designate as "revenge." Many a jurist or philosopher of the law speaks of "crime" in such a tone and with such pathos as though he believed that all human beings on whom criminal law is inflicted are simply mass-murderers. No embellishment with legal terminology can conceal the stark fact that underlying all punishment of the offender is the feeling of "retaliation." Private retaliation for suffered wrong has, in most cases, been restrained or eliminated in civilized society; it is left to the state to perform this function in the name of justice, and as a common and fitting service for all. Nevertheless, both these principles are in their nature wrong.

Even persons who are highly cultivated, morally, are often of an impatient temperament, and manifest, even in very trivial matters, a spirit of "revenge." When, for instance, a pen persistently does not write well, such a person will destroy the pen in anger; when a door does not open or close readily he will

push against it in anger or slam it violently. Other similar cases might be cited. Among some peoples, when a tree in falling happens to kill a human being, it is completely destroyed by the dead person's relatives, and the splinters, to the last one, are strewn to the four winds. Many similar acts of revenge toward animate and inanimate objects are to be found among the various peoples of the world, showing how strong is the urge for revenge. However, the advances of humanitarian concepts in our criminal law have lessened this urge of revenge among civilized human beings.

We would emphasize here that we are not seeking to nullify moral indignation toward crime; we reject, however, the idea of retaliation—of “striking back.” Advances in social legislation also will operate to cut down many evils which cause some people to commit crimes and offenses against society.

There have been, to date, much study and discussion as to the psychology of crime, but very little as to the psychology of revenge or retaliation. The underlying principle of this feeling of revenge is nothing but an error in timing; after suffering from a criminal act one is instinctively driven to commit a like act which, if done earlier, might have prevented the commission of the original crime. Self-defense, which should have been used before the criminal act, is used, so to speak, after commission of the crime.

This purposeless substitution of the act of self-defense is what we call punishment, without regard to its usefulness. Once we have become completely convinced of the correctness of our analysis of the sense of revenge, we may be able to visualize this by the shrinking of the time element between the commission of the crime and the apprehension of the offender; we may then be able to deal with the latter more effectively the closer we come to the moment of the actual commission of the criminal act. In this way we come close to prevention, so that our act of revenge becomes one of self-defense which if performed a moment sooner could have prevented the commission of this criminal act.

As soon as we come to acknowledge the concept that punishment is merely retaliation, we may ask, “What purpose does it serve?” An ethical reply to this question would be, “It serves

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for the rehabilitation, the betterment, of the wrongdoer." This view, however, when we consider the many offenders who relapse into crime, contradicts all our experience. We are confronted with the very important question whether punishment or fear of threatened punishment does or is able to deter from the commission of crime. As a means of prevention Popper proposes a system of publicity—that of publicizing the names of offenders and the type of offense committed. In the case of the more dangerous persons, more stringent measures are to be taken, such as keeping the individual under police surveillance, forbidding him to follow his trade or profession (in connection with such trade or profession the crime may have been committed); only in extreme cases should such an individual be rendered harmless through confinement.

We all live in a society, an association, which we call the state, to which we delegate the function of assuring us of certain needs and desires; among these desires, too, are the need for protection against bodily injuries; that of safeguarding our health, life and property; and that of guarding our moral and emotional values pertaining to personal honor. How are members of society to be treated who, in spite of all precautionary efforts, do violate the rights or persons of others?

The answer is, we are all desirous that the state, which symbolizes our form of society, should be as useful and as satisfactory as possible to all of us. Any of us may at one time or another be injured by someone and, since we must assume that the number of evildoers is always in the minority, so we must enact measures that will assure security for the largest number of our citizens. Since none of us can know, whether as a result of emotional or external circumstances, any of us may not sometime belong with the evildoers, all—both offenders and sufferers—being citizens of the same land, we should make every conceivable effort to bring those offended against into a position which will most certainly assure for them security from any possible injury on the part of offenders.

The laws guaranteeing security are therefore formulated both for all and against all citizens; they are the concern of all. From this follows that if the state, to assure the safety of the majority, must take measures against the minority, the offenders,

the punishment accorded to them through the enforcement of regulations for security should be as light as possible and consistent with the purpose it is to serve.

Consequently, the basis of the so-called philosophy of penal law is this: the *maximum of security* with at the same time the *minimum of punishment* inflicted on the wrongdoers. Security for all must, however, have a pre-eminent precedence.

All sense of retaliation or revenge on the part of the state or on the part of private individuals must be eliminated. All punishment inflicted on the wrongdoers should always be a secondary consequence—to protect society against crime. But all means of securing this protection should be, so far as is compatible with the supreme purpose, *moral punishment*, and only when this does not suffice should society resort to *physical* punishment and restraint of liberty.

All offenses against society—the nature of the offense, the name of the offender—should be recorded in a register known as the “Codex of Offenses,” exactly as is done today, with this difference—that offenses of a subtle nature will also find a place in this register. Public opinion will here play the decisive role of reform, and not as today the brutal role of punishment. The “Codex of Offenses” must be easily accessible to every one and not only to the authorities. It should be easily obtainable at a moderate purchase price. Every one may then procure information about other persons just as one today obtains information about vital statistics, data as to real property in matters of assessment for taxation, incumbrances in the form of mortgages, liens, ownership, etc., etc.; similarly too one now finds information in government patent offices or in commercial rating bureaus—Dun & Bradstreet, etc.

The publication of the results of court procedures and the findings of guilt should then be the first and most important step in the abolition of our present harsh system of physical punishment. Publicity in case of innocence can cause injury to no one, and it has this advantage—that the public—society—can thus form its own opinion as to the judgments rendered by our courts, without being prejudiced or influenced by their decisions. In this manner a form of moral lynch justice will be made possible which is the highest expression of that which we are today striving to achieve through the courts and trial by jury.

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Often these means of moral suasion may not achieve the desired reform; they may not deter the offender from relapsing into crime. In such case, where public opinion and the force of moral suasion do not bring about reform, the matter should be decided in court by experts. Then stronger measures of security could be prescribed, such as depriving the criminal of the means and opportunities of committing repeated offenses and causing further harm. Such measures might be banishment from certain districts, police supervision, internment, and finally total isolation from human society—in short, everything is to be done to protect society, but never should harm—with or without purpose—be done to the individual, that is never anything that is not inherent in the method of assuring security for society.

Yearly revision of the “Codex of Offenses” will eliminate names of former offenders who have shown earnest and persistent efforts to reform and to live upright lives.

This final work of the social philosopher is the culmination of a lifetime of effort for the welfare of man and the assurance of the integrity, inviolability, and dignity of human life. The rich content of Popper’s ideas, which must impress us more deeply after the experiences of two world wars, shows such a keen mind, such a high ethical sense—above all, such a high regard and love for man—that for these things alone it deserves to rank among the great achievements of the human mind. The ideas set forth in this book will for centuries to come find their rewarding and appreciative echo in the minds of enlightened men.

*THE ATTAINMENTS OF TECHNICAL PROGRESS IN THE LIGHT OF THEIR ESTHETIC AND CULTURAL SIGNIFICANCE*²⁵

Again and again Popper asserts that he was most interested in purely scientific research, in the intellectual effort to solve problems in physics as applied to mechanics—whether in the field of technology or of aerial navigation—rather than in

²⁵ *Die Technischen Fortschritte nach ihrer Aesthetischen und Kulturellen Bedeutung* (1886).

their practical application. He was always concerned too about the uses technical progress was put to—uses often inimical to the welfare of man in time of war as well as in peacetime. One of his valuable contributions in this direction was a series of lectures before the Austrian Society of Engineers and Architects which was published in their weekly *Journal* in 1888 (Vol. LX, pages 77 to 92) and subsequently in 1901 in book form (70 pages, by Carl Reissner, Dresden, Germany, under the title *Die Technischen Fortschritte nach ihrer Aesthetischen und Kulturellen Bedeutung* (*Technical Progress and Its Esthetic and Cultural Implications*). This publication dealt with the philosophy of technology. What follows is taken from this book.

“Contemplating the technological advances and achievements made since the advent of the industrial revolution about 150 years ago, and by contemporary civilization, we are apt to overlook their esthetic impact and their meaning to mankind.

“Aside from the promotion of intellectual and scientific thought, and aside from the contribution made to the utility and physical comforts given us by modern industry, scientific and technical research and attainment also satisfy, in large measure, our esthetic sense, as do arts and letters.

“The esthetic delight in the scientific and technological field is experienced not only by those working in these areas, in the invention, creation, and production of things for use, but it is also experienced by many of us who participate in neither the development, the production, nor the use of the many achievements of modern science and technology. It is an esthetic delight experienced through the very facts of accomplishment and of mastering certain scientific problems; indeed, one feels pleasure in the sight of the machine or of its products as such. This fact is sufficient to repudiate the assertions so often heard that modern man is lacking in ideals. On the contrary, the urge to create and produce new machines and tools, the adventure of achievement, calls forth among us a general idealism never known in the days before the industrialization of our society.

“One of the greatest and most ingenious artists of all time, Leonardo da Vinci, considered science and theoretical mechanics the ‘paradise of all sciences.’ This is additional evidence that Leonardo’s was an esthetic nature in the highest sense of the term, that he found esthetic delight not only in art but also

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in such scientific endeavor as is free from decorative diversity and differences of opinion.

"The esthetic impact on us of technical ideas and attainments is daily manifest in all walks of life, as, for instance, in the pleasure we experience from the construction and completion of the Panama Canal, even though we may never have the opportunity of seeing it or traveling through it; it is felt in the building of various hydroelectric projects by means of dams in the ingenious planning and construction of underwater tunnels and those which pierce mountains when two groups of workmen, boring from opposite ends of river or mountain, meet midway in the exact position previously planned and designated by engineers and surveyors; it is felt in the construction of bridges over rivers or large bodies of water; in the erection of tall and large buildings, with their perfect balance of mass and proportion relative to space; in the fabrication of the dirigible balloon, the airplane, and electronically propelled rockets and other ingeniously constructed forms of aerial navigation. The sight of a beautifully built railroad locomotive or of other vehicles of transportation is for us a new esthetic experience which was entirely unknown to the ancient Greeks or Romans. This is true also of electronic machines which perform in a few minutes mathematical calculations that could be solved by the most skilled scientist only after years of application. As the ancient Greeks were filled with delight at the sight of a beautifully constructed building or of a statue by Phidias; as architecture, the charm of poetry and formal beauty were the supreme esthetic equivalent for them—so do we, modern men, find our esthetic delight in our scientific and technical achievements and in the natural sciences. We experience this esthetic delight, notwithstanding the harmful and destructive purposes to which many of our inventions are put. Just as we find delight in the form of a beautiful human body, in the lines of the body of a thoroughbred animal, in a great statue or painting, or in some of the plays and sonnets of Shakespeare, so we take pleasure in the generally well-balanced and ingeniously constructed airplane or aerial bomber, or the structure of a battleship, though these may, unfortunately, be put to destructive purposes in times of war.

"We may ask what the underlying basis of the esthetic sentiment in man is. To this question no definite answer or formula

can be given. No definitions or laws governing this sense can be laid down. We can only indicate approximate criteria that may evaluate a certain state of feeling which we call the esthetic sense.

"For instance, when the human organism, i.e., the individual as an organic totality, is joyfully moved, while at the same time the sense of happiness is felt in no particular, singular organ of the body; further, when that sense assumes the character of continuity, of an everlasting inexhaustibility, and causes us no wear and tear and only a minimum of fatigue of our human economy—such a state of feeling may be described as esthetic. We may call it so with greater assurance the more intense the above-stated conditions persist. This sentient inexhaustibility and the lack of fatigue of the human body call forth this sense of bliss. One feels himself beyond time and space, possessing a sense of eternity, of immortality. Such esthetic experience is bound up with a feeling of revulsion against the transitoriness of life and with a desire for eternal bliss. Were each of us not aware of his eventual death, the urge for esthetic delight would not have its present significance in our lives. This revolt against death manifests itself in man's need for such esthetic satisfaction. In this revolt eternity and not any degree of intensity of bliss is man's main objective, but the two desires are so interrelated that without the consciousness of death's inevitability the urge for esthetic delight would not be as intense as it actually is.

"Viewed historically, we see esthetic motives among human beings propelled in very curious ways. There are periodic changes and emergencies of esthetic mass sentiments. The effect of the esthetic desire and the manner of its manifestation depend on the various ways and means employed to achieve them.

"Morally our interest in the arts and sciences diminishes in some measure the bellicose and predatory instincts of men against each other, and it directs our intellectual and technical faculties toward a struggle against the forces of nature, in order to open up her secrets for our use and protection.

"With respect to the physical comforts gained through man's wonderful intellectual accomplishments, there are many which serve mankind without resorting to the evil uses made of them in times of strife and war. Progress has been made in the improvement of our health services—in medical and biochemical

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research for the welfare of humankind; also in better housing facilities, better clothes, and food for the larger, wage-earning segment of our population. Many of the luxuries and amenities of life are procured with greater ease. There is progress in everything which enhances our creative comforts and protects us against destructive forces of nature. In short, man is freed from the burden of hard toil to which he was subject before the invention of labor-saving machines and devices.

“But there are kinds of technical progress which serve harmful purposes, as for instance the armament industries. Rapid transportation, too, we had hoped would bring nations closer to one another for a mutual share in the development of scientific and technical progress so as to enhance the enjoyment of life. But we must, through the hard facts of life, realize that these fruits of the human mind are often intended and used for man’s destruction. We must indeed question whether all these inventions and technical attainments can completely satisfy our emotions and longings; whether this fretting over the use of every conceivable gadget can satisfy our hopes for contentment or add to the peaceful pursuits of life. We are so hypnotized by what in our culture is called ‘progress’ that we are carried away by enthusiasm for every new invention; and so we overlook man, whom these tools of modern technological progress are supposed to serve. However, we repeat: aside from these destructive and purely utilitarian purposes there exists a purely esthetic satisfaction in many of our machines and technical products; and we emphasize, too, that technical culture as such should not be made responsible for the evil uses made of many of its products.”

Fragments of Conversations of Josef Popper-Lynkeus with Margit Ornstein and Heinrich Löwy, published posthumously.

1919

Popper told the following anecdote about "non-violence":

"An American newspaperman visited Tolstoi and asked him: 'Then if somebody stepped up to you and slapped your face, you would not defend yourself?'—'I would not,' said Tolstoi.—'And if somebody hit your mother and you were standing right next to her, you would not resort to violence even then?'—Tolstoi hesitated. Then again he said: 'I would not.'"

Popper added: "Tolstoi hesitated before answering. Evidently, he answered the way he did only to avoid being inconsistent with his principle. But what sort of behavior is that?"

In the afternoon, several leaders of the Viennese Communists called on Popper. As we arrived, half an hour after they had left, Popper was obviously still in a state of great excitement in which he could but rarely be seen in his life—say, after some heavy blow of fate, such as an illness or the death of somebody close to him. Only gradually did his usual good mood return during our conversation.

"Too bad you didn't come sooner. The Communists got a sound tongue-lashing from me. There should have been somebody around to take down our conversation in shorthand." He smiled and added: "I spoke real pearls of wisdom, you know! This is what I asked them: 'Taken for granted that you have seized political power; what do you intend to do with it? What is your program?' Of course, they were unable to answer me. Because, just as Lenin, they have no positive program. But I didn't let go of them."

This is what he said about young X:

"This is a young man who has the ability to answer every question, even the most difficult one, at once with a phrase which seems to hit the nail right on the head, but actually isn't worth two cents."

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About the same man he said also the following, and as he said it, his expression and tone of voice made it unmistakably clear how profoundly indignant he was:

"This man says: 'So many people were killed in the war, but the victims of the civil war do not count.' What sort of people are these? And these are our leaders."

Popper related that recently the correspondent of a British newspaper had visited him and asked him whether he wished for a realization of his program by force, if all other methods failed. "I answered *No*, and I told him that I was glad to have the opportunity to state that I have nothing in common with the methods of the Communists."

1920

This is what he said about Hegel:

"He was a mighty phenomenon as a mind and as a character. To me he is as great as Plato. A civilized man. Far more important than Kant. Kant is a philistine compared to Hegel—in fact, he cannot even be compared to him. Where is Kant's historical knowledge? He has none whatsoever. Hegel stands head and shoulders above Kant.

"He was a philosopher of Statism. He held that all people must subordinate themselves to the State. But there was nothing reactionary about the man who said this about the French Revolution:

"Ever since the sun took its place in the sky and the planets began to circle around it, the like of this has never been seen: That man listens to his head, to intelligence, and shapes reality in their image."

Dr. Fritz Wittels relates that a Communist author told him that in his opinion Popper highly overrated the worth of the individual, and that he just could not think of an individual as so valuable.

Popper: "Highwaymen and murderers think of him as *still* less valuable."

June.

Popper has read the letters of Dostoyevski (Piper, 1914).—"Now I know him inside out. He was not likeable, because he had compassion for the miserable only. That's not enough."

September.

Anton Wildgans visits Popper, to talk to him about his new drama, *Cain*. Popper tells later that they came to speak about Goethe's *Prometheus*.

"I asked him," says Popper, "what is the cause in arguing with somebody who doesn't even exist?"

October 1.

We speak about the Social Democrats who, as shown by Popper in his *Auseinandersetzung*, were concerned only about winning power, and not at all about the social problem, the "stomach problem." I comment: "This is the time when it would be important for the Universal Food Service Union to become active."

Popper: "It will come to that now. I shall see to it more now. It would be really so important that I may live for a while longer yet, I could still be helpful in so many things, I would also have many things to say yet, and if I said them, they would carry more weight because of my age.—But be it as it may, I prefer any party to the Communists. If they take over, it is the end of everything. Then we'll be, literally, thrown out into the street. Just imagine: a government by Toman or Koritschoner!"

I: "There is hardly any more difficult task in politics than striking a happy medium."

Popper: "For me there is no happy medium."

I: "Some time ago, as you read Brückner's *Peter the Great*, you intended to write about these questions, did you not?"

Popper: "Yes, I wanted to show that there had been three great tyrants in history who pursued great and selfless objectives for mankind: Ivan the Terrible, Peter the Great, and now the third one, Lenin."

October 17. In the forenoon. Present: Margit and Emil Ornstein.

My sister quotes to Popper the following passage from the conversations of Eckermann, where Goethe has this to say:

"Everything that is great and sensible lives in a minority. There have been ministers who were opposed by their people and their kings, and carried out their great plans single-handed. Reason

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can never be expected to become popular. Passions and emotions may become popular, but reason will always be the treasure of a few select individuals."

Popper listens in obvious agitation, has the passage recited again, and he says:

"You don't know what you have given me by this!"

Popper: "The world is really peculiar. I am just about to bow out of the ranks of the living, and somebody sends me a medical treatise for me to review it. He thinks it might work out to his benefit, because my name means something to many people."

He inquires about a certain lady. Marie tells him that she met her in the street and her face was bandaged. "Just a tooth-ache, nothing important."

Popper: "'Nothing important'? You ought to avoid this phrase. It strikes me exactly as if he has a disease unworthy of a hero."

1921

Middle of January.

Popper dictates to me the following item which I mail, upon his wish, to the editorial offices of the *Neue Freie Presse* and of the *Arbeiter-Zeitung* of Vienna. It was published in the *Neue Freie Presse* on January 26, 1921, and this was what it said:

"We have just received an important report from Russia: The People's Commissariat of Public Health has issued a decree forbidding the private practice of medicine and socializing the entire medical and sanitation structure of the country. I would like to mention here that I recommended and explained this reform as far back as 1912, in my book, *The Universal Food Service as a Solution of the Social Problem*, and since my book was forwarded to the Soviet Government long ago, it is quite possible that my book was what originally gave it the idea to issue this decree. Even though this is no world-shattering measure, yet this decree may be regarded as the first step toward the realization of the suggestions which I presented to the world in my above-mentioned book. I want to mention also that at the present time the prohibition of private medical practice is advocated also by two outstanding physicians: Professor Dr. Egmont Münzer, of Prague, and Dr. Josef Friedjung, of Vienna.

Let us hope that the Government of our country will give serious consideration to this matter, as well as to the particulars set forth in my book. The nationalization of the practice of medicine is a highly propitious measure, and this decree of the Soviet Government must be properly appreciated. It represents an important step forward. Justified as certain objections to the acts of the Bolsheviks may be, they certainly have accomplished an uncommonly great deal in many a respect, notably for public education and public health. The world has never known a Minister of Public Education of the stature of Lunacharsky, and his name will forever be mentioned with those of Comenius and Condorcet."

March.

"For years, I have been reminded of two sayings of Solomon: 'He who argues with a fool, becomes a fool himself,' and 'You may crush a fool to dust in a mortar, and he still remains a fool.'"

Present: Margit and Mr. Carl Jahoda. Popper discusses the essay of Saint-Beuve about Silvain Bailly:

"A fine, peaceable savant and astronomer had to mount the scaffold, just because this dog, Desmoulin, had incited the mob. And I can tell you this much: If I came out politically with my platform today, X, Y and Z (Viennese Communists) would not rest until I came to the same end."

A visitor talks with Popper about Gogol's novel, *The Cloak*, and asks what Dostoyevski must have meant by his phrase quoted in the preface, "We all came from *The Cloak*."

Popper: "This is supposed to mean that the entire modern Russian literature originated in this novel. I can meditate on such a sentence for hours."

December 3. Evening.

Present: Lucy Solomonica and Mr. Siegfried Pirker.

I bring for Popper the first two volumes of Sainte-Beuve's *Port Royal*. As I hand the volumes to Popper, who looks very sickly today, he leans forward in his reclining chair and asks: "What's this? *Port Royal*?" I say, yes, and he declares solemnly with an indescribable increase in emphasis:

"I take it in my hands with the greatest reverence, *with the greatest reverence*."

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End of November.

I tell that it is said in the *Encyclopaedia Britannica* about Sainte-Beuve that in his own field, as a critic, he was as perfect as Homer, Plato, Shakespeare and Voltaire.

Popper: "And our literati find that he is overrated!"

LAST DAYS OF POPPER-LYNKEUS

“Popper was granted a long life, so that he could leave behind him the biblical limit of the measure of life, and reach 83 years. In the last two decades of his life he retired from all professional occupations and lived withdrawn from the world in complete quiet and lonely retirement, wholly devoted to his studies; he went on no journey, nor did he ever leave the confines of the district in Vienna where he lived—for years he never even left his house; he was in contact with the outer world only through the many friends and admirers who visited him.

“No unusual experiences or events are mentioned in his autobiography, nor any women who had any significance in his life.

“Thus ran the course of his inner life, of his spiritual and intellectual growth, isolated from all manifest events.

“The inflation and devaluation of Austrian currency after World War I destroyed the humble routine of his life and the modest measure of financial security he had acquired during his many years of hard labor as an inventor and engineer. When the councilors of the city of Vienna granted Popper a small honorary stipend he was barely able to make ends meet for his modest needs for food and for his reading and writing necessities.

“Through these years Popper worked untiringly, after the completion of his major sociological study, *Die allgemeine Nahrungspflicht als Lösung der sozialen Frage*, on three other books, extensive works to help elucidate many points of his main sociological theories. Only one of these books, *War, Conscription for War and the State Code*, which dealt with the more actual contemporary events following World War I, was published during his lifetime—in 1921. In this book Popper brought into clearer form his main ideas about war and peace, and his concept of voluntary military enlistment for war service. The other two books dealt with the *Philosophy of Penal Law* and *On Religion*; both were published posthumously, in 1924, by his literary executor, Margit Ornstein.

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"The true Popper and his genius show themselves not so much in the contents of these books, which contain many repetitions and reiterations of his ideas formulated in earlier works; rather he reveals himself in his immediate and direct expression and in the influence of his personality, which like a saintly halo hovered over his environment and the world that knew him. Thus Popper's old age was one of fulfillment and the affection of all who knew him. Through the many years of his long life it was granted to him to traverse and fathom a large part of the world of thought thus far revealed to man, and he acquired through this knowledge an inner calm and sense of security which stamped him, in his old age, as one of the wise men of all time—as a sage full of kindness, full of optimism, and full of the understanding of the joys of life and its more ennobling pleasures.

"The biblical simplicity of his mode of life attained a very high degree. As already stated, for many years he confined himself to the four walls of his home in almost monastic austerity, and though he was not infirm—rather, in a fairly good physical condition—he saved his energies for study and research by spending his days in a reclining position on a couch, with many books and papers within his reach and without expending great effort. He was tall and of stately appearance, and not, as his mode of living would suggest, a debilitated ascetic. He loved life and his was a harmoniously, highly cultured type. The apparent external poise and peace were a consistent attempt to save his energies in the midst of the unruly and restless events which were current in the political and intellectual community of post-war Europe."

Popper received daily many visitors, including many scientists known and unknown who passed through Vienna. Thus there constantly grew a circle of friends, admirers, and disciples among the cultured people of Vienna and among foreign visitors who came to pay homage to the now famous but simple sage, a man without title or recognition either by any institution of learning or by the Austrian Government, though he had contributed so much to the advancement of human knowledge.

"Deep and profound were the impressions he left with visitors, who reported their interviews very enthusiastically. Everyone came away as from an unforgettable and almost holy experi-

ence." Popper was widely regarded as a genius by multitudes who knew him and his work. His mind ranged brilliantly from technology and the exact sciences to philosophy and poetry. The range of knowledge that his mind encompassed seemed almost limitless. It would be difficult to determine exactly in what field he made his greatest contributions—he pursued so many interests and excelled in them all. Perhaps the best appraisal of Popper was a tribute given by Count Richard N. Coudenhove-Kalergy, long a protagonist of the Pan-Europa idea.²⁶ "Men like Popper-Lynkeus, encompassing in one brain the entire world and contributing invaluable to all branches of knowledge—such men lived in the time of the Renaissance. In our days of specialization, such universality is rare."

Albert Einstein when a young man visited Popper and discussed with him the theory of gravitation. With Arthur Schnitzler, Popper talked over the theories of art and esthetics among the ancient Greeks, and with others he spoke of the French philosophers and David Hume. Shortly before his death he developed a design for a project of a captive-propeller flying machine. He discussed with interest events and happenings in Soviet Russia. He was much concerned with the solution of the Jewish problem and with the reconstruction of Palestine. He gave thought to whatever pertained to the human intellect, and he was ready to discuss every problem and to take a courageous stand on his convictions, commenting with lucidity on whatever was brought to his knowledge by friends and visitors. He strove, without ceasing, to extend and deepen his knowledge by communing through books with the great spirits of the past. Three weeks before his death he asks to have brought to him the first two volumes of Sainte-Beuve's *Port Royal*, which he reads and meditates over with great reverence. At intervals he again reads the works of Dostoyevski which please him no longer; then he asks to have music played for him. A friend and admirer brings a piano to his house to play for him the "Passacaglia," by Handel, and the "Appassionata" and Beethoven Sonata, opus 31.

He begins to study Bernard Bolzano's *Paradoxien des Unendlichen*, *Paradoxes of the Infinite*, and now and then he has fore-

²⁶ *Popper-Lynkeus, a Tribute*, by Count Richard N. Coudenhove-Kalergy, page 11 (R. Löwit Verlag, Leipzig, Germany, 1924).

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bodings of the approaching end which lead him to exclamations of pain. However, on the whole he remains calm, cheerful, and often as if transfigured. He remains in the mood of the philosopher who loves wisdom and in return is loved by her.

No one can foretell at this date whether what Popper left to the world in his books may sometime become alive again, to be fructified and implemented in our aims for social betterment. However, any one who knew his life will realize that it was a life of fulfillment in spirit and in kindness, one that radiated to his environment a love for life and for life's simple pleasures. We are reminded of the words of Goethe: "Not in so far as a man leaves something behind him, but in so far as he produces and enjoys it, and induces others to produce and enjoy it, will his life remain of significance."

After Popper's death the city councilors of Vienna had a statue erected to him in their City Hall Park. It was destroyed by the Nazi Germans in 1938, and the organization "for the Guarantee of a Minimum Subsistence for All," which had endeavored to disseminate Popper's ideas, was dissolved. But after the defeat of the Germans the Council of the City of Vienna restored Popper-Lynkeus' statue to its former place, and named a street in Vienna "Lynkeus Strasse."

In his old age, in 1913, at the suggestion of his friend and admirer, the German scientist and naturalist Wilhelm Ostwald, Popper wrote his autobiography, a modest work of less than one hundred pages, and it was published by Verlag Unesma G.M.B.H. in Leipzig, Germany, in 1916. This work he concludes with the following words:

"No one can know or foresee whether new ideas can ever take root, or to what extent they may be accepted in the future. Whatever evaluation the distant future may place on my ideas, or whatever practical purpose they may serve, one thing is certain: I labored all my life long for unselfish ideas and causes; I worked for myself, for others, and with the purpose also of serving the welfare of all mankind, and I am, I believe, like every honest workingman, worthy of my hire; that is, I am satisfied."²⁷

²⁷ The quotations are from R. v Mises, *Neue Österreichische Biographie, 1815-1918*, Vol. VII, pages 215, 216, 217. Amalthea Verlag, Wien, 1931.

A SUMMARY OF JOSEF POPPER-LYNKEUS' SOCIAL
AND ECONOMIC PHILOSOPHY, AS CONTAINED
IN HIS *DIE ALLGEMEINE NÄHRPFLICHT ALS
LÖSUNG DER SOZIALEN FRAGE*

EDITOR'S PREFACE

The summary submitted herewith is a short, almost literal, abstract of the work of Josef Popper-Lynkeus published in 1912 —*Die allgemeine Nährpflicht als Lösung der sozialen Frage* (published by Carl Reissner, Dresden, Germany, 813 pages) (“A Guaranteed Subsistence for All as a Solution of the Social Problem”).

This abstract is limited in scope, in order to assure as wide as possible a circulation, and it is also intended as a modest tribute to the memory of this noble spirit, who dedicated a long lifetime to the solution of problems for the benefit of mankind. The main thesis of Popper-Lynkeus’ program for social reform is presented and the most important points of his work, known since 1878 in German-speaking countries as *Das Recht zu leben und die Pflicht zu sterben* (“The Right to Live as against Compulsory Death in Warfare through Conscription”).

All controversial subjects and statistical data which Popper-Lynkeus applied to the economic conditions in Germany at the beginning of the twentieth century are omitted, and also, since the controversial portion of the book deals with the persons and socio-political orientations existing in Europe in the early period of the socialist movement, this too is omitted. Other obvious reasons also justify such omission.

We include here several short excerpts from Popper-Lynkeus’ book, *Das Individuum und die Bewertung menschlicher Existenzen* (“The Individual and the Evaluation of Human Life”), because of their ethical import in the development of his ideas of social reform and of his politico-economic thinking.

Popper-Lynkeus systematically repeats his main ideas purposely, in the same or sometimes in a varied form, without, we believe, doing violence to his literary-esthetic forms. He repeats in order more deeply to impress his readers with his ideals and his devotion to mankind.

Except for minor adaptations to the present era and several

JOSEF POPPER-LYNKEUS

quotations, Popper-Lynkeus speaks in this summary in his own words. But the present editor hopes that some admirer of this great humanitarian will one day perform the great public service of giving the English-speaking world a complete translation of his most important works he has left mankind.

H.I.W.

NATIONAL ECONOMY

In the introduction to his work *Die allgemeine Nährpflicht*, Popper-Lynkeus states that this work is no scientific or philosophic dissertation. It is a practical proposal for a possible solution of the social problem. It neither gives nor suggests any means or methods by which these ideas may be implemented and brought into actual practice, as indicated in the subtitle of the book.

"The time is ripe," says Popper-Lynkeus, after a survey of all literature pertaining to the social problem, "the time is ripe to propose something positive and a clear program toward which all right-thinking people may direct their thoughts and energies, so as to bring about its realization and at long last make an end to our present-day murderous and soul-destroying over-all competitive form of labor and life.

"Ethical sentiments and convictions are the underlying motives for forty years of work on the thesis that the solution of the social problem is primarily one of assured subsidies for all members of society. In this, as in all my other socio-philosophical and political writing, one may perhaps find no special learning or sagacity, perhaps no depth or wealth of erudition; above all, one will find no theories. My purpose is to help human beings, my aim is to strive to awaken sentiments among people, and thus help create useful institutions; and to arouse ethical feelings and ideals which will aid free humanity to escape from the evils of uncertainty in our lives, which oppress every one of us."

Society, the state, should, on the basis of its definition of the concept of national economy, search for a definition of its meaning clear and intelligible to every one, and also it should seek for an institution, a mode of national economy, which would guarantee to each and every individual the necessities for the maintenance of life, of existence; should society fail to do this, then it is remiss in the purpose of the very meaning of national or social economy. It seems that most of our socio-economic experts fail to visualize a social system that can guarantee and

provide each man, woman and child with all the means necessary to maintain a decent existence without dependence on the exigencies or will of any one individual or group of individuals. We have, with few exceptions, not as yet developed complete and full esteem and reverence for the life and existence of every human being. This fact, too, has in its train developed such a prejudice against every word denoting "social" or "socialism" that we look on these words with horror. We speak only of a "national" or "political" economy, which denotes more an inner working of the national economy than the concept that every man is as of right entitled to a secure existence.

The progress made in the ideas of esteem and respect for human life and existence in our social institutions cannot be denied. We have abolished slavery in almost all the countries of the world. Criminal law and procedure have become milder and more humane. Brutality of man toward man, and brutality in the application and meting out of punishment, have, except in rare instances, been outlawed, and when brought to light the perpetrators are severely punished. The attitude of employer to employee is more friendly and co-operative. Social security has been implemented and is being extended to include all members of society. We have become more ethical, more humane, more moral in our institutions, though as yet far short of the goal in the private relations of man to man. We must not overlook the reality that the instincts of man have become more restrained, more refined; they contain, nevertheless, untold means and potentialities for evil. The ethical advances made by society to date are to be found in its institutions, but not so much in the private morals of the individual. We must extend these institutions so as to bring to a minimum the occasions for private conflict and the inflictions of injuries to man by man.

THE INDIVIDUAL AND THE SOCIAL CONSCIENCE

The greatest misfortunes that can befall man are illness, disasters of nature, war, famine, and the uncertainty of existence.

It is the function and duty of the healing profession, of the

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natural sciences, and of social reformers to shield us from illness, want, and war.

The efforts being made in the Community of Nations may, in the foreseeable future, lead to some form of universal peace; also our system of national defense and voluntary enlistment in military service for defense or war, as proposed in the main thesis of our book, will, to our mind, help reduce the rapidity with which wars originate, and it may also reduce their frequency.¹ We shall also point out how every member of society may be assured of securing a decent existence. Once these fundamentals are assured, each and every person may be able to live his own life in decency according to his own ideas, provided he does not injure any one else, or run counter to the broadly accepted and interpreted standards prevailing in society.

All social reforms have their origin in the high moral sense of those advocating them, which is most often rooted in deeply felt sentiments rather than in spiritual concepts. All advances of a humanitarian import are the consequences of newly conceived ethical sentiments, either of the individual or of the masses. Humanitarian advances are not merely manifestations of social progress, without specific human effort. They are conceived and most frequently advocated in opposition to the ethical sentiments of the general masses of men. Ethical sentiments are fundamental in a well-ordered society; they are not a consequence of economic development. Progress of social institutions means nothing less than a general growing satisfaction among the large segment of population, with the prevailing existence and administration of these institutions. The logical results of this progress are increasing standards of mutual respect among men, a higher esteem for the dignity of the individual, a leveling up of the quality of man.

Equality of all men is something of a vague concept. In its simplest form, it means that there exist no privileged classes or individuals in society. The positive aspect of equality is a concern for the welfare of our fellow man, a respect for the dignity of the individual, which is manifested through a social program guaranteeing to each person a basic minimum for subsistence, economic independence, and security against the un-

¹ "Mutual assistance is the only organ of defense for the community." Albert Einstein.

certainties of existence. Equality as presently conceived is but a political concept of equality before the law—an equal obligation to bear arms, pay taxes, and participate in the competitive economic system.

However, the present forms of social security, as a means of guaranteeing a minimum subsistence, go beyond the ordinary concept of equality as stated above, since they take care of the individual in a way that may lead to a general reorientation of our social system, by guaranteeing full security for all. Neither our feelings nor our sentiments have developed in a more ethical direction. We have come to a higher moral standard through the institutions of the society in which we live. Our moral advance rests in our institutions, not in our private virtues.

We must, through institutions based on a higher ethic, educate our children and re-educate the older generations, to a greater esteem and respect for one another, and so for the dignity of man in general. Such education will eventually lead to ethical concepts: "Not thus it should, but thus it must be."

The substance for good will from man to man rests on the inevitable facts of life. We all have to face the same fate imposed upon us by the exigencies of natural laws, which, more often than not, are unfriendly to the welfare of mankind in general. These include illness and natural disasters, which we must constantly combat or oppose. In this eternal struggle against natural catastrophes, as also against acts of violence among men, moral men, men of good will, all organized societies form a sort of free and voluntary army for mutual help and protection. We cannot feel affection for everybody we may meet or know, but, if we have esteem for man in general, we may postulate a principle of conduct toward all men in the various situations of our lives—namely, "that we must manifest an active sentiment of good will to all in fundamental matters, applying the same measure to others as we do to ourselves. To paraphrase the voice of Scripture, 'Love thy neighbor as thyself, for he is as thou art.'" And this means that we should respect the physical existence, the physical and moral integrity, of the individual under all circumstances, provided our physical and moral being is not itself placed in jeopardy, that we are not forced to act in self-defense. This implies not only safeguarding all against every form of violence, but also the positive duty of giving assistance under all

circumstances. The thesis that man is his brother's keeper will gain acceptance in practice in a more enlightened society, when the struggle for existence is reduced through a guaranteed minimum for subsistence from a struggle for necessities to a form of competitive sport for the finer things, for luxuries in life, in the sector of free enterprise.

"Every individual human being is to be conceived as something unique, important above everything else except other human beings; as one who is to be respected, cared for, and sustained by all our efforts, be that individual humble, insignificant in the social scale and without talent or abilities, or be he a person of learning—an artist or genius; even one who is of a morally low order merits respect and care as long as he works no harm to the existence of others. The value of human life is immeasurable. Lives conjured up in the abstract and those to be born in the future mean nothing at all as compared with one actually existing individual.

"The present is not a mathematical point, no demarcation between the present and the past. The present rests in the living individual whoever he may be, he is the incarnation of the present, it is no phantom, this is the only reality. Only the happy existence of the living individual can be the aim of all our aspirations.

"Every individual not threatening anyone else's life must be defended and has a right to defend himself against ever so many individuals who threaten his life; the value of ever so many murderous individuals is wiped out.

"The evaluation of an individual existence in itself is quite uncertain. Its value varies between naught and something ultimate, according to the mood an individual is in. It might be naught when the individual is depressed by misfortune or melancholy; or, when he wishes to die for God, country, liberty, or science, it might, on the other hand be immeasurable, if these unhappy mental conditions do not prevail."

We are asked: "How can you evaluate the individual so highly? No one lives forever, death calls for all of us one day. It is part of nature's plan and, if the community or the government at large, for a reason vital to the welfare of the whole, calls for one or many human lives, it acts, so to speak, in the name of nature."

We reply: "Let us view the thoughts of the most insignificant person. Note the perpetual motion reigning in him. Examine the many hopes he is cherishing. An abundance of contacts exists between him and his surroundings, perhaps highly insignificant. Notice the sympathy of love he is feeling toward those men, or, in return, others toward him! At one stroke, through death, all this comes to an end: isn't this the most horrible tragedy imaginable? Above all, it is a tragedy which is repeating itself on earth every second.

"Whenever a dearly beloved person dies, we become overwrought with the feeling that the entire world is but an illusion and a great lie. We have been so deeply convinced of the reality of this man, woman and child that to some extent we believe nature has betrayed us. Now, as if awakened from a dream, we have the deep conviction that we have given ourselves to a misty apparition. It is the greatest disillusionment we can experience. Even the most startling treachery of man against man is not comparable. And yet we are not given over to an illusion. Only by an individual and conscious feeling of the integrity of a personality, with an awareness of its fears and its hopes, does the world reach a kind of reality, as it were, a persevering state without which it would be but a flowing and melting object; with all its infiniteness it would then be but a mathematical point between the no longer existing past and the future which has not yet come into existence."

Hence, every individual existence is a triumph over the merciless futility of impersonal nature. Remove living human beings and nature is nothing but a vast churchyard. Much more important than the esthetic feeling for inanimate nature is the need to awaken the thought of the greatness of every living individual. Once established, the thought can be strengthened beyond all sentiments, beyond all limits.

Popper-Lynkeus: "We do not propose to transform man. He has come down through the ages unchanged. However, we know that, notwithstanding this incontestable fact, our institutions have steadily improved. Again and again great men have been born who forced humane institutions upon their times. They did so against great odds, but they succeeded, and our improved institutions have on the whole prevailed and are usually maintained with considerable tenacity wherever they exist. The great

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exponents of social ethics made use of the idea of a divine order. One of them, Moses, brought down the Ten Commandments, the seventh-day rest, the Sabbath, from Mount Sinai. It was a fine social accomplishment for those and for all times. There was, no doubt much opposition in those days, and civilization was considered doomed because the masses were not willing to work seven days a week. Nevertheless, the Sabbath rest has become an institution which can be abolished only as a temporary, emergency measure. There are many other institutions which have made life easier for the individual—among them the Magna Carta, in the United States the Constitution, the Habeas Corpus Act and the Bill of Rights, and for amity among nations, the Atlantic Charter and the United Nations.

It is now our task to create a few institutions in order to enforce the sovereignty of the individual. The most important of these, to assure and guarantee this sovereignty, is the guaranteed minimum necessary for life.

“Were we to formulate a general principle which would embrace all institutions in society and be applicable, too, for practical mutual aid to all individual members of society in their diversified needs and varied interests, to all groups in their similar requirements for physical existence, I would state:

“We need a sense of the greatest esteem for the inviolability of every human being, without exception, provided he does not jeopardize the rights or well-being of his fellow men.

“This is the fundamental and underlying principle—that it is the duty of all members of society to provide each and every one of its components, without exception or distinction, the necessary means for subsistence.

“This is the goal of our program of

“‘A GUARANTEED SUBSISTENCE FOR ALL.’”

THE SOCIAL PROBLEM

The social problem of a livelihood for all can be solved through the institution of a *minimum* production system in the form of a universal civil-service army, known as the Labor Corps, which will produce, and assist in the production and distribution of, all necessary means required for the physiologic

and cultural subsistence of all men, women, and children in society, from the cradle to the grave; this would consist of a minimum guarantee to receive in kind, and not in the form of cash, everything needed for a decent scale of living; namely, food, shelter, clothes, health service, education, and limited transportation.

The Labor Corps is to produce the necessities and also a surplus above the minimum needs for subsistence, to provide for emergencies, such as the failure of crops, breakdown in production, war, etc., and to provide also the minimum cultural needs in the guaranteed minimum-subsistence sector of society. All members of society, without qualification, shall be unconditionally provided with a guaranteed *minimum for subsistence*; the basis for the production of the minimum would rest with a *Universal Labor Service*, composed of all able-bodied men and women, who will serve a specified term in the service for national subsistence.

Whatever means do not belong to the *minimum for subsistence* for all should be considered luxury, the acquisition of which will remain in the sphere of economic *free enterprise* exactly as it is at present in totally capitalist society. This would be known as the *free-enterprise* sector.

A prerequisite to the fundamental concept of our thesis of minimum subsistence must also be a guarantee for a minimum supply of the means for the cultural requirements of *all* members of society. We shall also treat of national defense, of war and peace. We shall state briefly that service in our army of defense should be voluntary and not through conscription. It should be left to the conscience and the decision of each member of society, to his love for the homeland. The militia, an organization of volunteers, may remain in the form of a permanent organization, or in the form of skeleton groups which can be enlarged in time of crisis.

The social problem may be conceived as an institution to secure for each member of society the necessary means of livelihood, not dependent on the exigencies or on the will of any individual or group of persons in society. The dependence for a basic livelihood on the will of others denies to the individual the sense of personal esteem and dignity, and the dignity of man

in general. This disregard of the dignity of man has, with rare exceptions, led to the concept of interchange of estimates of the term *social* or *socialism* with the idea of national economy, which is understood rather as an inner working mechanism of the economy of society than as the requirements of each person for his basic needs for existence.

If, after thorough inventory and research of the resources of the land and the tools for production, machinery, and other equipment of society it should be found that not all persons of the nation can be supplied with the basic means for subsistence, in that event all rations for everyone must be proportionately diminished or otherwise adjusted.

We repeat, that the personal dignity of every member of society is inviolate and equal in importance to that of every other one in respect to the requirements that he should receive, as of right, the basic means of living, that is, economic security—so long as the majority of the people consents, through popular vote, to live under this form of industrial democracy. This equality can be realized irrespective of individual differences among men, women, and children, as to their form of expression in the realm of the consumption of means acquired within the form of *free enterprise* and the sector for the guaranteed *minimum for subsistence*. This form of equality, limited to the distribution of the basic means of livelihood, may seem to many radical or even absurd, yet it is a matter of common acceptance, nay, even of ethical assent, to pay, equally, exorbitant taxes, to be conscripted for service in foreign wars, and, equally, to be maimed or even killed. We preach equality before God, yet the demon of vanity and greed within us is horror-stricken before the concept of equality for a guaranteed basic living for everybody.

It is maintained by some protagonists of the idea of the history of civilization that the advance of culture lies in inequality, as for instance in the cases of Nietzsche and Gobineau. Let us reply, we do not believe so, since we had in past history no society based on economic equality to disprove our thesis, and we may answer, if this be so—that inequality is the source of advance in the culture of a nation—let us, who are *have-nots* change places with those who *have*. The foundation for an

orderly and happy existence of man lies in the principle of the most secure economic basis for everybody, and not, as in Jeremy Bentham's doctrine of utility, "the most good for the largest number of people." Every member of society should receive a full and equal recognition of his basic needs for subsistence. Society is remiss in its obligations so long as one—only one—of its members remains in economic want or insecurity.

FULL SECURITY FOR EVERY MAN

We have in the last twenty years made a beginning, only a partial beginning, in the field of social security. We must extend this principle to be all-inclusive, to be implemented here and now.²

Thus far we have spoken only of necessities basic for subsistence. The means above basic subsistence, means essential or required for a life of affluence and luxury, must come within a framework of society separate from the institution and services for production of the basic *minimum for subsistence*, to be given to all in kind. Reasons for this separation will be shown later on, in our detailed description of the plan.

We do not claim scientific or philosophic import for our plans, but we have the utmost faith and conviction that, if realized, much of human misery can be avoided and more happiness brought to man than has been known in ages past. And we can with safety state that many physical and mental ills that flesh is heir to, can be avoided in a state of society guaranteeing each individual a minimum of food, shelter, clothing, medical services, education, and limited transportation.

The effects of economic insecurity, or the uncertainty of the

² "Every human being has the right to live. It is our duty to acknowledge that right by providing for it. In a natural state of society it would take care of itself. As matters are now, it must be deliberately provided for.

"The first necessity of life is the chance to work. There is always work waiting to be done in the world; it ought to be kept flowing in a sufficient number of jobs to TAKE CARE OF EVERYBODY. That is a matter of engineering.

"All of us need food, shelter, clothing and the satisfaction of the social sense. They are the equal necessities of our common humanity. Equality is established and justice is served when we put the indispensable within the reach of all."—Henry Ford.

The quotation above is on page 3 of "Prohibiting Poverty," by Prestonia Mann Martin (1939 edition). Later quotations from Henry Ford are from this same book.

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future upon man, are apparent to every one who has eyes to see and ears to hear.

The very essence of human happiness lies in no other sphere than in the guarantee for each person to be able to express himself in contentment, in his ideals and aspirations. Many circumstances of unhappiness will ever remain a factor in human life. The security of receiving the guaranteed means for *basic subsistence* will enable man to find his happiness according to his lights.³

THE PLAN

Our most conventional form of classification of social systems is the individualistic, known as *free enterprise*, and the collectivist-socialist. Our proposed system of a socio-economic order is neither one nor the other. It is not individualistic, because it presupposes a form of production and distribution by society as a whole, and it therefore asks for an appropriate form of enforcement. Nor can it be termed socialist, because the sector of *free enterprise* remains and is even desired. Should a classification or name be wanted, our social and industrial system may be termed *socialist-individualistic*.⁴

A sober view of our traditional economic thinking shows many

³ In his Social Security message to Congress, of January 14, 1954, President Eisenhower asserts that among the human problems that are a proper and important concern of our Government is that of providing economic security for every individual citizen and his family. He cites as proper aims of Government on all levels, including the Federal, the effort to reduce both the fear and the incidence of destitution and that of promoting the confidence of the individual in the future. These aims can be attained by providing a Government social insurance system which will give each individual a better chance to assure for himself a continued income when earning days are over, and for his family an income after his death. This basically sound system, said the President, should, after the correction of its present shortcomings, remain the cornerstone of the Government's economic security system for the individual. (*N. Y. Times*, January 15, 1954.)

⁴ "The economists are blind leaders of the blind; they know what is, they do not know what ought to be. They know how the present economic machinery works, they cannot give the drawings for a better machine. That will come from forces outside of professional economics—quite outside of it . . .

"We want a working design for what is good and right and desirable in our life. Well-thought-out working designs could be put into practice and made to succeed. Such plans will endure.

"What the world is waiting for is a social and economic Blue Print. A Blue Print speaks of one thing—of orderly work."—Henry Ford (Martin, page 4.)

of us as *have-nots* and *haves*, as exploited and exploiters—sharpers, swindlers, usurers, suborners, profiteers, and heartless prevaricators.

All our moral and ethical dicta become unworkable and worthless in this highly competitive economic setup, lacking an all-out guarantee of a minimum for subsistence and assurance against economic and cultural insecurity. One needs only to scan the faces one daily meets in his various walks through life—in homes, on the streets, in buses, railways, and in business—to see clearly the cares graven on these faces, as a result of the intense struggle for subsistence and, too, the intense struggle to keep up appearances, to keep up with the Joneses, to meet the unsatisfied, increased wants for luxuries, essential and nonessential, and the feeling of insecurity in the life of our society as at present constituted.

At no time is the unsound and almost tragic state of our lives as clearly noticeable as in the private crises, transitory or permanent, which often afflict many of us—serious crises which wear and tear the individual and which often go on unnoticed by those surrounding us, or by those writing on socio-economic problems.

Everyone is in danger of private crises. Sudden accidents are not the most perilous events—insurance protects against these reasonably well. The real private crises come unexpectedly. Often the individual at first tries to meet and overcome them quietly, but if they persist he can face them no longer and his grief becomes distraction.

Let us enumerate but a few of these types of acute private crises and dislocations in life which appear chronically and periodically in the economic life of our people and which affect at one time or another every one of us.

If someone's house is burned down and, as often happens, is not fully covered by insurance to the most detailed items of his personal possessions, or if one has not renewed his insurance policy within the given time of grace;

if an artist or artisan, a surgeon, engineer, or workingman, lose the sight of his eyes or the use of his hands;

if a physician or businessman or any other member of society lose his hearing so that he can no longer hear the heartbeats of his patients;

if an actor or singer prematurely lose his voice;

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if a private tutor lose his pupils and cannot, soon enough, find new ones;

if an accountant or bookkeeper be dismissed from his job because of graying hair and the advance of age;

if he lose his employment as a result of differences of opinion he may have had with his employer or because of the discontinuance of the business;

when a small farmer suffers one or more years of crop failure and cannot meet his current living expenses, or pay interest on the mortgage on his farm, or pay his taxes;

when an enterprise must discontinue because of change of the means and direction of transportation, or because of changes in the tools and methods of production which one cannot finance;

when a young civil employee dies, leaving his widow and children with but a small pension because of his short years of service, and with social-security payments inadequate in times of rising cost of living;

when a manufacturer is driven slowly into bankruptcy by the competition of a younger and cleverer rival, or when his product is losing its market because of a new invention;

when an employee leaves his employer, taking with him the names and addresses of clients, and gives them to a competitor; or uses them in his own establishment, thus contributing to the ruin or loss of his former employer's business;

when someone has to give up business because his rent is increased and his earnings do not warrant the payment of an increase;

when one loses his business because a neighbor wishes to expand his own business; and offers the landlord a large sum of money not to renew the former lease;

when a man falls sick several times or is ailing for a long period and is not as competent as he was, yet not so incompetent as to be able to draw on his disability insurance;

when an enterprise is destroyed by fire, or by other unforeseen forces, and production remains interrupted over long periods of time, since insurance is not always adequate to reimburse these losses to the owner of the industry, nor the loss of wages by his employees;

when one loses or is robbed of a large sum of money on his way to a bank, or, perhaps, of one's life's savings;

losses resulting from false rumors, or from malicious whisperings about one's business stability or solvency;

losses resulting from doubtful, yet not illegal, business relations;

losses incurred from the fall in the purchasing power of money, from rising costs of living, or of raw materials and production, when one had previously contracted to deliver at a fixed price, and prices of materials and labor have risen;

losses incurred during rising costs by those living on fixed annuities or payments by the government of social-security remittances (this latter condition is one of the most evident needs for the payment of a minimum amount for subsistence in kind and not in cash—fluctuating currency);

losses suffered through the dishonesty of persons with whom one does business; the impoverishment of a farmer when his livestock suffers or succumbs to disease, or when his cattle are struck by lightning and insurance does not entirely cover the loss, as is most often the case;

losses when parents are impoverished in their old age because of continued assistance to their children, or because of prolonged illness and the high cost of medical and surgical care and hospitalization;

losses when a businessman is involved in someone else's bankruptcy;

losses when the lease on space occupied by a well-going business is cancelled by the landlord;

losses when property is condemned by law to be demolished, with consequent closing of one's business;

losses when a new street is cut, destroying a well- and long-established business, or, in present times, the loss of a business resulting from the conversion of streets into one-way thoroughfares.

It is through these private crises, or misfortunes, as we term them—crises caused by general trade and commercial fluctuations—that most attempts at social reform that do not envisage economic security for all fail. These countless personal tragedies are more often than not overlooked by the high-sounding pseudo-scientific deductions and dissertations. Neither private charity nor public or state subsidies will ever be able to alleviate the sufferings resulting from the private misfortunes enumerated

above. And so millions of human beings, millions of families live their lives in constant fear, in insecurity. All of them come to their last hour without ever having experienced a moment's feeling of happiness, a moment's complete security of existence; they are not even fully and joyfully receptive to the amenities which our civilization, our cultural life, offers.

Just as a single miscarriage of justice would rouse public opinion to a wave of protest and resentment against the failure of the proper administration of the law, so should a single destruction of one's own life resulting from private economic causes, or as the result of the loss of material well-being, lead to the severest criticism of our present socio-economic system.

We speak in most high-sounding phrases of the dignity of man, man as born in the image of his Creator; yet we daily see thousands upon thousands of human beings worn down by cares of economic insecurity or uncertainty. One of the fundamentals in the feeling for man's dignity is a demand for socio-economic security, that man should not be dependent for food and shelter, for the basic means of physical life, on the will of any single man or group of men. His means of life should be the gift of the efforts of all the society in which he lives.

The mercantilist concept of the economic life prevents a proper evaluation, from a humane and social point of view, of the status of society and its component parts. Neither statistics nor socio-political dissertations will change the long-realized failure of the structure of our society. We must conceive all men and women in the nation as belonging to one single family in which each component member receives his due humane considerations for an economically secure life, and in which each able-bodied person must contribute his fair share of labor-service to produce, in kind, the *minimum* requirements for all.

We need a socio-ethical consciousness and orientation, a constructive idea and plan to realize our hopes for a better human society. We must recognize that everyone is an ego; everyone wants to live to be happy and contented. Every individual seems to himself the central point of the universe. Each individual is to be secure in his essential possession of life itself and the means for its maintenance in dignity.

The basic requirements for livelihood should be allotted to everybody without struggle and without competitive effort, with-

out the need for proving special qualifications in talents, learning, personability, cleverness, good or evil habits on the part of the individual.

Everyone, without exception, that is, without regard to age, sex, religion, belief, or unbelief, without regard to political opinions or identification with party or no party, without regard to physical or mental capacity, irrespective of one's moral or mental qualifications, should be guaranteed, as of right, a minimum for subsistence, to preserve his physical and moral integrity.

A simple and uniform degree of devotion, effort, and application to a given task is to be expected from all members belonging to what should be known as the *Universal Labor Service*. The simplicity of our plan is evident to all who have eyes to see and an open mind to recognize the need for greater security in life for all citizens. No need for recourse to so-called socio-scientific dissertations, philosophies, or other sorts of good-doing schemes; nor to hocus-pocus, without which many are not willing to accept prospects of happiness and contentment.

Bellamy, in his *Looking Backward*, published in 1889, enumerates the evils of contemporary society and all the drawbacks of private enterprise and the trustification of industries, evils as relevant today as they were then, sixty-five years ago. He made a number of sound proposals of reform, of combining all businesses, trades, and industries so that the state should become the single and only capitalist, the last monopolist, who grants everybody an equal share in the profits and savings. Bellamy's system, however, rests on two errors.⁵ First, it nationalizes not only necessities but also all means of production and distribution; second, it leaves no room for a *free-enterprise* sector in society.

⁵ In 1951 the new Socialist International meeting, in Frankfurt, Germany, defining the aims and tasks of democratic socialism, changed the original Marxian postulate and the actual practice of Bolshevism—namely, the nationalization of all means of production—to the new program, coexistence of private ownership in important districts of the national economy and also in the realm of small industries.

DEMOCRATIC SOCIALISM DEFINED

"My definition of Modern socialism is in line with the declarations and political actions of democratic socialist parties during recent years. It accords with the socialist statement on 'Aims and Tasks' which was adopted by the Congress of socialist parties at Frankfurt, Germany, in 1951. It closely parallels 'Socialism, a New Statement of Principles,' presented in 1952 by the British Socialist Union

"I should be willing, as a beginning, to accept the definition given in Webster's unabridged international.

"Socialism: A political and economic theory of social reorganization, the essential

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Consistently, our socio-economic program should be acceptable to all Marxists, since it coincides with their ideas of socialization of all means of production. It rests on our concept of extreme individualism and culminates in the concept of a future socialist society. The significance of our guaranteed minimum-subsistence program ("*Nährpflicht*") lies in the synthesis of socialism and liberalism. No over-all socialist system can prevail for any length of time without an individualistic phase. In our program, in the preservation and strengthening of free enterprise, the longings for human liberty remain more natural and elemental than the strivings for equality. While socialism sacrifices

feature of which is governmental control of economic activities to the end that competition shall give way to cooperation and that the opportunities of life and the rewards of labor shall be equitably apportioned.'

"In accepting this definition, I should insist (1) that democratic socialism must emphasize the necessity of democratic processes in all government controls lest they become fascist or communist, (2) *that there is a legitimate place for some competition in a socialist order*, [italics ours] although the dominant principle should be cooperation; and (3) that government control does not always and necessarily mean government ownership. The social ownership—not always identical with government ownership—which socialism has always emphasized as a condition of the operation of basic economic enterprises for the common good, is itself to true socialists a means of achieving social ends, rather than an end in itself.

"In brief, socialism is by no means a synonym for collectivism or collective ownership. Socialism, even in its most materialist Marxist form, has always been concerned for the good life. It has always known and insisted that man does not live by bread alone. It has always recognized the dignity of man and has desired for each individual the fullest possible opportunity for development. Its goal has always been a society fit to be described as a fellowship of free men, who will use their resources and skills no longer for war, but for the conquest of bitter poverty and remediable disease.

"However, in the historic development of socialism, there have always been considerable differences of opinion on the extent to which social ownership should be pushed and the way it should be managed. We socialists in platforms and speeches have stood for social ownership of the 'basic' or the 'principal' means of production and distribution, or of the 'commanding heights' of the economic order. These words are not and never were self-defining. Of recent years, the majority of American socialists have been—I think correctly—insistent that the model for managing what is socially owned is not the Post Office Department, but the Tennessee Valley Authority, with provision for direct representation of workers and consumers on it. On the other hand, Aneurin Bevan of Britain in his book insists—I think incorrectly—that cabinet ministers in Britain should have been given more authority over socialized industries. Almost all modern socialists are agreed that voluntary co-operative enterprises can and should be developed as vehicles of social ownership with democratic management.

"Two things have happened since World War I to lessen somewhat socialist insistence on state ownership. First, not only the dictatorial fascist and communist states have sharpened our fears of the state as the master of human society, but experience with the broadened activities of relatively democratic states like Britain and America has made us more aware than formerly of the dangers of a statism—and the economic inadequacies of nationalism—against which we must always be on guard"—"Democratic Socialism. A New Appraisal," by Norman Thomas. With the kind permission of the League for Industrial Democracy, New York.

man on the altar of equality, our socio-economic system opens all doors for the development of the individual man and of the human personality.

While Marxism's primary ideal is equality, with us the ideal of liberty is above everything else. Marx desires the liberation of man for the sake of the ideal of equality; we desire the equality of man for the sake of human liberty. We therefore seek equality only where it is not inconsistent with human aspirations, only in the guaranteed minimum-for-subsistence sector of society. All other strivings in the realm of the national economy are left to personal, individual initiative, in the free-enterprise sector of society. Our goal, our ideal, is socialist equality in the necessities for life, for a guaranteed basic subsistence; individual liberty in the acquisition of the more costly amenities of life, even in the acquisition of wealth. Therefore our system of a social order leads from an unjust inequality of present-day capitalist society, over equality in the guaranteed minimum-for-subsistence sector, to a just inequality in free enterprise.

The aim of every social reform is to improve the lot of the individual man and not only of society as a whole, which is, in reality, nothing else but the sum total of all members of society; we therefore reject every kind of social reform which overlooks the individual under the pretext of a future ideal happiness.⁶

In our opinion, too, all efforts and strivings for universal peace among the peoples of the world cannot be separated from a guaranteed minimum for subsistence for all human beings. When man is no longer plagued by want of food, raiment, decent shelter and by the uncertainties of existence, when his physical existence is assured, he may become less predatory, more peaceful. A solidarity achieved through an abundance of the means of livelihood, made possible by modern technological and agro-

⁶ "An idealist is one who is able to see that which in the minds of others does not yet exist. Every inventor is an idealist because he is working on something which has not yet appeared. Every prophet is an idealist because he is living in a social condition which has not yet come into existence. Except for idealists there would have been no United States of America.

"If you have an ideal, that is good; if you have also ideas as to how to work it out, that is better.

"There is the idealist whose dream is so distant from what we have now that he is derided as a visionary. Still, he may not be. Some minds have longer sight than others. What seems impossible today, may half a century hence have become a commonplace."—Henry Ford (Martin, page 10.)

chemical achievements, by the great labor-saving machines and devices, will lead man to more peaceful pursuits.⁷

However, should experience, over a sufficiently long period of time, prove the inadequacy of a dual system of a socialized sector and of a private-enterprise system, then society can, through proper, lawfully prescribed means, manifest a desire for complete change; it can socialize also the sector of private enterprise which produces and distributes goods of luxury and abundance, in addition to those required in the sector of the guaranteed *minimum for subsistence*, as demanded until recently by Marxists. There is, however, in our humble opinion, no probability or practicability that such a change will be needed or desired by society in general.

THE PLAN TO GUARANTEE A MINIMUM FOR SUBSISTENCE AND ESSENTIALS TO THE CULTURAL REQUIREMENTS FOR EACH MEMBER OF SOCIETY

This plan embodies the guarantee of a minimum for subsistence and the essential cultural needs to each member of society, from the cradle to the grave, and would secure everyone against want and the fear of the uncertainties of economic subsistence and the vicissitudes of life; against the tragedies following economic, private misfortunes. A sufficient quantity of durable and consumers' goods, machinery and tools and other equipment for industry and agriculture, are to be set aside from the total efforts and production of society, and used to assure and guarantee to each member of society a life of physical comfort, hygiene, social and cultural enjoyments.

We must provide not only a minimum of food, basic housing and house furnishings, clothes, medical services, heating, illumination, education, hospitalization, and, if misfortune strikes, also

⁷ "Popper-Lynkeus' plan must be evaluated from an ethical aspect. No one before him has argued with so much conviction that the individual and his welfare must be the measure of all things, that life and the fundamental needs of the individual must be secured first, else our entire order of things, including our cultural achievements, are worth not much praise"—Dr. Fritz Wittels, "An End to Poverty," London, 1925. Translated from the German by Eden and Cedar Paul, George Allen—Unwin Ltd. Ruskin House, 40 Museum Street, W. C. London, England.

burial to all, but also a basic *minimum* of entertainment in the form of concerts and theatrical entertainment, to be determined as our plan comes into full functioning practice.⁸

This minimum guaranteed supply of the means of subsistence, education, etc., as enumerated above, to be given to each and every member of society, would be produced and provided for by an obligatory Universal Labor Service, composed of and participated in by every able-bodied man and woman, and distributed in kind, not in cash, distributed and given unqualifiedly to every man, woman, and child.

The civil service known as the Labor Corps for guaranteed minimum for subsistence, serves to produce for all, including each man's own consumption and use. We consider this as the only economic system which can, in a free society, secure and provide a minimum for subsistence for all, a guarantee for every one against fear of the many uncertainties of life as we face it at present.⁹ The guarantee of a minimum and the satisfaction of the physical needs of man as a primary phase in our system would, however, be insufficient, unless we also contemplate the secondary needs of human beings—their cultural requirements, such as education, reading and writing for pleasure, minimum-cost vacations and low-cost concerts and other forms of entertainment. Since in all matters of human relations certain inherent and accepted limitations must be observed in order to make a social system workable, this secondary, cultural minimum must find its restraints against misuse in forms generally prevalent in society.

The secondary, cultural needs to be guaranteed and assigned to all persons in the form of cash currency, will set limitations and will also facilitate purchases in the *free-enterprise* sector of society in case of fluctuating prices.

Therefore, from time to time, a general referendum will determine the quota and the amount of cash currency that could be allotted to meet the personal, secondary, cultural needs in the

⁸ "Men, secure from the necessities of the body, could then proceed to the nobler exercises of their faculties."—J. M. Keynes.

"The basis of life must be made secure."—Henry Ford (Martin, page 58).

⁹ "The need for economic security is the most urgent requirement of our age. That people which shall evolve a stable industrial system shall inherit the earth."—Haldane.

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guaranteed *minimum-subsistence* sector. We repeat that the *minimum* for cultural needs is to be paid in cash, to be purchased in the free sector of society known as *free enterprise*.

It is clear that the secondary, cultural, needs of each individual vary and depend very much on intellectual and emotional factors that cannot be estimated, appraised, or allotted as can the requirements for a basic, physical, livelihood, such as food, raiment, housing, etc. It is, therefore, more practical for each individual to receive cash to meet his needs of minimum secondary, cultural, requirements.

An institution to guarantee the minimum for the subsistence of each member of society assures the success of both phases. The physical and the cultural minimum, however, because of the nature of the latter requirement and the difficulty of its appraisal and allotment, provides in kind only the former, which can and must be produced in the economic service by a so-called economic militia, known as the Labor Corps.

The economic authority concerned with the production of the *minimum* could be known as the Department for Basic Livelihood, a purely economic institution, free from all political involvement and chosen by popular vote.

The advantage of our plan lies in the fact that all phases of production and socio-economic activities, shall produce only what is scientifically determined and ascertained as essential.¹⁰ To be precise, it may, from time to time, be ascertained through inventory, the quantities of consumer goods to be allotted according to current production and reserves in stock to meet emergencies.

The physiologic needs for food, clothes, housing, health services, etc., can, more or less, be determined in advance and the needed quantities produced, plus reserves. The requirements are to be determined according to age, sex, occupation, etc., leaving also a considerable margin for personal characteristics of consumption. All these requirements are to be produced by the economic civil service, Labor Corps.

¹⁰ The United States Chamber of Commerce has estimated that 25 per cent of all industrial effort now made, is wasted through failure to standardize intermediate processes. This condition has been somewhat improved since the years of World War II and the Korean War.

Variations of customs, habits, manners, and differences in climatic conditions which differentiate requirements, will, as a matter of fact, be taken into consideration when allotments for local needs are made.

All members of society engaged in the production of the minimum needs form an organized body of civil service, known as the economic militia, the Labor Corps. This body of workers would be analogous to what is, in the United States of America, known as the militia, in which a definite number of men and women must serve a prescribed period of time, to be specified through socio-economic statistical findings.

Whether socialization of production will increase or lower the productive capacity of an involuntary economic militia to meet the required *minimum* of the physical needs for *subsistence for society* can, at this time, not be ascertained or stated with any degree of certainty. Hypothetically, for the time being, let us assume that production will be harder and lower than it is at present, during the transitional stage, under our over-all free-enterprise system, known as the *capitalistic*.

Nevertheless, the solution of the uncertainty of subsistence warrants the above-stated form of socialization in order to realize our principle of a guaranteed minimum for subsistence for everybody. From time immemorial it has been the contention that enterprises managed or owned by government do not function as well as those privately owned. The former, it is said, result in slower, inferior work, and a waste of time through the red tape of a bureaucratic system; also in lack of personal interest and of the competitive factor. This has always been a much-debated question. The amount of work the Universal Subsistence Army performs, whether or not they work harder, will determine the number of hours daily they will have to work in order to produce the minimum consumers' and durable goods required for any current term or year, since the commodities needed for the minimum for subsistence will have to be produced. In case the Subsistence Corps work less, the term of their work in the Universal Civil Service will automatically be prolonged until they produce and deliver the commodities required for current minimum need and a surplus for emergencies. We believe that the example and moral influence of the more industrious workers will suffice to make lagging or recalcitrant workers change their

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attitude and work more diligently. We believe that the workers in the Universal Civil Service Army will realize that it is to their advantage to work harder, thus shortening their daily hours of work and the period of service required to bring about satisfactory results.

Should it be maintained that the earth cannot produce abundance for all, then we reply, we have no conclusive evidence that this is so. On the contrary, present-day research and the development in scientific agricultural methods, also the achievements of chemistry, agro-chemistry, and the use of atomic energy for peaceful pursuits, sustain our belief in the abundant life for all. Should it come to pass at a distant time that the earth and man cannot produce enough for an unrestricted allotment of food and cultural needs of a minimum for all, in that event society will have to resort to rationing, as it has done in recent years, during the First and Second World Wars, and also during the postwar period. However, the rate of our present-day technological development and achievements of science may make for such an abundance that all means for basic livelihood can become a public utility like water—given and received for the asking.¹¹

To live decently, to guarantee the means for a *minimum* of physical sustenance for all, to guarantee the funds to meet the emotional and spiritual needs in unconditional equality to all, is of mandatory importance. The rationing of the basic means for

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FOOD SUPPLY AMPLE FOR WORLD

In a report to the United Nations, the Director-General-elect of the Food and Agriculture Organization, Dr Philip V. Cardon, expressed confidence that the world food production would be able to keep ahead of population increase. (*N. Y. Times*, February 19, 1954.)

Indeed, in a dispatch in the *N. Y. Times* dated February 27, 1954, announcement is made that Canada can find no buyers for her surplus wheat, to the extent of nearly 700,000,000 bushels. "Wheat sales have been lagging for some time, the result in part of good crop years in Europe and the withholding of purchases by the United Kingdom in the hope of a drop in price." Meantime, Canada has had two bumper crops in succession. The Canadian Government has been obliged to make heavy payments to the prairie farmers, although insufficient for the actual value of the wheat. (Raymond Daniell, in *N. Y. Times*, February 28, 1954.)

Furthermore, commercial fertilizers are being developed in increasing numbers in Canada, Finland, Iceland, Israel, India, Yugoslavia, and many other countries. Waste gases from Near Eastern oil fields "at virtually no cost" are being conserved and converted into fertilizers, and "vast tracts of formerly inaccessible areas in Australia and New Zealand—through utilization of aircraft to spread superphosphate," are being reclaimed and will add "tremendous acreage gains." (Kathleen McLaughlin, in *N. Y. Times*, February 28, 1954.)

the physical and spiritual welfare of all is to take place without discrimination and in equality for all.

There may also be found a practical basis for estimating the cost of the secondary, cultural needs and to express the costs in terms of cash. In allotting a minimum of means for primary and secondary needs, we may take the approximate calculations used in estimates of the present-day middle class.

The budget to meet the secondary, cultural, needs of the average middle-class family is approximately one-fifth of the amount of money¹² spent to defray the cost of the primary needs, such as food, clothing, and rent.

The money to be allotted for the cost of the secondary, cultural, needs in the form of cash can be secured through various forms of taxation of enterprises in the *free-enterprise sector*, as is now being done under the capitalistic system.

The economic structure of a society built on concepts of ethical foundations rests, first, on a *universal civil service*—service in an army of workers, obligatory for all able-bodied men and women, to produce and without reservations to distribute the primary, physical, needs for living, to be distributed in kind, and not in any monetary form. There is neither buying nor selling, neither barter nor speculation in any form, possible in the realm of goods to be provided for or in services to be rendered in the sphere of society of a guaranteed *minimum for subsistence*.

No member is, therefore, dependent on any one individual or group of persons to receive, as of right, his or her means for a basic form of living, a basic education, and simple, basic forms of recreation and entertainment. Neither can there be any form of crime, as theft or robbery, fraud, etc., within the framework of the basic minimum subsistence structure, as all means for basic living are provided for in sufficient abundance for all, an abundance which is realizable under the present technological development.

Second, parallel to the existence of the obligatory, cooperative, basic *minimal* structure of society, there will be *free-state enterprise*, which will control all public services—viz., mail, telegraph, telephone, limited transportation (within one's home environs), protection, etc.

¹² "Allgemeine Nährpflicht als Lösung der Sozialen Frage" (1923), page 138.

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Voluntary service and occupations in the sector of *free enterprise* for cash pay or profit are open and free to all and are not obligatory, as in the structure for *minimum for subsistence*. In the state, free enterprise, the exchange of goods and services, takes place through a monetary system such as now exists in the free enterprise of our capitalist society. The state pays its workers, clerical staff and executives, judges, teachers, in cash, and since the primary necessary means of the minimum is given to all free, as of right, wages and salaries will, of course, be proportionately lower than are paid in the free enterprise of total capitalism, because all receive their minimum basic commodities for subsistence. We repeat—all members of society must, as of duty, serve a prescribed number of years in the *Universal Labor Service*, to provide the means required in the sector of a guaranteed minimum for subsistence. No members of society, by reason of status, are freed from this service, be they scientists, teachers, judges, executives, etc. All must serve alike and for the same number of years, except as determined by authorities in specialized services of vital importance to society, for both sectors, that of minimum for subsistence and of free enterprise.

The various categories must, of necessity, be developed after the years of work in the civil service for minimum subsistence, and it is therefore understood that a period of preparation must be allotted for employment in the free-enterprise sector or in state service.¹³

The great technological and time- and labor-saving advances made since 1939 may reduce the term of service in our Labor Corps to six years, or perhaps to less—even a shorter term of service for women, so as not to interfere with marriage and child-bearing. There will be ample free time left for those wishing to pursue specialized occupations to be used in free enterprise, so

¹³ Popper's basic social ideas were first published in his book "Das Recht zu Leben und die Pflicht zu Sterben," and later in his more profound study, "Die allgemeine Nahrungspflicht als Lösung der sozialen Frage" (1911).

Prestonia Mann Martin, in her book "Prohibiting Poverty," (1939 edition, published by the National Livelihood Plan, Winter Park, Fla.) calculated the age of entrance for service into the Commons, her term for the equivalent of our civil-service minimum-subsistence Labor Army, as eighteen years, after completion of secondary-school education. Eight years were to be given for service in the Commons (page 7). Mrs. Martin wrote her book in 1932, and gives her figures in the 1939 edition on the basis of investigations made by the New York Labor Bureau, Inc., under the direction of Mr. Stuart Chase.

that after completion of civil service in the minimum-subsistence sector, they may earn more money for a life of greater abundance.

The experience gained in the civil-service Labor Corps, the maturity gained through friendly contacts with other young people, and with the industrial supervisors or with managers, will serve to enhance the value of preparatory studies for occupations in free enterprise.

The means for the cultural minimum, for education, books, vacations, writing materials, and entertainment are, we repeat, to be allotted in cash. The money to provide for these needs is to be raised by the government in the form of revenues from duties and taxation of the free enterprise, analogous to those derived at present, under total capitalism.

Third, next to the social structure of a guaranteed minimum for subsistence, guaranteed and distributed in kind, and next to the free-state enterprise, the free-state civil service, we have the no less important structure of free enterprise as under our present form of capitalism. Currency will serve as the medium of exchange for buying and selling, and for payment of wages and salaries, with free competition in production and distribution, in the exchange and consumption of goods not basic to the needs of the minimum-subsistence sector. Services of a higher order, services of luxury, will be paid for in cash in the free market as under the capitalist form of society.

At the termination of service, in the civil Labor Corps for *minimum for subsistence*, each member of society is free to participate in *free enterprise*, to enhance and increase the consumption of goods, luxuries, services above those guaranteed and given to him as a minimum. He can pursue the acquisition of money exactly in the same form and manner prevalent in the free enterprise of total capitalism. State controls to regulate free enterprise within certain reasonable limits will be enacted, so that it may not become a detriment to society, and they will, no doubt, be necessary in the same form as found under total capitalism. The state will have to legislate against abuses and regulate the flow of raw materials, enact public-health measures to safeguard society against abuses in industries and their injurious effects, and those of the services within them. Pure food and

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drug laws will be enacted; also rules against irrational industries and unrestricted exploitation of natural resources. The use of grain, potatoes, and other foods for the production of alcohol will also be regulated by law. No alcohol for beverages shall be produced or dispensed in the minimum-for-subsistence sector of society. All alcoholic beverages are to be commodities of free enterprise, to be purchased with cash currency.

The society of the free-enterprise sector, we repeat, will rest, as at present, on money as a medium of exchange, on buying and selling, on speculation and on the wage system, with all the factors inherent in the relations between employer and employee, such as strikes, lockouts, and collective bargaining between capital and labor; however, on a higher ethical plane, since every one has a guaranteed income in the form of minimum for subsistence. The relations and struggles between capital and labor will no longer be a war of class against class or of the haves against the have-nots, but a struggle between two forces without class hatred, each equally secure in the assurance of the fundamentals for its existence.

The system of free enterprise, comprising the production and acquisition of luxury goods, and goods not essential to basic subsistence, comprising also luxury services and the production of durable goods, tools, and machinery for the manufacture of the above-named goods, needed for the creation of a life of abundance, must be kept apart from the production and distribution of necessities in the basic-minimum economic phase of society.

Free enterprise must maintain free play and a great latitude for executive and individual, personal ambition. It must be a stimulus for higher reward through personal achievement and inventiveness, which would be destroyed were all incentives present in the free economic sector eliminated; since few, if any, of the mass of inventors and technicians spend their time, often their whole lives, in toil or struggle out of pure idealism. Were there no rewards in sight, with the hope of material compensation for one's strife and toil, many an invention would not have seen the light of day. The incentives for fame and higher returns are most often the main factors in many inventions and improvements in the production of goods. In the field of luxuries, the

free economic system of total capitalism, based on private ownership, individual enterprise, and free contract, will continue as it is today.¹⁴

Free play is thus provided for everyone, to develop his talents, to satisfy his ambitions.

In a completely socialized and regimented society, little incentive would remain for the development of talents and innovations toward technical progress, and little hope for higher emolument as a result of greater diligence in labor or in the administrative services. The joy and happiness of the inventor in his successful achievement, the contemplation of a more fruitful solution, by far outweigh the pleasures of consumption.

The *free economic enterprise sector*, based on a system of a guaranteed minimum for subsistence would give greater play for the manifestation and development of individual talents and characteristics than is possible under the total capitalist free enterprise, where talents suffer barriers from insecurity and often from the lack of basic necessities for a daily livelihood. The love of good things of life is a powerful incentive for action and enterprise. The desire for luxuries is an ever-present, universal passion among all peoples, of all times. Things that were once

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SOCIALISM, EMULATION AND COMPETITION

"My second observation is that socialism has to take account of the whole man as he is. We are not all of one piece. And we do not act under any one incentive. The spirit of emulation or competition is deeply rooted in us. A completely non-competitive society would be dull and stagnant. Within bounds, competition can be made consistent with an over-all principle of mutual aid. From the very beginning, men in society have been motivated both by competition and mutual aid. Socialism should try to stress competition for the laurel wreath rather than the sack of gold. It will emphasize emulation in service. It will provide a better chance for men to satisfy the creative urge within them. But it should recognize that material progress has been furthered by competition for material reward. There will be room for that in a socialist society if the reward is not of such a nature and amount as to put other men in virtual slavery to the winner. In our present-day society, the noble principle, 'from every man according to his ability, to every man according to his need,' is not the basis of practicable economics.

"Neither is the principle of rigorous equality in pay practicable. To make that principle work, there would have to be a kind of conscription for jobs which the socialist who loves liberty will be deeply concerned to avoid. It is better to attract men to work requiring special strains or the exercise of special ability than to conscript them. Socialism will put a floor under family incomes at a rate sufficient for decent living. But for years to come the problem of increasing production must take precedence in socialist planning over the problem of achieving the noblest system of distribution from the standpoint of pure ethics. St. Francis of Assisi is not our guide to an economy of abundance"—Norman Thomas, in "Democratic Socialism: A New Appraisal," pp. 22, 23. With the kind permission of the League for Industrial Democracy, New York.

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luxuries and were enjoyed only by the rich and powerful are today commonplace necessities enjoyed by everybody, the rich and the wage-earner alike. It is no longer the pressure of necessities but the desire for the good things of life, for luxuries, that keeps many of us in pursuit of the means for acquiring them. Luxuries give our lives charm, enhance our efforts, and encourage our artistic aspirations and skills of craftsmanship.

The joy of possession and accumulation will find its satisfaction in the free-enterprise sector of society. The preservation of free enterprise will leave scope for accumulation of wealth in a more salubrious, in a more moral climate, free from the greed and other disagreeable phases often to be encountered in total-capitalist society. Greed resulting from a desire to acquire more wealth or from the fear of insecurity will be channelled in more wholesome directions.

Our dual system of a guaranteed minimum for subsistence and of free enterprise may help direct the instincts of greed into free enterprise, where each may amass wealth if he so desires without endangering the security or welfare of any member of society.

In the present total-capitalist system of society, ambition and greed are the universal passions and are manifested by all people, in a rather greater degree among the rich than among the poor—in either case as a consequence of the feeling of insecurity, or because of fear that one may lose the acquired means which assure one a degree of security, and this more often than not depends on the fluctuation of economic conditions.

We believe, once poverty and insecurity are eliminated from society, greed will largely go with them, giving room to other ideals, other ambitions, nobler activities in their place. It is a known fact that man cannot exist without ideals. Our fear of insecurity drives many of us to greed and ruthless strife, and to a struggle of all against one and one against all.¹⁵

The guaranteed minimum for subsistence for everybody will help to eliminate many of the disagreeable factors incidental to the accumulation of wealth in a total-capitalist setup.

¹⁵ "The cure for materialism is to have enough for everybody. When people are sure of having what they need, they cease to think about it. Uncertainty chains the mind to anxiety. We can make the acquiring of the necessities of life a mere incident. The ideal of industry is a world in which people will have a chance to use their brains and will not be occupied from morning till night with the business of getting a livelihood. The true end of industry is to liberate the mind and body from the drudgery of existence."—Henry Ford (Martin, page 94).

Many of the evils of capitalist economy will, in course of time, disappear in free enterprise based on a society of the guaranteed minimum for subsistence. The sector for the guaranteed minimum must be based on solid foundations, so that it may fulfill its function of justice and fairness to all. It must not fail, as it is the indispensable basis and assurance of our program and of the free-enterprise sector.

Money would not be used in any form whatsoever as a factor in the production and distribution of goods and services, except in the requirements for the cultural minimum, as the use of money would open the gates for the introduction of competition, which will destroy the very nature of the minimum sector; this must also be freed, as much as is found practicable, from all colonial dependence or from foreign commerce, thus assuring society against scarcity in case of war.

All means of the country allotted for distribution and consumption in the minimum sector of society, all tools, machines and other equipment required, in the production of these minimum goods, are to be guaranteed against seizure in times of war, by international convention. They are to remain inviolable also against use in times of war or invasion by enemy troops or enemy citizens, if such conventions will be honored by the nations. (Experience in the First and Second World Wars, it is true, leaves such honoring an open question.)

The monetary wage system prevailing in the free-enterprise sector or in the services of the state will remain similar to that in the all-capitalist economies. Since everyone will be guaranteed a minimum of goods for subsistence, labor of hardship and services of an unpleasant type will find additional adequate compensation, as in capitalist society. And since, in the very nature of man, the desire for accumulation of wealth is great, it will, no doubt, remain so. We shall therefore find no great difficulty in having hard or unpleasant labor performed. Labor of excessive hardship, like mining, blasting, etc., would be recruited by lot among men and women physically fit for a given task; and services in such fields, because of hazards involved, shall be of short-term duration, with sufficient rest periods for recuperation.

The struggle between capital and labor in the free-enterprise sector, as exemplified in strikes, slowdowns, lockouts, etc., can have no seriously injurious economic consequences on society in

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the guaranteed sector of minimum subsistence. The guaranteed minimum will forever remain the important phase, and whatever may take place in the free-enterprise sector is nothing more than a free competition for the greater luxuries of life, for the accumulation of more money. It is no longer a struggle for existence, a battle of classes or masses; it is more a form of competitive sport.

Changes, modifications, and complementary additions will, of course, be necessary after the reconstruction period, and especially in the services to be rendered society, such as protection against the elements, against natural disasters, against fire and inundations. Changes will also be necessary in matters pertaining to security, such as police and public-health services. All services within the scope of public welfare fall within the sector of the guaranteed minimum for subsistence, and they must be guaranteed, enforced, and executed in a form similar to the one rendered in the allotment of the physical necessities of life. It is a form of general, obligatory social service, due everybody.

Upon discharge from service in hazardous occupations everyone in good health enters automatically the service in the Labor Corps for minimum subsistence to complete his term of work measured according to exact statistical records.

Refusal to enter service in the Labor Corps is to be met with moral suasion, and only after persistent refusal to cooperate and as a very last measure should the withdrawal of the minimum-subsistence supplies take place. We have faith that proper education and the training of youth to a sense of pride and duty in the spirit of cooperative endeavor will reduce recalcitrants to an insignificant number.

Freedom of choice to accept or not to accept the means of minimum subsistence lies with all members of society, since the free-enterprise sector offers a free and competitive market for the acquisition of all means necessary to subsistence and luxury if one so desires it. All one would have to do would be to give notice, at the end of any six months' calendar period, that one does not expect to draw on the means for minimum subsistence. Such notice would aid the authorities in charge of stocks and reserves to make their calculations for the current six months' term or for one year, as the budget may be fixed. Renouncing one's claim to receive the necessities for minimum subsistence

does not free one from the obligatory service in the Labor Corps. No one in good health would be freed from duties and obligations due society to maintain its system of welfare for all.

The general principles for the organization of the Labor Corps for the minimum-subsistence civil service are these: *All* men and women of good health must, from a clearly defined age—at eighteen—after completion of public-school and secondary-school education, serve a previously determined term or number of years in the civil-service Labor Corps, to produce the necessities for minimum subsistence. Exceptions are to be granted only to physically and mentally unfit; there can be no release or shortening of the period of service for the physically able, unless one is needed in highly specialized services outside of the minimum sector, and then only upon proper recommendation by qualified and state-authorized members of management. Every able-bodied man and woman must serve a time specified by law, in order to assure for all a steady and orderly supply of the means for minimum subsistence. The assignment to specified services and occupations is to be made on the basis of physical and mental aptitude, or personal likes and dislikes, except in cases of emergency. A measure of freedom of choice of occupations is to be left within the framework of the compulsory civil-service Labor Corps for minimum subsistence. Direction would be given to those with artistic and scientific trends of mind, or with ability for industrial management. Freedom is to be left to those of greater talents and ability to develop them during the formative years of youth, while they work in the Labor Corps of the civil service. They should be helped and guided in the vocations they may choose to follow in the free-enterprise sector after they complete their terms of civil service. Those of greater ability may, if they so choose, remain as guides or instructors, administrators, or managers, in the civil service of the minimum sector, receiving adequate monetary remuneration above their allotment for the basic minimum needs.

The presence of highly trained volunteer workers in the civil service of the Labor Corps as administrators, guides, and teachers can aid in a more effective production of goods, and thus help to reduce the number of hours of work per day. However, the number and length of working hours and periods cannot remain the same in occupations of greater physical strain and

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effort. In such occupations the hours per day will of necessity be shorter, but no change or shortening of working hours may in any manner or form free any one from the required number of years to be spent in the civil-service Labor Corps. All means of subsistence are to be allotted a year in advance to all members of society, except to those who at a specified fiscal period renounce their claims for minimum subsistence.

Heads of families and guardians of minors receive the required needs for them. Food may be received in kind, or prepared, cooked ready for service, to be taken home or consumed in restaurants by those maintaining no housekeeping homes of their own. Under no circumstances may payment be rendered or received for food served or consumed in these eating places of the minimum-subsistence sector. Restaurants and eating-places of the free-enterprise sector would serve food for cash payment.

Minimum-standard housing and housekeeping furniture of a basic, decent quality, determined by representatives of the trades and by social engineers, are to be given free to everyone in the city, in the suburbs, or in the country, according to one's free choice. All articles of clothing, household linens and cloths, also of a determined basic good quality, are to be given to all, and under no circumstances and at no time shall man, woman, or child be required to wear a uniform of any sort, except of one's own free will and choice. A limited choice of styles, colors, and patterns is to be left open to everybody.

Waiving of the claim to receive goods for minimum subsistence can be made only for the year to follow or for the current term; to waive the claim is accepted as evidence of the desire not to participate in the receipt of goods for a minimum for subsistence. Those waiving all claims for minimum subsistence, finding their livelihood in free enterprise, may, in case of misfortune or need, renew their claims and immediately receive, as of right, all means of subsistence which are due them because of former work in the Universal Labor Service.

To realize our program of social service to all, all means of production for the minimum-subsistence sector must become the property of the state, acquired through purchase and proper monetary compensation to the owners. Raw materials or other necessities not available at home are to be acquired by purchase in the open, foreign markets, either through fiscal exchange or

through exchange of products through international banks and clearing houses, preferably through a system of barter.

Work in the Universal Labor Service to provide the minimum for subsistence for all, we consider as an absolute condition for the realization of our program of equality to satisfy the basic physical needs for a secure living for everybody. Equality in the socio-economic field is understood to mean that everyone is assured of his means of subsistence. In case of shortages from whatever cause, these shortages are to be borne equally by every member of society.

To the objection of constraint or loss of liberty, through compulsory service in the Universal Minimum Subsistence Army, we reply to their slogan of "Liberty above everything else; it is more important than life"—that this is one of the insoluble paradoxes of history, to assure economic security for all through a limited, compulsory civil service, or to continue in the historical fallacy of leaving many human beings to suffer—nay, often perish—through insecurity and want. Though many object to and even resent service in the military forces needed for inner national security, and for the protection of the country against foreign aggression, most men and women, after generations of education in the need for such service, accept it as one of the unavoidable obligations. So, too, through a process of education, a generation will grow up to look upon a limited term in the civil service in creative occupation for the production of goods for minimum subsistence as one of the duties of good citizenship, and not as a curtailment of the basic principles of liberty. The question of socio-economic insecurity and of absolute liberty, or of security and duty to work in the Universal Labor Service, will forever remain unanswered. Each one, individually, may think of his own decision.

Only a generation or two ago, to serve in the army, to go to war, was looked upon as a matter of honor. Going to war was freedom to die and not freedom to live, as was extolled in these sentiments of honor. We may with a measure of certainty assume that education and the development of a deeper sense of social responsibility will place the duty of work in the civil service in a different and more appreciative perspective.

The solidarity of all citizens in helping to mitigate economic uncertainties will then be looked upon as a civic virtue, as a

social ideal. Solidarity in the defense of the homeland against aggression from without is felt to be a patriotic and highly moral duty. In such a light, too, may we some day, in the not too distant future, come to look upon the civil service in the Labor Corps, thus providing for all the means for minimum subsistence, as an honor-bound obligation.¹⁶

One risks life and limb in military service; in the civil-service Labor Corps one works for the good of all and learns a trade or profession, which may serve one well for future participation in the free-enterprise sector, and for enjoying the greater amenities and luxuries of the good life.

Today we are free agents in capitalist society. We are not economically free nor are we secure, and we often, against our will and against our inclinations, follow occupations and perform labor for a lifetime, forty years or longer, and when we reach the age when we are entitled to the benefits to receive payments of social security most of us have but ten years of life left to enjoy the well-earned leisure which we may in a very limited part enjoy through the social security payments without real freedom or ability to change easily into a different occupation; this is because of our economically insecure positions in present-day society. Under the proposed order, the individual may enjoy greater opportunities to engage in scientific and artistic pursuits, to develop his technical skills with greater satisfactions and greater achievements, than is possible in an economically insecure society. Insecurity often warps the hopes and aspirations of able and worthy people to engage in activities beyond those absolutely required for their families' maintenance. The assurance of a guaranteed minimum of economic security ranks, in our humble opinion, much higher than all the phrases of well-meaning idealists and practical realists.

¹⁶ "It would be a splendid thing if young men could be drafted into public service for discipline in serving the general good. Imagine that we had a system of conscription under which young men should be drafted for training and service. The training could consist in all the things that a young man ought to know. They would be trained to be fine bodies, to be fine, alert, steady minds, and to be useful, willing servants of society.

"Suppose we had such an army. We have now many volunteer associations, but suppose we had an army of CONSCRIPTS nobly initiated into the greatness of public service.

"We need universal training in team work. Militarists tell us that military training does it. But that is team work with a destructive object; couldn't we get even a higher degree of team work with a constructive object?"—Henry Ford (Martin, page 24).

The fundamental principle of our program—to guarantee to each and every person a minimum of economic security—may no doubt have problems which only practice in its realization will be able to overcome. Yet we have, in the face of the insecurity and the actual misery of many millions of men, women, and children, no valid principles in opposition to an earnest desire and attempt to implement such an order.

Our duty and function as social reformers are simply to bring about in our society and in all countries, if acceptable to them, states of a socio-economic order in which each man, woman, and child may live peacefully, in plenty, according to the means and resources at the disposal of society, without dictating to anyone in what manner he or she should live or arrange his life, and without coercion as to his choice of occupation.

*REPLIES TO SOME OBJECTIONS THAT MAY BE MADE
AGAINST OUR PLAN*

Question: How many years must one serve in the Universal Labor Service?

Answer: About eight years.¹⁷

Question: That is too long a servitude, and it is not advisable to make such a radical change in society.

Answer: Today one works all his life, from the age of eighteen to that of sixty-five or seventy-five, forty-seven or fifty-seven years, and according to life-insurance company statistics 85 per cent of elderly people above the age of sixty-five must supplement their meager doles or payments from state or federal social-security funds, by the assistance of their children, relatives, or friends, or from private social services. Should we therefore consider six or eight years of useful and

¹⁷ The figures were arrived at by Popper-Lynkeus in 1912, the date of publication of his major work, "Die allgemeine Nahrpflicht als Lösung der sozialen Frage"; they were based on the population of Germany at that time—70,000,000—and on the industrial development and agricultural advances existing at that time.

The original idea of a society based on a minimum for subsistence in free enterprise was first developed by Popper in 1878, and was published as part of an earlier work, "Das Recht zu Leben und die Pflicht zu Sterben." We believe that with present technological achievements a labor service of six years for men, and a shorter term for women, will be sufficient to help create a life of comfort in the sector of society of a guaranteed minimum for subsistence.

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productive service in the fields of economic endeavor, in the Universal Labor Service, too high a price in comparison with the thirty years or more of intense striving for the economic security which few of us fully achieve? We may surely look upon the realization of equal economic security for *all* as one of the real, primary advances in the human family.

Question: How long a service should be required from each one to assure a guarantee of a full minimum for subsistence?

Answer: Six years for men; a shorter term for women.

Question: Six years is too short a time. Such is another objection. What would people do the rest of their lives, with their time free on their hands? Idleness is the root of all evil, cries this objection! We shall create more offenders, criminals, and wasteful idlers than we ever had in times past.

Answer: We have today, as everyone knows, in our capitalist society, thousands—nay, millions—of idlers among the poor and the rich, among the many of shady pursuits and occupations; and we have duplications of nonessential, wasteful activities, exhausting our resources—those who occupy their time in wasteful hobbies, stupid forms of sport and entertainment, driving about aimlessly through the country in their motor cars, exhausting and destroying the produce of the earth and of human effort. Most of these people do not turn to criminal pursuits, as some of our social philosophers may imply.¹⁸

We must therefore conceive that basic forms of behavior will follow as a consequence of education in our proposed society, so that time free after the eight or six years in our Universal Labor Service may and will be turned to pursuits in self-improvement, in the arts and sciences, in enjoying fully the gifts of nature

¹⁸ "There will never be a system invented which will do away with the necessity of work. Nature has seen to that. Work is our sanity, our self-respect, our salvation. It does more than give us a living—it gives us life. The day's work lies at the foundation of the world.

"Every man who eats and wears clothes and enjoys creature comforts does so at the cost of someone's labor. He ought to yield an adequate return of useful service for what he receives."—Henry Ford (Martin, page 14).

in our gardens, national parks and landscapes, or to efforts to earn a more abundant way of living in the free-enterprise sector. It is psychologically a curious thing and greatly to be regretted, that many, confronted with a solution of the vital social problem, reply with objections instead of expressing an earnest desire to help alleviate these eternal, cruel sorrows of the insecurity of man.

Question: What will be done with those who refuse to work in the Universal Labor Service? Man is not thus altruistically constituted!

Answer: A service in the Labor Corps for minimum subsistence is not a matter of altruism or its opposite, any more than engaging in or following a definite vocation is at present totally a matter of choice or sentiment. In both instances service, labor, is a means of gaining one's livelihood.

The artisan, the engineer, the scientist or bank or business executive, today, do not work because of a feeling of love for their fellow-man, but because of the necessity of earning a living, and often also because of an inner urge for self-expression. Objection to service in our proposed Labor Corps for securing a guaranteed minimum for subsistence for all may be rooted in the old prejudice and resentment against compulsory army service, understanding by this a rigid, iron discipline, with physical discomforts and restraint, and often with personal humiliations suffered at the hands of supervisors far away from home, far from one's dear ones and friends. These cannot be the aspects of a Universal Labor Service in which each individual will have the rank of a functionary, a public officer, exactly as today in most forms of governmental or municipal civil service.

The term of service in the minimum-subsistence Labor Army may be divided into two separate parts, the first part from the age of eighteen and the second from the age of thirty. Entry on service may be postponed from one to three years in case of a

youth showing special talents, as these can be better developed at the earlier age, better adapted for study and learning. In the interim, any special talents one may have either in artistic, technical, or other intellectual pursuits, could be developed and cultivated in the free-enterprise sector. The total required number of years of service remains the same. Study will have to be given to devising ways by which as little interference as possible will occur with a youth's time for intellectual training. Indeed, the United States Army during and since the recent war years has established many such safeguards to secure professional training for our young men.

It may be suggested that the Labor Service be paid in cash instead of in kind, cash derived from revenues and taxation. The objection to such an arrangement lies in the almost impossible problem of a just and correct solution of the question who should be assessed for taxation, and how much each assessed member of society should pay. But the means for the secondary minimum—such essential luxuries as theater, entertainment, radio, television, books, stationery, etc.—would be allotted in cash, raised by taxation from free enterprise. The variability in prices of the means of production and consumption of basic goods would complicate the problem of cash payments. Therefore, allotment of goods for the minimum for subsistence would be more practicable and more possible of realization if given in kind. The allotment of goods in kind should be given according to existing resources and probable estimates of production of the year ahead, to be distributed equally to every member of society, irrespective of his or her social position. Variations should be only according to hardships of labor and according to the needs of childhood, the aged, and the sick. Justice and respect for the dignity of each and every human being, reverence for life, demand equality in distribution of all means of livelihood for all. Production will, we are certain, rise as a result of this new orientation and education of the people, so that, in working usefully and efficiently for society, they may help to increase the allotment of goods for themselves and for others, and to shorten the hours of labor per day. If, as a result of misfortune or an act of God, such as failure of crops, earthquake, drought, inundations, etc., there should be a shortage of the means for livelihood,

all members of society would then have to accept a curtailment and diminution of their allotted minimum.

If one objects that, after serving six or eight years in the Universal Labor Service, the assurance of a guaranteed minimum for subsistence will cause many to drift into idleness, thereby jeopardizing the development of future technological progress and cultural achievement of society, we must reply that all cultural and technical advances are relative and become meaningless from an ethical standpoint as long as man must continue living through the struggle, care, fear, and uncertainty of tomorrow. Very few normally healthy individuals can continue in idleness indefinitely. They must occupy their minds and their time in some form, either in creative labor, in sports or social endeavor, or in useless hobbies and other forms of childish escapes. Then, too, there are the urge and ambition to participate and share in the better things of life, in luxuries and in travel, which can be had only through increased effort and continued work in the free-enterprise sector.

What then is the solution of our problem? It is not the socialization of all means of production and consumption. The aim is to give security to each member of society against want, poverty, and the endless cares involved in the uncertainty of the future. Our program does not visualize a socialization of all means of production and consumption.

In the *free-enterprise* sector these remain, as in the present free, competitive, capitalist form of society, with money as a medium of exchange for purchase of goods of higher quality and luxury and for greater amenities in services. Our immediate task is to solve the problem of *economic security* and the advancement of *universal peace*; to assure for everybody an extension of security, a measure of comfort, leaving to each individual freedom of choice in finding his contentment and happiness within the established and generally accepted forms of society. The highest form of individual achievement lies in the complete development of the *personality*, in the whole human being, in the highly ethical man, who lives according to the better urge of his soul.

If it is objected that an allotment and distribution of consumers' goods in kind would be a retrogression to a less civilized state (since such social arrangements are to be found now only

among primitive societies), our reply is, that a socio-political program or system should be appraised on its inherent merits and on the experience of its applied forms.

No objection to the guarantee of a minimum for subsistence, nor the distribution of the minimum of goods in kind, seems to us valid, if based on the argument that such form is still to be found among primitive societies.

As to the difficult, laborious, and unpleasant occupations, these will have to be performed through special selection or decided by lot from among those physically most fit, and this work should be performed for a shorter period of time, that is, for a shorter period of service. Society will find a mode of solving this phase also according to principles of equity and justice.

The problems of migration and immigration too permit of an equitable solution in our proposed form of society. Since new immigrants are not to be considered immediately as citizens of the state, until they apply for this privilege and qualify for it, they cannot serve in the Universal Labor Service for the production and distribution of the minimum means for subsistence; they are therefore not eligible to receive these. Their occupation and integration must be in the sector of free enterprise until such time as they may qualify and are admitted to citizenship, according to the laws of the land. They cannot become a competitive factor in the labor market, not even in free enterprise, because, even in this sector, labor, all citizens are protected through the guaranteed minimum-subsistence allotments. Women, too, will find in our proposed system of society a guarantee of equality in free enterprise, because of their guaranteed minimum for subsistence. They will have greater freedom, greater opportunities to utilize their talents and abilities, and will so become completely emancipated from economic dependence.

OUR PROGRAM OF THE SOCIAL MINIMUM FOR SUBSISTENCE AND ITS RELATION TO NATIONAL DEFENSE, TO OTHER INSTITUTIONS AND TO GENERAL EDUCATION

We shall now endeavor to appraise the relation of our economic program to national defense, compulsory general educa-

tion, higher education, and the relation of the sexes and the family.

Secondary schools and even higher schools of learning will therefore be a part of the *minimum sector*. We find similar patterns in our present-day higher schools of military training.

All schools and training centers, having no direct bearing on the minimum phase of society, will become part of *free enterprise*. It is therefore to be understood that schools and academies of higher scientific disciplines, art schools, museums, many of the theaters and disciplines of a purely theoretical nature, will find their places in free enterprise. The private-school system as it exists today will remain part of free enterprise, leaving room for similar higher institutions of research in the free-enterprise system.

Instructors and teachers in free enterprise will be remunerated and paid in cash, receiving at the same time their allotment of goods from the guaranteed minimum sector.

HOW CAN NATIONAL DEFENSE BE RECONCILED WITH THE GUARANTEED MINIMUM SECTOR OF SOCIETY?

We base the solution of the problem of war and peace on our fundamental humanitarian concepts, analogous to our guaranteed minimum for subsistence, and "on the highest esteem for the life of each individual"; in other words, on a guarantee to protect each one in his right to live, as enunciated in our book, *Das Recht zu leben und die Pflicht zu sterben* ("The Right to Life as against Compulsory Death in Warfare through Conscription") (1878).

The Defense Corps, police or military, will be, as today, cared for economically exactly as under the present forms of economic security found in the army, navy, and air force. The state will retain its present voluntary well-trained and well-disciplined man power. It will constitute a socially approved group and it will be assured of a most favorable status in a society based on a guaranteed minimum for subsistence.

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Several solutions could be applied to the problem of the National Defense Program:

1) A volunteer army based on the system of the Universal Labor Service without impairing the functioning of the latter.

2) Service in a volunteer army after completion of work in the Labor Service at about the age of twenty-four years.

3) The age of entry into the army should be adjusted according to the resources of the country and the productive capacity of the Labor Service, and according to the experience gained through the functioning of that Service. It may be objected that the age of twenty-four years is somewhat too old for strenuous army service; also that most of the volunteers may be heads of families. These are plausible objections, but it may spur all of us to work for universal peace and may act as a deterrent against war. We would suggest a form of militia similar to that practiced in Switzerland—after completion of the civil service all able-bodied male citizens from their twentieth to their forty-eighth birthdays might serve sixty-five to ninety days a year in military training, or for as many years as experience, gained in the functioning of our dual system, may find advisable.

In Switzerland enlistment takes place in the year of the nineteenth birthday; service begins on the twentieth birthday, including attendance for training, and active service at home and abroad in the defense of the country and the maintenance of public order and security. The recruit course for infantry is sixty-five days, for engineers ninety days, for cavalry, for artillery, air force, and fortress troops seventy-five days, and sixty days for departmental troops. Members of the active army undergo annual training of from eleven to fourteen days for ten years for sergeants and the ranks above, and for seven to eight years for those below that rank. Men in the home guard do eleven days' training per year for four years. Officers are trained in cadet schools for from forty-five to eighty days. Another suggestion would be to retain the present system of a military-skeleton framework and to enlist every able-bodied young man at the age of twenty for one year's service. Such a system, however, would entail an adjustment of one year in the Labor Service. Every man in good health, to the age of forty-five years, is subject to military call in case of national emergency.¹⁹

¹⁹ *Encyclopedia Britannica*, 1953.

In case of a war emergency, or if the representative legislative body of the country should find itself compelled to wage war with another people, a general appeal for volunteers would be made by the executive officer of the nation. In the case of the United States, this would be the President. All men who completed the civil service in the economic phase of the Labor Service should of their own free will enlist in military duty, also those serving in the militia and such a number in the general civil service as will not jeopardize the productive capacity of the nation. At the same time, in case of such an emergency, a call would be made to all able-bodied men freed from the Universal Labor Service, who are engaged in free enterprise, urging them to volunteer for the Universal Labor Service, so as to free as many younger men as possible for war service. All those re-entering service in the Universal Labor Service are to be paid in cash for their labor from funds raised through revenue and taxation.

The size of the army, the number of men available for war service, would therefore depend on three factors: First: volunteers from the militia, maintained for internal security, from the Universal Labor Service and from young and older men—from those older men who had already completed their services in the Labor Service and are now engaged in work in free enterprise. We repeat, the number of volunteers for war duty, leaving the Universal Labor Service must be equal to the number of men who can volunteer from free enterprise to take the places of the younger men, leaving the Labor Service for war duty. No amount of patriotism or enthusiasm for war duty can make a member of the Labor Service of the minimum-subsistence phase acceptable unless a substitute from free enterprise takes his place in the economic service.

Only in case of a serious national emergency and only if there are enough surplus stores of goods, such as food, clothes, etc., in the minimum-subsistence sector, may men from the Universal Labor Service be admitted for war duty without substitutes being secured for them. This is to be determined by legislative, economic, and military experts. Though these principles of military service may conflict with present concepts of warfare, the assurance of the essentials for a livelihood for everybody, in our opinion, is a prior duty of society to society in general.

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Whatever method for raising a volunteer army for war duty may eventually be worked out, there must be no violation of the principle of voluntary enlistment for war. Nor must a depletion take place, under any circumstances, of those employed in the Universal Labor Service, which may jeopardize the productive capacity of securing goods for a guaranteed minimum for subsistence for everybody, except in a serious national emergency, as stated above.

Finances to pay the volunteers for war duty are to be raised by taxation in a method similar to that of taxes raised for purposes not included in the civil service of the Labor Service.

Consonant with the spirit of our social program, the term of service in the volunteer defense army cannot be credited to or deducted from the obligatory term of service in the Labor Service for the production of the minimum subsistence of goods.

"The benefits accruing to society as a consequence of the realization of our plan will eliminate poverty and the cares of existence resulting from the uncertainty of economic circumstances.

"Many frictions and animosities due to conflicts of material interests, family quarrels, dissensions and bitterness among relatives, will be reduced to a minimum. Worry over the maintenance and education of children, irrespective of their number in the family, too, will disappear. The many thousands of small and greater indecencies, offenses, and crimes committed because of the intense competitions now prevailing will also be eliminated; likewise the present ruthless lack of consideration for those in adversity and old age, and the humiliation one suffers daily in the quest for a living and in seeking the most vital necessities for a decent mode of existence. Humanity could be saved from many illnesses, physical, emotional, and mental, resulting from the cares of uncertainty; such, for instance, as the lack of adequate food and clothing, poor housing facilities, and, in case of illness, the lack of means to pay for medical attention and hospitalization.

"Man would have more time for contemplation, and could thus develop a deeper interest in the finer things of life; this would aid in refining us emotionally and spiritually. Political life, too, would rise to a higher and more moral level, both within our own country and in our relations with other peoples. Much of the keen competition, leading to heartless struggles and wars, would cease,

once the economic existence of our citizens was assured through our dual system of a guaranteed minimum for existence and free enterprise.

"We may, with a measure of certainty, expect that the general character of man would improve. Our human sentiments, our natural latent good instincts, will become more refined when we are free from the cares of a struggle for existence incident to an individualistic socio-economic system. Our proposed reforms would constitute a sound basis on which to raise the physical and cultural levels of our citizens, and to refine our manners and morals. Our aim is to strive for a better life for *all* here and now."

*TRANSITION FROM THE PRESENT ECONOMIC SYSTEM
TO OUR DUAL SYSTEM OF A GUARANTEED MINIMUM
FOR SUBSISTENCE AND FREE ENTERPRISE*

Popper-Lynkeus does not propose any direct plan by which to implement his dual socio-economic system. He leaves this to the experts in the various phases of social endeavor. He says further: "The aim of all my work and strivings is to indicate an ideal, a goal toward which all right-thinking men may strive and which can become a reality if they so will it."²⁰ He suggests too that the transition to the dual system, of security for all and free enterprise, be made through well-thought-out planning by leaders in business and industry, by social-reform agencies and planning experts. There should be a government-sponsored Department for Subsistence Planning and a General Education Department for the enlightenment of the people in the principles and needs for a dual socio-economic system which will guarantee all citizens full social security and a free-enterprise system. He suggests that an experimental sector should first be established in a part of the country. In the case of the United States, one or two states which are industrially and agriculturally self-sufficient could be used as pilot plants.

There will have to be a general agreement among the large majority of our people as to the need of such a reform program,

²⁰ "Allgemeine Nahrpflicht," (1912), page 660.

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so as to leave as little occasion as possible for discontent or dissension, especially from the economically better-situated citizens.

Popper-Lynkeus insists too that all changes take place through peaceful means within the framework of existing or newly enacted laws. The final decision for a change in the social system should be rendered by a majority vote in a general referendum.

Ever since the advance of industrialism and the displacement of masses of people from the land, the solution of the social problem has been viewed primarily as one of subsistence. Discontent with conditions as a result of the uncertainty of existence is ever on the increase.

As a next phase, Popper-Lynkeus visualizes an agreement on the part of the people or their leaders to supply a clearer perspective as to the direction in which the change is to take place.

An important part of this phase will be a decision as to what should be considered a minimum at a given time, since demands which will satisfy people at different times will vary as time goes on—what is adequate at one time may be found inadequate five or ten years later.

Provision must be made for reserves of food, clothing, tools and machines for production; of raw materials and, if possible, housing. Adequate provision must also be made in advance for health services, hospitalization, and education. This will provide the Universal Civil Service Army with the means of subsistence and production for a transition period of from one to three years. Calculations will have to be made for the minimum needs per individual or family, so as to satisfy the needs during the transition period and for emergencies.

Industry and private social-reform agencies could supply the finances to carry on the research. Our present social-security system, the private insurance companies, and the various farm and commercial cooperative enterprises could form a basis for future planning.

Leaders in science and education will instruct the nation in the need for a dual system of economy and its advisability.

The final phase is that of implementation and of the reconstruction period which, according to Popper-Lynkeus, cannot be left to private initiative, because it must function like an over-all public-utility system.

NATIONALIZATION

Popper-Lynkeus²¹ repeatedly insists that the nationalization of the basic industries, public utilities, land, etc., necessary for the implementation of the dual socio-economic system of society should be accomplished peacefully and with as little disturbance to the present economy as possible, so as to leave a large part of the national economy in private ownership for the maintenance of *free enterprise*.

In the United States only our Post Office Department is run by the federal government. However, many public utilities, such as water, light, and power plants, railroads, telephone companies, are to some extent regulated by the federal government or by the states or municipalities, and thus they function like well-planned public utilities. Food, shelter, and clothing are to be classed as public utilities, since they are indispensable as are water, light, and transportation.

Popper-Lynkeus conceives the Universal Subsistence Labor Army as a strictly national institution, free from any international affiliations, as a large and, if possible, a self-sustaining, self-sufficient unit, independent of foreign imports.

To prevent war, no method seems to be as promising as that of making each nation self-sustaining, dependent for its life on its own products rather than on selling products to other nations.

The problem of raw materials from abroad complicates the matter of an immediate realization of the dual system. Popper-Lynkeus, with the above-stated suggestions, leaves the question of planning and implementation to the peoples who, imbued with humanitarian ideals, wish for a socio-economic system which would guarantee full security to all of its members.

Laws will have to be enacted to provide funds for the compensation of acquired properties, goods, raw materials, machinery, and tools of production needed for the implementation of the minimum-subsistence phase. Provision must be made for the purchase of goods and for their surplus storing; also for the purchase of raw materials from abroad. Study should be given as to the

²¹ Popper-Lynkeus, "Die allgemeine Nahrpflicht als Lösung der sozialen Frage" (1912), page 683.

best methods for the apportionment of raw materials and for their distribution to the minimum-subsistence Labor Army, so that it may sustain itself and function during the transition period and after.

COOPERATION

Cooperation is the underlying principle of our proposed system of a guaranteed minimum for subsistence. The Universal Labor Service will not have to overwork or spend long hours in toil, as do present industrial and farm workers, and those in the various services, factories, and workshops will not depend on wages or a profit motive.

Work will be done in several shifts, so as to reduce the number of working hours to a humane basis, perhaps no longer than six or seven hours a day during the summer on farms, and shorter hours in other fields of endeavor.

By the creation of a subsistence army, the farmer or farmer laborer will be supplanted by the agricultural worker for the benefit of all. All able-bodied men and women of the nation will serve for a time in agriculture, and for the remainder of their time of service in other work, partly in cities; those of exceptional physical fitness will work in mines, and in hazardous occupations. Work on the land will become a privilege, and will not be looked upon as a hard task, as at present. We shall realize our dream of living in an agro-industrial society, working in industries and on the land, with a garden as our domain.

The introduction of all sorts of labor-saving farm machinery and the development of agro-chemistry justify our hopes for a favorable realization of Popper's ideals. The many hydroelectric projects in the United States—such as the Tennessee Valley Authority, with an ultimate capacity of 2,000,000 kilowatts; the Niagara Falls plant, with 430,000 horsepower; the Columbia River-Bonneville plant, with 450,000 kilowatts; the Grand Coulee Dam, with 1,940,000 kilowatts; the Hoover Dam, the first United States Government sponsored project, with 1,300,000 kilowatts²²—will be developed and extended, and when in full

²² Data from *Encyclopedia Britannica*, 1953 edition.

working capacity will, by irrigation, added an enormous area of arable land, and furnish electric power which will immensely increase our food-production capacity.

The Mississippi Valley, too, could be made to bloom into a great granary and powerhouse of the country.

Food will be produced in such an abundance that it will be declared a common good, available, like air and water, to anybody free of charge except for a few short years of work in the Universal Subsistence Army, to bring this about.

About one-third of the total number of men in the Universal Subsistence Army may have to serve in food production. America now produces more food than we can consume. We export a considerable part of the surplus to feed the people of Europe and other underdeveloped areas. Hence, our subsistence army will need only part of the produce of our land, part of our natural resources, for its maintenance.

The farmer, too, will be freed from toil and drudgery after his term of service in the subsistence army on the land; and in industry he will be free to participate in free enterprise on the land or in the cities.²³

Lewis F. Carr, in speaking of the condition of small farmers, farm laborers, and sharecroppers in the South, says: "Here is a large population, poor, degraded, shiftless, unkempt, wretched, Negroes and whites, Anglo-Saxon Americans. These people need to be fed up properly and cleaned up and braced up and set to work under scientific direction, geared to high-power machinery, and made to become entirely self-supporting. But it will take some power higher than themselves, and intelligent guidance, to do it. Are there not brains enough and power enough and sense enough and humanity and mercy enough among us to master this?"²⁴

²³ "Farming is a seasonal occupation; a man's whole year should not be given to it. The consumer has to pay for supporting the farmer through his idle months. By power farming the actual work on an average farm will be done in twenty-four days in the year.—The food business that will justify itself will raise food in sufficient quantities and distribute it under conditions that will enable every family to have all that it needs.—Whatever man does, he will always need food. In order to prevent the food question from breaking into higher interests, he will one day come to the point of agreeing that *the whole food question ought to be placed on a standard basis*."—Henry Ford (Martin, p. 52).

²⁴ Lewis F. Carr, "America Challenged," (Macmillan Company).

TRAINING AND ORGANIZING THE UNIVERSAL CIVIL SERVICE SUBSISTENCE ARMY

The subsistence army will have to be a strictly national institution, therefore of an economically self-sufficient scope. Certain commodities will have to be imported, such as coffee, tea, medicinal plants, metals, certain woods, rubber, etc.; sufficient stocks will have to be acquired and stored in order to enable the subsistence army to survive a period of natural emergencies or even a long war. No nation is really free from importing certain raw materials. However, the United States of America, China, some Latin American countries, and Russia, in the field of the minimum for subsistence, can do without imports. America is sufficiently autarchic to be able to implement and carry to a sufficient fruition a dual system for minimum subsistence and free enterprise.

The subsistence army for the minimum will have to be trained and organized by experienced military and industrial leaders. We believe that our great industrial leaders do not work for profit alone or to amass greater fortunes. They are motivated by an inner urge, by their organizing talent, to produce, irrespective of financial considerations. These industrial leaders are open to ideas which will show them the way to direct their energies for the welfare of all.

The national subsistence army will have to train its own physicians, engineers, and other different kinds of experts in all branches of the minimum institution. This will be done just as our government, in times of war, has been forced into the educational field, sending young men to college, medical and technical schools, even to business schools. Our government now, with its responsibilities to strengthen the free nations of the world against aggression from totalitarian threats, and to facilitate the functioning of its services abroad, has to educate many young people in foreign languages, colonial law, and in many other specialized occupations.

In our peaceful aims, once the years of service in the subsistence army are over, we shall have a great number of trained men and women, who can continue their work in free enterprise, not as hired employees but as equal partners, as individuals or in

groups; they will be free of want and of any economic risk. Our institutions will not only guarantee economic security for all citizens, but also endow them with an education which will enable them to do constructive work for the rest of their lives, at their hearts' desire. In this way a new, thus far unknown, liberty will spread over the country, a liberty resulting from the independence of each man and one secure from want. Americans should not be afraid of a regimentation which actually guarantees a new and greater freedom, and also free enterprise and free production, without fear and without compunction. No longer will it be a kind of moral liability to amass affluence or even wealth, to be successful—in contrast to our present system, where this often means the ruin of one's fellow men, and sweat and tears for many toilers.

Just as the invention of the machine and the industrialization of many fields of human endeavor made slavery in modern society an unprofitable institution, so too present technological advances, the utilization in industry of atomic energy, and the achievements of chemistry and agro-chemistry will help implement a state of society in which every member of the nation is guaranteed freedom from want and from the insecurity of existence. The machine too will aid man to leave the confines of the large cities and return to smaller communities, where he may live closer to nature, and where he may perhaps help realize the ideal of an agro-industrial society and, as stated above, own a patch of land and his own garden. It will help decentralize the industries, differentiate human beings, and lead from our present unjust inequality, away from commonplace equality in the minimum-subsistence phase of society, to a just inequality in free enterprise.

A society based on a guaranteed minimum subsistence and a free-enterprise sector is the best guarantee against all forms of totalitarianism, either of the right or of the left.

In the free-enterprise sector the competition for things of better quality and of greater luxury will, materially, help reduce the working hours and term of service in the Universal Minimum Subsistence Service Army, because it will lessen the demand for products manufactured in the minimum-subsistence sector.

All efforts, all strivings for universal peace among the nations of the world, cannot, in our opinion, be separated from a guaranteed minimum subsistence for all human beings. When man is

not plagued by want of food and shelter, when his physical existence and well-being are assured, he may become less truculent, less predatory, more peaceful.

A permanent peace among the nations cannot be assured as long as the struggle for existence turns man into a predatory beast. A solidarity achieved through an abundance of the means of livelihood, made possible by modern development of labor-saving machines and devices, will lead to man's happiness and to peaceful pursuits.

Our socio-economic system does not engender competition and hate, but love of man to man; it provokes not struggle but friendly adjustment and compromise. For man's aspirations and ideals it enlists not the envy of other men, but reason. These advantages assure the success of our dual system of the guaranteed minimum for subsistence and free enterprise.

EVALUATION OF THE DUAL SYSTEM OF A GUARANTEED SUBSISTENCE FOR ALL AS A SOLUTION OF THE SOCIAL PROBLEM

This book is fundamental in world literature. Written by the great humanitarian Josef Popper, and based on his esteem and reverence for human life in the abstract, and for the life of every individual man, woman, and child, the book portrays his lifelong striving to secure for every one guaranteed minimum resources for physical and cultural subsistence, thus protecting him from the cares and uncertainties of economic life. Here is a rich and well-deserved harvest for a well-deserving life, a life full of hard toil, but full also of creative thought permeated with a deep love for mankind. He extends his concern to all men and women, to every workman and business man, for they are all alike exposed to the uncertainties of existence. We have here a beacon call to all men of good will, to help solve the social problem on the basis of brotherly love. Here he advocates a way of reconciliation of the idea of full social security with the requirements of meeting the personal ambitions and strivings for advancement inherent in all men.

This volume is the fruition of forty years of work and thought toward the solution of this problem. The main outlines of Pop-

per's program—his ideas of the *Allgemeine Nährpflicht*, which he had advanced in 1878 in his book, *Das Recht zu leben und die Pflicht zu sterben*—are summarized in the book before us.

On principle, Popper omits the grouping of human beings according to social classes. He does not recognize the concept of class consciousness, either among daily toilers or among those in the upper economic grades. He considers such a concept as one-sided, reactionary, and provocative of discord. He therefore never speaks of the rich or of the poor, or of upper and lower, privileged and underprivileged classes; he speaks of the population as including all varieties of people, those whose existence is secure as well as those who are insecure. So he pleads the cause not of the working classes or working masses, as we call those engaged in physical labor for wages—he directs his thoughts to each individual, all of whom he wishes to protect against the uncertainties of existence, irrespective of his or her nature, qualifications, or position in society. To provide security against the uncertainties of economic life is his sole aim. He therefore classifies the means necessary for living in two categories: first, food, shelter, raiment, health service, and basic education, to be given *in natura*, without money as a means of exchange; and second, luxuries, which are to be acquired for money as a medium of purchase and exchange, as in free enterprise today but even more freely.

This work, written by Popper in 1912, when he was seventy-four years of age, he himself considered as his major and most important sociological work, since it was the result of years of study and contemplation on the ills that afflict man in his struggle for existence.

The book is the result of a prolonged study of many proposed social reforms and of a thorough statistical analysis of economic conditions in the geographical countries formerly known as Germany as that country was constituted prior to World War I (1914-1918); the book is based on the then existing population of 70,000,000 people. It envisages a term of labor service for all men from the age of eighteen to that of thirty inclusive, and for women between eighteen and twenty-five only, so as to interfere as little as possible with marriage and child-bearing. Working hours were to be seven hours daily for five days a week. This, according to technological conditions then prevailing, would have

sufficed to provide every man, woman, and child a "Guaranteed Minimum for Subsistence," of the essential physical and cultural requirements, and would provide a surplus of stocks for emergencies also. The term of hours of labor, conforming to present-day technological development and atomic forms of energy for peaceful industrial requirements, would evidently be markedly reduced, as would the hours of labor and term of service now needed in the Labor Army.

After the completion of one's term of service, every citizen would be free to participate in occupations and professions freely chosen by himself in "free enterprise," so as to earn and procure the better and more costly amenities of life—luxuries, travel, etc. Should one choose not to participate or work in "free enterprise," he remains nevertheless entitled to receive all the benefits of his basic minimum for subsistence, because of the years of service he gave in the Labor Army.

"The criticism," says R. v. Mises, "that Popper's proposed social system finds among many thinking people hovers about the concept of the word 'Utopia.' Social systems which vary from existing ones, as the one here considered, seem unrealizable as long as we do not delve into the more profound problems affecting society; they seem unrealizable and impossible just as the legal and social systems in ancient Greece seemed unworkable and impossible of survival without slavery. In more recent times like cases in many other countries of the world, might be cited."²⁵

"It appears to us that an evaluation of this sort does not seem rational at this juncture. Whether an idea is judged as 'utopian,' or impossible of realization, depends, regretfully, on which elements of an existing order are variable and amenable to change. If we should assume that all human beings forever inherit their political convictions and retain them throughout their lives without the least change, then we must view even the smallest variations or improvements in our social and political systems as pure 'Utopia.' If, however, we accept the assumption and recognize the fact that man is far more capable of improving his mind and developing a sense of kindness, consideration, and good will toward his fellow beings than many of us are willing to admit, then there is no such thing as 'Utopia' in the field of betterment for our social systems and in human relations."

²⁵ Österreichische Biographie, pages 214-215.

It therefore is manifest that between these two poles there rest a more proper attitude and approach. So we must approach and appraise the probable solutions of far-reaching social problems in a different mood and a different frame of mind.

"It appears that all progress and advancement—we may here exclude any possibly anticipated evaluation—or change of circumstances, in the scientific, technical, and economic and political fields, take place through a meeting of two factors—on the one hand, through the uninfluenced and independent thoughts and ideas of intellectually highly gifted and ethically public-spirited men and women; and on the other hand, through a process of natural development among the masses of the population. Only where these meet in a common accord, where the inventiveness of the individual is in contact and in harmony with the sentiments and aspirations of the multitude, does a process of fructification take place which will give birth to something substantial, something new."

"Consequently, when we inquire into the prospects for the realization of Popper's plan for a social system of justice to all, a different evaluation than the one above outlined is hardly possible. So we must weigh his theories to see how they correspond with trends now active in our present social system, which increasingly aims to assure to every member of society in the nation a fuller social security."

As an essential source of historical evidence for the gradual implementation of Popper's ideals for social security and for social justice, we find in our country, as in many industrially advanced peoples of the world, the gradual introduction of social-welfare reforms and the dominating political influence which this phase has among all the peoples of the world; we have among all nations a realization of existing socio-economic injustices prevalent and a manifestly earnest desire and longing to somehow remove these injustices and mitigate their destructive effects on the lives of the great masses of human beings.

"The old theory of 'laissez-faire' of the school of economic liberalism, of free play for political and economic forces, and the opposition to all forms of social welfare for the weaker and the toiling masses are no longer a guide or rule in the political lives of nations. And regardless of the questions whether a specific social plan or program, or a system of gradual conscious en-

croachments on the existing social system, is better able to improve the economic status of the masses of the community in general, we see in this attempt to find a realization of the strivings for a greater measure of social justice a very desirable social ideal. Therein lie the roots of Popper's conceptions which place him alongside the great social reformers of all times and for which he merits recognition and gratitude when once the great ideal of social justice has been realized in whatever form."

"Popper's dual system of society—of a 'guaranteed minimum for subsistence' sector, and of one for 'free enterprise'—has an additional fundamental ideological basis which in substance does not differ from the ethical aims of contemporary socialist thought; yet it varies in what today is understood as socialism or, in more narrow terms, as political socialism."

"Always Popper maintains that for him the social problem is one of purely '*Magenfrage*,' a problem of provender, of physical subsistence; in short, purely a problem of assuring the underprivileged masses a guaranteed minimum for subsistence, free from all complicated and superfluous limitations, restraints, and trappings—one which aims at a reconciliation between the laboring classes and the economically more privileged segments of the nation."

"Popper came to this concept for a world order (*Weltanschauung*) through his fundamentally ethical precepts as expounded in his book, *The Individual and His Evaluation* (1910), in which the pervading theme is reverence for human life and which sees in the economic security of the individual the guiding motives which are most often free from emotional considerations."

"Here we notice the unbridgeable gap between Popper's ideals and those of many present-day socialist thinkers and labor leaders, who strive above all to gain economic power and the political domination of society; to them a small triumph of the class struggle seems more important than the real assurance of security for the multitudes of economically less privileged people."

"If we note the various forms of resentment against the 'bourgeois,' where the socialists have come to full possession of power, we must be convinced that Popper's 'future society' is not what leaders are now striving for and which has, under pressure of circumstances, prospects of realization."

"There is something unworldly in the purely rational solution

of the economic problem in the usual life experiences of the average man. The bombastic phrases of the Communist manifesto are nearer to the wishful thinking of the masses, and appear less utopian to them in their expression of a hope for a betterment in their lot on earth. So too they seem less utopian than the lucid and clear calculations and deductions of Popper's social program."

A CATALOGUE OF THE WRITINGS OF JOSEF POPPER-LYNKEUS

This catalogue is based on the list presented by Josef Popper-Lynkeus himself in his *Autobiography*,* completed by the inclusion of his writings published after his death.

The manuscripts found among his effects and still unpublished at this date are also listed in the present catalogue.

The manuscripts on *epistemology* could no longer be found. Presumably, they were destroyed by the ravages of Nazism. Fragments from these manuscripts, published as short items in Viennese newspapers, have been included in this catalogue, which may justly claim to be the most complete one hitherto in existence.

Popper writes in his *Autobiography* that many quite insignificant items were enumerated in his list under the heading "*Non-scientific*," because many people were likely to insist on completeness in a catalogue of his writings. Those treatises in which, in the opinion of Popper, something important was stated, were listed in *italics*.

The same system has been followed in the present catalogue.

FULL-LENGTH BOOKS

Das Recht zu leben und die Pflicht zu sterben [The Right to Live and the Duty to Die]:

Social-philosophical meditations, starting out from the question of the significance of Voltaire for the modern age.—1878: 1st edition, signed "*J.P.*"—1879: 2nd edition, unaltered, published by Erich Koschny (L. Reymann Verlag, Leipzig).—1903: 3rd edition, with several revisions and one insertion, published by Carl Reissner, Dresden-Leipzig.—1924: 4th edition, an identical reprint of the 3rd edition, published after Popper's death, with a preface by Margit Ornstein, by R. Loewit Verlag, Vienna.

Physikalische Grundsätze der elektrischen Kraftübertragung [Physical Principles of Electric Power Transmission]:

Published by A. Hartleben, Vienna, 1884. A treatise on energy. An introduction to the study of electrical engineering.

Fürst Bismarck und der Antisemitismus [Prince Bismarck and Antisemitism]:

Published, anonymously, by H. Engel, Vienna, 1886.—1925: 2nd edi-

* *Selbstbiographie*. Unesma-Verlag, Leipzig, 1917.

tion, unchanged, published by R. Loewit Verlag, Vienna-Leipzig, edited and with a preface by "E. C."

Die technischen Fortschritte nach ihrer ästhetischen und kulturellen Bedeutung [The Attainments of Technical Progress in the Light of the Esthetic and Cultural Significance]:

1st edition, 1886, and 2nd edition, unaltered, 1901, published by Carl Reissner, Dresden-Leipzig.

Flugtechnik, I. Heft. [Aviation, Vol. 1]:

Published by H. W. Kühl, Berlin, 1888.

Phantasien eines Realisten [Day-dreams of a Realist]:

1899: 1st edition published by Carl Reissner, Dresden-Leipzig, under the *nom de plume* "Lynkeus."—1901: 2nd edition, unaltered, published by the same publisher.—Further, improved editions published by Carl Reissner, Dresden-Leipzig, 1909-1922. The legend *Ibn Roschd* was included.—Any new edition should include also the tale "A Sabbath of Baal Shem," published in the *Wiener Morgenzeitung* in 1920.

Fundament eines neuen Staatsrechts [Foundation of a New Public Law]:

1905: 1st edition published by Carl Reissner, Dresden-Leipzig. A manuscript found among Popper's effects after his death, entitled *Fundament eines neuen Staatsrechts und dessen Anwendung zur Lösung der Nähr- und Wehrfrage* [Foundation of a New Public Law and its Application for the Solution of the Problem of Food Service and Military Service] has remained unpublished.

Voltaire

A character analysis, in connection with studies on esthetics, morality and politics.—1905: 1st edition published by Carl Reissner, Dresden-Leipzig.—1920: 2nd edition, with the revised subtitle *Ein Bild seiner Persönlichkeit* [A Picture of his Personality] and with corrections, published by the same publisher.—1925: 3rd edition, unaltered, with a preface by Margit Ornstein, published by R. Loewit Verlag, Vienna-Leipzig.

Das Individuum und die Bewertung menschlicher Existenzen [The Individual and Evaluation of Human Existences]:

1910: 1st edition, under the *nom de plume* "Lynkeus."—1920: 2nd edition, unchanged.—A 3rd edition was published by Carl Reissner, Dresden, after Popper's death, about 1925; in this edition, the successors of that firm arbitrarily changed the title to *Das Ich und das soziale Gewissen* [The Ego and the Social Conscience]. Siegfried Pirker voiced protest against this change in the periodical, *Allgemeine Nährpflicht*.

Der Maschinen- und Vogelflug [Mechanical Aviation and the Flight of Birds]:

Published by M. Krayn, Berlin, 1911. A historical-critical essay. Special emphasis is placed on the works of Alphons Penaud.

Die Allgemeine Nährpflicht als Lösung der sozialen Frage [Universal Food Supply Service as the Solution of the Social Problem]:

Embracing all details, with thorough statistical data. With a demonstration of the theoretical and practical worthlessness of the science of economics.—1912: 1st edition published by Carl Reissner Verlag, Dresden-

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Leipzig.—1923: 2nd edition published by Rikola Verlag, Vienna-Leipzig-Munich; the polemic part contained in the first edition was omitted from this edition which was prepared by Popper-Lynkeus in person, but was published only after his death, by Margit Ornstein who also wrote a preface to it.—Both editions contain a part of the essay, *Über ein neues Problem der Regenerierung und Züchtung* [On a New Problem of Reclamation and Breeding], published originally in the periodical, *Rundschau für Technik und Wirtschaft* [Technical and Economic Survey], Teplitz, Prof. A. Birk, ed., 1908, Vol. I.

Selbstbiographie [Autobiography]:

Published as manuscript in 1916, distributed in a limited number of copies among friends and acquaintances.—1917: 1st edition published by Unesma Verlag, Dresden-Leipzig.—The successors of Carl Reissner Verlag, Dresden-Leipzig, published a new edition about 1925, changing the title to *Josef Popper-Lynkeus, Mein Leben und Wirken, eine Selbstdarstellung* [Josef Popper-Lynkeus, My Life and Work, a Self-Presentation]. Siegfried Pirker has protested in the periodical *Allgemeine Nahrungspflicht* against this alteration, too.

Krieg, Wehrpflicht und Staatsverfassung [War, Compulsory Military Service, and Political Constitution]:

Published by Rikola Verlag, Vienna-Leipzig-Munich, 1921. This last full-length book appeared shortly before Popper's death.

Published Posthumously

The posthumously published books, in addition to the second edition of *Die Allgemeine Nahrungspflicht* . . . are:

Über Religion [On Religion]:

Published by R. Loewit Verlag, Munich, 1924. Popper had completed the manuscript in 1905, but he did not release it for publication. It was published after his death, with a preface by Margit Ornstein. The book contains, as its last chapter, the essay, *Das Erbe Voltaires* [Voltaire's Heritage], published originally in the periodical *Gegenwart* (1908, No. 27-32). A short chapter of *Über Religion* had been published by Margit Ornstein in the *Neue Freie Presse* (about 1923).

Philosophie des Strafrechts [The Philosophy of Criminal Law]:

Published by R. Loewit Verlag, Vienna-Munich, 1924. Taken out of Popper's effects, with a preface by Margit Ornstein and another preface by Dr. Julius Ofner.

Gespräche mit Josef Popper-Lynkeus [Conversations with Joseph Popper-Lynkeus]:

Edited by Margit Ornstein and Heinrich Löwy; R. Loewit Verlag, Vienna-Munich, 1924. With a preface by Dr. Julius Ofner.

TREATISES AND SHORTER PAPERS

Scientific

Mathematics:

Über die Auffindung der Schwerpunkte mittels Zirkel und Lineal [On Finding the Centers of Gravity by the Use of Ruler and Compasses].—

JOSEF POPPER-LYNKEUS

Journal of the Austrian Society of Engineers and Architects, 1860.

Beiträge zu Weddles Methode der Auflösung numerischer Gleichungen [Contributions to Weddle's Method of Solving Numerical Equations].—Session Report of the Bohemian Scientific Society, 1861.

Theorie der Convergenz unendlicher Reihen und bestimmter Integrale, die keine periodischen Funktionen enthalten [Theory of the Convergency of Infinite Series and Definite Integrals not Containing any Periodic Functions].—Session Report of the Imperial Academy of Sciences, Vienna, 1865.

Erweiterung eines Dreiecksatzes [Amplification of a Triangle Theorem].—No. XII of the Journal of *Realschule* Education, 1918.

Physics:

Über die Benützung der Naturkräfte [On the utilization of the Powers of Nature].—Submitted, in a sealed envelope, to the Imperial Academy of Sciences on November 6, 1862, and published in the Session Report in November 1882. It contains the first suggestion of electric power transmission through utilization of natural forces.

Über die Quelle und den Betrag der durch Luftballons geleisteten Arbeit [On the Source and Quantity of the Work Performed by Air Balloons].—Session Report of the Imperial Academy of Sciences, Vienna, 1875.

Über J. R. Mayers Mechanik der Wärme [On J. R. Mayer's Heat Mechanics].—*Das Ausland* (a periodical), 1876. Popper published this paper in his *Selbstbiographie*, inserting the passages omitted in *Das Ausland*.

Über die Vorausberechnung der Verbrennungs- und Bildungswärme für Knallgas und andere Gasgemengen [On the Pre-calculation of the Heat of Combustion and Formation for Oxyhydrogen Gas and other Gas Mixtures].—Session Report of the Imperial Academy of Sciences, Vienna, 1889.

Mechanical Engineering:

Über die Popper'schen Kesseleinlagen [On Popper's Boiler Inserts].—*Dingler's polytechnisches Journal*, No. 196, 1870. This paper was published under the name "Naprawil," but Popper was its author, as admitted by him in his *Selbstbiographie* (p. 14).

Zur näheren Kenntnis der Kesseleinlagen [More on Boiler Inserts].—*Dingler's polytechnisches Journal*, No. 28, 1878.

Über Kondensatoren und Kuhlapparate mittels bewegter Luft [On Condensers and Refrigerating Apparatus operating on Agitated Air].—Journal of the Austrian Society of Engineers and Architects, 1887.

Über Versuchsergebnisse und Betrachtungen betreffs Dampfcondensation mittels bewegter Luft [On Results of Experiments and Observations concerning the Condensation of Steam by means of Agitated Air].—Weekly of the Austrian Society of Engineers and Architects, 1888.

Bericht über den Popper'schen Luftcondensator in dem Etablissement der Herren Siemens u. Halske, Wien [Report on Popper's Air Condenser

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in the Establishment of Messrs. Siemens & Halske in Vienna].—Weekly of the Austrian Society of Engineers and Architects, 1890.

Über einen Luftcondensator im Allgemeinen und insbesondere den bei der 300-pferdigen Fördermaschine auf dem Prokopschacht in Pribram aufgestellten Luftcondensator [On Air Condensers in general, and on the Air Condenser installed on the 300-HP Gin at the Prokop Shaft in Pribram in particular].—Austrian Journal for Mining and Metallurgy, 1871.

Das selbstventilierende Gradierwerk [The Self-Ventilating Cooling Plant].—Journal of the Austrian Society of Engineers and Architects, 1892. On the same subject, a "Letter to the Editor" (criticism) published in the same Journal, 1889, concerning an article on open "Surface Condensers," authored by a Mr. Klein (the firm of Klein, Schanzlin & Becker).

Formeln für den Einfluss verschieden guter Luftleeren für den Dampfverbrauch [Formulas for the Effects of Various Degrees of Vacuum on Steam Consumption].—Journal of the Austrian Society of Engineers and Architects, 1893.

Historisches über Wassenumlaufsapparate in Dampfkesseln [Historical Data on Water Circulation Apparatuses in Steam Boilers].—Journal of the Austrian Society of Engineers and Architects, 1893.

Electrical Engineering:

Über eine neue Konstruktion eines Daniel Normalelementes und die Herstellung von Spannungsetalons [On a New Construction of a Daniel's Standard Cell and the Production of Voltage Standards].—Journal of Electrical Engineering, 1887.

Über einen Wechselstromapparat an Stelle der Induktoren für Messzwecke [On an Alternating-Current Apparatus to replace the Inductors for purposes of Measurements].—Journal of Electrical Engineering, 1888.

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