A Cultural Approach to World Order

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ALTHOUGH "WORLD ORDER" necessarily involves "world government," it is increasingly apparent that the spirit of world community is even more essential to its attainment than any blueprint of legal structure or any document embodying a world constitution. Every intelligent person is now aware of the unity of the world from a functional and geographic viewpoint. Economic isolation is a thing of the past. But from the human viewpoint ours is a world of fragments. The segments of mankind are separated by cultural and ideological chasms that are wide and deep. There can be no "world order" until men emerge from their ethnocentric bomb shelters and participate in a common cultural development toward one world of humanity.

Dr. Northrop's symposium, *Ideological differences and world order*,[1] cuts therefore to the very heart of our present, most imperative problem. Its subtitle, *Studies in the philosophy and science of the world's cultures,* sounds erudite and academic, but it is in fact one of the most practical and pertinent approaches toward meeting the world's most poignant needs that anyone could undertake. It is still true, as Thomas Huxley said long ago, that "the world in which we live is governed by ideas." To become well acquainted with the ideas that rule the lives of men—ourselves and our fellows beyond the boundary lines on maps—is the first step toward the establishment of order in our world, and indeed there is no other step that can start us along that much desired pathway.

This book is uniquely valuable not only because of its purpose but also because of the method selected to accomplish that purpose. It is concerned essentially with "the ideological differences which present obstacles on the way" to the goal of world order and with "the methods suggested by the contemporary social sciences and the philosophy of culture for the removal of these obstacles." Its authors are many rather than one. Each of them "is indigenous to or expertly acquainted with the culture upon which he writes." The 21 essays comprising the volume are superficially independent of each other and quite individualistic in style and content. But they are integrated by the common objective and together they present a gratifyingly broad and fundamentally profound analysis of the world picture. It is not an altogether happy picture, but it depicts a reality that must be accepted and that has encouraging aspects as well as discouraging ones.

First in the sequence is Dean Roscoe Pound's contribution to the symposium on "The University and Its World Responsibilities" that was part of the Princeton University Bicentennial Celebration in 1947. Published here for the first time, it stresses the idea that "men with very different conceptions of the social order, groups of men with one ideal or picture of what ought to be and other groups with wholly divergent pictures, must live together and work together in a complex social organization." Without pretending "that education . . . is the one thing needful toward a world moral and legal order," he outlines convincingly the steps that universities might take to lay a foundation for a "new *jus gentium.*"

The philosophy at the basis of traditional Chinese society is expertly presented by Professor Fung Yu-Lan, of Tsing Hua University, and the philosophical basis of Chinese painting is set forth in an unusually interesting and informative essay by Chiang Yee, artist and poet now residing in Oxford, England, who formerly was an administrative official in China and who for a time was a member of the faculty of the University of London.

Professor Emeritus Charles M. Bakewell, of Yale, former State Senator and U. S. Congressman, contributes the fourth essay, an analysis of the philosophical roots of western culture, and Matila Ghyka, formerly in the diplomatic service of Rumania and now visiting professor of esthetics in the University of Virginia, discusses the Pythagorean and Platonic scientific criterion of the beautiful in classical western art. Neither of these papers is as remote and academic as its title might suggest; even a geologist gained much significant information from them.

Continuing this routine of focusing the spotlight temporarily and sequentially upon various portions of the total scene, Professor Robert Grinnell, of the University of California, writes about Franciscan philosophy and Gothic art, and Dr. Overton H. Taylor, of Harvard, presents a penetrating study of the philosophies and economic theories in modern occidental culture. Professor Leopoldo Zea, of the National University of Mexico, follows with an analysis of positivism and Porfirism in Latin America.

[1] *Ideological differences and world order: studies in the philosophy and science of the world's culture.* F. S. C. Northrop. (Ed.) New Haven, Conn.: Yale Univ. Press. 1949. Pp. xi + 486. $4.50.

It is frequently stated that Soviet law has introduced conceptions which create an impediment to relations between the Anglo-American world and the USSR. Soviet jurists are equally sharp in their denunciations of the concepts of the common law of England and the United States. Professor John N. Hazard, of Columbia, therefore explores the charges and counter-charges and searches for the basic assumptions on which they appear to rest. Presumably with no ulterior motive for such juxtaposition, the next essay discusses the New Deal as a cultural phenomenon. It is by Professor T. V. Smith, now at Syracuse University, who concludes that "from defects as from virtues, one must nevertheless interpret the New Deal's course as America's penchant for the middle of the road."

Turning from regional to universal matters for a few moments, the book continues with an incisive, penetrating and illuminating essay by Professor P. W. Bridgman, of Harvard, Nobel Laureate in Physics, who explores the nature and the possibilities of the potential intelligent society of the future. "Never in human history has intelligence been allowed full opportunity, nor have its potentialities for a revolutionary recasting of society and culture been adequately appreciated." With his characteristically conservative optimism, Professor Bridgman believes that techniques are now in hand for making the necessary adjustments between the other emotional needs and the quest for truth, to which the first and foremost consideration must be given.

Next comes a most informative account of the philosophy of the British Labor Government by Lord Lindsay of Birker, Master of Balliol College at Oxford. In England as in America, the great unsolved problem "is whether planning is compatible with democratic freedom." The British Labor party does not yet know whether unemployment can be prevented and a high standard of living can be maintained without "a degree of compulsion entirely incompatible with [its] ideals and traditions." Across the channel the French are confronted by similar dilemmas. Professor Henri Peyre, of Yale, approaches them from the viewpoint of literature and philosophy in contemporary France.

American scientists will be especially interested in the next essay, dealing as it does with the impact of politics on science. Professor Manuel Sandoval Vallarta, of the National University of Mexico, was for a time the chairman of the United Nations Atomic Energy Commission, and in this essay he presents a cogent analysis of the conflict between ideas of security and secrecy that are natural components of the political and military mentality on the one hand and the necessity for freedom in research and communication that is recognized with equal naturalness in scientific circles on the other hand. His citation of the successful operation of the Mexican "Comisión Impulsora y Coordinadora de la Investigación Científica" since its establishment in 1943 is especially pertinent at this time when the 81st Congress is considering a National Science Foundation for the United States.

Scientists also will read with profit Julian Huxley's article about the purpose and philosophy of Unesco. It is a considerably abbreviated and slightly amended version of a pamphlet published in 1946. Since then he has become convinced that "Unesco can best achieve its aims by undertaking a program of concrete and limited projects, and that on such a program a remarkable degree of agreement can be reached among delegates with astonishingly different philosophical, racial, and cultural backgrounds." Even so, "Unesco needs not only a set of general aims and objects for itself but also a working philosophy, a working hypothesis concerning human existence and its aims and objects, which will dictate, or at least indicate, a definite line of approach to its problems."

David Bidney, Research Associate of the Viking Fund, the foundation that sponsored the entire volume, comes next with a stimulating study of the concept of meta-anthropology and its significance for contemporary anthropological science. "A genuinely scientific and realistic view of cultural dynamics will be one which is based on a healthy respect for the complexity of cultural life and for the reciprocal influence of subjective and objective factors. Only by keeping in mind the Platonic vision that integration, whether of culture or society, is essentially a matter of harmonizing the one and the many can this objective be attained." As if to prove that this is possible, the following essay by Professor Clyde Kluckholn, of Harvard, on the philosophy of the Navaho Indians, describes "not only Navaho ethics and values but also some of those highest common factors that are implicit in a variety of the doings and sayings of the Navaho."

Continuing in this same vein, Professor Francisco Romero, of El Colegio Libre de Estudios Superiores de Buenos Aires, discusses "Man and Culture," and Professor Northrop contributes a characteristically lucid analysis of ideological man in his relation to scientifically known natural man. Then, Professor Pitirim A. Sorokin, of Harvard, takes issue with Danilevsky, Spengler, and Toynbee in a short essay concerning the lasting and dying factors in the world's cultures. Finally, Gray L. Dorsey, Fellow of the American Council of Learned Societies, describes two

objective bases for a world-wide legal order. These are "found in the traditional cultures of what Maine considered the two significant types of societies. This means that the fundamental bases for a universal law are present in deep-lying, lasting cultural traditions of the world."

It is Dorsey, too, in almost his last sentence, who brings us round the full circle to the thoughts with which this review began, when he writes: "The legal order must be supported in the hearts, minds, and actions of men to be vital." There of course is the crux of the whole problem. There also is the opportunity for men who have confidence in the processes of education and persuasion. And for them this book will prove both an inspiration and a treasure house of ideas and information. All such will agree that Professor Northrop's endeavor and the labors of his galaxy of writers have not been in vain.

Cybernetics: A New Discipline

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HAVE YOU TAUGHT SOMEONE to drive a car lately? If not, perhaps you can recall how when you yourself were learning to drive, the car, in response to your instructions, veered first too much to the left, then too far to the right, and generally pursued an awkward zigzag course down the road. With training you or your protegé no doubt learned to pilot a car so that it proceeded smoothly, without jerks or wobbles, from one to the other of two given points by what you believed to be the shortest route consistent with the rules of the road and the curves involved. If these remarks bring to mind vivid recollections of the kind of experience just described, then you have already had good firsthand experience with applied cybernetics, and (whether you realize it or not) you already know something about the subject.

The word *cybernetics* is a neo-Greek expression coined to fill a need felt by Professor Wiener[1] and his associates for a single term, unprejudiced by previous usage, that could be used to designate the whole expanse of control and communication theory pertinent to the description, analysis, or construction of systems that involve (1) mechanisms (receptors) for the *reception* of *messages* or stimuli, (2) means (circuits) for *communication* of these to (3) a central *control unit* that responds by *feeding back* through the system (4) *instructions* that (will or tend to) produce *specific actions* on the part of (5) *particular elements* (effectors) of the system. To this end, the word *cybernetics* was therefore formed from the Greek word for *steersman,* $\chi\upsilon\beta\epsilon\rho\nu\acute{\eta}\tau\eta\xi$ (kybernetes). Besides having approximately the desired connotation, this Greek word is all the more symbolic on account of the fact that its Latin corruption, *gubernator,* is the origin of our word *governor,* and, Professor Wiener points out, the first significant paper on feedback mechanisms is the article published by Clerk Maxwell in 1868 on the theory of the purely mechanical feedback system represented by the governor of a steam engine, a device invented by James Watt to regulate the velocity of his steam engine under varying conditions of load.

The central concept in cybernetics is a feedback mechanism that, in response to information (stimuli, messages) received through the system, feeds back to the system instructions that modify or otherwise alter the performance of the system. It is important in cybernetics to distinguish *positive feedback,* which serves to increase what the system is doing in magnitude or direction, from *negative feedback,* which serves to oppose the performance of the system, e.g., to reduce its magnitude or change its direction. Thus, in psychology and neurophysiology one distinguishes between situations wherein an organism responds to a stimulus in such a manner as to acquire an increased amount of the stimulus (*adience*), and situations wherein the response is such as to reduce the amount of the stimulus received (*avoidance*). In practical affairs, positive feedback is generally scrupulously avoided, since, if uninhibited, it will lead obviously to an extreme state. Two cases of positive feedback in moderation that come to the reviewer's mind are (a) adience of young mammals, which is essential to proper receipt of nourishment and to keeping warm; and (b) the regenerative circuits used in radio receivers in the early days, to regenerate and thereby intensify a weak signal. Negative feedback mechanisms, on the other hand, are used widely, and are of considerable interest, for they embody what is generally implied by the word "control."

As we have noted, the governor of a steam engine is an example of a purely mechanical (negative) feed-

[1] *Cybernetics: or control and communication in the animal and the machine.* Norbert Wiener. New York: John Wiley; Paris, France: Hermann et Cie, 1948. Pp. 194. $3.00.