

The Inspiration of Science

General Science

NATHANIEL SCHMIDT in *World Unity*:

The advance of science has tended to make us more modest. Man obviously does not hold as significant a position in the universe as he once supposed. Though his knowledge grows from day to day and is capable, in a measure, of verification, it is fragmentary, relative, and subject to constant revision. Dogmatism is out of place, loud affirmation not permissible. The method of science, proceeding by induction and deduction, circumspectly, warily and tentatively, from the less to the more adequately known, is at once the most revolutionary element and the greatest agency for fostering humility

and modesty. The boundless space, the infinite stretches of time, the exhaustless energy, the orderliness of all the processes of nature, the unexplored beyond in every direction cannot fail to inspire a sense of awe and mystery and reverence. Science has engendered a new feeling of solidarity. Man is tied to the past and to the future, bound up with the whole scheme of things in a causal connection, and so are all the manifestations of his life. It is not possible for him to be alone. Yet in spite of his insignificance and close genetic connection with less developed forms of existence, so emphasized by science, it has also made him conscious of something

intrinsically great within himself, a capacity to peer into nature's workshop, to observe, compare, verify, conclude, generalize, aspire. This tends to give him a fresh sense of exaltation, zest for renewed effort, a joy unspeakable and full of glory. The wonders accomplished by the scientific technique, far more impressive than all the miracles he dreamed of in his youth, have revealed that there is in his nature a vast fund of creative ability. He can change his material and social environment; he can change himself; he can change the heredity and environment of posterity.

Science News-Letter, July 20, 1929

Our Artificial Environment

Sociology

JOHN HERMAN RANDAL, JR., in *Our Changing Civilization* (Stokes):

Science and technology have changed our life not only by giving it world-wide scope; they have created a new artificial environment, the mechanical city. Where modern cities arise using all our invented techniques, they induce the world over the same modes of life and the same breaks with the institutions and ideas of the past. The problems facing such traditional forms as the family and art and religion in the West are much like those they face in China or India or Angora; the contemporary tendencies in every industrial environment, so far as the observer can see, are the same. Man has built himself a new world to live in; and quite naturally though unintentionally he is forced to transform all his old ways to adapt himself to it. Everywhere the new environment has penetrated the old adjustment has been thrown out of balance. Everywhere men are groping toward the same mechanized and socialized life. Everywhere women are forsaking the home and undermining the old forms of marriage. Everywhere factory workers are facing the same problems of resistance and control.

Taking his clue from the discoveries of experimental biology, the psychologist has thrown a flood of light on the second great factor in culture building, the raw material furnished by human nature. He has come to look upon man as essentially a biological organism, a complex or-

ganization of living cells, whose functioning is loosely coordinated, chiefly by the nervous system. At birth infants are largely bundles of capacities and potentialities for the acquisition of an indefinite number of habits. As they grow they are naturally forced into the social pattern that prevails in their home. The Blackfoot Indian boy learns to ride and dance and hunt game, to accept the tribal arrangement of marriage and property, to perform the tribal crafts and have the tribal religious visions, to believe implicitly the tribal lore. The French boy learns to read and write, to be a professing Catholic, to believe in science and the French Revolution and French glory, to carry on the family, to acquire a mistress, the French lucidity of expression, and the Latin temperament. Exchange the two boys at birth, and the French baby would grow up a good Indian while the Indian became a perfect Parisian. All the elements we can distinguish in human nature—will, temperament, character, personality, conscience, mind, soul, intelligence—are to the psychologist not things that are possessed, but the complex organizations of human behavior, the acquired habits of responding to certain stimuli learned by contact with the group in which the man lives.

Such a way of looking at human nature does not reveal the value which men can give their lives by developing one moral character rather than another, or by acquiring a critical and imaginative habit of mind. But it

does make clear that whatever potentialities are brought by a child into the world are at every turn moulded, stunted or developed by the group culture that provides the channels through which they are organized. Had a Newton or a Darwin been born amidst the Eskimos, he might have grown up to invent a new method of hunting walrus or introduce a new plant as food. Had a St. Francis or a Savonarola appeared on the Congo he might have started a new society of religious dancers or led a crusade against the scorners of witch-doctors. Without the accumulated ideas of the scientific tradition, there could be no scientific genius; without the rich Christian past there could be no Christian humility or righteous wrath. The very type of character or mind that can appear in any group is determined by the cultural tradition that can alone develop it.

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Modern Nursery Rhyme

Astronomy

Twinkle, twinkle, little star,
How I wonder where you are.
Up above the world you shine,
But according to Einstein
You are not where you pretend—
You are just around the bend,
And your sweet, seducing ray
Has been leading men astray
All these years. O little star,
Do you know how bad you are?
—Anon.

Science News-Letter, July 20, 1929