DISCUSSION

ATTITUDE MEASUREMENT AND "THE DUNLAP DILEMMA"

ON pp. 207–8 of Dunlap's "Civilized Life," occurs the following:

> Ask an adult what he would choose if he were offered the alternatives of total annihilation, or of beginning his life over again, living it up to the present moment exactly as he has lived it, to face again the same alternatives. Make it clear that he is not, in his second life, to be allowed to profit by what he has experienced in the first; and the answer almost always is that he would choose annihilation.

The statement has far-reaching implications, and its casual mention among local colleagues elicited questioning reactions; which interested the writer in briefly reviewing the topic, with the sources nearest to hand. Accordingly a form was prepared, designed to represent fairly the conditions recited in the quotation above. After slight verbal changes, its uniform text was as follows:

Name is not needed.....Date.....Group.....
This inquiry is made to test the validity of a statement occurring in a standard psychological work.
Assume that you are offered your immediate choice of the following:

.....(A). To be totally annihilated.

.....(B). To begin your life over again, and live it up to the present moment *exactly as you have lived it, not profiting by any experience of your former life,* and then to be given the same choice of repeating your life, or annihilation.

Put a check mark before whichever alternative you would prefer.

The form was presented in such a way that no one needed to identify the answer, though actually this was often done. Uniformly successful effort was, however, made to obtain record of sex and age to nearest decade. Rationalizations, "unconscious determinants" and various questions of definition are not considered here, the concern being limited to the verbal choice under the assigned conditions. For convenience, choice of annihilation may be termed the "A" response, choice of reliving, the "B" response.

Mainly through the interest of colleagues,[1] whose help is here gratefully acknowledged, were assembled the 121 cases that form the basis of the present note. The material is highly selected; the majority are in the upper 5 per cent., and there is probably no one outside the upper 10 per cent. of measurable "intelligence." Almost all are in the third and fourth decades of life, and they are mainly hospital and university personnel. The data as here gathered show as a whole some one out of six A responses (20 of 121); whereas Dunlap indicates a marked preponderance of A responses. Data from persons over fifty should be of relative interest, but are here nearly absent. Any indications of sex difference should probably be looked on as of culture rather than sex.

The response is a function of the way the person feels adjusted to life as a whole. The largest proportion of A responses, one in three, actually occurs in that one of the groups living under the greatest socio-economic frustration. Another sample, of relatively favored status, yields but one A response in fourteen. The factor of reliability also enters; a cycloid personality would fluctuate in response, a schizoid maintain it. The amount of alcohol in the system, and like factors, should be potent, if temporary determinants. There is some reason to believe that various group pressures inhibit the A response, with its vote of no-confidence in the universe; a reason for "secret-ballot" procedure.

There is a sample of 23 cases, additional to the above, consisting of college undergraduates, not chronologically "adult." Their proportion of A responses is 6 cases. A further sampling, of 32 student nurses, ages ranging from 18 years up, yields four A responses, distributed as to age. In the total material, 176 cases, of whom it is safe to consider all as more than average adult in respect to "intelligence" at least, the A responses total 30. The possible rôles of I.Q., sex, socio-economic milieu, etc., require larger material for their elucidation.

It is a matter of some interest that such an apparently similar formulation of the inquiry should lead to a result so different from Dr. Dunlap's wider experience therewith. The most ardent local pride can scarcely ascribe it essentially to differences between "value of life" or intellectual honesty, in Maryland, and Massachusetts or Rhode Island. Moreover, not all the present samplings, at least, are of local origin. Nor is it likely that appeal can be taken to differences of age or I.Q. If the real cause is an unrecorded difference in mode of questioning (*e.g.*, subtle influence of the opening lines in the form here used) the result is strong support to Dunlap's long-standing insistence on accuracy of procedural detail in experimental psychology. The measuring of "attitudes" is no exception.

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EARLY GEOGRAPHY IN NORTHERN ILLINOIS

CELEBRATION this year of the centenary of settlement in the Rock River Basin in extreme northern Illinois has brought to the surface memories which, unless recorded, will soon be lost.

Once the Indians were disposed of by the Black-hawk War, the region invited white settlers. Most of the early immigrants planned to take up farm land. The margin between forest and prairie runs roughly east-west through the district, with characteristic open glades in the fringes of the forest and peninsulas and islands of woodland ("groves" in local parlance) jutting up from the prairie. The young men of 1834 and 1835, first on the ground, took up farms along the margins of the woods. There they had logs for buildings, rails for fences, abundant fuel, and springs and streams for quenching the thirst of man and beast. Adjacent, on the unbounded prairie, their stock could graze freely. One of these first comers in after years told his son that when he took up his quarter-section of land, less than half of which was prairie, he took for granted he would always have unlimited, free, open range for all the animals he might own. He and his neighbors planned to carve fields out of the woods. The steel plow with self-scouring metal moldboard was just being perfected, and no one foresaw that within a generation this plow would replace the native prairie with seeded crops. (This district reached its heyday as wheat country during the high prices of Civil War days. Later it turned to corn (maize), and to-day it lies in the transition zone between the Corn Belt and the Dairy Province.)

The grove which this settler and his contemporaries divided among them was typical of the forest margin. About four miles long and one mile wide, its axis was a small stream which headed in a "big spring" and peat bog in the nearby prairie. Its wooded reach began in association with intermittent bluffs of soft limestone and the dissected high ground which they buttressed. Some miles before reaching its forest-fringed master stream it purled once more across a wide lowland of prairie which spread out at the base of low, stony, grass-covered hills. The vegetation of the grove consisted of oaks of at least half a dozen species, with a strong intermixture of hickories and a sprinkling of ash. On the flood-plain of the stream a few walnuts, butternuts, elms, locusts and hawthorns grew. Poplars were common, chiefly on the margins of the grove, which graded from dense to open woods and finally past isolated outposts to unbroken prairie. Not all the outlying trees were poplars; some were oaks, attested by stumps which stood in the fields until toward the end of the nineteenth century. There was no underbrush and the trees branched high, permitting delicate woodland grasses to carpet the ground. Three or four decades after the land was fenced hazel brush had sprung up thickly, in places making dense copse through which a man had trouble in forcing his way; sumac flourished on dry, thin soil; and wild grapes and other undergrowth grew rank on the flood-plain.

Settlers who came in the 1840s, too late to find unoccupied land along the vegetational contact zone, generally preferred the solid forest to the open prairie, but by 1850 men were actively enclosing the grassland, now recognized as more fertile than the land which had borne trees. Each of these prairie settlers purchased or took up a five- or ten-acre tract of woodland in the heart of the forested section, in order to have fence and fuel wood. When these small lots had been cut off, or when improved transportation substituted wire fences for rails and coal for wood as the source of winter heat in prairie homes, these lands were sold for a song to still later immigrants, mainly Irish, many of whom had come in as laborers on the railroads.

Towns grew apace with the countryside. The earliest roads of the district connected navigable waters of the Great Lakes and Mississippi systems or reached out to the lead mines of the Driftless Area. Settlements sprang up along these roads at forks and where they crossed streams which could furnish power for saw- and grist-mills. Rivulets to-day only five or ten feet across were considered adequate power producers wherever their banks favored the construction of earthen or timber dams. It is probable that these streams flowed more copiously in the early days of settlement—before the forests were felled and before the extensive marshes and bogs in depressions of the morainal prairie were drained by tiling. Streams large enough to be dignified by the name "river" were beyond the control of the first settlers.

When railroads came they followed water-level routes so far as possible. Hence they rarely coincided with the stage-coach roads, which took the shortest lines between major objectives except where they skirted wet lands (flood-plains and morainal depressions) or made for natural fords across streams. As population grew and mechanical devices multiplied, the rivers were dammed for power. These two technological changes—railroads and power dams—produced mushroom growth on new sites and destroyed the hopes of many a stage-route village. A rapids in the master stream afforded the most convenient crossing place, the Rock ford, and later made bridging easy. This same rapids created the largest power unit in the area. Roads, railroads and factories have made Rockford the metropolis, a destiny early recognized when to it was allocated the county seat.

The racial pattern of settlement reflects the stages of land occupance as determined by natural vegetation and water resources. The first wave comprised New Englanders, coming either direct or after a sojourn of a few years or decades in New York State or the Connecticut Reserve of Ohio. They, and one community of Scots, took up the groves and most of the contact zone between forest and prairie. The stream of migrants next turned into the forest. This

the Old Americans shared with a community of English families and with Pennsylvania Germans and Germans from the fatherland. Before all the forest land had been taken up, the new steel plow made the prairie available, and families from New England, New York, Pennsylvania and Germany joined forces in the rush to enclose it. Here and there a group of Irish took root on the prairie, but most of them were relegated by their poverty to the rougher forest lands which no one else had wanted. By the time the Irish and the Scandinavians were coming in force, they had to purchase farms from the children of earlier settlers, since little land remained in the hands of the government. Many of them settled in the towns. Before settlement was complete, all these racial threads were being interwoven into a harmonious fabric of Americans. This process still goes on, with Italians and Lithuanians as the chief strands of later origin. Most of them are city dwellers.

While there was abundant land the different groups clustered in tight neighborhoods, each linked to a different place of origin. As soon as clannish feeling diminished with the passing of the first generation, and all the land came to be occupied, the lines between settlements began to fade. Before 1900 the disappearance of stumpage in the forest and the planting of shade trees on the prairie had minimized the striking contrast in aspect of the landscape which had guided settlement. Intermarriage and interlopers were speedily obliterating the social lines which had formerly distinguished neighborhoods. But just as the natural vegetation has left tell-tale traces in the soil, so relicts of the original settlement—denominational churches, varying styles of farmstead architecture, the predominance of surnames belonging to this or that language—indicate to the observing eye something of the origins of settlement on what is now a typical piece of Midwestern America.

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A NEW OUTLET FOR UNABRIDGED SCIENTIFIC PAPERS

THIRTY years ago it was not uncommon to find scientific papers forty pages long or even longer. Because of the increase in the number of papers submitted, editors nowadays are compelled to impose strict limitations on the length of each. Yet, because of increased specialization, the need for an efficient medium of interchange of detailed information, between workers in the same or related fields, is greater than it was ever before.

Several solutions of this problem have been proposed in the past.[1] They have a drawback in common—they require the concerted action of many scientific bodies, as well as a radical change in the present methods of publishing scientific papers. These features in a plan make it highly improbable that the plan will be adopted in the near future.

I should like to have the opportunity of presenting through the medium of your journal a suggestion for the partial solution of this problem. This suggestion eliminates the difficulty mentioned in the preceding paragraph and allows of experimentation on a small scale.

The proposed procedure is somewhat as follows: Let the investigator write a paper of a length sufficient to make it useful to his fellow workers. Let him mimeograph his work and send copies to twenty-five key libraries of the world. Let him then present a condensed summary for publication. The summary is to contain a complete list of the libraries in which the unabridged paper is to be found.

I wish to emphasize that the present plan introduces no startling or new ideas. It represents a synthesis of several separate old ones. It seems to me that it is practical and that it will make unabridged papers equally as accessible as short papers published in the less widely circulated journals.

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SCIENTIFIC BOOKS

EARTH, RADIO AND THE STARS

Earth, Radio and the Stars. By HARLAN TRUE STETSON, Ph.D. New York, Whittlesey House, McGraw-Hill Book Co., Inc., 1934; pp. xvii + 336; figs. 88; one colored plate.

A PUBLICATION describing and coordinating the intriguing phenomena of astronomy and those of the earth sciences, more familiar but unfortunately the object of less interpretation, has been a desideratum for some time. The wonders of the heavens and the enchantment of the great unknown represented by the distant celestial bodies have long been the subject of discussion both scientific and popular. It is surprising that the even more complex and certainly equally fascinating physical phenomena evidenced by the experiments performed daily by nature in her great laboratory—the earth and its atmosphere—enlist, in general, little interest from layman and scientist alike. In astronomy there has been no lack of interest from its early beginning. But the intimate relations to the

[1] See, for instance, SCIENCE, 56: 197, 1922; 80: 70, 1934; 80: 245, 1934.