

EXPANSION AND EXPLORATION

EDITORIAL

There is no question that the associationistic and mechanistic model of life has led to much research and in many areas to great progress. But it does not include all the observable phenomena. Altogether it can be, and often has been compared to the older physics which still has its place within the larger scheme of modern physics. In the field of motivation, the mechanistic view is reflected in the drive reduction paradigm which, however, accounts only for deficiency motivation and not growth motivation (7), and is intrinsically static rather than dynamic. It leaves out the phenomenon of becoming (3).

Closely related to drive reduction is the superordinated principle of self-preservation, survival, or biological utility as the ultimate explanatory principle of all forms of life. Where one can speak of motivation, the sum total of the various drive reductions can be taken as resulting in self-preservation. But this principle of the usefulness *to* life of any structure or function of the organism appears to be of dubious validity on logical grounds alone, as long as the larger question, namely that of the usefulness *of* life is unanswerable in an objective fashion.

The more inclusive model of life is holistic and organismic (6). In the area of motivation this has recently received strong support from new research in animal psychology. It is now evident that such "higher" motives as curiosity, manipulation and exploration must, even in animals, be accepted as basic motives at least on an equal footing with the physiological needs, if not superordinated over them.

In biology in general, the principle of self-preservation has been called into question. Most recently such questions has been formulated into the phrase "survival is not enough" (5), by which is suggested that the principle of self-preservation must yield its foremost position to a larger principle, that of biological expansion.

Survival and drive reduction are admittedly neater and tighter constructions than expansion and exploration and are for that reason in a way more satisfying. Yet orders which do not provide room for all the known facts must give way to conceptions which do, even though these should be vaguer, less tidy and more open-ended. Clinging to certainty-providing stereotypes is characteristic of a more primitive level, tolerance of ambiguity and acceptance of uncertainties, of a more mature level.

In accordance with the holistic and organismic orientation of this Journal we are happy to present in the following (1) a discussion of the implications of the concept of biological expansion for psychology, by a biologist, Herman S. Forest; (2) a review of the important evidence which has accumulated on exploratory and related behavior in animals, by Robert Butler; and (3) considerations of past and future problems of the study of exploratory behavior in animals, by D. E. Berlyne.

These papers are altogether in accord with the thinking of Alfred Adler. From the very inception of his Individual Psychology Adler maintained that human behavior, and even animal behavior, cannot be adequately explained by a theory of motivation which considers the physiological drives as basic to all other motives, as the Freudian theory, for example, does. "Life (and all psychological expressions as part of life) moves ever toward overcoming, toward perfection, toward superiority, toward success" (4, p. 167).

In logical consequence, Adler also rejected the primacy of the principle of self-preservation. "We can see every minute that we act in violation of this and of the principle of the preservation of the species" (4, p. 121). And in one period Adler actually spoke of "expansion tendency" (4, p. 32), although he no longer used this term in his later years, equating the striving for worth, value, and significance with the expansion tendency (1, p. 336). "The ceaseless testing of his individual compensatory life plan is made imperative by the direction-giving goal of superiority, by the expansion tendency of the child" (2, p. 9).

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