

**ETHICS AND SCIENCE:  
SOME NORMATIVE FACTS AND A CONCLUSION\***

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In an earlier study on value theory,<sup>1</sup> I advanced the view that value statements are a species of fact that derives from the conditions within which human life goes on. This is to say that it is our experiences of values that serve to underlie and justify the judgments of value we can make. It follows that in normative issues we must begin by examining basic human needs and modes of development and response. Thus "judgments do not create value; they merely recognize it, and they do so in a hypothetical fashion since they are corrigible."<sup>2</sup> By studying the patterns of human evolution, growth, and association that the sciences are able to discern, we can come to learn which forms are life-producing, healthy, productive, and fulfilling, and how and why they are. Prepared with such factual knowledge, we are the better equipped to guide our future efforts to shape human conditions by standards of human good.

There are, then, several aspects to an inquiry of this sort, and we shall pursue some of them here. Let me begin by reviewing the normative results of certain sciences, next offer a proposal for ordering these data in a theoretical framework, and finally make some observations about policies and methods for applying them.

I

There is much in the study of human biology that is basic to our knowledge of valuings. Since the advent of modern evolutionary theory in particular, the ethical import of biological investigations has been prominent. Yet it is not unequivocally clear just what that import is. When a biologist like C. H. Waddington locates the real good as that which has been effective, particularly in evolution,<sup>3</sup> he overlooks the evolutionary impact of social control. And when he finds the biological function of ethics in promoting human evolution and wishes to judge ethical beliefs by how well they fulfill this

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<sup>1</sup> Arnold Berleant, "The Experience and Judgment of Values," *The Journal of Value Inquiry*, I, 1 (1967), pp. 24-37.

<sup>2</sup> *Ibid.*, p. 37.

<sup>3</sup> C. H. Waddington, *Science and Ethics* (London, 1942), pp. 18-19.

function,<sup>4</sup> he ignores the indefiniteness and options possible in both selection and survival. Although the standards of normalcy and health may be, as he claims, "in step with nature," they require determination and specification. Evolution is undifferentiated survival, but ethics is our response to the possibilities of choice and control which are invariably present as factors in the circumstances within which survival activities are carried on.

Yet the study of human biology can in fact provide important knowledge of the general conditions of human good. Rather, however, than seeking definitive answers from biology to specific ethical questions, what we can hope to find is a clearer conception of the conditions necessary for valuings to occur, what I shall later call structural universals. These can often be discerned negatively as those factors that cannot be done without. Once we have some knowledge of these, it becomes possible to judge the effectiveness (*i.e.* the value) of the individual and social choices, institutions, and opportunities for control in the light of such biologically necessary conditions.

Perhaps the basic biological term here and the one from which all the others derive is *survival*, survival of the individual and of the species. This is the primary measure of good and cannot be debated significantly, since the failure to ensure it eliminates the possibility of objection. The only logic relevant to this fundamental term is the logic of what we may call existential proof: by supplying the necessary condition for all human activity, survival makes the logical process possible.

If survival is the key biological concept, adaptation is the central moral one. Every functional activity directed toward the perpetuation of the individual and hence of the species exemplifies a mode of adaptation of and by the organism, the social unit, the species, the environment, all in combination with one another. Yet as adaptation describes the conditions under which survival is achievable, it also introduces factors of choice and control and the moral consideration of which conditions are acceptable. Indeed, it is striking to realize that the ethical correlates for each biological pattern or function reflect forms of determination and control exercised mainly by social groups. Evolutionary fitness is remarkably subject to social interpretation, since every form of health care, from folk remedies to sophisticated modern technologies, reflects an implementation and hence a shaping of the meaning of fitness, just as social Darwinism also represented a social response but with a different pattern for exercising and withholding social controls. Yet health, regarded as a biological condition for ensuring survival, is not as variable in interpretation since its definition is grounded in the organic process, even though its specification, channelling, and the availability of opportunities for health care are not.

Similarly, telic activity as part of the survival process gives rise to the moral choice of means and ends, and the various forms and actions these choices may take, such as competitive and cooperative ones, together with modes of

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<sup>4</sup> C. H. Waddington, *The Ethical Animal* (1960).

possession as of territory and personal property, shape that biological thrust. In much the same way, the drives generated by neurological and endocrinological systems, and our ways of directing the growing cortical control of motor activity so as to ensure survival, identify biological functions that contribute to survival and the ethical dimensions within which they are expressed. Finally, human sexuality and our taboos and standards of obscenity, reproduction and our patterns of family and child-rearing, and genetic inheritance and our kinship systems, taboos, and other influences all exemplify the manner in which biological factors take shape in social practice.

Yet these moral standards, viewed for the moment only within a biological context, are constrained to promote an organic purpose. Whether this is the case can often be discovered negatively by deprivation. Social policies which blindly modify genetic inheritance by permitting dangerous levels of radioactive fallout, thus displacing choice by chance, or which weaken prospects for survival by genetic controls that eliminate diversity we may clearly regard as organic wrongs. Similarly we can condemn taboos that frustrate sexual expression and communication, and familial forms that inhibit reproduction, or conversely, that encourage levels of propagation that threaten the survival of the species or group.<sup>5</sup> And social patterns that impede telic activity or turn it into forms that are personally or socially deleterious (*i.e.* that diminish prospects for survival) are also biological wrongs. There is much less variability attached to norms of health, even though we can recognize ever-changing policies for medication, treatment, diet, and the like. Of course here we cannot apply precise standards, and variables such as recent trends in the west toward earlier maturation that result from improved diet and sanitary conditions require a revision of our norms and of our patterns of organic activity as well. Thus adaptation through homeostatic mechanisms may impede the later function of the organism, as in the cumulative effects of scar tissue,<sup>6</sup> and the homeostatic response may itself undergo modification through changes in the living environment of the organism. Yet a determination of such biological functions enables us to understand more clearly what we mean by fitness and what patterns of adaptation are most likely to ensure survival.

## II

The human organism shares with many other species the characteristic that its survival is not self-determining but rather requires some kind of collective effort to care for offspring during the period of dependency, an effort which

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<sup>5</sup> Changing familial forms and socio-sexual patterns that do not provide felicitous conditions for child rearing at a high rate, such as group marriage, the nuclear urban family, role-free marriage, prolonged adolescence and late marriage, and the rejection of a marital relationship altogether, may be seen as social mechanisms with the biological purpose of keeping down population levels.

<sup>6</sup> R. Dubos, *The Fitness of Man's Environment* (New York: Harper and Row, 1970), p. 235.

invariably takes the form of social organization. Hence a consideration of survival in biological terms alone is necessarily incomplete, and the discussion of human survival must incorporate a consideration of society and culture. Of all the human sciences, anthropology, more than any other, seems to have devoted the most explicit attention to the identification of normative facts, since, regarded empirically, moral imperatives derive from the "cultural satisfaction of biological needs."<sup>7</sup> A comprehensive account of such investigations goes far beyond the limits and the intent of this essay, for there is an extensive literature on the subject. We can, nonetheless, recognize here the kinds of considerations that anthropology brings to the discussion of norms, and attempt to identify those normative facts that appear to be common to every culture.

What emerges in the work of anthropologists is a recognition of the fact that every society embodies a way of life from which it obtains its identity and which becomes the standard against which we must consider moral practices.<sup>8</sup> Yet a social order and a cultural pattern do not arise spontaneously nor do they stand alone. Each society must respond to a variety of limiting conditions within which social life is possible and without which a society cannot remain intact. But the preservation of a social order is no final end: any such group must perform certain functions and provide for its members an organization of activities and institutions necessary for a social order without which human beings could not survive. This is as true of the most small-scale, technologically simple societies as of the most complex, industrialized ones.

Anthropologists of a generation ago sought to compile lists of universal needs, while recently they seem more concerned with identifying and describing the functional and ecological processes by which societies maintain themselves. Yet even though anthropologists now tend to view attempts to derive specific moral universals from the comparison of cultures as somewhat speculative and presumptive, they nonetheless share with their predecessors the view that social organization is a form of adaptation for the purpose of survival. Furthermore, it is an axiom that reciprocity, the rights and duties by which social transactions take place, is the basis of social life, and thus it is for anthropology to investigate the specific patterns and forms that reciprocity takes.

Thus it is that anthropologists have proposed various sets of cultural universals. Boas, for example, went quite far in identifying close resemblances among different peoples in emotion, intellect, willpower, thought and action.<sup>9</sup> A similar intent characterizes such claims as Malinowski's (unconvincing) rule of legitimacy, that a girl must be married before she becomes

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<sup>7</sup> B. Malinowski, "The Theory of Needs," in *A Scientific Theory of Culture* (New York: Oxford University Press, 1960), p. 173.

<sup>8</sup> Cf. Alexander Macbeath, *Experiments in Living* (London: Macmillan, 1952). Cf. also A. Berleant, "The Social Postulate of Theoretical Ethics," *J. of Value Inquiry*, IV, 1 (1970).

<sup>9</sup> Franz Boas, *The Mind of Primitive Man* (New York, 1938), p. 219.

pregnant,<sup>10</sup> Lowie's (more acceptable) rejection of "promiscuity as a condition in which society is indifferent to the mating habits of its members" since it does not occur anywhere,<sup>11</sup> and principles of personality development such as those that emerge from the psychological experience of helplessness and dependency like sibling rivalry.<sup>12</sup> Firth, on the other hand, believes it possible to extrapolate universal moral principles from the universal conditions of human living, naming regulation and restraint in sexual affairs, stability of human sex relations sufficient to allow for the minimum care for infants, and the preservation of social order and the consequent prohibition on wholesale violence or unrestrained aggression within the group. This leads him to conclude that "As some factors are discernible in the basic requirements of all societies, so certain moral absolutes exist."<sup>13</sup> Kluckhohn, however, recognized that such absolutes may be untenable with "new knowledge of radically changed circumstances," and thus we would be better advised to speak of "conditional absolutes."<sup>14</sup>

Although the search for specific moral universals is a risky undertaking that has not proved especially successful, anthropologists have often observed that while cultures vary in specific details, they do possess many basic resemblances. This has led to significant attempts to identify cultural universals that are not identical practices or behavioral traits but rather common aspects of culture which are responses to those universal conditions of all social and cultural life. Thus Murdock has led a project to classify the "common denominators of culture" into eighty-eight categories, each of which is broken down further into more specific ones.<sup>15</sup> Kroeber accounted for cultural universals by biological, habitat, and social factors, and regarded such cultural constants as family, war, religion, and communication as "biopsychological frames variably filled with cultural content" that is "mainly subcultural."<sup>16</sup> In summarizing discussion of this question, Kluckhohn proposed a similar grouping. He observed that while no one set of determinants predominates, aspects of culture appear to derive from the constitutional nature of man (nutritional needs, age and sex, kinship), his orientation to a habitat (in utilizing resources, providing housing, transport, and often the exchange of goods), and his living in population aggregates (variously influenced by size, mobility, the ratio of males to females, group

<sup>10</sup> B. Malinowski, *Sex and Repression in Savage Society* (London: Routledge, 1972), pp. 212ff.

<sup>11</sup> R. H. Lowie, *Introduction to Cultural Anthropology* (New York: Rinehart, 1934), p. 231.

<sup>12</sup> Cf. Kluckhohn, "Anthropological Studies of Human Relations," 1953, unpublished.

<sup>13</sup> Raymond Firth, *Elements of Social Organization* (London: Watts and Co., 1951); *Human Types* . . . (Mentor, 1958), p. 107.

<sup>14</sup> Clyde Kluckhohn, "Values and Value-Orientations in the Theory of Action: An Exploration in Definition and Classification," in *Toward a General Theory of Action*, ed., Talcott Parsons and Edward Shils (Cambridge: Harvard University Press, 1951), pp. 118-119.

<sup>15</sup> Murdock, *Outline of Cultural Materials* (New Haven: Human Relations Area File, 1961).

<sup>16</sup> A. L. Kroeber, "The Concept of Culture in Science," *Journal of General Education*, 3, pp. 182-188.

identity).<sup>17</sup> More recently, anthropologists have lost explicit interest in those questions. Harris, however, recognizes a universal pattern acceptable to many anthropologists as one made up of ecological patterns comprising those “tools, machines, techniques, and practices relating social life to the material conditions of specific habitats,” social organization which includes “all technoeconomic and demographic transactions,” and ideology, including language, thoughts, and belief systems.<sup>18</sup>

Despite differences in terminology and in specifics, both the intent and conclusions of anthropologists are remarkably alike. Common to all societies is the need to secure conditions for carrying out activities that will ensure the survival of the group and its members. It is this fundamental requirement that makes social organization necessary, and such organization is ultimately based on reciprocity. (1) Thus for social life to exist, a group must adapt to envioning conditions and shape and transform those conditions to its needs and demands so that it can secure adequate nourishment and protection from climate, predators, and any other outside threat to group survival. (2) Out of such reciprocal adjustments come technologies for utilizing resources, economic institutions for distributing and exchanging them, and social institutions for facilitating and safeguarding these processes. (3) Closely related to these are provisions for maintaining social order, which lead to homeostatic mechanisms to ensure the stability, continuity, and adaptability to changing conditions or threats to the social group, and social and cultural institutions to order and ensure propagation, such as sexual mores, family and other kinship arrangements. (4) Finally there are systems of conceptualization which enable social man to plan, order, communicate, and harmonize in meeting and adjusting to these varied demands. Viewed in this context, therefore, consciousness, rational as well as mythical, is a survival mechanism. Belief systems are not abstractly universal, nor are they solely ideological, designed to maintain a particular social order. Rather they are at bottom a means of ensuring survival by encouraging social stability and the social process which stability makes possible, and by harmonizing those processes with the natural environmental conditions. Thus they too must be judged by how effectively they perform this function.<sup>19</sup>

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<sup>17</sup> Clyde Kluckhohn, “Universal Categories of Culture,” in Kroeber, A. L. (ed.), *Anthropology Today* (Chicago, 1953).

<sup>18</sup> Marvin Harris, *Culture, Man, and Nature* (New York: Crowell, 1971), pp. 143-146.

<sup>19</sup> In the largest sense, there is no abstract truth. A true belief is one which works in resolving the difficulties or discontinuities in a problematic situation, as Dewey and the other pragmatists have claimed. Similarly, a true philosophy is one which works through promoting survival in the cultural-historical-environmental condition in which it functions. Thus one can draw revealing parallels among such historical cases as the attempts to achieve an underlying stability amidst patterns of change that characterized classical societies and philosophies, the apparent permanence of the natural and social order and the eternalistic, essentialist philosophy and religion of the medieval world, and evolutionary systems of philosophy, science, and social change that reflected the rapid population growth, technological progress, and transforming

Thus biological survival in the human species invariably takes social form, and because the structural conditions of social life are universal, it is possible to determine criteria for judging how well specific social patterns and practices meet those conditions. This has profound importance for value theory, for it enables the development of criteria for appraising values and value systems by how successfully they promote the survival of the human species in its social forms. Redfield puts it pointedly: "We do not expect a people to have a moral norm that their material conditions of life make impossible."<sup>20</sup> Thus while it may be difficult to infer specific moral principles from our empirical knowledge of value theory, existing principles and practices can be judged by how successfully a society fulfills those conditions. That is, the cultural universals work more easily as principles of judgment than as the ground of precepts.

Such an approach as this provides a basis for handling the important problem of recognizing and dealing with the difference between wants and needs. Desires are important data for any naturalistic theory of value, but to take them as ultimate givens is to subjectify the status of values. Critics of commercial or capitalist socio-economic practices have often pointed out that wants are in large measure culturally implanted. Infused into a population from motives of power or profit, these desires may well be personally and socially deleterious, and obstruct the satisfaction of genuine psychological and social needs. Political propaganda and advertising practices generate an enormous range of stimuli that encompass the members of every industrialized national state. Their effect is so powerful in channelling basic needs and impulses in profitable directions that even those aware of the process find it difficult to extricate themselves from the feelings and desires they are so skilled in shaping. Nearly all of our motives, goals, and desires are partially or wholly false to our actual needs, and this makes it all the more difficult to distinguish one from another. To assist us in doing this is one of the most vital functions of the sciences of man. In place of the subjectivity of desires, we must investigate bio-socio-environmental conditions in order to determine the varying needs that are genuine ones, *i.e.* determined by the conditions of survival as they occur under varying circumstances of history, geography, and social organization. Under conditions of vying interests and constant change, the process of distilling genuine needs from spurious wants is never ending.

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environmental processes of the nineteenth century. In all cases these cannot be seen causally but instead as functional components of a total order.

<sup>20</sup> R. Redfield, *The Primitive World and Its Transformations* (Ithaca: Cornell, 1953), p. 163. Redfield, however, attempts to identify a pattern of moral progress, an effort which itself may be ethnocentric. Cf. Ch. VI, "The Transformation of Ethical Judgment," pp. 139-165. David Bidney makes an important attempt at showing how we can deal with cultural values as facts amenable to scientific inquiry. Yet Bidney strangely enough combines a tolerant cultural relativism with science as "an absolute norm for judging culture as a whole." Cf. "Normative Culture and the Categories of Value," in *Theoretical Anthropology* (New York: Columbia University Press, 1953), Ch. 14, pp. 400-432.

## III

Not only does social life originate norms; it provides the standard and the meaning for the abnormal. Since social life is impossible without communication and some measure of order, in every society "those with whom it is impossible to communicate or who do not possess some degree of control over their impulsive life are defined as abnormal."<sup>21</sup> Others have arrived at similar conclusions from a psychological standpoint. Asch, for example, using Kohler's gestalt notion of the "requiredness" of a given situation, argued that the genesis of obligation lies in our capacity to sense the requirements that are inherent in a structure of social relations.<sup>22</sup> Such an approach provides an underlying formal unity amid the diversity of social instances. Thus also by using gestalt psychology, Karl Duncker claims that moral variability is illusory "when we do not compare attitudes of various societies towards acts as abstract events but examine the concrete patterns of situational meanings upon which the ethical essence of an act depends."<sup>23</sup>

Yet if communication and order are essential for social relations to occur, such relations then must be seen to provide the basis for the psychology of normalcy. However, the attempt to employ psychological data here to determine its meaning presents certain apparent difficulties. Not only is psychological research divided among various theoretical orientations: analytic, gestalt, behavioral, existential-phenomenological; psychology has long been the darling of intellectual fashion, a collaborator in social trends, and the victim of popular journalism.

Yet what strikes the observer is a remarkable concurrence among investigators of sharply divergent orientations. Erikson captures the main theme of much of this work in recognizing that it is impossible to separate personal growth from communal change. Thus to achieve identity requires that one "deal with a process 'located' *in the core of the individual* and yet also *in the core of his communal culture*, a process which establishes, in fact, the identity of those two identities." This means that we must regard the process of identity formation as a prototype for understanding the complex transactions between the psychological and the social, the developmental and the historical.<sup>24</sup> Allport has also called attention to studies of motivation and morale in industry that show that workers have two primary sets of interests in ego-recognition and affiliation with the group.<sup>25</sup>

This confluence of individual growth and social development is a leitmotif that recurs throughout the writings of psychological theorists. It is the

<sup>21</sup> Clyde Kluckhohn, quoted by S. Moser, *Absolutism and Relativism in Ethics* (Springfield, Ill.: Thomas, 1968), p. 216.

<sup>22</sup> Solomon E. Asch, *Social Psychology* (New York: Prentice-Hall, 1953), pp. 357ff., 372ff.

<sup>23</sup> Karl Duncker, "Ethical Relativity?", *Mind* (1939), 48: 41ff.

<sup>24</sup> Erik Erikson, *Identity, Youth and Crisis*, (Norton, 1968).

<sup>25</sup> Gordon W. Allport, "Normative Compatibility in the Light of Social Science," in A. Maslow, ed., *New Knowledge in Human Values* (New York: Harper and Row, 1959), p. 139 and n.



conclusion of psychiatrists of differing persuasions who derive their findings from clinical practice, as well as of psychologists who draw results from experimental observation. Fromm, for instance, has long argued that values have their roots in the conditions of human existence, and that those conditions provide the ground from which a humanistic ethics can be scientifically justified as healthy, in contrast to authoritarian, repressive forms, which are harmful responses to those conditions since they obstruct and prevent the achievement of human good. This leads him to identify a number of basic conditions of existence.<sup>26</sup> (1) One needs relatedness to other persons, which can be satisfied by forms of love (healthy) or domination (unhealthy). (2) One also needs to transcend the accidental and passive circumstances in which he finds himself, and he can do this either through creative or through destructive practices. (3) There is a need for being rooted to things, which can be met through the natural bonds we have to the mother, to mankind, nature, and ultimately the world. This can be satisfied by passive dependency or by active and creative ties with the world. (4) Another condition is the need for a sense of identity which we can satisfy by submission to a ruler or submersion in a group, nation, religion, class, or occupation, or which we can achieve through a full individuality. (5) The search for identity also leads people to seek a system of intellectual orientation. However, this may be met by a comprehensive rational system which may be developed to comprehend and justify both reasonable and constructive or irrational actions and purposes. (6) Finally, systems of thought never stand alone but are related to objects of devotion so as to satisfy man's traits of feeling and sensing. Primitive systems of animism and totemism, religious systems both theistic and nontheistic, and philosophical systems have all evoked feeling responses to meet this need. What is the healthy satisfaction of these needs and thus promotes growth is the same as what is good and consistent with the nature of life, while what is mental sickness and stagnation is the ground of the evil and leads toward death. Thus Fromm describes mental health as *well-being*, "the ability to be creative, to be aware, and to respond, to be independent and fully active, and by this very fact to be one with the world."<sup>27</sup>

Fromm's account of mental health has its close counterpart in the writings of other clinically-oriented psychologists. Maslow's well-known concept of "self-actualization" is one such example.<sup>28</sup> Maslow identifies this with growth toward full humanness, which includes such things as unity of personality, spontaneous expressiveness, full individuality and identity, true understanding, and creativity. In fact, full humanness is the species norm and is objectively describable and measurable. He lists these characteristics as "1. Clearer, more efficient perception of reality. 2. More openness to experience.

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<sup>26</sup> Erich Fromm, "Values, Psychology, and Human Existence," in A. Maslow, *op. cit.*, pp. 151-164. Cf. also *Man For Himself* (1947), and many other writings.

<sup>27</sup> *Ibid.*, p. 163.

<sup>28</sup> "Psychological Data and Value Theory," in A. Maslow, *op. cit.*, pp. 119-136.

3. Increased integration, wholeness, and unity of the person. 4. Increased spontaneity, expressiveness; full functioning; aliveness. 5. A real self; a firm identity; autonomy; uniqueness. 6. Increased objectivity, detachment, transcendence of self. 7. Recovery of creativeness. 8. Ability to fuse concreteness and abstractness, primary and secondary process cognition, *etc.* 9. Democratic character structure. 10. Ability to love, *etc.*”<sup>29</sup> There are subjective reinforcements for attaining these characteristics of the healthy human specimen, such as feelings of zest, euphoria, serenity, responsibility, and self-confidence in one’s ability to handle stress. Signs of regression are predictable feelings of boredom, anxiety, despair, intrinsic guilt and shame, and lack of identity. Among Maslow’s conclusions is the view that the culture is an instrument for need-gratification as well as control, and the main purpose of a healthy creature is to foster universal self-actualization. Thus “living in a family and in a culture are absolutely necessary to *actualize* these psychological potentials that define humanness.”<sup>30</sup>

Many of these same observations appear in the writings of Carl Rogers. More than most psychologists, Rogers has devoted special attention to the valuing process as it functions in both healthy and disturbed patients. It is his contention that the structure of the self is formed as a result of interaction with the environment and especially through the evaluational interaction with others.<sup>31</sup> Often the attitudes of others, parents in particular, become part of one’s phenomenal field and lead to a distortion and denial of the conscious experience of positive sensory values. Not only, however, are these attitudes introjected; they are experienced as if they were based on the information provided by one’s own sensory and somatic experience. It is this displacement of the experience of one’s organismic functioning that leads to a distorted perception of self and to the denial of experience. Thus a healthy self-structure can be achieved when one relinquishes an introjected system of values and replaces it with the experience of his own organism. “He discovers that he does not need to know what are the correct values; through the data supplied by his own organism, he can experience what is satisfying and enhancing. He can put his confidence in a valuing process, rather than in some rigid, introjected system of values.”<sup>32</sup> This, however, does not lead Rogers to an anarchy of values by grounding them in the organismic experience of the individual person. The same basic needs which all individuals share, which includes the need for acceptance by others, leads to “a high degree of commonality and a genuinely socialized system of values.”<sup>33</sup>

This is a particularly significant consequence of Rogers’ therapeutic observations. In attaining an openness to their experiencing, there emerges in

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<sup>29</sup> *Ibid.*, p. 127.

<sup>30</sup> *Ibid.*, p. 131.

<sup>31</sup> Cf. Carl Rogers, “A Theory of Personality and Behavior,” in *Client-Centered Therapy* (Boston, 1951), pp. 498-524.

<sup>32</sup> *Ibid.*, pp. 523-524.

<sup>33</sup> *Loc. cit.*

patients "an organismic commonality of value directions."<sup>34</sup> These value directions do more than enhance the development of the individual; they also contribute to similar growth in others in his community and support the survival and evolution of the human species. On the basis of comparative observations, Rogers claims that the commonality in valuing directions does not depend on the personality of the therapist nor does it reflect the influence of a single culture. Rather he believes that it rests on the fact that we are all members of the same species. Thus Rogers hypothesizes that "it is *characteristic* of the human organism to prefer such actualizing and socialized goals when he is exposed to a growth promoting climate,"<sup>35</sup> and this leads to "the possibility of universal human value directions *emerging* from the experiencing of the human organism."<sup>36</sup>

Perhaps Rogers' approach to psychotherapy can be contrasted no more sharply than with the experimental behaviorism of B. F. Skinner. In fact, their basic theoretical differences have led them to scholarly debate with one another. It is all the more striking then to find that Skinner's conclusions on the psychology of values show a remarkable resemblance to Rogers', their differences residing largely on the question of methods by which to achieve them.

In various writings, Skinner has long recognized that survival is the ultimate normative criterion. People behave in the ways they do, including ethical ways, because they are reinforced for doing so. Since the behavior that results may have long-term consequences for maintaining the pattern of such behavior, and that pattern in turn has a deep and far-reaching influence on cultural survival, it is survival which is the ultimate criterion in judging the value of any practice. Science, therefore, can play an important part in enabling us to predict the value of cultural practices for the survival of the group and eventually of mankind.<sup>37</sup> Values, then, are not autonomous choices in advance, for no one chooses survival. "The 'value' which the individual appears to have chosen with respect to his own future is therefore nothing more than that condition which operated selectively in creating and perpetuating the behavior which now seems to exemplify such a choice. An individual does not choose to live or die; he behaves in ways which work toward his survival or death. Behavior usually leads to survival because the behaving individual has been selected by survival in the process of evolution."<sup>38</sup>

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<sup>34</sup> Carl R. Rogers, "Toward a Modern Approach to Values: The Valuing Process in the Mature Person," *The Journal of Abnormal and Social Psychology*, 68, 2, 1964, pp. 160, 167. See also "A Humanistic Conception of Man," in *Science and Human Affairs*, ed. R. Farson (Palo Alto, Cal.: Science and Behavior Books, 1965).

<sup>35</sup> *Ibid.*, p. 166.

<sup>36</sup> *Ibid.*, p. 167.

<sup>37</sup> "Some Issues Concerning the Control of Human Behavior," A Symposium (with Carl Rogers), *Science*, Vol. 124, No. 3231, 30 November 1956, p. 1065.

<sup>38</sup> B. F. Skinner, *Science and Human Behavior* (1953) (New York: Free Press, 1965), p. 433.

Decisions about what is good for man, then, are really technological ones. Through the evolutionary history of the species, some things have become "good," and they are used to reinforce positively (and the bad negatively) as an outcome of "the contingencies of survival under which the species evolved."<sup>39</sup> Thus the survival of a culture is its principal value, and the power of all reinforcers eventually comes from evolutionary selection.<sup>40</sup>

A remarkable concurrence thus emerges from the writings of psychologists who have been interested in normative behavior. In striving toward fulfillment, whether it be characterized as personal growth (Erikson), creativity, responsiveness, independence, and activity (Fromm), self-actualization (Maslow), openness to organismic experience (Rogers), or survival behavior (Skinner), people all live and act as part of a social process which guides and shapes their efforts, and indeed makes them possible. When this effort is successful, it leads to harmonious activity toward the common good of cultural and species survival, taking us in a striking circle back to the biological observations with which we began. One cannot help being impressed at the fundamental resemblance this concurrence of individual and social good has with Plato's theory of justice in *The Republic* as the harmonious integration of the identical functions of both the mind and the classes in society.

#### IV

The moral question, then, as Dewey observed, is not "Why live?," but rather "How are we going to engage in life?" Here "the choice is not between a moral authority outside custom and one within it. It is between adopting more or less intelligent and significant customs."<sup>41</sup> And since for Dewey it is science that embodies the method of intelligence, we can draw the significant inference that intelligent custom may be nothing other than scientific ethics (*ēthikos* > *ēthos*, custom).

We start, then, with survival, and survival for the human species entails social structure of some kind. Yet as we have seen, for social survival to be possible there are necessary conditions to be met in order to satisfy what

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<sup>39</sup> B. F. Skinner, *Beyond Freedom and Dignity* (1971) (New York: Bantam-Vintage, 1972), pp. 99, 119-120.

<sup>40</sup> *Ibid.*, pp. 99, 173.

<sup>41</sup> John Dewey, *Human Nature and Conduct* (New York: Modern Library, 1930), p. 81. The entire passage bears quoting: "The authority is that of life. Why employ language, cultivate literature, acquire and develop science, sustain industry, and submit to the refinements of art? To ask these questions is equivalent to asking: Why live? And the only answer is that if one is going to live one must live a life of which these things form the substance. The only question having sense which can be asked is *how* we are going to use and be used by these things, not whether we are going to use them . . . . No one can . . . escape the problem of *how* to engage in life, since in any case he must engage in it in some way or other – or else quit and get out. In short, the choice is not between a moral authority outside custom and one within it. It is between adopting more or less intelligent and significant customs."

Locke called “determinate appetites” – what we shall call structural needs or structural universals. In some fashion or other, every society must meet such structural needs. Here the sciences of man are the invaluable and necessary sources for determining what these needs are. Let us review what we have discovered them to be, without claiming to be either complete, exclusive, or exhaustive.

Biological universals appear to center around the homeostatic process of metabolism and growth, and include health, nourishment, physical protection and safety, genetic control and change, sexuality, reproduction, telic activity, and control of motor activity. In anthropology the structural universals extend from the basic requirement of reciprocity, and the social order, identity, and cultural pattern that this makes necessary. Thus there develops the necessity for social and cultural institutions to order propagation, homeostatic mechanisms to ensure stability, continuity, adaptability to changing conditions or threats, and adaptation to environing conditions, including shaping them, technologies for utilizing resources, economic institutions for distributing and exchanging them, social institutions for facilitating and safeguarding these processes, and systems of conceptualization. The structural universals of psychology center around creative growth, embracing an openness to experience, including one’s organismic functioning, an integration of the self into an identity, a relatedness to others and to the world through such means as communication and art, an intellectual orientation, and objects of devotion.

From such structural universals as these, each society develops specific cultural forms and standards. Certain patterns of satisfaction may be found universally, but it is both unnecessary and risky to try and make a case for them in too determinate a form. Some have tried to do this with such practices and convictions as marriage, belief in a supreme being or force, the brotherhood of man (usually a minority claim), the gospel of labor (the virtue of commercial and industrial societies), patriotic allegiance (a survival belief of threatened societies), and innumerable other proposals. Such attempts are invariably ethnocentric and eventually fail from exceptions. What is clear, however, is that *some* cultural specification must be made for each structural need, either by a process of evolutionary reinforcement or by conscious social policy.

It is the latter that exemplifies the process of intelligence, where the ethical science that identifies and orders structural universals is supplemented by derivative scientific processes that distinguish needs (requirements) from wants (desires) and make definite proposals for social means of meeting them. To do this is a far distance from entering a morass of subjective forces and vying political interests. It is rather a question of bending all the resources of knowledge, prediction, and control to the specification of particular social forms, policies, and institutions that under the circumstances of a particular society show the greatest likelihood of meeting the universal structural necessities.

One technique may be to approach the problem negatively, following the

observation of Antiphon the sophist, who regarded ethics as a technology of a special kind, namely the skill of preventing misery – *τέχνη ἄλυπιας*. There is, to be sure, a value in proceeding negatively by asking, as it were, what would happen if a particular structural need were denied, since this would provide clear evidence of its necessity. Fail to establish institutions to safeguard the social order, and in an aggressive colonial world, gentleness and benevolence mean social disintegration and suicide, as in the case of the enslavement and destruction of the Caribbean Arawaks by the Spanish invaders, and the displacement of the African pygmies and bushmen hunter-gatherers by the Bantu cultivators. Refuse to acknowledge provisions for the reproductive process to take place and, despite hard work under tolerant conditions, you have the imminent disappearance of the Shakers. Deny opportunities to develop creative relationships with others and to acknowledge one's organismic experiences, and neurosis and schizophrenia will likely follow. And in general, when a difficulty is recognized, the initial response in attempting to alleviate it can be to try and identify the structural universal that has not been acknowledged.

But the mere acknowledgement of a structural universal in the social order does not guarantee that it will function successfully. It must be woven into the total fabric of universals in ways that support and carry it forward, and it must take form in cultural norms that promote the fulfillment of these needs. It is perhaps most common to acknowledge the inadequacy of normative practices only after carrying them to the point of failure, social crisis, and even disaster, instead of being sensitive to the first signs of social malfunctions in the same way as we are to bodily ones.

Sometimes a society will, by its system of conceptualization, deliberately proceed by denial, and respond only when the consequences reach the stage of social disruption. This is a kind of social application of the logic of the indirect proof, when the conclusion of an argument is denied in order to prove a contradiction with one of the premises. Thus if the denial produces a contradictory inference, its affirmation will not, and thus the conclusion is established. This process may be taken to describe the piece-meal social engineering practices of the American *laissez-faire* social policy of negative government. There are obvious alternatives to this, such as employing scientific knowledge and the experimental method to determine the full range of consequences of a social practice like pollution, a social policy like nationalism, a social value like individualism, or a social institution like monogamous marriage.

The question of the means of implementation and control by which cultural forms and standards are established and supported really lies outside the domain of the present discussion. Suffice it to mention a few of these merely in a suggestive way. Mythology is a time-honored technique of control, ranging from Plato's myth of the metals to explain the intrinsic differences in worth of the various social classes, the divine right of kings to justify absolute monarchy, or the belief in natural rights to support the ultimate individualism of liberal democracy. Religion has been used to

support various forms of social privilege or, under different social conditions, moral equality. Similarly, education shapes varying social practices, hence the differing support for private, religious, and public educational institutions. Political means of controlling cultural forms and standards are most obvious of all, and so are the still often overt techniques of thought control, such as propaganda, advertising (which is the artificial insemination of wants), and rhetorical techniques in argumentation.

What is clearest of all, however, is that the critical issues here have to do not with the fact of control but rather with the purposes for which control is exercised and the means which shape those purposes. Social practices all have their consequences, whether they be practices deliberately adopted or ones that occur circumstantially or fortuitously. The consequences are nothing less than the total well being of a society and its members, and eventually their survival or demise.

It seems, then, that the identification of structural universals is perhaps the most significant human contribution of the sciences of man. In adding to and refining our knowledge of these, we acquire the means by which we can test and elaborate those cultural forms which meet these basic needs. Thus the essential outline and procedure of an ethical science and technology begin to emerge, and place what may be the most obscure of man's creations, his moral beliefs and practices, under intelligent control. Here lies the prime significance of science, not as a threat to morality, but as an ally in the service of human freedom, a liberation that may likely be achieved in no other way.

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