EVOLUTIONARY NATURALISM:
A STUDY IN THE ONTOLOGY OF MORAL PHENOMENA

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ABSTRACT

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The objective of this thesis is to examine the origin and nature of moral phenomena in an evolutionary context, and to consider the manner in which the evolutionary approach to ethics can be said to serve as a foundation of value judgments. The orientation of discussion is towards determining how a consideration of evolutionary criteria can provide a conditional framework for normative ethical constructions. However, the thesis is not directed to answering specific questions in normative ethics, determining normative ethical content, or providing an objective proof of anything normative. Rather, emphasis is placed on constructing a perspective within which to discuss the possibility of normative conclusions following from analysis of the evolutionary genesis and function of moral phenomena.

The scope of my research is basically confined to one of ethical ontology, that is, to a consideration of the nature and grounds of such knowledge which contributes to defining the context, function, and essential character of moral phenomena in biological and cultural evolution. The thesis is divided into three sections (six chapters). The first two sections deal with a comprehensive consideration of these positions influential to the field of evolutionary ethics in the last century. The

third section consists in a systematic analysis of three principle claims fundamental to the establishment of an evolutionary ethic, which is then followed by a discussion on what conclusions may be drawn as regards the determination and application of evolutionary criteria to normative concerns.

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GENERAL INTRODUCTION

The subject of the present research is one whose patent dismissal within circles of contemporary ethical dialectics is all but total. The growth of the natural sciences, and of the scientific attitude generally has, since the scientific revolution of the sixteenth and seventeenth centuries, contributed much towards the conceptual reorientation of man's understanding of his empirical circumstances. Moreover, that the structure of scientific knowledge, i.e., the means by which it is attained, organized, and established, has exerted a pronounced influence on certain areas of philosophy--notably in western epistemology and ontology--is in clear evidence. Conversely, ethics and questions of moral value have traditionally been abstracted from any scientific convergence. The developments of the last century, however, in such fields as biology, anthropology, and psychology have made this position at least polemical, if not untenable. In this regard, the relevance of the natural sciences to the area of human values has increasingly become the subject of novel speculation in redefining the character and foundations of moral phenomena.

All issues in Evolutionary Naturalism relate, directly or indirectly, to the explication of one fundamental thesis, on the presupposition of whose positive resolution is contingent the sheer possibility of all such investigations. This central proposition consists in the postulate that there is, in fact,

a concrete, intelligible, and significant relation between moral good (and its systematic embodiment) and the facts of biological evolution. The systematic examination and explication of this relation, i.e., investigating the grounds of axiological justification and considering the practical consequences following from such a perspective, constitutes the subject proper of an evolutionary approach in ethics.

The fundamental purpose of this thesis can be described as twofold. The first objective consists in detailing what exactly the evolutionary approach to ethics comprehends, i.e., what it is, and to clarify the main issues and arguments involved in this perspective. This will be approached mainly through a consideration of the origin and nature of moral phenomena in terms of evolutionary dynamics. The second objective, will be to consider the central problem of evolutionary naturalism, namely, in what way the evolutionary approach can be said to provide a foundation for value judgments. Related to this is the problem of how biological evolution, i.e., mechanisms, direction, etc., can help determine what constitutes moral progress.

The formal organization of this thesis consists of three general sections which are again subdivided into six chapters. The first and second sections (chapters one through five) are essentially expository, and represent those views most influential to the field of evolutionary ethics from the late nineteenth, through the middle of the twentieth, centuries. The final section (chapter six) consists in the discussion of three claims fundamental to the establishment of an evolutionary

ethic. Following the presentation of these claims will be a discussion on what conclusions may be drawn, and the manner in which evolutionary criteria might serve as a foundation of value judgments. This is then followed by an examination of the characteristics of evolutionary standards of morality. This section as a whole, i.e., claims, conclusions, and standards, is proposed as a conditional model of an evolutionary ethic.

That the sequence of chapters has been ordered chronologically is indicative of a certain continuity. For the most part, however, this continuity is better understood in terms of common general objectives, rather that a cumulative process of systematic advancement. In organizing the individual chapters of the historical sections, emphasis has been placed on presenting, for the most part, a descriptive representation of the particular position, with interpretation and criticism usually being restricted to a minimum. The object here has been to study the polemics of the situation in terms of how different authors conceived and dealt with the central problems. To this end secondary sources have been avoided in favor of consideration of the original texts. It will also be noted that each chapter deals specifically with an individual author, rather than with a consideration of general ideas. This approach has been used in the interests of elucidating the subtleties of a given conceptual scheme, and hopefully providing a greater perspective and fuller appreciation of both the particular position and the subject generally.

Simply stated, the final object of this thesis is to examine the possible relationship between the theory of

evolution and normative ethical theory. The general manner of my investigation will consist in showing how certain tenets, central to the theory of evolution (e.g., natural selection, directional trends, etc.), explain the origin of moral phenomena as the outcome of the same process and mechanisms of evolutionary development, responsible for the aggregate of all natural phenomena. The expression 'moral phenomena', while to an extent vague, has had such large currency in the literature that I have chosen to retain it. In this thesis, its use is exceptionally elastic: it designates not only the special character of normative ethical values and principles, but includes also such phenomena as conscience, and the human genetic propensity for moral cognition. In short, the expression comprehends all activities and behavior which demonstrate the presence of reflective consciousness in evaluating critically the social consequences of an action in terms of good and bad.

There is much in the general orientation of contemporary moral philosophy that might prompt novel attempts towards realizing a more adequate basis for ethical debate. Since Moore, and more remotely, Hume, the central problem of ethics has been considered in terms of the analysis of the relation (or lack of one) between fact and value, i.e., the 'is-ought' distinction. This approach has had certain consequences I feel are philosophically undesirable, notably, that epistemological questions have been largely eliminated from the scope of contemporary considerations, and, that meta-ethics appears excessively formalistic, and removed from the facts of moral experience. As a result, a certain distortion of

moral philosophy has prevailed which encourages new considerations directed towards a redefinition of the concept of morality, and of the priorities of ethical investigations. Thus, it is a general objective of this research to reconsider the possible interrelation of fact and value through an examination of moral phenomena in ontological terms; and to show that the fact-value bifurcation is to an extent arbitrary and artificial.

For the purpose of this thesis, the logical distinction between fact and value may be characterized in the following manner. Statements of fact--as contrasted with 'evaluative'--refer to those objects of experience which are objectively and decidedly there, and not merely contributed by human attitudes as evaluations may seem to be. A fact is a perceptible, concrete, actuality (as opposed to what is merely possible), i.e., that which <u>is</u> the case. The existence of a fact is decidable directly through the observation of the occurrence of an event.

On the other hand, evaluative statements can be generally qualified as those whose main verb is an 'ought' (or an equivalent), though 'ought' is not strictly a value term. In its widest sense, "value" is the generic noun for all kinds of critical predicates used to refer to what is judged good or bad, desirable or undesirable, as regards certain objects, ends, actions, experiences, or states of affairs. More particularly, moral values and valuations refer to those judgments enjoining, recommending or condemning certain lines of conduct which have social ramifications.

Fact and value are not treated in this thesis in a reductive manner. That they epitomize distinct and heterogeneous categories of phenomena of different ontological status is not disputed. What is contested is that this ontological autonomy precludes an interrelation, the nature of which having significant consequences for normative ethics. It is believed that the theory of evolution provides a systematic frame of reference within which the content of this interrelation becomes intelligible. Facts, namely, those describing the evolutionary transitions of mankind, and moral phenomena, come to be perceived as the outcome of a common process of organic evolution, that is, as related in terms of the condition of their origin and development. In this context, then, the nature of value is epistemologically bound to that of fact, and the conceptual integration of both contribute to the formulation of criteria for evaluating normative ethical injunctions.

SECTION I. EXPOSITION OF CLASSICAL REFERENCES: 1859-1893

Chapter I. Charles Darwin: The Biological Genesis of Moral Phenomena

Since the initial publication of The Origin of Species in 1859, the general theory of evolution has provided perhaps the most integrated, comprehensive, and universally accepted cornerstone in the foundations of occidental biological science. Moreover, its ramificatory influence in prefiguring modern social, political, and ethical perspectives is eminently manifest in such diverse fields as Marxist historical materialism and evolutionary naturalism; their essential nexus consisting in their common preconditions, i.e., in the verity of the facts of biological science as expounded in the Darwin literature. Anticipatory, then, to any consideration of the projected application of such facts, the interests of integrity and logical sequence would require first a compendious review of the elemental features of the doctrine of natural selection. The Origin, as such, thus represents the basic point of reference; all scientific and philosophical systems which presume to proceed along evolutionary lines must take as their original commencement points Darwinian co-ordinates.

The Origin of Species had two distinct objectives. According to Darwin, the first of which was "...to show that species had not been separately created, and secondly, that

natural selection had been the chief agent of change, though largely aided by the inherited effects of habit, and slightly by the direct action of the surrounding conditions."[1] It should be noted that Darwin was not the first to challenge the belief that species were the immutable productions of separate (special) creation. As early as 1745, Maupertuis (President of the Berlin Academy of Science) had proposed an evolutionary form of explanation as a general hypothesis of species derivation; Diderot (principle editor of the Encyclopédie suggested much the same in 1749 and 1754. Moreover, the ideas of natural selection and of a struggle for existence were vaguely anticipated in the first century B.C. by Lucretius, albeit poetically.[2] These early hypotheses, however, can be considered no more than unsubstanciated speculations; their noteworthiness today derives from the fact that they imaginatively anticipated the general idea of evolution, in as much as it was not until the formulation of the argument by Darwin that the status of the evolutionary perspective assumed credibility.

Darwin's chief contribution lies not in the novelty of the issues he was advancing, but in the means and methodology he used in propounding his case. The Origin of Species, as Darwin noted, is essentially one long argument, the central subject of which is contained in the third and fourth chapters on the struggle for existence and natural selection. The balance of the volume serves essentially to butress, directly and indirectly, the key conclusions of these tandem chapters with a massive battery of evidence regarding such areas as laws of variation, instinct development, geological succession,

geographical distribution, and mutual affinities (embryological, morphological, etc.) between organic beings.

The organization of the main argument has a singularly deductive character. The central thesis, i.e., the theory of natural selection, is the consequence of three observable facts of nature and two deductions following therefrom. The first fact consists in the observation that all plants and animals are tending to increase at a high geometrical ratio, this due to the number of offspring periodically born always being greater than their parents. The second fact is that the possibilities of survival are finite. On the principle of geometrical increase, if the offspring of any being which produces several eggs or seeds during its natural lifetime were to be left unchecked, Darwin suggests the following consequence:

> ...its numbers would quickly become so inordinately great that no country could support the product. Hence, as more individuals are produced than can possibly survive, there must in every case be a struggle for existence... It is the doctrine of Malthus applied with manifold force to the whole animal and vegetable kingdoms;... There is no excention to the rule that every organic being naturally increases at so high a rate, that, if not destroyed, the earth would soon be covered by the progeny of a single pair.[3]

From these considerations there follows the first deduction, viz., that there is a frequently recurring struggle for existence between individual members of the same species, or with members or distinct species, or with the physical conditions of life. The third fact is that of variation: all organic beings have the propensity for slight innate variations or modifications of structure and constitution. Thus, the second deduction, namely, the theory of natural selection, follows from the third

fact and the first deduction; it is a principle which acts exclusively through the accumulation and preservation of slight, inherited variations of structure or instinct, beneficial to the survival of the individuals of a species in their complex relations to the organic and inorganic conditions of life.

Darwin is thus proposing, within a scientific context, the belief in a process of organic evolution, operating mainly through the mechanism of natural selection. It will be noted that he does not claim to have demonstrated, in any strict sense, the principal contension that species (or more generally all animal and plant life) have evolved, through a process of slow and graduated modifications, from some one ancient prototype and progenitor. Rather, his success lies in the demonstration that if certain general and indisputable facts are given as premises, the exceedingly high epistemic probability of the verity of his conclusions are indisputable. The summary of chapter four provides an excellent encapsulation of his basic argument:

> If under changing conditions of life organic beings present individual differences in almost every part of their structure, and this cannot be disputed; if there be, owing to their geometrical rate of increase, a severe struggle for life at some age, season, or year, and this certainly cannot be disputed; then, considering the infinite complexity of the relations of all organic beings to each other and to their conditions of life, causing an infinite diversity in structure, constitution, and habits, to be advantageous to them, it would be a most extraordinary fact if no variations had ever occurred useful to each beings own welfare, in the same manner as so many variations have occurred useful to man. But if variations useful to any organic being ever do occur, assuredly individuals thus characterized will have the best chance of being

> preserved in the struggle for life; and from the strong principle of inheritance, these will tend to produce offspring similarly characterized. This principle of preservation, or the survival of the fittest, I have called Natural Selection. It leads to the improvement of each creature in relation to its organic and inorganic conditions of life; and consequently, in most cases, to what must be regarded as an advance in organization.[4]

Perhaps somewhat more pertinent to the subject proper of this research are Darwin's reflections contained in The Descent of Man, where the obvious emphasis is on the genealogy of man taken as a species singly. His object here is threefold: (1) to determine whether man, like every other species, is descended from some pre-existing form; (2) to consider the manner of his development; and, (3) to estimate the differences between various races of man. Particular attention to the second issue (as contained in chapters three and four of Part I) reveals the biological grounds of Evolutionary Naturalism, in which Darwin applies the key concepts and conclusions of the Origin in hypostatizing the evolution of what he refers to as the 'moral sense or conscience'. It is first established that man is descended from some less highly organized form; similarity between man and the lower animals in embryonic development, numerous points of bodily structure and constitution (homological similarities), the retainment of rudimentary organs, liability to abnormal reversions, etc., make this conclusion indisputable. Moreover, the lack of any fundamental difference in mental faculties between man and the higher mammals is asserted on the grounds that: (a) as man possesses the same senses as the lower animals, his fundamental intuitions must be the same; (b) the various emotions and intellectual attributes, e.g., love, memory, attention,

wonder, curiosity, imitation, reason, etc., are found in incipient and well developed stages in the lower animals. In short, the difference in mind between man and the higher animals is not of kind--but one of degree. As Darwin observes:

> It has, I think, now been shown that man and the higher animals, especially the Primates, have some few instincts in common. All have the same senses, intuitions, and sensations, --similar passions, affections, and emotions, even the more complex ones, such as jealousy, suspicion, emulation, gratitude, and magnanimity; they practice deceit and are revengeful; they are sometimes susceptible to ridicule, and even have a sense of humour; they feel wonder and curiosity; they possess the same faculties of imitation, attention, deliberation, choice, memory, imagination, the association of ideas, and reason, though in very different degrees.[5]

Moreover, if these emotional and psychological capabilities, which differ greatly in degree in the higher animals, are subject to improvement, he goes on to suggest that "...there seems no great improbability in the more complex faculties, such as the higher forms of abstraction, and self-consciousness, etc., having been evolved through the development and combination of the simpler ones."[6] Darwin also credits the slow and unconscious ('half art, half instinct') evolution of language as instrumental in the development of the human intellect (a reciprocal relation whereby language would also be improved), and concludes that the latter abilities have been gradually perfected mainly through the vehicle of natural selection.

Having thus established the mutual biological, psychological, and emotional affinities between man and the higher animals, Darwin proceeds to outline the genesis of moral consciousness. He begins with a general definition: "A moral being is one who is capable of reflecting on his past actions and

their motives--of approving of some and disapproving of others; and the fact that man is the one being who certainly deserves this designation, is the greatest of all distinctions between man and the lower animals."[7] Darwin's evolutionary schema on the origin of conscience follows from three observations: (a) the presence of social instincts; (b) the regard man has for the approbation and disapprobation of his fellow-men (based on the emotion of sympathy); and, (c) the high activity of his intellectual faculties. Regarding the first of these, the origin of conscience is said to derive aboriginally from the social instincts, which in turn are an extension and development of familial ties (parental and filial affections), which are due to the length of time the young remain with their parents. Darwin remarks that the development of a moral consciousness is inevitable in any animal whatever which exhibits well-marked social instincts, as soon as its intellectual abilities had become as developed, or nearly so, as in man. These primal instincts prompt animals to take pleasure in communal congregation and interaction; to mutually defend and aid one another; to warn each other of common dangers; and, in many cases, to sympathize with one another in dangerous and distressful situations. The application of these instincts, Darwin continues, extend only to the members of the same immediate association or community--not to all the individuals of the same species. Furthermore, as the development of such instincts (particularly that of sympathy) are eminently beneficial to the survival of the species, they have probably been acquired, improved and strengthened through natural selection.

A key element in the development of conscience--and

one which forms an essential part of the social instincts--is the emotive instinct of sympathy. Darwin suggests that in all social animals there is a common instinctive impulse to aid the members of their immediate community. In the lower animals, this impulse is guided almost exclusively by special instincts to perform certain definite actions. The contention is that man differs radically in this regard in as much as he has few or no special instincts to direct him in the aid of his fellow-men. As a social animal the impulse is present, and, due to his developed intellect, man would more naturally be guided by reason and experience toward this end, as well as relying heavily on the medium of language for the expression of desires. The motive to actively give aid in the lower animals consists essentially in a blind instinctive impulse. This motive has been much modified in man, in as much as he is strongly influenced by his regard for the public consensus of approbation and disapprobation in estimating his actions and motives, i.e., instinctive sympathy causes him to value highly the wishes, praise, and blame of his fellow-men as expressed by their language and gestures.

Darwin's position is that the degree to which each man values this appreciation of others is contingent on the strength of his innate or acquired feeling of sympathy, as well as his own rational capacity to anticipate the remoter consequences of his actions. He accounts for this phenomenon in the following manner:

> As all men desire their own happiness, praise or blame is bestowed on actions and motives, according as they lead to this end; and as happiness is an essential part of the general good, the greatest-happiness principle indirectly serves as a nearly safe standard of right

> and wrong. As the reasoning powers advance and experience is gained, the remoter effects of certain lines of conduct on the character of the individual, and on the general good, are perceived; and then the self-regulating virtues come within the scope of public opinion, and receive praise and their opposites blame.[8]

Thus, conscience is largely guided by the expressed approbation of our fellow-men; regard for the latter being based on the instinct of sympathy. Sympathy, it will be noted, being directed solely towards the members of the same community. Finally, as in the case of any other instinct, the social instinct together with sympathy is reinforced by habit, through whose agency obedience to communal values would more readily be prompted.

Darwin's analysis of the emergence and structure of conscience is singularly consonant with his biologically-oriented perspective of progressive evolution. With the advent of highly developed intellectual faculties, he suggests that "...images of all past actions and motives would be incessantly passing through the brain of each individual...."[9] In this way, due to the state of his cerebral constitution, man is obliged to consider and compare past impressions, and anticipate future impressions in light of them. In man, instinctive impulses have different degrees of strength and endurance; a feeling of dissatisfaction--the predictable consequence of any unsatisfied instinct--would be bound to occur as frequently as it was perceived that the permanently stronger and more enduring instinct, viz., the social instinct, had yielded to some other instinctive impulse, though temporarily stronger at the moment of action, was neither enduring (e.g., hunger) nor provident of a very vivid impression of recollection. When the past and weaker

impressions are 'judged by the ever-present social instinct', i.e., by the strength of the violated instinct, as well as by the instinctive sympathetic regard for the good judgment and opinion of others, there will arise such feelings as remorse, regret, repetance, shame, etc. According to Darwin, 'conscience' is the resolve these latter feelings would prompt for changing, amending, and aligning one's future behavior and actions to the dictates of the social instincts, i.e., to those modes of conduct as expressed in public opinion that a given community considers to be in the general long-term interest of all the members that comprise it. As stated by Darwin:

> Owing to this condition of mind, man cannot avoid looking both backwards and forwards, and comparing past impressions. Hence, after some temporary desire or passion has mastered his social instincts, he reflects and compares the now weakened impression of such past impulses with the ever-present social instincts; and he then feels that sense of dissatisfaction which all unsatisfied instincts leave behind them, he therefore resolves to act differently for the future,--and this is conscience.[10]

The relation between conscience and the social instincts is by now clear. Following the same theme, Darwin makes an interesting statement regarding the formulation of a standard of morality from an evolutionary perspective. Says Darwin:

> In the case of the lower animals it seems much more appropriate to speak of their social instincts, as having been developed for the general good rather than for the general happiness of the species. The term, general good, may be defined as the rearing of the greatest number of individuals in full vigor and health, with all their faculties perfect, under the conditions to which they are subjected. As the social instincts both of man and the lower animals have no doubt been developed by nearly the same steps, it would be advisable, if found practical, to use the same definition in both cases, and to take as the

> standard of morality the general good or welfare of the community, rather than the general happiness; but this definition would perhaps require some limitation on account of political ethics. [11]

In ending this chapter, let me note what might be considered the ethical or philosophical significance of Darwin. The Descent of Man represents an extension and specification of an implicit thesis of the Origin, namely, that the history of mankind in its entirety is a natural product of --in origin and development--an ever-continuing evolutionary process. Furthermore, that the idea of special (supernatural) intervention in either the biological or ethical spheres of human development are unwarranted, i.e., the appearance of design can be explained without actual design. Lastly, that moral ideas and values are part of this same evolutionary process, originating in the world, changing, and, in consequence of this, devoid of any supernatural authority. The theory of natural selection, perhaps Darwin's greatest contribution in establishing the credibility of the evolutionary mode of explanation, provides a vehicle for introducting apparent purpose into evolution. Radically different from any teleological scheme, however, the selective process operates on chance and is non-rational and describes a causal chain of modification and adaptation, elimination and extinction. The moral consciousness or conscience is conceptualized strictly in terms of a conflict of complex instincts, the latter ostensibly gained through the natural selection of variations of simplier instinctive actions. In short, conscience, Darwin believed, represents one of mankinds highest "physical" faculties--the distinguishing character of the species-- which is as much a product of biological and

social evolution as the moral precepts it engenders. As expressed by Darwin:

> The moral sense perhaps affords the best and highest distinction between man and the lower animals; but I need say nothing on this head, as I have so lately endeavored to show that the social instincts,--the prime principle of man's moral constitution--with the aid of active intellectual powers and the effects of habit, naturally lead to the golden rule, "As ye would that men should do to you, do ye to them likewise;" and this lies at the foundation of morality.[12]

Chapter II. Herbert Spencer: The Evolution of Conduct and the Good

As Julian Huxley remarks in the introduction to Evolution and Ethics, Herbert Spencer was probably the first to attempt the application of a biological or evolutionary standard, namely, the increasing length and breadth of life, as a fixed moral principle, to the sphere of human ethics.[13] Antedating the publication of The Origin of Species, his Social Statics (1850) indicated the outline of an evolutionary theory of ethics he was later to develop in his major work on the subject, viz.; The Principles of Ethics (1879-1893). Spencer is further credited with being original in his maintenance of the genetic principle that the more developed must be interpreted by the less developed, as well as in the use of the idea of the survival of the fittest in an evolutionary context. As Spencer was prolific in his writing, the discussion here will be limited to the exposition of those facets of his work which most directly consider the relation between evolution and ethics; the clearest statement of such ideas I find to be articulated in The Data of Ethics.

Spencer's approach to the study of ethics is via an investigation into the evolution of conduct; the essential connection here being between the conception of ethics as the science of conduct, and the latter as concerned with the adjustment of acts to ends. His rationale in this manner of approach

is the view that an understanding of the kind of conduct with which the ethics treats comes only with the consideration of human conduct as a whole, and an understanding of the latter is intelligible only when it is studied as a part of the conduct of animate beings in general. We must, says Spencer, "...regard the conduct now shown us by creatures of all orders, as an outcome of the conduct which has brought life of every kind to its present height."[14] To this end, an initial distinction is drawn between conduct in general and actions in general (the totality of actions), the former comprehending all adjustments of acts to ends and excluding purposeless actions. Spencer notes that during evolution this distinction arises by degrees; and that ethically neutral conduct (the ends of which don't fall within a moral context) becomes conduct which is deemed moral or immoral by 'small degrees (insensible gradations) and in countless ways'. His contention here is that an advance in structures and functions entails an advance in conduct, i.e., that the conception of evolving conduct entails an improving adjustment of acts to ends. The second chapter of the Data of Ethics concludes with what Spencer takes to be the ethical implications of the doctrine of evolution:

> ...we have been led to see that Ethics has for its subject-matter, that form which universal conduct (conduct at large) assumes during the last stages of its evolution. We have also concluded that these last stages in the evolution of conduct are those displayed by the highest type of being, when he is forced, by increase of numbers, to live more and more in the presence of his fellows. And there has followed the corellary that conduct gains ethical sanction in proportion as the activities, becoming less and less militant and more and more industrial, are such as do not necessitate mutual

> injury or hindrance, but consist with, and are furthered by, co-operation and mutual aid.[15]

Chapter three of the Data provides perhaps the most lucid exposition of Spencer's treatment of moral phenomena as following from, and forming a part of, the aggregate phenomena of biological evolution; it also suggests a standard by which to estimate and evaluate the notion of good, figured in an evolutionary context. Developing the conception of evolving conduct, he asserts the moral quality of status if an action, i.e., as being either good or bad, to be determined in accordance as it is 'well or ill adjusted to ends', and proceeds to note the following:

> ...the conduct to which we apply the name good, is the relatively more evolved conduct; and that bad is the name we apply to conduct which is relatively less evolved....evolution, tending ever towards self-preservation, reaches its limit when individual life is the greatest, both in length and breadth;... leaving other ends aside, we regard as good the conduct furthering self-preservation, and as bad the conduct tending to self-destruction.[16]

The conclusion here would seem to be that by simply considering the evolution of conduct, Spencer believes he has proved certain characteristics of conduct, namely, that the level of efficient adjustment of acts to ends, to be a gauge of its ethical value; that 'more evolved' conduct is better conduct. However, as G. E. Moore pointed out, this is not entirely the case:

> It is plain, then, that Mr. Spencer identifies the gaining of ethical sanction with being more evolved: this follows strictly from his words. But Mr. Spencer's language is extremely loose, and we shall presently see that he seems to regard the view it here implies as false. We cannot, therefore, take it as Mr. Spencer's definite view that 'better' means nothing but 'more evolved'; or even that what is 'more evolved' is therefore 'better'.[17]

Moore's caution in attributing to Spencer what ostensibly 'follows strictly from his own words' is presumably due to a subsequent argument Spencer introduces to the effect of establishing a relation between the notions of 'good' and that of 'pleasure'. Spencer broaches an assumption he contends to be elemental in all moral estimates; a question on whose positive or negative resolution is contingent 'every decision concerning the goodness or badness of conduct', viz., the question of whether life is worth living. Before answering, however, Spencer suggests the following consideration:

> ...there is one postulate in which pessimists and optimists agree. Both their arguments assume it is to be self-evident that life is good or bad, according as it does or does not, bring a surplus of agreeable feeling...the implication common to their antagonistic views is, that conduct should conduce to preservation of the individual, of the family, and of the society, only supposing that life brings more happiness than misery.[18]

The balance of the chapter is devoted to amplifying what might be considered a Hedonistic thesis, this being, that however superficially antagonistic different moral schools and ethical systems may appear to one another, every one of them derives its authority from the ultimate standard that the good is universally the pleasurable. In other words, if life is worth living, i.e., that it is 'good' in as much as it brings a surplus of pleasure over pain, and 'more evolved' conduct is conducive to furthering life both quantitatively and qualitatively, then Spencer's identification of 'more evolved' with 'better' conduct can be understood in terms of the generalization that the more evolved conduct is on the whole the more pleasant;

and pleasure is the 'tacitly-implied ultimate end'. Parenthetically, I might add that with resolution of the question 'Is life worth living?', the correlary question 'Has evolution (which improves the adjustment of acts to ends in ascending stages of organization) been a mistake?' is simultaneously answered. The following aptly characterizes Spencer's position:

> The truth that conduct is considered by us as good or bad, according as its aggregate results, to self or others or both, are pleasurable or painful, we found on examination to be involved in all the current judgments on conduct; the proof being that reversing the applications of the words creates absurdities... So that no school can avoid taking for the ultimate moral aim a desirable state of feeling called by whatever name--gratification, enjoyment, happiness. Pleasure somewhere, at some time, to some being or beings, is an inexpugnable element of the conception.[19]

Spencer's reputation has suffered considerably in this century, and not without some justification. Certainly, Moore's criticism in the Principia Ethica did much to undermine the general credibility of his work, as well as, in taking Spencer's views as the epitome of an evolutionary perspective in ethics, discourage any further expansion along these lines. Spencer's claim that certain principles of normative ethical content were determined by the acceptance of the doctrine of organic evolution, was substanciated by neither the preponderance of scientific data nor cogency of formal organization found in Darwin's analysis. Essentially, the content of Spencer's arguments thus far is simply this: certain kinds of conduct which display certain characteristics are more biologically evolved, the application of the term 'good' to a mode of conduct being contingent on, and relative to, the increased amount and

quality of pleasure the more efficient adjustment of acts to ends tends to produce. Pleasure, then, would seem to be the fundamental criterion of evaluating--of choosing one way of acting over another--a kind of conduct; that it is the only intrinsically valuable thing--other things being good insofar as a means of attaining it.

It is a safe assumption that ethics emerge only in a social context. Thus far, Spencer has merely suggested an action-guiding and evaluating criterion, based on biological evolution, and directed towards the right regulation of private conduct; its integration in a context truly ethical, i.e., social, is still undetermined. The last chapter of the Data provides, albeit cursorily, this extension into the public domain: "Beyond the conduct commonly approved or reprobated as right or wrong, it (Ethics) includes all conduct which furthers or hinders, in either direct or indirect ways, the welfare of self or others."[20] Spencer's contention takes the form of an analogy. He suggests that, in the same way that the individual parts of an organism are maintained through a mutual dependence and parity of energy expenditure and nurishment, so in the social organism the same natural relation holds in the equalibrium between returns and labor, work and welfare. Spencer notes that the division of ethics--'at once the most important'--which treats of that range of conduct concerned with the equity relations in societies, is Justice. Moreover, his strict utilitarianism in ethics was developed on the view that societies exist only for the benefit of their particular membens. As Spencer notes, "The whole conception of moral consciousness

is no more than a rule that a mind imposes upon itself to the effect that it ought always to consider the consequences of its actions, to examine whether more or fewer possible benefits to itself and to society would result."[21]

Spencer observes that throughout the past, the classification of acts as good or bad, i.e., the conceptions of right and wrong, have had a direct correspondence with supposed divine commands; that conduct characterized by obedience to such injunctions being subsummed under the conception of virtue. He suggests that the idea of 'ought' has retained, from the incipient stages of social organization (where the idea is associated with conformity to accepted customs) through the transition from custom to law, the same essential character of compulsive obedience--"...no matter whether considered intrinsically good or intrinsically bad."[22] Consequently, Spencer attributes the general conceptions (and associated feelings) of right, duty, obligation, as resulting from what he refers to as various components of the 'pro-ethical' sentiment. Specifically, these components are: the consciousness of authority (the recognition of which implies the consciousness of 'ought'), of coercion (whose implication of force engenders the consciousness of 'must'), and, often the most influential component of the ethical consciousness in serving to restrain or impel, public opinion. As Spencer is quick to note, the 'pro-ethical' sentiment is to be sharply distinguished from the ethical sentiment proper--the former for the 'mass of mankind' acting in lieu of the latter. This distinction is best expressed by Spencer himself:

> The true moral consciousness which we name conscience, does not refer to those extrinsic results of conduct which take the shape of praise or blame, reward of punishment, externally rewarded; but it refers to the intrinsic results of conduct which, in part and by some intellectually perceived, are mainly and by most, intuitively felt. The moral consciousness proper does not contemplate obligations as artifically imposed by an external power; nor is it chiefly occupied with recognition of, and regard for, those conditions by fulfilment of which happiness is achieved or misery avoided....it is the rightful ruler: responding, as it does, to consequences which are not artificial and variable, but to consequences which are natural and permanent.[23]

Herbert Spencer's identification of 'good' with 'more evolved' epitomizes a primitive form of evolutionary ethics that has long since been recognized (by evolutionary moralists) as untenable and false. The problem with Spencer's approach is that, although he attempted to see man and morality as natural entities within the universe described by natural science, he failed to appreciate the evaluative meaning of 'good'. While he clearly recognized the natural genesis of moral phenomena, he ignored the unique character of human moral cognition, namely, the natural act of evaluating; that man does not simply passively accept whatever events impinge on him, but reacts in a variety of ways. Thus, Spencer's attempt to account for moral conduct (as well as for the moral quality of an action) in terms of an automatic transfer of behavioral mechanisms, from the amoral (pre-human) level of conduct to the moral (conscious), serves as a good example of how not to go about determining a relation between evolution and ethics.

Chapter III. T. H. Huxley: The Ethical Art: Overcoming the Cosmic Process

An eloquent expression of Evolutionary Naturalism is presented by T. H. Huxley in his Romanes Lecture of 1893, entitled Evolution and Ethics, later published with attending Prolegomena the following year. Huxley's fundamental orientation is plainly evolutionary: "...man, physical, intellectual, and moral, is as much a part of nature, as purely a part of the cosmic process, as the humblest weed."[24] As it will be shown, however, the curiously unique feature of his position consists in the view that ethical progress is secured, not by imitation, but through the assiduous restraint of those very characteristics of the cosmic process which engender success in the state of nature. Although Huxley was in essential agreement with Darwin and Spencer as regards the evolutionary origin of the moral consciousness (conscience) in man, he believed their attempts to effect a reconciliation between the theory of evolution and moral phenomena belied a lack of appreciation of the degree to which nature and morality were in fundamental conflict. 'Evolution', as stated in the first prolegomenon, is not to be understood as an explanation of the cosmic process; rather, it is "...a generalized statement of the method and results of that process....it means progressive development, that is, gradual change from a condition of relative uniformity to one of relative complexity;..."[25] As a purely natural

phenomenon, evolution strictly excludes any kind of supernatural intervention, such as, special creation. Moreover, "As the expression of a fixed order, every stage of which is the effect of causes operating according to definite rules, the conception of evolution no less excludes that of chance."[26] Thus, all things in nature were but working out their predestined courses of evolution.

Huxley observes that the state of nature, both in its organic and inorganic manifestations, is at any given time merely a transitory expression of that process of incessant variation and change, i.e., the 'adjustment of contending forces', which has brought the cosmos into being. He further suggests, that the most notable aspect of the cosmos is its impermanence; that it presents itself as a process in change rather than a permanent entity. On the organic level, the most dominant feature of the cosmic process is the intense and perpetual competition of the struggle for existence, the 'agent of the selective process in the state of nature', which results in natural selection, i.e., the survival of those forms which evince the greatest adaptive ability relative to the concurrent environmental conditions.

Huxley believed there to be a fundamental opposition between the cosmic process and the ethical process; between the state of nature and the state of art. With regard to the latter, the essential antagonism between the natural and the artificial is depicted through reference to what he terms the 'horticultural process'. A garden, he suggests, is representative of something as artificially created and sustained in the state of nature by the medium of human intelligence and energy; it is

a work of art. Moreover, it epitomizes an environment wherein the struggle for existence has been suspended through the controlled elimination of those external conditions which give rise to such a struggle in the state of nature, e.g., restricted multiplication, ample space and nourishment, climate control, protection from animals and insects, etc. Also, within such an artificial ambience, productions arise which could not otherwise be realized in the state of nature; while selection by means of the struggle for existence has been effectively counteracted, progress is still possible by means of the direct selection of the gardener in terms of some ideal of beauty or utility. Thus, the horticultural process is a state of art, and, as any other product of man's art, stands in opposition to the cosmic process in principle, in as much as it suppresses that elemental struggle so predominant in the state of nature through the creation of artificial conditions of life.

A certain paradox may appear evident in view of the fact that the state of art is as much a product of the cosmic process as is anything else in nature, and the idea that the cosmic process is in conflict with a part of itself would seem absurd. Huxley patently dismisses any such suggestion as redounding to the detriment of logic, since the fact of the matter is evident:

> Thus, it is not only true that the cosmic energy, working through man upon a portion of the plant world, opposes the same energy as it works through the state of nature, but a similiar antagonism is everywhere manifest between the artificial and the natural. Even in the state of nature itself, what is the struggle for existence but the antagonism of the results of the cosmic process in the region of life, one to another.[27]

Social organization, founded in the co-operative advantage gained in the struggle for existence, is a work of art: "The history of civilization details the steps by which men have succeeded in building up an artificial world within the cosmos."[28] Huxley's central thesis consists in the idea that social progress is realized through the overcoming of the cosmic process within society, and substituting for it that which he terms the 'ethical process'. For him, the irreconcilable opposition between the cosmic process and the ethical process is paramount; the former having no relation to moral ends, and the latter directed towards curbing the influence of the cosmic struggle in the state of art: "...ethical nature, while born of cosmic nature, is necessarily at enmity with its parent."[29] He observes that human social organization was originally possible only through the restraint of that very tendancy of innate aggressiveness, i.e., the ruthless self-assertion and self-interest so predominant in the successful struggle for existence in the state of nature, which has been the condition of mankind's ascendance to the pinacle of the evolutionary scale.

Huxley suggests this control on natural free self-assertion, to be the consequence of various 'organic necessities' (the expression is used in such a way as to be a paraphrase of what Darwin termed 'social instincts'). These 'organic necessities' or instincts he describes as follows: (1) the mutual parental and filial affections, which sponsor an increase in the duration of the family ties; (2) the propensity and consumate ability of man for immitation; and, most importantly, (3) the purely reflex sympathetic emotions, i.e., that "...tendency

in man to reproduce in himself actions and feelings similiar to, or correlated with, those of other men."[30] Huxley explains the genesis of conscience as a function of social progress. As the structures of social organization gradually evolve, the inter-relations among members of the polity become closer and more complex, and judgments of approbation and disapprobation (formed through emotive sympathy) become increasingly more important. These judgments engender concrete associations between certain acts, and corresponding sentiments; the consequence of which is 'conscience'--an 'artificial personality' and the 'watchman of society'--created parallel to the 'natural personality', whose function it is"...to restrain the anti-social tendencies of the natural man within the limits required by social welfare."[31]

The ethical process, the condition of social progress, consists in the elimination of the struggle for existence --as between man and man--within society. Man's high procreative propensity tends to create competitive conditions for the means of support, and, when such means of existence are secured by every member of the polity, the struggle for existence within that society effectively ceases: "What is often called the struggle for existence in society...is a contest, not for the means of existence, but for the means of enjoyment."[32] Huxley does not propose that social organization affords an immunity from the cosmic process to men in society, but the influence of the latter process on social evolution is diminished the more advanced the state of the civilization. The object of the ethical process, he says, "...is not the survival of those who happen to be the fittest, in respect of the whole of the

conditions which obtain, but of those who are ethically the best."[33] By ethically best, Huxley is referring to those individuals who demonstrate that kind of conduct conducive to strengthening the bonds of the polity, e.g., self-restraint, mutual aid and respect, duty to the cummunity space, etc., which represents a clear repudiation of the 'gladiatorial theory of existence' of the state of nature. The ethical process, he adds, is "...directed, not so much to the survival of the fittest, as the fitting of as many as possible to survive."[34] In an important summary, Huxley characterizes the ethical process as follows:

> I have termed this evolution of the feelings out of which the primitive bonds of human society are so largely forged, into the organized and personified sympathy we call conscience, the ethical process. So far as it tends to make any human society more efficient in the struggle for existence with the state of nature, or with other societies, it works in harmonious contrast with the cosmic process. But it is none the less true that, since laws and morals are restraints upon the struggle for existence between men in society, the ethical process is in opposition to the principle of the cosmic process, and tends to the suppression of the qualities best fitted for success in that struggle. It is further to be observed that, just as the self-assertion, necessary to the maintenance of society against the state of nature, will destroy that society if it is allowed free operation within; so the self-restraint, the essence of the ethical process, which is no less an essential condition of the existence of every polity, may, by excess, become ruinous to it.[35]

What Huxley is referring to in the last sentence of this passage regards the incompatibility of the strict observance of such ethical standards as the Golden Rule (which countenance sympathy as an unconditional action-guiding principle), with

the existence of a civil order. His point is simply this: that within a society, the Golden Rule, if dogmatically obeyed, resolves to the non-enforcement of law against transgressors; that if strictly applied, it effectively eliminates retributive justice. Moreover, as a policy governing the external relations of a state, it is tantamount to a discontinuance of the struggle for existence. He adds, that even its partial obedience is possible"...only under the protection of a state which repudiates it."[36]

The instatement of laws, customs, and moral precepts, affirm a society's resolve to condemn, as inconsistent with the moral beliefs of the polity, the 'ape and tiger methods of the struggle for existence'. Huxley remarks that as man's appreciation of the state of civilized society has grown, there has been a proportionate devaluation of those 'ape and tiger' qualities which first enabled such an ascendance; of the belief that "...man although himself a product of evolution, has an obligation to subjugate the amoral or immoral aspects of evolution to moral ends,"[37] Huxley explains the evolution of the moral sense through a consideration of the concept of justice and the gradual transformation it has undergone. The concept of justice, he asserts functions as a social bond, predicated on the mutual trust of the members, to insure the advantage of co-operation in the struggle for existence. Implicit in this conception is the allotment of reward for observance, and punishment for transgression, of established injunctions. Of primary significance in the development of moral consciousness, was the establishment of the basic distinction between willful

and involuntary transgression, i.e., the difference between a guilty action, and one which is merely wrong. Huxley notes that the problem of desert became increasingly more important with the refinement of man's moral sensibilities. Says he:

> The idea of justice thus underwent a gradual sublimation from punishment and reward according to acts, to punishment and reward according to desert; or, in other words, according to motive. Righteousness, that is, action from right motive, not only became synonymous with justice, but the positive constituent of innocence and the very heart of goodness.[38]

Some mention should be made of the fact that throughout Huxley's exposition, though he continually draws on insight and examples clearly taken from Darwin (e.g., discussion of the social instincts, the principle of natural selection, evolution of the moral sense, etc.), not one single reference is made to the latter in acknowledging this debt. Huxley's principal contribution to the subject of evolutionary ethics lies essentially in the originality of his expression of ethics as a social art, and with the essence of art being the creation of conditions of life contrary to those characteristic of the state of nature: "Let us understand, once for all, that the ethical progress of society depends, not on immitating the cosmic process, still less in running away from it, but in combating it."[39] As far as any novel consideration of the actual facts of biological evolution are concerned, Huxley's position does not offer any extension beyond a rather general, poetic paraphrase of Darwin's conclusions. In particular, his conception of the ethical process is an outright rejection of the "...attempts to apply the analogy of cosmic nature to society."[40] The moral conscience of man, he believes, constitutes

a natural phenomenon of biological evolution, but the evolutionary manner of development in man the social, i.e, ethical, being, is radically opposed to that which produced man the mere animal in the state of nature. The ethical art is at the same time both a natural, and an anti-natural, phenomenon; natural in origin, anti-natural (though still a part of nature) in development. The cosmic process, operating through the struggle for existence and the survival of the fittest, is the 'natural', i.e., organic, means of evolution; the ethical process, through the supression of that struggle, is that relatively 'artificial', i.e., social, state which, though still a product of the cosmic process, progresses in a counter-natural evolutionary manner.

In concluding, Huxley seems to have little to say as regards that fundamental question of the relation between ethics and evolution, namely, of whether there is, or is not, a sanction for morality in the facts of biological science:

> ...but as the immoral sentiments have no less been evolved, there is, so far, as much natural sanction for the one as the other. The thief and the murderer follow nature just as much as the philanthropist. Cosmic evolution may teach us how the good and the evil tendencies of man may have come about; but, in itself, it is incompetent to furnish any better reason why what we call good is preferable to what we call evil than we had before.[41]

What I find wrong in Thomas Huxley is that he did not see the rise and development of moral phenomena in the evolutionary framework, i.e., as having an evolutionary function. However, he seemed to have noticed with insight that there is no sense in an automatic transfer of mechanisms present in the cosmic process to the specifically human context and stage of evolution, i.e., the ethical process.

Thus, Thomas Huxley occupies an important position in the development of evolutionary naturalism and evolutionary ethics. His analysis of the contrast between what he calls the cosmic process and the ethical process is instrumental for the rejection of crude and simplified versions of evolutionary ethics, which would declare the survival of the fittest, and the right of the stronger, as the basic rule of human behavior. Such crude attempts to apply Darwin's theory to human society, e.g., Nazi ethics, do not take into account significantly different conditions of life between primitive and advanced stages of evolution. What might have been promoting survival and further evolution at an earlier stage, might, due to changed conditions and new factors, become an impediment (or even a positively harmful element) in later stages of evolution.

SECTION II. REVIEW OF TWENTIETH CENTURY INFLUENCES: 1903-1943

Chapter IV. G.E. Moore: The Naturalistic Fallacy

With the publication of G.E. Moore's Principia Ethica in 1903, emphasis in ethical analysis assumed contemporary perspectives. The inclusion here of one such as Moore, whose views are notably antithetical and unsympathetic with the central subject of this research, might at first seem singularly inapropos. Certainly, his critical acuity (particularly of Spencer as representative of the evolutionary school) has proved most formidible in raising objections against any projected naturalistic constructions in ethics. His importance to the present concern, then, is not for reasons of any direct contribution by way of positive promotion. It lies rather in the persuasive and enduring influence his treatment of the subject has achieved in this century.

It should neither be supposed that Moore was alone in his rejection of evolutionary naturalism, or that his comments in this regard were especially original; that the earlier work of Sedgwick provided a highly influential background in the development of Moore's formulations is in clear evidence. Nonetheless, the Principia Ethica represents a milestone in the literature of ethics; the absorption of current ethical controversies with formal analysis and the naturalistic fallacy gives testament to just how much, in fact, Moore's work has

perceptibly affected contemporary ethical thought. Its influence in the field of evolutionary ethics has been perhaps even more pronounced; much of the enthusiasm which had attended the subject previous to its publication, waned in the strength of the claim that all such attempts at systematizing any form of evolutionary naturalism were intelligible in terms of the naturalistic fallacy. The discussion of Moore will be confined to his treatment of the specific issue of evolutionary ethics, as found in the second chapter of the Principia. The object of my exposition will be as follows: (a) to outline the nature of the naturalistic fallacy; (b) to describe Moore's general argument against ethical naturalism; and, (c) to abbreviate the most salient aspects of his particular criticism of Spencer.

By way of introduction, the interests of continuity and integrity of thesis would suggest a brief recapitulation of the key conclusion of the Principia's first chapter, inasmuch as the concern there is with establishing a preliminary perspective of the subject matter of ethics proper. Moore regards the fundamental question in all ethics as concerned with the notion of 'good', and how it is to be defined. In his words:

> The peculiarity of Ethics is not that it investigates assertion about human conduct, but that it investigates assertions about that property of things which is denoted by the term 'good', and the converse property denoted by the conclusions, investigate the truth of all such assertions, except those which assert the relation of this property only to a single existent.[42]

Following Sedgwick, 'good' is conceived as that which denotes a unique property of things, being simple, indefinable, and

unanalysable. It is simple in the way 'yellow' is a simple notion, that is, "...out of which definitions are composed and with which the power of further defining ceases...it is not composed of any parts which we can substitute for it in our minds when we are thinking of it."[43] Moore further proposes, that all ethical judgments can be divided into two essentially distinct kinds, the peculiarity of their respective natures being contingent on the manner in which they refer to the notion of 'good'. Either they assert that this unique object of thought is related in such a way as it always attaches to the thing or action in question, i.e., that it is 'good in-itself'; or they formulate a judgment in causal terms by asserting that the thing or action in question is a necessary condition (or cause) for producing something else (an effect) which is good, i.e., that it is 'good as a means'. The former are judgments of intrinsic value, and, if true, universally so; the latter are judgments of means, and as such, are conditional on the circumstances under which the action occurs. Lastly, it should be kept in mind, that central to Moore's orientation is the proposition that ethics' most elemental principles "...must be synthetic propositions, declaring what things, and in what degree, possess a simple and unanalysable property which may be called 'intrinsic value' or 'goodness'."[44]

Moore coined the expression 'naturalistic fallacy' as a means of describing a certain kind of methodological approach in ethics which involved a fundamental conceptual mistake. This mistake, he believed, consisted in identifying that simple and indefinable quality which is meant by 'good' with some other notion.

In other words, "...substituting for 'good' some one property of a natural object or of a collection of natural objects; and in thus replacing Ethics by some one of the natural sciences."[45] By 'naturalistic' Moore refers to those "...ethical theories which declare that no intrinsic value is to be found except in the possession of some one natural property...and which declare this because it is supposed that to be 'good' means to possess the property in question."[46] Thus, the basic tenet of any form of naturalistic ethics is the assumption that there is some one kind of fact or propertity of natural entities which is said to constitute the sole good, and by reference to which, 'good' itself can be defined. Moore does not dispute the fact that good is a property of certain natural objects (natural objects are said to consist in the subject-matter of the natural sciences and of psychology), but only that in itself--as a simple (irreducible) quality--'good' is not a natural property. Natural properties, he suggests by way of a criterion, are for the most part characterized by temporal existence. Says Moore:

> Can we imagine 'good' as existing by itself in time, and not merely as a property of some natural object? For myself, I cannot so I imagine it, whereas with the greater number of properties of properties of objects --those which I call the natural properties-- their existence does seem to me to be independent of the existence of those objects. They are, in fact, rather parts of which the object is made up than mere predicates which attach to it. If they were all taken away, no object would be left, not even bare substance: for they are in themselves substantial and give to the object all the substance that it has. But this is not so with good.[47]

Moore's case against ethical naturalism begins with refuting the supposition that there is any such thing as a

'natural good', that is, that good is capable of any natural definition. His object here is to show the fallacy of referring from somethings 'being natural' to its therefore being 'good'; that Nature can be assumed as a basis for normative ethical values through the identification of 'natural' and 'good'. He states that the term 'natural' might be taken to mean either 'normal' or 'necessary', but that both forms can be shown deficient in providing such a natural definition, i.e., of being 'always good or the only good things'. By ways of example, he suggests that health might be presumed capable of natural definition: health is manifestly good, and the criterion of health is established by Nature. He adds, however, that health cannot be deemed good only because it is natural; disease is also a product of nature. Thus health "...should be defined in natural terms as the normal state of an organism...and that when we are told to pursue health as a natural end, what is implied is that the normal must be good."[48] He observes that although it is generally true that the normal is good, the extraordinary--such as artistic genius--testifies to the fact that not everything that is good is normal; that the relation between the two is not to be taken as an obvious one, and must be regarded as an open question. There are two important and related points Moore achieves through this example. The first is simply to show that we should not "...be frightened by the assertion that a thing is natural into the admission that it is good; good does not, by definition, mean anything that is natural; and it is therefore always an open question whether anything that is natural is good."[49] The second concerns a more formal character of naturalistic constructions, and which has suitably been dubbed

the 'open-question' argument. The essential features of the argument are lucidly expressed in the following summary by Kai Nielsen. Says Nielsen:

> ...Moore points out that for whatever naturalistic value we substitute for the variable x in a proposed definition of "good", we can always significantly ask if it is good,"...we can always significantly ask "Is happiness good?"..... Even though we agree, let us say, that happiness is good, it is an evident fact of language that these questions are not without significance if "good" did mean "happiness," or "self-realization," or "the object of any interest,"..... For whatever naturalistic definitions we offer-whatever naturalistic values replace the variable x--it always makes sense to ask if that thing is good. Since this is so, these naturalistic definitions can be seen to be inadequate.[50]

By the expression "Evolutionistic Ethics" Moore has in mind the view "....that we ought to move in the direction of evolution simply because it is the direction of evolution. That the forces of Nature are working on that side is taken as a presumption that it is the right side. That such a view...can only rest on a confused belief that somehow the good simply means the side on which Nature is working."[51] Moore's method is effecting a general criticism of evolutionary naturalism is through the particular criticism of Herbert Spencer, whom Moore took to be the paradigm representative of this approach. The focus of Moore's attention is initially directed to Spencer's claim that to be 'better' means to be 'more evolved'; that conduct gains ethical sanction in proportion as it becomes more evolved. As Spencer's manner of arriving at such a conclusion is adequately detailed in my second chapter, and to avoid unnecessary repetition,

I will endeavor to show here the character of Spencer's naturalistic identifications and the nature of the attending fallacies according to Moore. Moore states that if we take Spencer's assertions at face value, there is no doubt that he had committed the naturalistic fallacy involved in the identification of 'more evolved' and 'better'. As Moore puts it:

> We shall look in vain for any attempt to show that 'ethical sanction' is in proportion to 'evolution,' or that it is the 'highest' type of being which displays the most evolved conduct; yet Mr. Spencer concludes that this is the case. It is only fair to assume that he is not sufficiently conscious of how much these propositions stand in need of proof--what a very different thing is being 'more evolved' from being 'higher' or 'better'. It may, of course, be true that what is more evolved is also higher and better. But Mr. Spencer does not seem aware that to assert the one is in any case not the same thing as to assert the other. He argues at length that certain kinds of conduct are 'more evolved,' and then informs us that he has proved them to gain ethical sanction in proportion, without any warning that he has omitted the most essential step in such a proof. Surely this is sufficient evidence that he does not see how essential that step is.[52]

Next, following the sequence of ideas in Spencer's argument, Moore proceeds to take issue with the proposed correspondence between 'pleasure' and 'evolution' in moral theory. In this regard, Moore suggests that there is again a demonstration of the naturalistic fallacy:

> ...that he imagines 'pleasant' or 'productive of pleasure' is the very meaning of the word 'good'.... The doctrine of naturalistic Hedonism is, indeed, quite strictly implied in his statement that 'virtue' cannot 'be defined otherwise than in terms of happiness'.... It is certainly impossible to find any further reasons given by Mr. Spencer for his conviction that pleasure both is the supreme end, and is

> universally admitted to be so. He seems to assume throughout that we must mean by good conduct what is productive of pleasure, and by bad what is productive of pain. So far, then, as he is a Hedonist, he would seem to be a naturalistic Hedonist.[53]

One of the final, and perhaps most forceful, arguments Moore enlists in criticizing the proposed relation of evolution and ethics generally, is based on the 'confused belief that somehow the good simply means the side on which Nature is working'. Moore points out that this involves another confused belief, the verity of which is paramount to Spencer's entire treatment of evolution, namely, that evolution is, in fact, the side on which Nature is working. He observes that evolution denotes--'in any sense in which it can be regarded as a fact that the more evolved is higher'--only a temporary process, and not a natural law (such as gravity) in the sense that we are assured of the future continuity of such a process. Evolution describes a process which has been realized owing to the existence of certain natural conditions at a given time; the perpetuity of such conditions, whether past or future, is never given and cannot be assumed.

It is Moore's contention that the theory of natural selection--the process of which evolution describes--does state a natural law, namely, that given certain conditions, certain results will always follow. Further, that "...it is only the process which, according to natural law, must follow from these conditions and no others, that appears to be also on the whole a progress."[54] Under different conditions, the same natural laws would allow us to infer involution (the development from a state of relative complexity to one of relative uniformity)

inevitable. Moore's point is that Spencer continually assumes evolution to be a given law of nature, and that this belief is patently unwarranted; that "...circumstances will always be favorable to further development, that Nature will always work on the side of evolution, we have no reason whatever to believe."[55] Lastly, Moore concludes his delivery with a final reiteration of the futility of such an approach:

> Thus the idea that Evolution throws important light on Ethics seems to be due to a double confusion. Our respect for the process is enlisted by the representation of it as the Law of Nature. But, on the other hand, our respect for Laws of Nature would be speedily diminished, did we not imagine that this desirable process was not one of them. To suppose that a Law of Nature is therefore respectable, is to commit the naturalistic fallacy; but no one, probably, would be tempted to commit it, unless something which is respectable, were represented as a Law of Nature. If it were clearly recognized that there is no evidence for supposing Nature to be on the side of the Good, there would probably be less tendency to hold the opinion, which on other grounds is demonstrably false, that no such evidence is required. And if both false opinions were clearly seen to be false, it would be plain that Evolution has very little indeed to say to Ethics.

In concluding, let me note that Moore's criticism of evolutionary naturalism is applicable only to its primitive forms, such as the Spencerian identification of what is 'more evolved' with 'morally good'. His remarks are of little or no relevance to the subtler forms of evolutionary naturalism. In spite of Moore, the claim that 'evolution throws important light on ethics' is not at all hopeless. On the contrary, it seems to the present writer that any attempt to understand the nature and function of morality, as well as any attempt to construct a rational system of normative ethics, requires adequate consideration of the evolutionary viewpoint (this will

be discussed in some detail in the third section of this thesis).

Chapter V. Julian Huxley: The Ethics of Psychological and Social Evolution

In 1943, on the occasion of the fiftieth anniversary of T. H. Huxley's delivery of his Romanes Lecture Evolution and Ethics, Julian Huxley was similarly invited to contribute his views on the theme selected by his grandfather. His Romanes Lecture on Evolutionary Ethics has come to be regarded as one of the most significant contemporary pronouncements on the subject. Huxley's commencement co-ordinates are manifestly plotted within the evolutionary tradition: "...the ultimate guarantees for the correctness of our labels of rightness and wrongness are to be sought for among the facts of evolutionary direction."[57] The unique methodological character of his approach affords an interesting contrast to the views hitherto reviewed. His conceptual schema is eminently contemporary, integrating the advancements in psychology and the natural sciences in a philosophical context to produce a work of greater systematic integrity, cogency of argumentative design, and concrete in its analysis of the nature, direction and implications of the evolutionary process.

Huxley's position develops from the conviction that the nexus between ethics and evolution becomes intelligible when two separate, but inter-related, processes are distinguished: first, the manner of development of the ethical mechanism in the individual human infant, and secondly, the evolution, and ethical relativity, of social ethics. Ethics thus viewed,

comprehends both an internal and external dynamism, i.e., of numerous 'different kinds of individual and social adaptations' whose only common concern is with the notions of right and wrong. As he observes:

> Ethica is not an entity. It is the name we assign to the results of the workings of a particular psychological mechanism. This mechanism is an agency for securing that certain of our actions and thoughts shall be consciously felt and judged to have the qualities of rightness and wrongness. It gives us what is popularly called our moral sense.... On the other hand, it provides no guarantee that the feelings it engenders are correct, or its judgments objectively valid.[58]

For reasons of continuity, the mode of presentation in this chapter will parallel the general sequence of ideas as evinced in Julian Huxley's original lecture, namely, to consider first the developmental dynamics of individual ethics, then the evolutionary character of social ethics, and lastly, the case for establishing evolutionary direction as a criterion for advancing certain ethical standards.

To begin the discussion, the individual ethical process is, in its incipient stages, developed by means of what Huxley refers to as the "proto-ethical mechanism." This expression is a more neutral rendering of the Freudian 'primitive super-ego', and its function for Huxley is consonantly explicated in terms of the framework of Freudian psychoanalysis. One preliminary consequence of this psychological approach is the categorical rejection of all purely intuitive ethical theories. This follows, he contends, on grounds of recent evidence and information provided by modern psychology regarding the embryonic mental structure, and concurrently the development and formation of the ethical mechanism, in the individual child during the

first few post-natal years. The ethical development of the individual constitutes a continuous and cumulative process of adaptation and interaction:

> The ovum has no ethics, any more than it has a backbone. Ethics, like backbones, come out of non-existence into existence in each individual development...as...the backbone is later built round...the notochord, so the normal infant develops a forerunner for the moral stiffening of adult ethics.[59]

This 'spiritual notochord' is the proto-ethical mechanism, the precursor and ground out of which conscience later develops. It is important to note that the proto-ethical mechanism is not conceived as some inborn faculty to perform a given function, but arises rather in consequence of a particular kind of primal conflict among the non-rational, and unregulated impulses of which the infant is naturally heir. What is innate is simply the capacity to form and develop the mechanism.

Huxley describes the preliminary stages in the individual ethical process as follows:

> As the baby begins to draw a distinction between itself and outer reality, it is the mother who comes to represent the external world, and to mediate its impact on the child. But she dawns upon its growing consciousness under two opposite aspects. She is the child's chief object of love, and its fountainhead of satisfaction, security and peace. But she is also Authority, the chief source of power mysteriously set over the child and arbitrarly thwarting some of the impulses along whose paths its new life quests outwards. The frustration of infantile impulse generates anger, hate, and destructive wishes--what the psychologists generally style aggression--directed against the thwarting authority. The infant is thus faced with the primal conflict. Two irreconcilable sets of impulses are directed towards the same object, and that object is the center of its surrounding universe.[60]

The proto-ethical mechanism grows out of this primordial

ambivalent conflict of love and hate. Huxley indicates that love usually resolves the conflict, and the aggressive impulses of anger and hate come to be associated with wrongness, i.e., 'branded and tinged with the quality of guilt', and either suppressed in consciousness or completely repressed into the unconscious. He adds that although in its formation the proto-ethical mechanism always involves a degree of some true repression (unconscious guilt), the extent of which is contingent on the inherited temperment and infant-mother relations of the infant. Thus, out of the primal conflict of impulses there arises the sense of guilt, and out of this sense of guilt develops the individuals moral sense: "...the central fact remains that out of this primal conflict there grows the beginning of ethics. Primitive love conquers primitive hate by saddling it with the burden of primal guilt: and with this the polarity of right and wrong becomes attached to our thoughts and actions."[61] It is important to note, however, that the moral sense is not simply a set of conditioned reflexes. Huxley remarks that, for the most part, the proto-ethical mechanism remains an intellectual construction, advanced on scientific grounds much like the concepts of the gene or the atom. Biologically, however, its function, viz., as an adaptive mechanism of infancy for securing action (supported by a sense of rightness) in the face of conflicting impulses and indecision, is concretely manifest.

Huxley's discussion of social ethics is ultimately directed at establishing one central thesis, viz., that human evolution now operates through the mechanism of social organization, and that conscious or social evolution has largely supplanted organic evolution as the primary vehicle of the progressive

ascendance of man. As he observes:

> ...it is only through social evolution that the world-stuff can now realize radically new possibilities. Mechanical interaction and natural selection still operate, but have become of secondary importance. For good or evil, the mechanism of evolution has in the main been transferred onto the social or conscious level.[62]

His manner of substanciating this thesis consists in first considering the concept fo ethical relativity in social ethics, i.e., of the 'adaption of particular systems of ethics to particular societies'. Huxley begins by advancing the proposition that "Individual ethics develop, social ethics evolve. And the evolution of ethical systems and standards shows a broad correlation with that of the societies in which they flourish."[63] His point here is to indicate that there exists an 'ethical relatedness' among different societies on different levels of social (cultural) evolution as regards a general pattern of developmental stages in the social process. In other words, that "...though...there is a bewildering relativity of social ethics among different groups and different cultures, yet during man's social evolution we find a definite trend in the form or structure of his moral codes."[64] Huxley is suggesting here that there are certain general stages in the evolution of ethical systems and standards which can be distinguished and correlated vis-a-vis a societies respectives evolutionary level. For example, that taboo prohibitions constitute the primary ethical framework of all societies at a rudimentary level of social evolution.

It is Huxley's position that all moral codes represent the socialized expression of "... solving the basic moral conflict between love and hate, between the claims of self and the claims

of society, which affects each developing individual afresh."[65]

In discounting the notion of chaotic ethical variablilty, Huxley's object is twofold: (a) to establish a general perspective of uniformity and continuity with which to view the phenomenon of social evolution, and, (b) to state emphatically that ethical standards cannot be conceived of in static terms (as fixed absolutes), but must be viewed dynamically. Alternately stated, that ethics is a process rather than a system, continuously evolving, and inevitably changing with change in social systems. As Huxley observes:

> ...ethics do not merely vary at random; they also evolve. That fact provides our clue. Our ethics evolve because they are themselves part of the evolutionary process. And any standards of rightness or wrongness must in some way be related to the movement of that process through time. Now that the moment has arrived when we are able to perceive evolution as an all-comprehensive process of which human existence forms a part, it is impossible any longer to rely on any static guarantees for ethics. Our fuller knowledge discloses not a set of absolute or fixed standards, but a direction of change.[66]

Furthermore, there is one direction of change in the evolutionary process which might be properly characterized as 'progressive', this being the direction which provides the conditions for the unlimited capacity to attain a higher degree of organization. By a 'higher' degree of organization, Huxley refers to the ability of 'organizations of matter which are alive' to exercise a certain control over their immediate environmental factors, whether it be in the external mode of utilizing other organic or inorganic elements in promoting survival and continuance, or through the internal capacity for self-reproduction and adjustment to environmental changes.

The emergence of the social form of organization--as with every higher level of organization--provided mankind with an extended range of new possibilities of experience, of action, and of being, as well as introducing new methods and mechanisms of evolutionary operation. As has been previously indicated, a paramount thesis of Huxley's position is that evolutionary advancement (on the human or conscious level) can be effected only through the mechanism of social organization, the latter operating through the 'pooling of experience and co-operative action in a cumulative tradition'. He states that conscious evolution superceeded biological evolution as the primary mode of progressive human development when social organization became 'self-reproducing'. That with the advent of conceptual thought and true speech in primitive man, for the first time in evolution, conscious experience became transmitable through time by means of language and other forms of symbolic representation. Moreover, it is only on the social level that ethics can emerge. Says Huxley:

> And in so far as the mechanism of evolution ceases to be blind and automatic and becomes conscious, ethics can be injected into the evolutionary process. Before man that process was merely amoral. After his emergence onto life's stage it became possible to introduce faith, courage, love of truth, goodness --in a word moral purpose--into evolution.[67]

Perhaps the singularly most important feature of Huxley's lecture consists in the formulation of general ethical standards adduced on grounds of evolutionary criteria. He cites three distinct sources, which within the perspective of evolutionary dynamics coalesce, where counsel for such formulations may be sought, viz., the human individual, human society, and

of nature as a whole. Huxley defines the scope and content of his position as follows:

> In the broadest possible terms evolutionary ethics must be based on a combination of a few main principles: that it is right to realize ever new possibilities in evolution, notably those which are valued for their own sake; that it is right to respect human individuality and to encourage its fullest development; that it is right to construct a mechanism for further social evolution which shall satisfy these prior conditions as fully, efficiently, and as rapidly as possible.[68]

Huxley observes that man's progressive evolutionary ascendance to higher levels or organization has achieved a state within which a consciousness of intrinsic value has emerged. That is to say, among the range of new possibilities of experience attending each higher level of organization, man finds that he experiences some as having value in or for themselves. With this, a value scheme is here introduced: 'higher' values consisting of those "...which are more intrinsically or more permanently satisfying, or involve a greater degree of perfection."[69] Huxley continues that although we cannot characterize this direction or evolutionary trend as having purpose (in the sense of fulfilling a conscious aim), we can describe it as the 'most desirable' direction. Accordingly, Huxley concludes that "...it is ethically right to aim at whatever will promote increasingly full realization of increasingly higher values."[70]

Towards the practical realization of this end, Huxley contends that an optimum course of 'greatest moral rightness' must be established as regards both the rate as well as the direction of change. That minimally, our evolutionary direction, that is, our direction of social change, should provide for the future continuance and further advancement of the same

desirable direction towards ever higher levels of organization and new possibilities. The maximum application would consist in the complete subjugation of present realization to future possibility. Moreover, there must also be a theoretical optimum in the rate of change: a moral mean between the preservation of present stability vis-a-vis the excessive retardation of advance. Thus, when evolution as a whole is considered, the most general ethical standard to follow consists in the promotion of the same 'desirable direction' of evolution which has brought man to his current level of organization. A corollary to this, Huxley adds, is that social organization need be designed to encourage change; that "...a static stability is undesirable, and a complete or static certitude of ethical belief itself becomes unethical."[71]

Huxley proceeds to consider what ethical guidance might be elicited from the dynamics of social evolution and human societies. His initial remarks establish an important perspective:

> ...it is clear on evolutionary grounds that the individual is in a real sense higher than the State or the social organism. The possibilities which are of value for their own sake, and whose realization must be one of our primary aims, are not experienced by society as a unit, but by some or all of the human beings which compose it.[72]

He continues that the relation between the individual and the society of which he is a member is a reciprocal one; that in isolation the individual is meaningless, in as much as the nature or type of social organization effectively conditions the range of possibilities of self-realization and degree of development. Furthermore, besides the assertion of the primacy of the

individual over the state, another evolutionary standard deriving from the nature of human society consists in the principle of human unity through universal co-operation. Analogous to the futility of intra-specific competition on the biological level, Huxley claims that evolutionary advance is promoted--not through cultural isolation or intra-social competition--but through the merging in 'a single universal pool of experience and action' the multiplicity of skills and traditions of different social groups. The object here is not to establish regimented uniformity, i.e., one common universal culture, but to achieve the greatest 'variety-in-unity' in which humanity is united in a mutually co-operative pooling of effort as an integrated whole for the common benefit. Huxley goes on to note the following:

> But if unity as against multiplicity is of advantage for evolutionary advance and is therefore desirable in respect of groups, so is equality of opportunity in respect of individuals. The more individuals there exist whose desirable potentialities are fully developed, the more health, vigor, knowledge, wisdom, happiness, beauty and the rest can go into the common pool, and the better that common pool will work. That is one of the bases for universalism in ethics.[73]

Finally, Huxley focuses on the issue of independant ethical standards as suggested by a consideration of the human individual per se. As the developed human individual represents the acme of progressive evolutionary direction, and as the perpetuation of this direction has been cited as an ethical goal, the development of human potential and knowledge is clearly paramount in further expanding the scope of new possibilities of desirable experience. Moreover, if the full development of the individual's potential potential capabilities (whether general or special talents) is regarded as an evolutionary end in itself,

the general principle declaring 'universal equality of opportunity for development' follows as a corollary standard.

In closing, Julian Huxley's attempt to establish an external (natural) sanction for universalist ethics serves as an object lesson in illustrating the possibilities of integrating--as compatible, complementary, and mutually supportive--the domains of science and ethics. The practical consequences of such a system of evolutionary ethics, as the basis of choice and moral action, is most aptly characterized by Huxley himself:

> Thus the general moral principle of equality can now come down to earth in the concrete task of achieving what I may call minimum equality: it can and should now be regarded as immoral to leave any human being below certain standards of physical and mental welfare and development. The general moral principle of human unity and pooling of effort can come down to earth in the concrete task of achieving a minimum co-operative organization for the world unit: it can and should now be regarded as immoral to let anything stand in the way of producing that degree of international order which will free the world from its major burdens of disunity, both as regards war and economic competition. And finally the general moral principle of evolutionary purpose can come down to earth in the concrete task of achieving minimum planning: it can and should now be regarded as immoral for society not to be at least one move ahead of events.[74]

While there is much in Huxley's general orientation and analysis I sympathize with, there is one element I find especially untenable, and to which the discussion and conclusions of the next section must take exception. Huxley's claim that a knowledge of the facts of evolutionary change provided insight into the question of what is intrinsically good, is perhaps the weakest element of his system, and certainly one of the most severly criticized (e.g., C.D. Broad). To anticipate

somewhat the forthcoming discussion, while the reference for such universal moral standards as liberty and equality are, in Huxley's view, grounded in the belief in the 'intrinsic value of the human personality'; no such position can represent the views of this thesis. Freedom, equality, and many other conventional moral values have social and ethical significance in so far as they are the means for developing the human personality, not as an end-in-itself, but as the means of further promoting individual and social growth. With the rejection of intrinsic value as a criterion for determining 'the most desirable direction of evolution', the position supported in this thesis is that nothing is good or bad in-itself, but only as a means to an end. In this regard, my position is allied with what Dewey describes as the 'continuum of ends-means'; actions or objects are not deemed valuable because they are given to represent 'ends-in-themselves', but because they are the means of attaining given desirable ends--ends which in turn are the means for securing further ends.

Thus, it seems to me that Huxley's recourse to intrinsic value for determining evolutionary direction is not only unwarranted, it is unnecessary. However this may be, it should not eclispe the significance and vision of his approach. As he has suggested; "It makes a great difference whether we think of the history of mankind as something wholly apart from the history of the rest of life, or as a continuation of the general evolutionary process, though with special characteristics of its own."[75]

SECTION III. TOWARDS A MORAL AESTHETIC

Chapter VI. The Case for Evolutionary Naturalism

The subject of the evolutionary moralist at once consists in the reconciliation of an apparent paradox. The character of this confusion comes into relief when the nature of moral phenomena is perceived in terms of two distinct features. On the other hand, morality, by virtue of the evolution of those particular beings which have engendered and practice it, is seen as the outcome of a long, graduated, and continuous process of biogenesis, i.e., as a natural feature of the phyletic evolution of mankind. On the other hand, such phenomena are simultaneously perceived as something of a radically different, and profoundly original, character, in as much as they represent the realization of an essentially new type of conscious activity; a new order of phenomena.

The evolutionary moralist is pressed with the difficulty of reconciling two seemingly discrete aspects of human experience, viz., fact and value, in a coherent manner; of finding a common ground whereupon a union may be effected, and in which both will be taken into account in providing a unified, integrated, and systematic perspective of the world. The evolutionary approach to ethics is built on the premise that positive knowledge of things is identified with the study of their development, and that the nature of ethics cannot be fully understood unless

situated on an evolutionary line between a past and a future. Alternately expressed, evolutionary ethics proposes that fact and value are structurally bound together by the conditions of their origin and development; that the nature of this connection, as will be subsequently detailed, consists in some natural (evolutionary) function that links fact and value both in the sequence of their appearance and in their present existence.

The difficulties encountered in trying to reconcile two dissimilar forms of phenomena in a reasonable perspective are nowhere more harshly revealed than in a defense of evolutionary naturalism. Yet, I believe that nowhere is the need of greater consequence than in effecting an accord between science and ethics in a synthetic perspective. The importance of such an equilibrium has been aptly expressed by Dewey:

> ...any restriction of moral knowledge and judgments to a definite realm necessarily limits our perception of moral significance ...Probably the great need of the present time is that the traditional barriers between scientific and moral knowledge be broken down, so that there will be organized and consecutive endeavor to use all available scientific knowledge for humane and social ends.[76]

It would seem the problem of convergence is as much due to the traditional orientation of the scientist, as it is to that of the moral philosopher. Both seem content to delimit the nature of their activities to a closed equilibrium, as concerned with radically different kinds of data mutually exclusive of one another. While historically such isolation of the domain of science (and the data with which it deals) from any convergence on moral and religious issues has proved beneficial--perhaps necessary--to its freer development, e.g., as in pacifying

religious authorities about the implications of the new physics in the seventeenth century, today such an arbitrary bifurcation might well be regarded as anachronistic. In this regard, certainly a major factor contributing to this coalescence and overlap of previously distinct fields of science (perhaps the latest example of this is the novel area of socio-biology), and that which makes our world specifically modern, is the discovery in it and around it of evolution.

One of the most problematic issues in discussing ethics from the vantage of evolution, is establishing a clear-cut criterion of progress. Viewed from a biological perspective, that is, quantitatively, progress has usually been characterized as the increased differentiation and specialization of biological functions, and the concurrent increase of complexity of organization, in the transformation of an organism. While this quantitative formulation of progress does have a certain relevance to evolutionary ethics, the more important issue to the moralist lies in determining a qualitative criterion of progress, such as the rise of some mental disposition or intellectual abilities, which could be considered as having a more direct bearing on moral issues. Teilhard de Chardin has well expressed the inadequacy of a criterion of evolutionary progress based solely on quantitative factors.

> So long as we could regard evolution as a simple advance towards complexity, we could imagine it developing indefinitely in its own likeness; there is no ceiling limit to pure diversification. Now that, beneath the historically increasing intricacy of forms and organs, we have discovered the irreversible increase, not only in quantity but also in quality, of brains (and therefore consciousness) we are forced to realize that an event

> of another order--a metamorphosis-was inevitably awaited to wind up this long period of synthesis in the course of geological time.[77]

The conception of evolutionary progress has had various formulations. To note but a few, Herbert Spencer viewed the matter essentially in behavioral terms: the gauge of progressive development was the improved adjustment of acts to ends demonstrated by an organism; an advance in organizational complexity entailed an advance in conduct, and as ethics was considered the 'science of conduct', Spencer believed his system provided the means of determining moral progress. Julian Huxley's definition is a good deal more subtle: progress is expressed in that direction of evolution which provides the conditions for the unlimited capacity to attain a higher degree of organization for the evolving organism. Moreover, each increment in degree or organization effectively extends the range of possibilities of experience, action, and being, this line of development culminating in man who has achieved a consciousness of intrinsic value.

Another interesting representation has been proposed by Teilhard de Chardin, who views evolutionary progress as definable only in terms of an increase in consciousness (the term consciousness is used in the widest sense to indicate every kind of 'psychism', from 'the most rudimentary forms of interior perception imaginable to the human phenomenon of reflective thought'). He suggests a classification of animal forms in terms of their 'degree of celebralisation"(which is indicated by the relative elaboration of nervous systems), this being proposed as a measure of consciousness, and that the rise in consciousness in an organism is indicative of both a direction of evolution and a cirterion of

evolutionary progress. As evinced by the more contemporary statements, the emphasis in determining an adequate definition of evolutionary progress lies in establishing some systematic connection between semectic factors (complexity of organization, especially the brain), psychological transformations (different levels of consciousness), and moral behavior, in the phyletic development of mankind. The problem of determining an adequate conception of evolutionary progress will be given much further consideration in the third claim of this section.

In following Frankena, let me initially characterize moral behavior as a conscious activity which "...arises when... we pass beyond the stage in which we are directed by traditional rules and even beyond the stage in which these rules are so internalized that we can be said to be inner-directed, to the stage in which we think for ourselves in critical and general terms... and achieve a kind of autonomy as moral agents."[78] As will be discussed in the claims that follow, in studying the evolution of the hominid line, anthropological evidence firmly indicates a correspondence between the modification of brain size (increased cranial cavity) and certain modes of behavior (the fashioning of tools, for example). In considering the ramifications of such historical evidence on the subject of ethics, the evolutionary moralist must proceed with great caution, in as much as, while it is essential to establish some form of relation between somatic and psychical factors (e.g., Teilhard de Chardin's 'experimental law of Complexity-Consciousness'), the consideration of other factors, such as the evolution and function of moral phenomena in social organization, are of central importance.

For the purposes of the present research, the concept of evolutionary progress, and correspondingly, the direction of evolution manifested in anthropogenesis, will be defined following the general lines proposed by such writers as Dewey, J. Huxley, Waddington, and Teilhard de Chardin. In this regard, progress is understood here as a directional characteristic of human evolution, namely, as that which describes a specific tendency in quantitative (biogenetic) and qualitative (psychogenetic) change. In quantitative terms, it describes that tendency towards ever greater degrees of organic complexity (notably in the development of the brain and nervous systems). Qualitatively, it is manifest in the increased range of possible experience and modalities of being opened to the individual and the collectivity through the agency of more refined cognitive abilities, viz., conscious reflection. Finally, to anticipate somewhat my later discussion, the bearing the conception of evolutionary progress has on the subject of ethics is simply this: that ethics, and moral phenomena in general, are by their very nature progressive by virtue of origin, function, and cognitive character. Moreover, that any formulation of standards of normative ethical content based on evolutionary criteria must be founded on the perspective of progress as the desirable direction of change, to be encouraged as both a social and ethical goal.

In the last century, theories of evolutionary naturalism have undergone a major shift in orientation. The nature of this change can best be described as a swing away from purely phylogenetic considerations in accounting for moral values and conduct, to one of greater emphasis on ontogeny, i.e., on

considerations of the manner of development of ethical mechanisms and attitudes in the individual personality. The early advocates of an evolutionary ethic, e.g., Darwin and particularly Spencer, remained on what might be termed the level of quantitative analysis in their ethical speculations, and the narrowness of this perspective is what finally vitiated the integrity of all such attempts. An important reason for the ultimate inadequacy of these early attempts to reconcile ethics with evolutionary theory, was the failure on the part of such writers to sufficiently account for the unique activity of moral reflection in terms other than strictly biological. In characterizing moral behavior as more efficient forms of complex conduct, or as arising from a mechanical conflict of instincts, the role of thought, as a creative factor in ethical reasoning, was clearly de-emphasized and displaced by genetic determinations.

To summarize the foregoing, the failure of ninteenth century forms of evolutionary ethics may be attributed to two fundamental weaknesses. The first of which consists in a highly inadequate (and often confused) distinction between biological factors and psychological factors--and their inter-relation--in accounting for moral behavior. The second fault lies in not perceiving clearly enough the fact that it is more specifically the phenomenon of psycho-social evolution which has led to man as a moral agent, and which must be reconciled with progressive biological evolution on one side, and with conscious reflection and ethics on the other. Herein lies the important shift in perspective manifest in twentieth century formulations. It is now recognized that it must be primarily in terms of psychogenetic

evolution that we account for that form of reflection which is singularly human, namely, that "...power acquired by a consciousness to turn in upon itself, to take possession of itself as of an object endowed with its own particular consistence and value: no longer merely to know oneself; no longer merely to know, but to know that one knows."[79] Providing both the impetus for doctrinal re-formulations, as well as a battery of new conceptual tools of analysis, were the revolutionary developments made in psychology in the early part of this century--particularly the influence of Freudian psycho-analysis. That such influence is pronounced in current literature is evident in the views of such moralists as Julian Huxley, Waddington, and others, whose 'psycho-analytic' approach to the process of ethical ontogeny has become a dominant character in contemporary evolutionary ethics.

My aim in this chapter is basically to show what, in my opinion, an integral system of evolutionary naturalism should adopt as its line of research, and the kind of conditional interpretation the conclusions might allow. While directed towards elucidating the problematics of this approach, it is also a conditional statement of its defense. For the purposes of such a defense, I have chosen to construct a systematic model of an evolutionary ethic, and to examine the questions and issues of this approach within this format. Structurally, the model consists of three principal claims (which will be defined shortly), around which all discussion revolves. The treatment of each major claim (especially the first and third) consists in the analysis of a battery of subordinate propositions related to the establishment of the main argument. Following the presentation

of these claims is a discussion on what conclusions can be drawn, and in what way these conclusions may be applied to determining the way in which evolutionary criteria serve as a foundation of value judgments.

While the majority of arguments presented in this model have been articulated elsewhere by various authors, the model is essentially eclectic as regards their assembly and order of presentation. The choice of these three claims is based on their fundamental importance to the establishment of an evolutionary ethic. They are represented as fundamental, in as much as they epitomize the most basic and vital relations any form of naturalism based on evolutionary criteria must account for. In other words, they are the central claims which most particularly define the evolutionary approach to ethics, namely, that there is an intelligible relation between fact and value, that such an approach is practically and theoretically viable, and that a system of moral beliefs can be founded (with conditional provisions) on a knowledge of evolutionary change.

In the order of their discussion, these propositions may be summarized as follows. The initial maintains that the facts of human evolution, namely, those which describe man's progressive transcendence to successively more complex levels of cognitive and social organization, provide sufficient grounds for regarding moral phenomena as having a strictly natural foundation. The object of this assertion is twofold: first, as a categorical denial of any transcendental 'origin' (or source of authority) of moral value; and secondly, to state that all factors contributing to man's moral genesis can be accounted for in terms of

the functional dynamics of human bio-cultural evolution. The second claim asserts that, with the assumption of empirical criteria in formulating ethical directives, and the consequent de-emphasis of the metaphysical as a source of information, the adoption of an evolutionary ethic neither commits one to, nor implies, unlimited moral relativism. The third claim is the grounding premise of evolutionary naturalism. It proposes that the facts of evolutionary biology (such as the fact of evolution, the mechanisms of operation, etc.), taken in conjunction with that direction of evolution which has brought man to his current levels of social and psychobiological organization, may provide criteria pertinent to the evaluation of moral norms. The format of my discussion will be to examine each claim separately in the order of its above notation; to state my case for its defense, making clear its relation and importance to the formal purpose of the thesis (as stated in the General Introduction).

The general orientation of the evolutionary approach, even as to what are the concerns and function of the moral philosopher, is clearly at odds with the views of a great many traditional moralists. For example, consider the statement of James Balfour:

> ...it is not the business of the moral philosopher to account for the origin of moral ideas, or to analyse and explain that growth of sentiment which collects around the time honored maxims of current morality. These are topics which belong to Psychology. Neither is he expected to prove the propositions which lie at the root of any system of morals; for these are incapable of proof. Nor, for the same reason, can he justify the judgments which declare which of two final ends is to be preferred in case of conflict, or how much of one is to be preferred to how much of the others.

> Nor, in reality, has he any but a subordinate part to play in expounding or deducing the derivative rules of morality....[80]

Even a cursory perusal of the claims proposed for defense in this section indicate that, for the evolutionary moralist, it is precisely in those areas Balfour considers to be outside the sphere of the moralist's investigations, that ethics (as regards origin, function, and nature) can be most accurately put into perspective. While it might seem that with the introduction of evolutionary, psychological, and sociological hypotheses, the speculative element in ethics becomes that much more pronounced, the danger here of reducing moral theory to sheer hypothethical speculation is more apparant than real. When fact and value come to be viewed as simply different modalities of one comprehensive evolutionary process, as by analogy the phenomena of geogenesis, biogenesis, and psychogenesis may be seen to have originated and developed along one continuous evolutionary axis, then what is obstensibly lost in integrating scientific speculation with ethics (as regards the absolute certainty of our moral precepts) is gained again in the expansion and unification of that base of knowledge which give our ethical beliefs greater perspective and credibility.

It should be understood from the outset that the primary focus of my attention in this section is on constructing a case for the adoption of a particular form of ethical framework, i.e., in considering how evolutionary criteria can be said to provide a foundation for evaluating and judging moral norms, and not in articulating particular normative ethical standards. My reason for emphasizing ontological analysis rather than the

content of normative ethical principles, is that the uniqueness of the evolutionary approach lies not so much in the novelty of the normative principles it advances, but rather in the grounds proposed for substantiating its claims. Thus, the focus of explanation is on examining the relation of ideas between central tenets, and what considerations would promote its adoption as a superior ethical framework vis-a-vis alternate moral systems (Christian, Kantian, etc.). My general orientation thus indicated, let us proceed with the presentation of the model itself.

FIRST PRINCIPAL CLAIM

As noted above, this first claim consists in the proposition that moral phenomena have emerged as the outcome of human bio-cultural evolution, and that all factors contributing to origin and development can be explained naturally, that is, in terms of evolutionary dynamics. The object here is to indicate how and why a consideration of biological facts can be said to be relevant to the subject of moral values, by viewing the nature of morality as revealed in the study of evolutionary mechanics and history. The function of this claim is essentially as a base for the later discussion concerning the possible application of evolutionary criteria to value judgments. To this end, the first claim intends to establish the following three points: (a) that conscience has evolved through natural selection as a practical faculty founded in social utility; (b) that there are biological determinants in moral reasoning; and, (c) that the content of moral values is the product of cultural evolution.

Discussion of Point (a):

Point (a) of the first claim makes two distinct assertions, namely, that conscience has evolved, i.e., has reached its current level of development through progressive modification and change, and, that it is essentially a practical faculty which serves the interests of social organization. Following general usage, the term 'conscience' is used here to designate that sense or consciousness of the moral goodness or blameworthiness of one's own conduct, intentions, or character, together with a feeling of obligation to do right or be good. Also, as used by Huxley, Waddington, and other advocates of the 'psychoanalytic approach', it represents that part of the superego that transmits commands and admonitions to the ego.

The contention that conscience has its foundations exclusively in nature is predicated on three facts: (1) the great mutual affinities of constitution and organization between man and other species of his class; (2) the fact that social association and group-oriented behavior is not a phenomenon peculiar to man; and, (3) the fact of evolution. Dilating on these facts, I shall endeavor to establish the grounds for regarding conscience, i.e., the moral consciousness, as a faculty (ability or generic character) which is clearly the product of evolutionary transformations.

My argument here is based on the following sequence of ideas. First, that the ability to govern one's behavior in ways which conform to and reinforce group solidarity is not something limited to mankind. That, in this regard, incipient forms of "moral" conduct are evident in sub-human societies.

Secondly, that granted the genealogical relatedness and constitutional (morphological) affinities between man and other such beings, the primitive faculties responsible for such behavior are common to both. Finally, given the verity of evolution as a mode of explaining specific change, that ability and degree to which man can consciously co-ordinate his actions to social and ethical norms, i.e., that critical sense of moral priorities which characterize conscience, owes its present state of development to a continuum of graduated progressive modification and refinement of less highly organized forms.

The core of Darwin's work supports the proposition that human beings, in all their manifest characteristics, have slowly evolved and developed from less highly organized forms of life through a process of graduated adaptive modification. As detailed in chapter one (pages five and six), Darwin was emphatic in his belief that, although the mental faculties of man and the lower animals differed immensely in degree, they did not differ essentially in kind. He cautions against attributing too great an importance to the extreme development of the human brain in determining man's genealogical position; that for such purposes of classification it was, in fact, comparatively insignificant. In this regard, it would seem highly probable that all physical, psychological, emotional, sensible, and instinctive attributes and capabilities--in short, everything which defines the phenotype of man as such--have achieved their current level of organization through the evolution of more primitive forms.

Darwin clearly states his belief that the moral sense (conscience) constitutes by far the most important difference between man and the lower animals. This difference, however, can be accounted for in evolutionary terms:

> The following proposition seems to me in a high degree probable--namely, that any animal whatever, endowed with well-marked social instincts, the parental and filial affections here being included, would inevitably acquire a moral sense or conscience as soon as its intellectual powers had become as well, or nearly as well developed, as in man.[81]

Moreover, he clearly refers to conscience as 'one of the highest physical faculties of man', the implication being that such a faculty or ability has its origin entirely in the selective dynamics of human evolution. The tacit understanding underlying Darwin's remarks is that there are physiological or constitutional preconditions which define a being's native ability to think and act in certain ways. Such generic characters of the species as the advanced development of intellectual faculties and well-defined social instincts--necessary conditions for the evolution of conscience--have been shown to exist in primitive forms and in varying degrees in other animals (especially the Primates) of unquestionably the same genealogical heritage as mankind.

Such considerations as these are clearly in conflict with any form of transcendental interpretation on the origin of conscience and moral values, and do much to undermine the epistemic credibility of such accounts. Moreover, in situating the origin man's ability to think and act morally in the natural domain, notwithstanding the great variability in the content of ethical codes, moral principles and values also assume a genesis

in the natural order. As human constructions, moral values are perceived to have the source of their authority founded in the evolution of human beings, human societies, and nature.

The facts of biological evolution have moral ramifications only in so far as they systematically explain the emergence and development of those capacities in man--physical or intellectual--which make such behavior possible. Darwin characterized a moral being in terms of a particular capacity (ostensibly peculiar to man) to reflect critically on past actions and motives. While this definition is seriously inadequate in specificity, it does point to a more particular conclusion being drawn. If we assume that conscience is indeed that singularly defining feature of humanity, i.e., that 'greatest of all distinctions between man and the lower animals', then, in documenting its origin, the facts of evolutionary change (which account for such a capacity) directly pertain to the transition from amoral (pre-human) life forms to moral beings. The general theory of evolution, however, can deal with organic phenomena only in terms of morphological change vis-a-vis genetic and environmental conditions. Consequently, the fundamental modification in behavior from amoral to moral must, in an evolutionary perspective, be understood in terms of a consonant modification in organic constitution (particularly of the brain and nervous system), and this as effecting such psychogenetic transformations as the increased capacity for self-conscious reflection and thought. Both Julian Huxley and Teilhard de Chardin have well amplified this conclusion.

The implicit suggestion in the assertion that

conscience has evolved, is that it has done so in the interests of serving the survival of the species. Natural selection--as the organon of evolution--neither involves rational agents, nor implies progressive development. However, the criterion of selection (preservation of chance genetic variations) is necessarily that the change in form contribute to the improved integrations of a being vis-a-vis its organic and inorganic conditions of life. In other words, although variation (deviation of structure or instincts) is random, preservation is not; the natural selection of a variation is strictly functional, i.e., it subserves a particular, practical end which ultimately promotes the survival of the species. The importance of this point is not to be underestimated. Charles Fay, in his "Ethical Naturalism and Biocultural Evolution," also emphasizes this non-random character of selection in accounting for the evolutionary development of man's ethical nature. Says Fay:

> When culture begins to operate in hominid evolution, we have to do with a rudimentary form of the social nature which is also an ethical nature. And the further development of this nature is not wholly due to chance. According to Goudge, it is precisely the point of the theory of evolution that selection is an anti-chance factor that tends to produce systematic and orderly change in a population. While the genetic factors operate in a random manner, the selective factors do not.[82]

Utility (the selective advantage conferred by a particular variation), then, has been the guiding principle in all forms of creative evolution. The natural selection and endurance is based on the survival value it has for a particular life form, which in turn is a measure of the trait's coeval utility. Accordingly, the following generalization seems to a high degree plausible, namely, that every physiological feature, as well as

psychological capacities (cognitive, emotional, instinctive, etc.) a being can be said to possess, may be assumed to have evolved to perform a given function which contributes--or at one time did contribute--to its survival.

As proposed above, the development of those capacities giving rise to a moral consciousness can well be explained in terms of the action of natural selection. 'Social instincts', on which Darwin predicates the development of the moral sense, were invariably gained and strengthened through the agency of natural selection; group--with the common pooling, and co-ordination, of resources--proved practically advantageous to the successful perpetuation of the species. As are all products of natural selection, social organization (the expression of associative instincts) owes it's emergence and endurance to the useful function it serves as a means of survival; it is founded entirely on the grounds of utility. Thus, the evolutionary function of social organization is to promote the survival of species. The necessary condition for the existence of a social order is some degree of group co-operation, which is possible only when group members possess at least a nominal innate capacity for integration and self-restraint.

Man, by biological necessity, is, was, and will always be a social animal and, as such, has always a certain rudimentary to control his behavior in ways which conform to the natural function of social organization. Moreover, the relation between the development of social consciousness and conscience must have been a reciprocal one; that, just as the development of language occasioned an increase in cognitive ability, and

visa-versa, so the growth in organization of a social order contributed to the sophistication of the moral sense, and visa-versa. Thus, it seems plausible to regard conscience as having originated and evolved through natural selection as a practical faculty which contributes directly to the survival of the species through the preservation and perpetuation of the social order. Furthermore, if the evolutionary function of conscience is construed in terms of social utility, moral values--which are intelligible only in a social context--likewise assume an essentially practical character. Their primary function becomes defined as the means of subserving an evolutionary end, namely, as that which most efficaciously promotes conditions of survival (e.g., unity, stability, and harmony) within the social order.

Discussion of Point (b):

Point (b) of the first claim, viz., that there are biological determinants in moral behavior, is intended to show how considerations of biological fact (namely, those of human physiology) have a bearing on normative discourse. My argument is based on the proposition that the scope of any being's activities is essentially circumscribed and defined by its native capacity to effect certain forms of behavior, and that such innate abilities are fundamentally determined by the level of constitutional organization. In other words, the possible limits of what a psycho-biological being can do, think, feel, experience, etc., are a function of the organizational level of cognitive and physiological faculties of that particular life form.

The object of this point is to distinguish the variable

and invariable elements of value, and to show that although the content of moral values is culturally constituted and variant, there is a universal constant in the form of value structures. This point is pertinent to my thesis for two reasons: (1) it establishes that, in one important respect, ethics are the product of the particular psycho-biological constitution of human beings; and (2) it demonstrates the impossibility of attaining either complete objectivity or complete subjectivity with regard to moral standards.

To begin the discussion, a preliminary distinction is in order. When viewed within the context of evolutionary naturalism, normative evaluations are understood as the outcome of both an environmental (external) and a biological (internal) set of factors. The external factor concerns the content of moral values, i.e., what is held intra-culturally as good or bad; the internal factor refers to the form, or structure of thought processes, of moral evaluations. The content of moral values consists in those beliefs a particular society regards as categorically good; it is the product of cultural evolution, and hence highly variable from culture to culture. In other words, content is contingent on the particular beliefs of the socio-cultural milieu of its practicioners, and not on genetic determinants. Dobzhansky puts this point well: "Meanings and values are "culturally constituted"...there are no genes for meanings and values; yet it is the human genetic endowment which makes their articulation and transmission possible."[83]

An example would perhaps contribute to further clarifying the meaning of value content. In those societies

whose culture is founded in the Christian tradition, lying and misrepresentation is considered as unequivocally wrong. However, according to Arab sociologist Sania Hamady, in the Arab culture this is not the case. Says Hamady:

> Lying is a wide-spread habit among the Arabs and they have a low idea of truth....The Arab has no scrupples about lying if by it he obtains his objective....He is more interested in feeling than in facts, in conveying an impression than in facts, in conveying an impression than in giving a report. The Arab language, moreover, provides its users with the tool, for assertion (tarokid) and exageration (mubalong).[84]

Thus, the same act (lying) can have a completely different moral significance, i.e., content, in different cultures; in one it may be the object of approbation, and in another the object of contempt. While the verity of Hamady's observations may be questionable, nevertheless, her statement does provide a clear example of the relatively and variability which characterizes what is meant by value content.

The argument for establishing biological determinants in moral behavior concerns the internal factor, what I have termed as the formal character of value structures (value form). Value form is a genetic character of the species. It is a basic organizational mode of cognitive assimilation and projection, i.e., an expression of the way we rationalize. Furthermore, it is a consequent of those conditions of human physiology, namely, those of cerebral constructions (brain size, complexity of neurological hook-ups, etc.), responsible for the capacity to formulate advanced modes of cognitive constructions. In other words, that man's moral concepts have the basic structural symmetry and synthetic order they exhibit, e.g., the intelligibility of the distinction between good and bad, is due to a condition of mind,

i.e., to the neuropsychic mechanics of conceptualization.

By the formal character of value structures, I am referring to the kind and structure of the process of thinking which can be common to many value statements--moral and non-moral--even if they are of opposite content. For example, the view that euthanasia can be morally vindicated or good, in contradistinction to the antithetical belief that it is unconditionally immoral and wrong. I am suggesting that both positions evince a common organizational orientation as to the structure of normative (evaluative) conceptualization, albeit different content.

My point is to show that moral evaluations are prefigured and conditioned by the constitution and mechanics of our cerebral and neurological organization. Moreover, that in the act of normative reasoning, there is a kind of cognitive format common to all evaluative judgments. Again, this is not something peculiar to moral valuations, but can be asserted of moral cognition only because it characterizes the cognitive dynamics of any genus of value--practical, aesthetic, or moral. As the transition from amoral to moral behavior is in part due to the evolutionary refinement of man's intellectual capacities, I have concluded that the ability to think in moral terms--as is the ability to think in causal terms, to construct inductive and deductive inferences, abstract and symbolic thought in general, self-awareness and death-awareness--stems from an internal condition of man's cerebral organization. This idea of a basic structural framework for our moral conceptions, while not portrayed as the 'psychial' condition it is here, has been expressed by Dewey in his Theory of the Moral Life. Says Dewey:

> The fundamental conceptions of morals are neither arbitrary nor artificial. They are not imposed upon human nature from without but develop out of its own operations and needs. Particular aspects of morals are transient; they are often in their actual manifestation, defective and perverted. But the framework of moral conceptions is as permanent as human life itself.[85]

An example will perhaps make the relevance of the formal character of value structures more meaningful. The development of the radioactive carbon-14 dating method by Willard Libby, followed by the invention of the potassium-argon method, have provided scientists with the means of accurately determining the age of strata in which fossilized bones were found, and at times the age of the bones themselves. Thus, the assessed age of anthropological artifacts are reasonably fixed. The average brain size (volume based on cranial capacity) of modern man (Homo Sapiens) is approximately 1200-1500 cc. This represents a substantial increase over earlier known hominids, such as, Java man (Homo erectus erectus) 770-1000 cc., Peking man (Homo erectus pekinenis) 900-1200 cc., and Neanderthal man (Homo sapiens neanderthalenis) 1300-1425 cc.[86] Moreover, the very recent discovery--by Louis Leakey in 1961 and Richard Leakey in 1972--in East Africa of a highly evolved hominid, Homo habilis, with a brain capacity of 700-800 cc., has effectively extended the probable ancestry of true hominids back to at least two million years ago.[87]

These facts lead to a well documented conclusion, viz., that there is an unmistakable trend in man's evolution towards increases in both absolute brain size and in that relative to body size. Studies in animal research, notably by Rensch,

regarding the effects of brain size on mental capacity indicate that, although learning speed of "tasks" was variable, there was a positive correspondence between larger brain size and the number of "tasks" earned, as well as retention (memory) of learned "tasks".[88] Theodosius Dobzhansky notes a trend not only in the size, but in the very structure of the brain:

> A trend is descernible in the evolutionary history of vertebrate animals, from fish to man. The brain increases not only relative to body size, but the forebrain (the anterior portion of the brain) increases most of all. In fish, the forebrain houses chiefly the centers of the olfactory sense. It is much larger and more complex in reptiles, and in mammals it becomes not only the largest portion of the brain but it acquires on its surface a so-called cortex which contains several layers of nerve cells. In mammals the cortex becomes completely folded, which permits the brain to accomodate ever larger numbers of nerve cells (some ten billion in man).[89]

The object of the foregoing is not merely to show that there has been a corresponding increase in brain size vis-a-vis an increase in the organizational level of intellectual capacities, but to indicate that the limits and form of human thought processes has undergone great modification, and likely to continue to do so. For example, the average human brain is approximately 1400 cc. in volume. If, and perhaps when, man has a brain capacity of 5,000 cc., thought processes might be extremely different; causal reasoning, for instance, could become obsolete. Correspondingly, profoundly different forms of evaluation might prevail, i.e., different value structures. Before continuing, I would like to clarify a certain point regarding the notion of the formal character of value structures.

The notion of the formal character of value structures (pp. 71-76) has been introduced as a means of directing attention to an elementary, though easily overlooked, aspect of moral reasoning, namely, that the structural characteristics of cognition exhibited in our evaluative conceptualizations, are ultimately correspondent to conditions of human physiology. This is merely to say that <u>what</u> we think is to a degree determined and conditioned by <u>how</u> we can think. I have further suggested that this condition of mind can be regarded as a genetic character of the species, and, that as such, constitutes an invariable element or condition in moral valuations. As I have later suggested that a radical change in man's cerebral constitution may eventuate in radically different forms of evaluation--that the formal character of value structures may undergo change--a conceptual inconsistency may appear evident to the reader.

Let me first note that by the formal character of value structures, it is not my intension to introduce a fixed, static, or absolute character of human nature; such would contravene the fundamental orientation of an evolutionary perspective of a world-in-process of continual change. Rather, the notion describes a constant condition of correspondence between the relative level of neuropsychical development (or intellectual capacity) at a given stage of human evolutionary development, and the basic logical and psychological cognitive structures which occur at such an organizational level. This formal character of value structures is not to be understood as invariable in an absolute or non-temporal sense, e.g., as a permanent and unchanging cognitive mechanism; it too must be viewed as within the evolutionary process. While our forms of evaluation can change,

that is, are variable in time, they are invarible in the sense of being a constant 'condition of mind', i.e., of providing cognitive perimeters in conceptualization. Changes in human physiology, i.e., in the genetic character of the species, such as a much larger and developed brain, will, in all probability, effect changes in man's conceptual orientations, processes of thought, and psychological structures. This idea of invariability in change has been aptly characterized by Dewey in his Reconstruction in Philosophy. Says Dewey:

> "...change rather than fixity is now a measure of "reality" or energy of being; change is omnipresent. The laws in which the modern man of science is interested are laws of motion, of generation and consequence. He speaks of law where the ancients spoke of kind and essence, because what he wants is a correlation of changes, an ability to detect one change occurring in correspondence with another. He does not try to define and delimit something remaining constant in change. He tries to describe a constant order of change. And while the word "constant" appears in both statements, the meaning of the word is not the same. In one case, we are dealing with something constant in existence, physical or metaphysical; in the other case; with someting constant in function and operation. One is a form of independent being; the other is a formula of description and calculation of interdependent changes."[90]

The foregoing might suggest the question that if even the formal character of value structures can undergo drastic changes, how can the evolutionary process be regarded as committing us to anything. The answer must be understood in terms of what has just been discussed. The idea of the formal character of value structures has been introduced to make two distinct point: first, that moral reasoning and evaluations are not without certain biological determinations, and secondly, that changes in these biological determinations, namely, in the cerebral organization, can occasion changes in cognitive processes

and forms of evaluative conceptualization, and, in consequence, changes in the content of moral values. Let me briefly anticipate the later discussion to note that, this being the case, the evolutionary process can be regarded as committing us to certain moral norms in so far as such a committment will be understood as conditional, i.e., as valid for a definite stage of evolution. In this sense, the committment will be temporal, not absolute. By this I mean that, as the evolutionary approach assumes everything can change in the course of further evolutionary development, such an approach can provide grounds for committment extending no further than to the temporal acceptance of certain moral norms; to some morality appropriate at a given stage of evolution.

In the same way all sensory perceptions--including those indirectly observed by instrumental sensors--are dependant on (and condi[illegible] human central nervous systems, so the interpre[illegible]ensory information is grounded in (condition[illegible]ctual faculties which shape the [illegible]ntological orientation of an existential [illegible] never be transcended; it is, at the [illegible]els man to rationalize in a systematic [illegible]nd amend the content of his values, and [illegible] of reference which finitizes, structures, and circumscribes the scope of possibilities. From this perspective, the notions of total objectivity and total subjectivity become impossible; man can never transcend himself as a center of reference. As expressed by Teilhard de Chardin:

> By virtue of the quality and the biological

> properties of thought, we find ourselves situated at a singular point, at a ganglion which commands the whole fraction of the cosmos that is at present within reach of our experience. Man, the center of perspective, is at the same time the center of construction of the universe. And by expediency no less than by necessity, all science must be referred back to him.[91]

Discussion of Point (c):

Point (c) of the first claim is the assertion that the content of moral values is the product of differentiated cultural evolution. This point is based on two facts: (1) that there is obviously great diversity and disuinty among the ethical codes of different socio-cultural groups within the family of man: and, (2) that the content of moral values is not innate.

An interesting conclusion drawn by Julian Huxley is his belief in a positive correlation or correspondence existing between the evolution of ethical systems and standards in various societies, with the stage reached by the society in it's evolution. His point is that "...between societies at different cultural levels, or between societies on quite different lines of cultural and economic development, chaotic ethical variability becomes negligible and ethical relatedness the rule."[92] It should be noted that, even if the truth of Huxley's observation be granted, and research in cultural anthropology does suggest certain trends which lend credence to Huxley's assertion, the fact remains that the manifest disunity of ethical codes among various societies cannot be explained only in terms of a difference of level of social evolution. The generality of Huxley's statement should not eclipse the equally important

consideration of the particular character and history of the individual social milieu itself, in the genesis and determination of moral values.

That the content of moral values in not innate has been dealt with in part previously. Although values per se are not inborn, the capacity to learn understand, and work within the perimeters defined by content innate. In commenting on an aspect of Julian Huxley's evolutionary ethics, C.D. Broad contrives a suitable analogy to butress this position. Says Broad:

> I think that Prof. Huxley's conclusions about how an individual comes to have the beliefs which he does have about what is right and what is wrong might be compared in certain respects to the known facts about the development of intelligible speech as a person grows up. The power to speak is not innate in human beings; but the power to acquire that power may fairly be said to be innate, since the vast majority of men do learn to speak whilst no other creature can be taught to do so. Nevertheless, a child will not acquire the power to speak unless it is surrounded by other persons who talk to it, listen to it, and train it. Again, the particular language which a child will first talk if it ever learns to speak at all depends entirely on the particular way in which it is conditioned by those who train it in its early years...On Prof. Huxley's theory the contents of different moral codes might be compared to different languages, or perhaps more profitably to the characteristic grammatical structures of different groups of languages, e.g., Indo-European, Semitic, Chinese, et.[93]

In light of these considerations, I have concluded that the content of the moral values is entirely a product of socio-cultural evolution, and as such content has changed in the past, it is a safe assumption that it will continue to change in the future.

In conclusion, the overall object of this first

claim is threefold: (1) to explicate the nature and significance of the relation between biological fact and moral values; (2) to localize all factors contributing to moral valuations in the natural realm; and, (3) to provide the factual background for the later discussion on the central thesis, namely, that evolutionary direction may provide criteria for judging and evaluating moral norms.

SECOND PRINCIPAL CLAIM

The second major claim being made in this section is intended to correct a widespread misconception regarding the practical and theoretical consequences of accepting evolutionary direction as an ethical guide. To the extent that moral phenomena are construed in natural terms, i.e., as originating and developing as products of human socio-cultural evolution, the traditional (Christian) framework of non-natural moral absolutism becomes proportionately less viable as an ethical ground. The claim here is that, with the elimination of such absolute (transcendental) frame of reference, the acceptance of an evolutionary neither commits one to, nor implies, unlimited moral relativism. My argument is intended to establish that unlimited moral relativism is practically inconsistent with man's survival. In other words, that it undermines the very existence of any form of social order, and consequently is contrary to the evolutionary heritage of mankind's progressive development. Moreover, that this practical inconsistency makes it theoretically inconsistent with an evolutionary ethic.

A common objection to building a systematic ethic

on the facts of evolutionary change, is that such constructions contribute to the de facto elimination of the traditional framework of non-natural moral absolutism. In this regard, those who make the objection believe that such an elimination will necessarily eventuate in forms of complete moral relativism; that in the adoption of an evolutionary ethic, one is thereby committed to the acquiescence of moral anarchy. The position being supported here is that this is by no means the case, i.e., that evolutionary naturalism is not tantamount to total moral relativism. One of the most incisive and concise statements to this effect I find to be noted by Bernard Davis. Dr. Davis' short statement, which will serve as a base for commentary, is as follows:

> ...since evolution has built into every kind of organism a deep-seated drive for survival of its species, and since we have evolved as a highly social animal, we must have within us strong, genetically determined instincts for patterns of social behavior that are compatible with that survival. Our evolutionary endowment thus is incompatible with unlimited moral relativism. It requires restraints on our behavior, based not only on self-interest but on instinctive interest in the welfare of our group and our progeny.[94]

As the phrase 'unlimited moral relativism' referred to by Dr. Davis might invite a certain confusion, let me presently define my understanding and use of the expression. Moral relativism is considered here in two distinct modalities, as limited and as unlimited. The need for this distinction is necessary in order to show the way in which relativism can be compatible with social order, and the form in which it cannot be. Limited moral relativism refers to the de facto inter-cultural variety of different ethical principles; it is limited in the sense that the relativity (of particular beliefs) is restricted to

differences as between socio-cultural groups. Limited moral relativism is manifest in the diversity of the content of moral values in different societies; it is compatible with social order, and more generally with the survival of the species, as analogously the relativity of different religious orientations (e.g., Buddhism and Christianity) are compatible with inter-social order.

The subject of this second claim, and that to which Dr. Davis' comment is directed, concerns that form of moral relativism which is unlimited. Unlimited moral relativism is neither compatible with social order nor with survival. It exists in the absence of objective principles governing moral choice and action; the state of radical subjectivism in moral evaluations. Moreover, it undermines any form of social organization or order in as much as it is tantamount to the elimination of any restriction or restraints on behavior.

The point being made in this claim is that this unlimited form of moral relativism is practically inconsistent with the rudimentary principles of natural selection. Furthermore, this practical inconsistency makes it theoretically inconsistent with an evolutionary ethic. As Davis notes, evolution is geared towards the survival of the species, and man has evolved as a social animal; says Dobzhansky, "The environments which are "natural" for mankind in the sense that the human species is biologically committed to live in them, are environments contrived by man's cultures."[95] Survival on the socio-cultural level is contingent on the adoption of behavior patterns which reinforce and sustain such a mode of existence. Unlimited moral relativism is clearly at odds with the behavioral restraint fundamental to

the existence of a social order. Thus, man's survival as a social being has not been, nor can ever be, compatible with this unlimited form of moral relativism.

This does not deny the obvious existence of contentious societies and ethical systems; inter-cultural variation, however, is possible only because distinct societies have the inner cohesion necessary for self-definition. The essential point is that an evolutionary approach to ethics is, of necessity fundamentally opposed to--in theory and practice--the existence of unlimited moral relativism. As expressed by Julian Huxley:

> ...while to the evolutionist ethics can no longer be regarded as having any absolute value, yet their relativity is neither chaotic nor meaningless: ethics are relative to a process which is both meaningful and of indefinitely long duration--that of evolutionary progress.[96]

THIRD PRINCIPAL CLAIM -

The third principal claim of this section is the proposition that the facts of biological evolution, taken in conjunction with that direction of evolution which has brought man to his current levels of psychobiological and social organization, may serve as criteria in formulating and evaluating trans-cultural standards of moral value. A secondary issue may be said to consist in showing why some norms following from an evolutionary approach to ethics are preferable to those of the traditional morality of Christian ethics.

The distinction noted between the facts of biology, e.g., the cerebral and neurological constitution of human beings, and the general tendencies of evolutionary development, i.e.,

directional characteristics, such as, progressive and creative transformations, etc., is indicative of the different bearing each is here considered to have in contributing to the foundation of an evolutionary ethic. The focus of my discussion in the first claim of this section was primarily on exhibiting the relevance a consideration of biological facts and mechanisms of transformation has on the subject of moral valuations, i.e., in indicating how facts of biology are significant to ethical considerations. However, the relation of psychobiological facts to normative ethical standards can only be indirect, in as much as the content of such standards becomes intelligible only when psychobiological facts are correlated with that direction of evolution which has engendered them. Thus, while biological facts--taken as the products of an evolving series of changes--are the concrete indications of a certain trend of transformations, it is the direction of evolution, as expressed in the characteristic features of the creative dynamics of human evolutionary development, which must serve as the basic point of reference for ethical standards.

Before proceeding, let me briefly anticipate the contents, objectives, and order the discussion of this claim will asssume. The discussion of this final claim will develop in the order of the following two points. Point (a) is a consideration of arguments concerning the adoption of the direction of evolution, in the same progressive direction, should be encouraged as an ethical goal. Point (b) of this last claim proposes that the systematic definition of good is epistemologically arbitrary

as regards the justification of ultimate principles, and that consequently, justification and choice of system must be based on some empirical criteria. Coupled with this, is a consideration of what may count as criteria in choosing among ethical systems.

My position makes two major assumptions. The first is one which is generally supported by all forms of Evolutionary Naturalism, namely, that information provided by the natural sciences, psychology, and social anthropology has eroded the credibility of all forms of non-natural (transcendental) and intuitive theories, as grounds on which to base a systematic ethic. The second assumption is more a particular conclusion of the present research, viz., that the attempts to construct value schemes on the premise that certain phenomena possess a character of having value 'in-itself', i.e., intrinsic value, are likewise untenable (see discussion of chapter five).

The position supported in this thesis is that nothing is good or bad 'in-itself' but only as a means to an end. Thus, the objects, actions, and experiences we confer value upon, such as, knowledge, truth, justice, art, etc., are not deemed valuable because they are the means to attaining given desirable ends--ends which in turn serve as means for further ends, that is, what Dewey describes as the 'continuum of ends-means'. Says Dewey:

> In all the physical sciences (using 'physical' here as a synonym for nonhuman) it is now taken for granted that all "effects" are also "causes", or, stated more accurately, that nothing happens which is final in the sense that it is not part

> of an ongoing stream of events. If this principle, with the accompanying discrediting of belief in objects that are ends but not means, is employed in dealing with distinctive human phenomena, it necessarily follows that the distinction between ends and means is temporal and relational. Every condition that has to be brought into existence in order to serve as a means is, in that connection, an object of desire and an end-in-view, while the end actually reached is a means to future ends as well as a test of valuations previously made. Since the end attained is a condition of further existential occurences, it must be appraised as a potential obstacle and potential resource. If the notion of some objects as ends-in-themselves were abandoned, not merely in words but in all practical implications, human beings would for the first time in history be in a position to frame ends-in-view and form desires on the basis of empirically grounded propositions of the temporal relations of events to one another.[97]

It should also be noted that, although the first claim of this section is intended to establish a correspondence between fact and value, there has been no attempt to equate the two in a reductive manner. My position is that they must be treated as distinct phenomena, analogous to the heterogeneity one would maintain between physical and mental phenomena.

Discussion of Point (a):

To begin the discussion, this point considers the case that can be made for the adoption of the direction of evolution as an ethical base. In order to lend perspective to the discussion, I will consider, by way of introduction, a prominent and contemporary rebuttal to my claim, namely, the position of geneticist Theodosius Dobzhansky. Let me note, however, that there is much I find to agree with in Dobzhansky, such as his view as regards the natural grounds of value content. In his regard, Dobzhansky notes the following:

> Man is an ethicizing being. Ethics are human ethics. They are products of cultural evolution. The evolution of culture is, to be sure, made possible by the evolution of the human genetic endowment, but it is not imposed or rigidly determined thereby. Systems of ethics and values are distillates of human wisdom and of the experience of living, not products of human genes. These systems are not identical in different societies and cultures, although some basic features are cultural universals.[98]

Dobzhansky suggests the basic biological precondition for a being's ability to ethicize consists in the capacity to know and anticipate the consequences of one's own actions, and those of others. His objection against taking evolutionary direction as an ethical point of reference, is based on two propositions. The first is that the direction of evolution is not good by definition, and the second is that it may lead to extinction. As regards the first, he states that evolution "...may eventually be managed and directed. Must it go on in the same direction in which it went in the past? Possibly so, yet only provided that this direction appears in the light of human wisdom, good and desirable. It is not good by definition."[99] Moreover, as regards the second proposition, he points out that "...by far the commonest finale of most evolutionary lines is extinction, and that the evolution of the lines that became extinct had been controlled by natural selection."[100]

In considering Dobzhansky's objections, let me first examine his charge that the direction of evolution is not a sufficient criterion of morality (rightness), in as much as it may lead to extinction (I assume here that by extinction he is referring to the annihilation of the whole species--not the unfit members of it). Basically, his point is that evolution

is compatible with extinction of the species, and thus it is not a sufficient basis for a moral system which requires survival of the species.

While I believe Dobzhansky's point to be insightful, it does not give adequate consideration to the fact that extinction, and the supplanting of previous life forms by later variations, is an integral part of the evolutionary process of change. In this regard, Alfred Emerson has put the point well: "Natural selection and cultural selection involve not only the survival of the fit, but also the death and elimination of the unfit. Creative evolution cannot occur without death and extinction at every level of organization."[10] Thus, when viewed in a historical context, the extinction of earlier genera of the species was a necessary condition for evolutionary growth. Modern man has evolved at the expense of his precursors, homo habilis and homo erectus, and the organizational levels of civilized societies has grown only on the condition of change and elimination of less organized forms. Also, to Dobzhansky's charge that natural selection has led to extinction, it should be remembered that the vehicle of human evolution is no longer strictly that of natural selection, but rather that of conscious evolution, operating through the mechanism of social organization.

Dobzhansky's assertion that evolutionary direction is not good by definition is one I am in essential agreement with, if by this is meant that it is not analytic, i.e., true by virtue of definition. The direction describes some general characteristics of a process of change in natural phenomena. Furthermore, such characteristic features of the direction of

human change as 'progressive' or 'creative' have, as descriptions, strictly neutral or non-evaluative meanings. This thesis does not support the view that evolutionary direction is good by definition; no natural phenomenon--or description thereof--can be if the basic non-reductive distinction between fact and value is to be maintained. However, as the general orientation of this thesis suggests, because natural phenomena are not good by definition does not vitiate their relevance to ethics.

The problem of determining an overall direction of evolution, and its evaluation in progressive terms, has been discursively considered by T. A. Goudge in his Ascent of Life. Goudge contends that, while speaking in terms of the overall direction of evolution presents certain problems, there are two senses in which the concept of overall direction may be said to be significant. The first, he suggests, is towards an amplification (or enlargement) of life, i.e., towards the overall increase in both the number of living things, and in the number of types of living things. Secondly, he notes an overall trend towards greater biological efficiency in the organisms undergoing evolutionary transformations. While Goudge is careful not to overstep the bounds of warranted assertion, he does propose a 'line of thought' which may give the concept of evolutionary direction a basis. Says Goudge:[3]

> The scientific reconstruction of the history of life, utilizing the available evidence, concludes that in the course of this history there has been a net increase in the total number of environments occupied by organisms on the planet. There has probably also been an increase in the gross size of organisms and

> in their general biological efficiency. All these are inferences which, if not conclusively established, are supported by an imposing array of facts and not subject to serious doubt.[102]

The claim that the direction of evolution may serve as a point of reference for ethical standards, is not proposed on analytic or intrinsic grounds. Rather, it is a claim whose justification is predicated on the historical and biological function of ethics and moral values in human social evolution. The central question, as regards progress as a prescription, is briefly this: why should we base our notions of right and wrong on such features of the direction of human evolution as progress (tending towards more complex levels of organization) and creativity (novel forms of experience and being), simply because they have characterized the evolutionary development of mankind? In other words, why is progressive development good, i.e., why should our ethical goals make for progress?

What is proposed here, is that the transition biological facts to moral values can be conditionally mediated by reference to evolutionary direction. While the direction of evolution, as noted above, is essentially descriptive, one of the things it describes is the emergence of moral phenomena. Thus, while it is a description of the general characteristics of a factual process, it comprehends--also as a statement of fact--the conditions under which moral phenomena have originated and evolved. Granted, as yet this is simply an historical statement. However, it should be kept in mind that moral phenomena, i.e., moral values, conscience, etc., have evolved in the interests of serving an adaptive function, namely, a practical

social end, and that the exclusively social function and context of ethics has remained its most universal and constant character.

Thus far, I have indicated that the characteristics of the direction of human evolution (the trend of progressive and creative change), as purely factual statements, describe the evolutionary origin of moral phenomena as natural facts. Moreover, that as products of natural selection, moral phenomena can be seen to have evolved in the interests of subserving a given end, i.e., they have an evolutionary function. Furthermore, that this function of ethics and moral values has a strictly social context, viz., the preservation and continuance of the social order. This is not to say that all forms and levels of social organization necessarily operate within ethical perimeters, that is, that social instincts are tantamount to a well developed moral sense. Incipient forms of "moral" conduct are found on sub-human levels of life, which, while bearing functional resemblances to human ethics, certainly cannot be termed moral (strictly speaking, the term 'moral' is reserved for those forms of human behavior which demonstrate the presence of a critical reflective consciousness (conscience) in evaluating the rightness and wrongness of alternative actions). However, it is the functional resemblances which are of interest here; the suggestion is not that, because they are social animals, apes moralize, but only that ethics and sub-human forms of social behavior serve the same evolutionary function.

Ethics, like culture, are late products of evolution. One clear conclusion drawn from the evolutionary perspective

represented here is that of the social character of the moral good; that the social good, namely, that which contributes to the promotion of the evolutionary function of society, is the ultimate basis of moral values. From this perspective, the basis of moral values is historically rooted in a factual situation, namely, survival (of the species through that of the society), and the merit of such values can be confirmed or denied by the reality of their effectiveness. This is the basis of the assertion that moral values have a common (trans-cultural) social and evolutionary function.

To summarize my statements, the evolutionary function of ethics is to promote the progressive development of mankind through social evolution. To return to my original point, namely, of how the transition from fact to value can be conditionally mediated by reference to evolutionary direction, the following question stands at the core of the difficulty. The question is simply this: what is the relation between progress as a description (fact), and progress as a prescription (value), that is, why is social progress good? When the term 'progress' is used to describe that kind of development which characterizes the evolutionary function of ethics, it is used to describe the emergence of moral phenomena as natural facts. If the evolutionary function of ethics is accepted (as noted above), then moral phenomena are perceived as progressive in the sense that they are the means to bring about the further evolution of man. This being the case, if we can evaluate advancements (e.g., conscience) as desirable (good) from the standpoint of its evolutionary function (i.e., from the standpoint of whether

or not the advancement increases the chances for survival and further advancement), and moral phenomena are accepted as progressive (in a descriptive sense), then progress can be construed as prescriptive, i.e., as the means to a desirable end. The question of justifying why moral phenomena are good, is assumed here to be meta-problematic.

The position being supported here is that ethics are in mankind's interest, i.e., they have both a survival function, and, as the condition of social evolution, the means to further human advancement. In that capacity, they should be promoted, and the promotion of evolutionary advancement is to encourage progress as a prescription. Thus, progress becomes prescriptive (has moral sanction) when advance in organization (progress as description) is understood to be the means of furthering human survival.

Discussion of Point (b):

It would seem a tacit assumption in moral philosophy that, in any given situation, there is a morally right decision to be made, the problem of ethics consisting in how we go about determining what it is. Let me begin by noting that the project of eliciting completely objective moral standards, i.e., static, unchanging, legislative absolutes, from the facts and direction of evolution, is as epistemologically unfeasible and misguided as the forms of non-natural moral absolutism to which it is opposed. The object of my argument here is not to show how moral values follow deductively from biological facts, nor to construct an ethical system on allegedly self-evident premises. Judgment of moral value are intelligible only in

relation to the given perimeters of an ethical system. What is being suggested is that all ethical systems--natural and non-natural alike--are either systematically circular or epistemologically arbitrary (arbitrary vis-a-vis the grounds of knowledge) as regards the ultimate justification of their founding premises. My point is to indicate that the assumption of any ethical framework involves a degree of arbitrariness as regards the construction of the term 'good', and that consequently, some empirical considerations (namely, those pertaining to the evolution of moral phenomena) need be adopted as criteria for choice. This is suggested on the grounds that the systematic definition of good (in any natural value scheme) always presupposes some prescriptive premise which lies outside of it, and the systematic definition of good (in any non-natural value scheme) always presupposes some prescriptive premise which lies within it. This is just to say that the autonomy of fact and value, simply by definition, is irreducible; that good is not self-defining or analytic. Nevertheless, this autonomy does not preclude an interrelation; fact and value, though distinct, are not mutally exclusive of one another.

An evolutionary ethic, in this regard, is theoretically no less arbitrary than any other system of naturalistic ethics: it is arbitrary in the sense that moral values cannot be deductively inferred from biological facts (biological phenomena are not good in themselves), and hence some extra-systematic (non-moral) criterion of value (such as utility or progress) must be assumed as an axiological base: It is arbitrary to the extent that it is not systematically circular, that is, to the

extent that it does not include assumptions of a prescriptive nature in its premises. However, it is not arbitrary in the sense that the reasons for its adoption are less warranted vis-a-vis the manner in which it fulfills its social function.

The object here is thus focused on the consideration of criteria for choice among alternate systems of ethics; in demonstrating the advantages, or preferability, of an ethic based on a knowledge of evolutionary change. This approach has had an earlier application in the work of C. H. Waddington who, in The Ethical Animal, described his position in the following manner:

> In my original exposition, I was mainly concerned to make the point--which I think has not been made before--that the existence of ethical beliefs is a necessary part of the human evolutionary system. Pursuing this line of thought I emphasized the conclusion that if this is the case, we can assign a function to the existence of ethical beliefs, and can therefore utilize the efficiency with which this function is fulfilled as a criterion for deciding between alternative systems of belief we may encounter.[103]

It would seem academic that an ethic which proposes trans-cultural standards, must be founded on trans-cultural criteria. Herein lies a notable characteristic of the evolutionary perspective: no ethical system can provide a broad and more comprehensive base than one which appeals to men in terms of the conditions for their biological and social evolution. Evolutionary history and direction is the most fundamental ground for a universal ethic. It appeals to man as a specie among species, whose diverse social orders, ethical codes, and moral values are the common expression of origin, direction, and purpose. In line with this, a second important criterion

is evident: an evolutionary ethic is most consonant with the development and needs of man and society as on-going processes. As advanced in the first claim of this section, man's evolutionary heritage has provided him with certain socially oriented genetic characteristic, e.g., social instincts, the innate capacity to learn and work within ethical perimeters, the capacity to think in evaluative terms, etc. The base afforded by an evolutionary approach is uniquely comprehensive, in the sense that it provides a framework able to integrate such biological or anatomical considerations of moral reasoning in a systematic ethic.

GENERAL CONCLUSIONS

The claims thus presented, let me return to the stated purpose of the thesis, and consider what conclusions might be drawn, in light of what has been discussed. As the discussion here must be confined within the scope of my research, it would be apropos to restate, as has been done periodically throughout this work, the central purpose (main objectives) and scope (range of operation) of the thesis generally, so as to lend context to what can be concluded. Thus, to insure the coherence of presentation in these concluding remarks, the discussion will proceed as follows: (1) to restate the overall purpose and scope of the thesis; (2) to consider what can be concluded from the discussion of the three claims of the third section as regards evolutionary criteria for judging moral norms; and, (3) to relate the conclusions to the purpose of the thesis, i.e., to offer comment as regards what answers have been suggested in this research, and to consider in general terms the peculiarities of standards based on evolutionary criteria.

As stated in the General Introduction, the purpose or main objectives of this thesis is twofold. The first is to explain what is the evolutionary approach to ethics, and to clarify the main issues involved. In other words, to consider the origin and nature of moral phenomena in terms of evolutionary dynamics. This, I believe, has been accomplished. The

second main objective is to consider the central problem of evolutionary naturalism, namely, the question of how the evolutionary approach can be said to serve as a foundation of value judgments by providing some evolutionary criteria to evaluate moral norms. Related to this is the problem of how biological evolution can help determine what constitutes moral progress.

The scope, context, and primary orientation of my research can most properly be understood as concerned with investigations in ethical ontology. By this I mean, with studying the nature and grounds of knowledge which contributes to defining the context, purpose, and character of moral phenomena. My intention has been to examine the axiological foundations of moral values based on evolutionary criteria; to construct a perspective within which the relevance of a knowledge of the facts of evolutionary change may be shown instrumental in achieving a basis for the evaluation of normative ethical standards. As such, it is not intended in this thesis to give answers to specific questions in normative ethics, but to discuss the possibility of normative implications following from the consideration of the evolutionary genesis and dynamics of moral phenomena. Thus the scope of my research is limited to constructing a provisional case as regards the basic function of moral phenomena, and does not include the determination of normative ethical content.

While it is clear that the fruit of my research finds its application only in normative ethical contexts, the problems with which normative ethics, and investigations of the sort represented here, deal are sufficiently distinct and diverse

so as to allow independent study. I might further add that, while a consideration of evolutionary criteria may provide a conditional foundation for normative ethical constructions, such criteria are not in themselves entirely sufficient to answer all questions this very method of inquiry gives rise to. Psychology, cultural anthropology, sociology, genetic research, and semantics all become significant to moral issues in an evolutionary approach, and, no less important, an evolutionary framework allows the integration of information from such avowedly non-moral fields in a way no other approach to ethics can. Thus, that the present research does not direct itself to specific normative ethical questions does not denigrate the importance or philosophical significance of such ground-level examinations. However, that the purpose, limits, and intention of such research be clearly recognized is of the greatest importance.

To begin the discussion, let us consider the manner by which the evolutionary approach may be said to serve as a foundation of value judgments. It should be understood that by 'foundation' I am not using the term in the rigorous sense of providing an objective proof of anything normative. Rather, it is to be interpreted as a conditional framework, i.e., one which, while providing some criteria to judge moral norms, is viable only once one accepts certain conclusions as regards the evolutionary genesis, function, and nature of moral phenomena. A knowledge of evolutionary process provides us initially with an elementary context and direction of investigation, by examining the nature of morality in terms of the conditions of origin and development of all natural phenomena. From the discussion of the

first claim of the third section, moral phenomena can be said to evince two fundamental characteristics as regards conditions of origin: (1) that the emergence of such phenomena has been contingent on certain developments in human anatomy and physiology, and, (2) that moral phenomena have developed in the interests of serving an evolutionary function, namely, as the practical means of securing human survival on the social level.

While such information, which might well be regarded as merely historical description, is the result of simply considering the facts and mechanisms of biological evolution, it can further be said to indicate certain general insights as regards the nature of moral norms. These may be summarized as follows: (1) that the context of moral values is entirely social; they are significant as the means to a social end; (2) that moral norms fulfill a positive evolutionary function at a specific stage of evolution; (3) that moral values are in process and must be considered open to change and amendment; and, (4) that the source and function of morality is in the natural domain.

Considering the discussion of the first claim, and given that one accepts the evolutionary account of the origin and functional nature of moral phenomena, a basic evolutionary criterion for judging moral norms can now be proposed. This criterion consists in the proposition that normative ethical standards should be conducive to survival (preservation) of societies, i.e., that their implementation should increase the probability of successful adaptation to changing conditions.

The second claim, while not providing any positive

criterion of evaluation, frees the adoption of an evolutionary approach to ethics from charges of implying unlimited moral relativism. The importance of this claim is not to be underestimated, inasmuch as its strength is imperative to the theoretical cogency of an evolutionary ethic. The third claim considers the warrant for assuming the direction of evolution as an ethical guide, and the reasons why further evolution in this direction can be considered morally progressive. Three main conclusions can be said to follow from this claim. The first is that human evolution does manifest a direction of growth, which has been both progressive (tending towards more complex levels of organization and efficiency) and creative (as giving rise to novel forms of experience and being). The second is that moral phenomena, by virtue of origin and function, are by nature progressively oriented. The third conclusion is that choice between alternate ethical systems must be made on the basis of some empirical criteria, such as practicality (whether it is consistent with needs) and universality (whether it has trans-cultural applications), which indicate how well a particular system of beliefs fulfills its evolutionary function.

The discussion of this third claim provides the basis for proposing a second evolutionary criterion for judging normative ethical standards. Again, such a proposal must be understood as conditional on the acceptance of the points argued for in the third claim. This criterion consists in the proposition that moral norms be conducive to further evolutionary transformations in that same direction of progressive evolution which has characterized mankind's previous development and growth.

The discussion of the claims can be seen to provide the evolutionary approach with two sets of data. The first set contributes an insight into the fundamental context (social), function (survival), and nature (in process and of natural origin) of moral norms. The second set consists in two evolutionary principles, namely, survival and further evolution, as criteria in judging normative ethical standards. It should be made clear that the evolutionary viewpoint suggests--does not impose--these evolutionary criteria, i.e., once one accepts the factual part of the evolutionary perspective, and once one accepts that moral phenomena originated and developed as an instrument to fulfill an evolutionary function, then one will have to apply the two evolutionary criteria to judge and evaluate moral norms.

This much clear, let me finally return to the second main objective of this thesis, namely, the question of how the evolutionary approach can be said to serve as a foundation of value judgments. As has been previously mentioned, the 'foundation' provided by an evolutionary approach must be understood in the conditional sense, in as much as it is based on the assumption that morality has an evolutionary function. Moreover, that while the content, and even the form of value structures, can change, the evolutionary function of moral norms remains constant. Thus, in the discussion that follows on the application of evolutionary criteria to ethical standards, the imperative is understood as conditional and not absolute.

Ethical standards based on evolutionary criteria must be consistent with two primary characteristics of

evolutionary change. The first of which is that all products of natural selection are functional: ethics and moral values are phenomena which have evolved to serve a specific social function. In this regard, from an evolutionary viewpoint, an ethic which does not provide a real basis on which to make practical decisions is to be considered counterproductive. An example of such a counterproductive standard is epitomized by the so-called Golden Rule, namely, 'Do unto others as you would have them do unto you', which if systematically employed, would effectively eliminate the practical application of law (retributive justice). The biological function of ethics, as Waddington has proposed, is to promote human evolution, and an ethical system is ultimately judged in terms of how well it fulfills this function.

The second characteristic of human evolutionary change is that of progress, i.e., the distinctive tendency in mankind's evolution towards successively more complex and differentiated levels of organization, which in man, has culminated in the advent of conscious reflection. In the context of evolutionary dynamics, ethics and moral standards are themselves seen to change and evolve with time; as forming part of a process of change rather than a set of static, immutable injunctions.

Human evolution, as Dobzhansky asserts, is the interaction of biological and cultural evolution. As has been previously proposed, ethics have emerged as a product of cultural evolution, and cultural evolution is conscious change, i.e., the injection of purpose into the evolutionary process. Conscious change is progressively oriented. Progress, when

taken in its most common sense as something conducive to improvement, is a tacit assumption in all forms of conscious change. The very act of questioning ethical grounds and values is an affirmation of the progressive character of that direction of evolution which has engendered the human moral dilemma. In other words, alternative actions are invariably evaluated in terms of effecting a more profitable change, even if such change be historically retrogressive. For example, if it was believed that the reinstatement of capital punishment would curb the incidence of violent crimes--although this measure would be historically regressive--it would be progressive in as much as its object is the amelioration of present conditions. The point to be made here, in considering the connection between progress and morality, is simply this: that it is of the very nature of moral conduct to be progressive. This particular conclusion has been advanced by, among others, John Dewey, who has qualified the progressive character of morality in the following manner:

> This progressive development consists on one side in a richer and subtler individual activity, increased individualization; on the other it consists in increase in number of those persons whose ideal is a 'common good', or who have membership in the same moral community; and, further, it consists in more complex relations between them. It is both intensive and extensive.[104]

Of related interest is T. A. Goudge's use of an evolutionary argument to affirm a basis for the reality of moral progress. Says Goudge:

> ...Homo sapiens, in the course of creating his own unique environment, the noosphere, has become Homo moralis. The capacity to judge and guide his own conduct in the light of moral ideals has gradually increased during

> the last two hundred thousand years from rudimentary beginnings. How this capacity ('conscience' or 'the moral sense') originated is not something about which we need to speculate here. That it did originate and improve is as nearly certain as anything can be. This is the basis on which we can affirm that there has been moral progress.[105]

Moral standards which assume the direction of evolution as an ethical base must be qualified and understood in the following terms. First, they are dynamic in character; our ethics evolve, and moral systems and values are bound to change with changes in social systems. The consequence of perceiving moral values as phenomena in process, and the requirement of an ethical framework responsive to change, has again been asserted by Dewey. As Dewey suggests:

> "The need for constant revision and expansion of moral knowledge is one great reason why there is no gulf dividing non-moral knowledge from that which is truly moral. At any moment conceptions which once seemed to belong exclusively to the biological or physical realm may assume moral import. This will happen whenever they are discovered to have a bearing on the common good."[106]

In the second place, moral norms have a strictly natural foundation; they are products of psychobiological and socio-cultural evolution. Lastly, evolutionary standards of morality are trans-cultural in scope, in as much as they have their source and application in the common evolutionary heritage and aspirations of men in society.

Evolutionary ethical standards are founded on the general causal dynamics of human development, that is, with treating man and society from the perspective of progress. T. Kotarbinski, who notes a strong tendency in the current methodology of the humanities towards anti-evolutionism, summarizes well

what the evolutionary approach comprehends:

> ...full-fledged evolutionism includes...the following elements: it strives to offer genetic explanations of facts, to evaluate the course of events by the criteria of development progress, to inquire into the most general laws of development, without, however, rejecting the registration of partial regularities and various types of changes in the perfecting of human actions and human products.[107]

Furthermore, while my position is in part at variance with that of Julian Huxley (particularly regarding the latter's recourse to intrinsic values as evolutionary goals), I believe he has aptly characterized the basic principles on which an evolutionary ethic may be founded. In Huxley's words, these are as follows:

> ...that it is right to realize ever new possibilities in evolution, notably those which are valued for their own sake; that it is right both to respect human individuality and to encourage its fullest development; that it is right to construct a mechanism for further social evolution which shall satisfy these prior conditions as fully, efficiently, and rapidly as possible.[108]

Notwithstanding the generality of these formulations, they epitomize an ethical orientation founded squarely on the dynamics of progressive change, i.e., on the direction of human evolution.

Evolutionary standards require that our ethical goals be socially progressive. Both Julian Huxley and Jacob Bronowski have suggested, and for different reasons, the primacy of the individual over the state as consonant with an evolutionary perspective. Bronowski's position is based on the proposition that freedom is requisite in realizing new possibilities in evolution. Says Bronowski:

> Freedom is valued in a society only when the society wants to encourage dissent and to stimulate originality and independence. Freedom is therefore essential to a scientific society, a society in evolution. It is merely a nuisance, and is discouraged, in a static society. Yet freedom is the basic acknowledgment that the individual is more important than his society: and we see once again that science, in despite of its critics, prizes the individual as other systems do not.[109]

Thus, individual liberty, as manifested in the freedom of expression, belief, purpose, etc., is a fundamental condition of social progress.

From this conception of personal liberty, as the condition of human advancement, two important evolutionary principles may be said to follow. The first of which concerns the political orientation of the social organism itself: that it is not only ethically right to promote change and freedom of development, but that it should become an integral part of social planning to encourage diversification and change. Of course, as Huxley has noted, the form of social change is subject to certain qualifications, such as to rate and kind, the determination of whose optimal course is variable vis-a-vis circumstances (until such change becomes wasteful, destructive, etc.). The second principle is that of equal opportunity for development. As human individuality should be respected and encouraged, the provision for equal opportunity to realize potential abilities should be made a social and ethical priority.

The evolutionary approach to ethics, in proposing that progress is the desirable direction of change and is to be encouraged as a social and ethical goal, is committed to the greatest expression and possible development of everything that

increases our horizons of knowledge. In this regard, an Evolutionary ethic can be said to encourage more openness to experience in the individual and in society than the conservative framework of Christianity allows. Moreover, it is truly a humanitarian ethic; direct recourse to mankind's evolutionary history establishes ethics and moral values as natural instruments of human origin, development, and responsibility.

In closing, let me emphasize that the value of an evolutionary approach to ethics does not consist in the novelty of the standards which follow from such a perspective. Rather, it consists in providing the grounds for a universal ethic, that is, for a moral framework whose justification is not culturally relative, and whose standards coincide with the common humanitarian values found in virtually all the diverse cultural groups of the civilized world. It is an ethic projected towards inter-cultural exchange and integration. It substitutes, for the security of cultural isolation or of belonging to one particular 'in-group' as opposed to another, the security of a common understanding and conscious aim.

Evolutionary ethics offers an end to the dualism of science and ethics by proposing a means of creative synthesis. No longer treated as phenomena in isolated disjunction, ethics and science are perceived as different modalities of a common process of phyletic growth, whose convergence and conjunction is as manifest in their biogenetic origin as in the ultimate object to which both project: mankind's perpetuation and advance. As expressed by Teilhard de Chardin, evolution provides a unified perspective and coherent organization for all

varieties of men's knowledge:

> One after the other all the fields of human knowledge have been shaken and carried away by the same under-water current in the direction of the study of some development. Is evolution a theory, a system or a hypothesis? It is much more: it is a general condition to which all theories, all hypotheses, all systems must bow and which they must satisfy henceforward if they are to be thinkable and true. Evolution is a light illuminating all facts, a curve that all lines must follow.[110]

FOOTNOTES

CHAPTER ONE

[1]Charles Darwin, The Descent of Man (New York: The Humbolt Publishing Co., originally published 1871), p. 33.

[2]A.G.N. Flew, Evolutionary Ethics (New York: St. Martin's Press, 1967), p. 7.

[3]Charles Darwin, The Origin of Species (2 vols., 6th ed.; New York and London: D. Appleton and Company, 1931), I, 79.

[4]Ibid., I, 1959-60.

[5]Darwin, The Descent of Man, p. 43.

[6]Ibid., p. 45.

[7]Ibid., p. 315.

[8]Ibid., p. 316.

[9]Ibid., p. 53.

[10]Ibid., p. 315.

[11]Ibid., p. 65.

[12]Ibid., p. 68.

CHAPTER TWO

[13]T.H. Huxley and Julian Huxley, Evolution and Ethics (London: The Pilot Press Ltd., 1947), p. 17.

[14]Herbert Spencer, The Principles of Ethics (2 vols; New York: D. Appleton & Co., 1898), I, Part I, 7.

[15]Ibid., p. 20.

[16]Ibid., p. 25.

[17]George Edward Moore, Principia Ethica (Cambridge, England: The Syndics of the Cambridge University Press, 1956), p. 49.

[18]Spencer, The Principles of Ethics, I, Part I, pp. 27-28.

[19]Ibid., pp. 45-46.

[20]Ibid., p. 281.

[21]Jack Kaminsky, "Spencer, Herbert," Encyclopedia of Philosophy, VII, p. 526.

[22]Spencer, The Principles of Ethics, I, Part 2, p. 335.

[23]Ibid., pp. 337-38.

CHAPTER THREE

[24]T. H. Huxley and Julian Huxley, Evolution and Ethics, p. 39.

[25]Ibid., pp. 35-36.

[26]Ibid., p. 36.

[27]Ibid., p. 40.

[28]Ibid., p. 83.

[29]T.A. Goudge, "Huxley, Thomas Henry," Encyclopedia of Philosophy, IV, p. 103.

[30]T. H. Huxley and Julian Huxley, Evolution and Ethics, p. 49.

[31]Ibid., p. 51.

[32]Ibid., p. 57.

[33]Ibid., p. 81.

[34]Ibid., p. 82.

[35]Ibid., p. 51.

[36]Ibid., p. 52.

[37]Goudge, "Huxley, Thomas Henry," p. 103.

[38]T. H. Huxley and Julian Huxley, Evolution and Ethics, p. 67.

[39]Ibid., p. 82.

[40]Ibid., p. 82.

[41]Ibid., p. 80.

CHAPTER FOUR

[42]Moore, Principia Ethica, p. 36.

[43]Ibid., p. 8.

[44]Ibid., p. 58.

[45]Ibid., p. 40.

[46]Ibid., pp. 39-40.

[47]Ibid., p. 41

[48]Ibid., pp. 42-43.

[49]Ibid., p. 44.

[50]Kai Nielsen, "Ethics, History of," Encyclopedia of Philosophy, III, p. 101.

[51]Moore, Principia Ethica, p. 56.

[52]Ibid., p. 49.

[53]Ibid., pp. 53-54.

[54]Ibid., p. 57.

[55]Ibid., p. 57.

[56]Ibid., pp. 57-58.

CHAPTER FIVE

[57]T. H. Huxley and Julian Huxley, Evolution and Ethics, p. 142.

[58]Ibid., p. 106.

[59]Ibid., p. 107.

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[64]Ibid., p. 218.

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