Laval théologique et philosophique

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Volume 26, numéro 1, 1970

URI : https://id.erudit.org/iderudit/1020152ar DOI : https://doi.org/10.7202/1020152ar

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Éditeur(s)

Laval théologique et philosophique, Université Laval

ISSN 0023-9054 (imprimé) 1703-8804 (numérique)

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Citer cet article

Connell, R. J. (1970). A Defense of "Humanae Vitae". *Laval théologique et philosophique*, *26*(1), 57–87. https://doi.org/10.7202/1020152ar

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A DEFENSE OF "HUMANAE VITAE"

Richard J. CONNELL

I. THE PROBLEM

One can say with truth, it seems, that few encyclicals have been as badly received as *Humanae Vitae*. Objection to its teaching is widespread among priests and academicians, and there exists an even more widespread confusion among laymen about the value of its contents. These conditions are the main reason for the present essay, which is a defense of the doctrine contained in *Humanae Vitae*.

Our aim is to elaborate upon what *Humanae Vitae* presents, and to discuss its issues in a preparatory context. When a pope speaks in an encyclical letter he is under no obligation to give a fully developed exposition of the doctrine he teaches. His formal responsibility is to pass judgment upon the matter at hand, and this he could do even in the absence of supporting arguments. In practice the Popes seem to make it their policy to say only enough to frame the principal points they are presenting, so that the work of more extensive elaboration is left to teachers within the Church. Now because the issues discussed in the encyclical can be supported by natural arguments, they fall within the domain of philosophy; therefore we are not presumptuous in undertaking its defense. Beyond that we shall have to be judged by what we say.

The issue in question in *Humanae Vitae* bears upon a concrete human practice which is thickly wrapped in emotion, yet the principles which govern the practice are more abstract than those which regulate the prosaic affairs of daily life; hence, the task at hand presents some expository difficulties. The circumstances of our time make it necessary to argue the issue within a rather complete context of back-ground materials. This means the exposition must be somewhat extended.

The method we shall employ is one which we deem appropriate to the defense of a papal document; this means that these pages are not the proper place for a polemic against other professionals. But our intention to avoid being polemic does not suggest that we are seeking to escape the problems. On the contrary, the reader will discern that the major difficulties are confronted. He will also realize that our entire groundwork is empirical, and that we are arguing as though we presupposed little philosophical background in our readers. There is purpose in this : We cannot afford anything less than the maximum clarity possible on this delicate issue. We have dared to hope, too, that perhaps our efforts can reach some of the nonprofessionals; for that reason we have introduced some considerations more germane to them than the trained reader. We beg indulgence for this.

Finally, we wish to note that the natural argument presented here contains a fundamental element not yet — as far as we know — presented in the context of the present moral problem. We think it illumines, in a way appropriate to the times, the basic issues.

II. INTRODUCTORY DISTINCTIONS

A. Two Kinds of Activity

If we use the term "activity" in its broadest sense — to signify any movement, behavior, or operation whatsoever of living and non-living things alike — then we have a class, a category of thing that can be divided into two main subcategories, one of which is called "goal-directed", the other "random". An action belonging to the first of these two categories is characterized by the end-state or entity (thing) toward which it is oriented and which is, as we say, determinative of the action itself; whereas members of the second category are characterized by the absence of any such orientation toward a determinate end-state or entity. This difference is important, and therefore, our aim here is to elaborate upon the distinction between these two sorts of activity.¹

Egg-laying is a part of the reproductive process of birds, and it is ordinary for a particular species of bird to have a fairly well defined clutch number, which is important to the species in that it represents the number of offspring for which the parent(s) is able to care at one time. One is not surprised, then, to learn that clutch size plays a role in determining how long the laying continues. Normally, the female will produce until the appropriate number is attained, at which time the egg-laying ceases. Farmers have made use of this phenomenon for years, for they know that by gathering their eggs — thereby preventing the normal clutch number from being reached — they can keep the laying process going. In short, our point is this: actions of this type persist until the goal is reached; the end, therefore, is determinative of the action; the action exists for its goal.

¹ For a detailed discussion of goal-directed activities, see the Cambridge biologist, E. S. Russell, *The Directiveness of Organic Activities* (Cambridge University Press, 1949) I wish to make this first footnote, out of reasons of convenience, an occasion for thanking my colleagues, Thomas Sullivan and Father James Stromberg, for their very helpful criticisms of the initial draft of this essay. Intellectual pursuits are truly social in character.

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A similar relationship exists between other activities and their goals, and the production of red blood cells within the mamalian body is an example. If bleeding occurs, diminishing the number of red cells, the body immediately begins to produce them, continuing the production until the normal limits are reached. On the other hand, if a transfusion is made very quickly after the hemorrhage starts, little or no production of cells takes place; and, if more red cells are introduced than are needed, a destructive process, known as phagocytosis, brings the number within the established limits.

Perspiring is a process which comes and goes according to need, and it helps the body to maintain a constant temperature. Wounds occasion great activity on the part of cells in an injured organism. Undamaged cells divide, migrate, sometimes despecialize, etc., until the tissue is repaired, at which time restorative activity ceases. In these cases, too, action is obviously for the sake of the end-state.

Instinctive gross behavior observable in many animals also illustrates the class of goal-directed activities. The organized complexity of operations involved in nest building is an instance with which we are all familiar. The building operations persist until the nest is completed and only then do they terminate.

Countless other examples could be brought forward, but those above suffice to show the characteristics with which we are concerned; the exercise, the occurrences, the persistence of the actions themselves depend upon the absence of the end-state or entity which is to come about through the operations. On the other hand, as soon as the goal is realized the activity ceases. From these phenomena we readily understand that the goal is determinative of the activity and is responsible for it. This in turn allows us to say that the activity exists for the sake of the goal or end.

We can also see that where goal-directed activity occurs there must preexist in the organism an orientation, a pattern, a "program" by means of which the complex of activities is adapted or proportioned to achieving the end. Among other things, the notion of such a pattern includes the set of relations between the parts which make up the unit whole.

Natural actions are not the only ones to be goal-directed. Conscious human activities are also oriented toward a definite entity or end-state. When we act consciously we think about an object we wish to produce or some state or condition we wish to achieve, and then we do something in order to obtain what we thought about. To illustrate : Mental skills and the activities which they enable us to perform are the goal of education; health is the end of exercise; refreshment is the looked-for result of recreation; clothing is the goal of sewing, etc.² When it comes to explaining an action, a statement of the hoped-for goal is the most important reason we can give for it. If we ask a question such as, "Why did you go to the meeting?" the reply might be, "To learn about the proposed change in the law", or something similar. Of course, that about the goal which attracts us — the aspect we find appealing — is not always the same; moreover, the appeal of the goal or end-state is sometimes grounded on something of which we are not aware; never-

² Some activities which will not enter into our considerations here, are ends themselves.

theless, goals are directive of and essential to conscious human activity. But let us put aside conscious actions and return to those that are natural.

It is important to note that not all natural goal-directed activities are oriented to their ends in equal measure. The major physiological processes of the human body are rather closely regulated by a determinate end-state. For example, variations in the amount of perspiration depend upon a determinate body temperature. Elsewhere, however, things are different; and this we wish to elaborate.

To illustrate our point from the realm of art, let us take the act of shooting a waterfowl with a shotgun.³ The shotgun shell contains many pellets, and when the hunter aims the gun he intends that the pellets should strike the duck. Knowing that ducks are hard to shoot, he understands very well that he would be likely to miss were he to use but one bullet. A shotgun shell, however, sends out a broad pattern of pellets, several of which will strike the duck if the gun is well-aimed. Nevertheless, there is no pre-determined construction in the shell which establishes which pellet or pellets will strike the bird. As a group the pellets are goal-directed; but no one single pellet or pellets are earmarked beforehand as the specific ones to do the job. In short, the goal-direction does not extend beyond the collection to the individuals as such; they are subject to an indetermination.

A similar indetermination often occurs in nature. For instance, the production by a given plant of a large number of seeds is goal-directed in this way. Seeds are for reproduction, but a tree or other plant that produces thousands at a time (only some of which germinate) does not imprint a determinate pattern on a limited few enabling them to find their way to fertile ground. On the contrary, the goal-direction belongs to the seeds in a general way. They are for reproduction in a certain type of soil, etc., but their orientation does not extend in a determinate fashion to the individuals so as to relate them to a definite place at a definite time. Which seeds find favorable conditions is a matter of what we call (in one sense of the term) " chance ", a term that implies an indetermination in the seed producing process.

Even human reproduction is subject to this sort of chance. Countless sperm are deposited at one time during coitus; and when we were conceived, had it been some other sperm we would not have come into existence; someone else would have been born. Indeed, from a purely natural point of view each of us is a statistical improbability.

As one descends the scale of natural things, so to speak, from the physiological processes in higher mammals to activities and relationships in lower organisms and inanimate things, goal-direction becomes less perfect; which is to say that it becomes more indeterminate. Rainfall, for example, is useful to plants and animals; both classes of organisms contain species that are adapted to environments that have a greater or lesser amount of it. There is a definite relationship between the organism and the moisture in its environment, which one (who grants that God is ultimately the cause of things) can speak of as a goal-directed relationship. However, it is a relationship with a large indetermination (which makes the goal-direction

³ We were first introduced to this example and its application to goal-directed activities by the late Charles De Koninck.

hard to see), and an indication of this is the fact that we are not able to explain a particular shower at longitude x, latitude y, time z by saying that Farmer Mr. Jones' corn crop needed it. This may be true, but we do not account for the occurrence of the rainfall by invoking the need of the corn crop. The only explanation we give is a mechanical one, that is to say, one which is given in terms of temperatures, relative humidity, etc. Nevertheless, in general there is a correlation between the rainfall of the environment and the welfare of the biological species that dwell therein, and that relationship is due to nature. There are further illustrations of this, but the point, we think, is clear. In many instances goal-directed activities contain a certain indetermination which has nature as its cause, and therefore some element of chance, of the random, enters into them.

Purely random activity, on the other hand, is characterized by the absence of directedness altogether, and consequently it is defined as a lack of orientation to a determinate end-state or entity, a lack which is accompanied by an absence of a corresponding preexisting pattern or "program" through which the orientation is realized. Let us consider, now, this other category.

Random activities about which we have all heard are the movements of atoms and molecules that certain scientific theories assume in order to explain many things in the world. Random movements of such particles are the basis for statistical probabilities according to which scientists calculate certain likely distributions of events and entities. In human affairs, the mathematical probability that a seven will occur upon throwing a pair of dice is a calculation which presupposes the absence of any preexisting orientation in the dice to a particular kind of behavior; similarly, molecules of a gas do not have a preestablished pattern of movement within the gas as a whole; they can move in any direction about a point.

The growth of cancer cells is an example of random reproductive activity, for such cells do not come into existence on account of some bodily need. The proliferation does not cease at a determinate end-state; unlike their normal counterparts, cancer cells do not reproduce according to a definite pattern by means of which some special part or tissue is constructed.

In summary, the points of interest involved in the above distinctions between goal-directed and random activities are the following:

- 1) the end-state of goal-directed activity is determinative of, it is responsible for, the action which exists for its realization;
- there exists a built-in pattern or orientation according to which the directedness of the activity is realized;
- 3) there is an element of indetermination in many goal-directed activities;
- 4) purely random activities lack goal-orientation and a preexistent pattern.

B. Physical and Voluntary Actions

We have already talked about activities from the point of view of their being random or goal-directed; now we wish to discuss certain human operations from the point of view of how they are initiated. Although what follows is evident to all, we think it wise to include it here.

Two kinds of goal-directed, bodily activity occur within the human being: 1) those which are controlled voluntarily, and 2) those which are not subject to such control but issue from purely physical causes. The movement of one's legs is an example of the first; the flow of digestive enzymes in the stomach is an instance of the second. Obviously a large part of the human organism functions on the basis of physical causes, which are not *directly* subject to voluntary direction, and certainly we are fortunate that this is so. Were we encumbered with the need to regulate voluntarily all of our physiological activities, it is certain we could not survive.

The extent to which man is able to exercise control over his behavior greatly exceeds any similar capacity in non-human animals. Other species have entire patterns of actions which are adequate for what biologists call "the mode of living" established in them by their physical constitution. The ethologist speaks of behavior which arises from such genetically imprinted action patterns as " instinctive ". Even though non-human animals can often be conditioned, even though their behavior can be modified by appropriate techniques and, to some extent, by experience, the human species remains distinct in that its " occupational behavior ", so to speak, is not established by its constitution in the narrow way that it is in other animals. The "occupational behavior" of a beaver, a honey bee, a black bear, etc. is uniform, regular, having little important variation from one individual of the species to another. Beavers cut and strip trees, build dams and beaver houses; honey bees gather nectar and make honey, etc. What constitutes a "good life" for these animals is constant within the species. Neither do individual beavers, bees, or bears reject the pursuit of the "occupation" to which they are naturally oriented. There are very few, if any, genuine tramps or "goldbricks" in those animals whose mode of living is directed by instinctive patterns of activity.

Men, on the other hand, by reason of their intelligence and volition are open to a much greater variety in their "occupational behavior". The human mode of living varies from one individual to another in a way not possible for other animals. Obviously occupation is an important contributor to the variety of human behavior, and it is the reason we have used the term "occupational behavior". Man also differs in that he may refuse to undertake any set of "survival" actions at all; indeed there do exist human tramps, human "goldbricks". In man's capacity to choose from among many, in his ability to direct and to control in much broader measure his mode of living, lies his superior status. On this is founded his human dignity; this is what we call his freedom. In short, the dignity of the human person is based principally upon two things: 1) the voluntary, free, self-regulating, selfdirecting mode of behavior; 2) the goals toward which these actions can be oriented.

A further point. Each animal organism has its appropriate mode of living, and the survival of an organism depends upon how well it is adapted to its biological and physical environments. To this the human organism is no exception. As we have said, man has his own special mode of living, a voluntary one, whereby he directs through his intelligence the behavior appropriate to him. This capacity of self-direction extends to his emotions, his loves, his fears, his angers, his anxieties; it extends to all these things. Now emotions incline men to engage in or to avoid certain behavior. Anger excites them to speak sharply or to strike out, fear to run away, etc. Left by themselves, emotions are uncontrolled and disordered, and a prime responsibility of the ethical animal, as Waddington calls him, is to direct, regulate, moderate them. Man must always take stock of himself to see that his emotions are appropriate — not disproportionate — to the situation which gives rise to them. They cannot be excessive, yet they ought to be adequate for desirable behavior. In short, the voluntary mode of living is radical; that is, it extends to the emotions, which are roots of action.

It is important to note, however, the obvious fact that only the *use* of certain human powers is under voluntary direction. The natural operative capacities that we possess are determined in their character before we exercise them. (We do not cause them to be what they are, and for that reason we speak of them as given to us.) For example, we may apply the power of sight to this or that object, but we do not say whether we shall see with the eye or do something else with it. We can introduce meat or vegetables into the stomach, but once they are there we have nothing further to say about the digestive process. Again, human voluntary control extends only to the *use* of human powers. We can decide to apply them or not, but we are unable to determine what their functions shall be.

In summary, then, let us note the following evident points: there are two kinds of goal-directed bodily actions in men: 1) those subject to voluntary control; 2) those that stem from purely physical causes. Voluntary control extends to human emotions. The special dignity of man lies in the fact that he exercises a voluntary use, a voluntary control over not only his actions but their principles and the goals towards which they are oriented as well.

C. The Goal of Reproduction

In nature generally reproduction is for the benefit of the species, for the coming-into-existence of new individuals ensures its continuation. Similarly in the human animal. But the reproductive process is inadequately considered if one views its goal to be simply the birth of a new individual. The adults of other species do not abandon their young until they are ready to function by themselves; so, too, human parents are obliged to care for their children until they are reared, until such time as the children are equipped to direct their own lives. One could put the matter another way by saying that reproduction has two stages: 1) the process of biological generation (one part of which is coitus) that brings about the physical separation of the offspring from its parents; 2) the processes of development, from which ensue both a physical and a non-physical maturation. In short, the young adult is the goal of procreation. We wish to elaborate upon this statement.

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The responsibilities of parenthood cannot be defined apart from the goal at which parental activity aims. Giving children physical existence is the lesser part of being a father or mother. Existence is for activities; and consequently he who rears a child by making him capable of self-direction brings about that which is the principal goal of family life. Without the sound mental and moral formation which mature self-direction requires, the fullness of human existence is not realized; indeed, in such an absence it were better (for normal people) not to have lived at all.

One takes a sound position, therefore, when he insists that the quality of human life is what is most important in parenthood. However, as we suggested above, quality must be appropriately described; for its important determinants are not the physical assets and physical pleasures with which the affluent part of the modern world has become so familiar. Without doubt, properly used physical goods contribute importantly to human welfare; but the principal ingredients of a worthwhile human life are the interior traits of mind and will which enable men to do things and to do them well; in short, to live well in the moral sense of the term. As we have said, these alone make existence worth the pain.

The world of interior acts and habits is fundamental to human life, for even the value of external activities is derived from that which is within; hence, procreation is directed most of all to the production of a child with a high quality interior life. But there remains one aspect of this goal which as yet has not been treated, an aspect about which we can ask the question, "Is the right internal state of affairs primarily directed toward one's own well-being, or is its principal orientation toward the community ?"

D. Man's Social Nature

By his very constitution — his nature — man is dependent upon other human beings. He acquires his existence, his maintenance, his early training and education, from his parents; and together with them and his siblings he constitutes the family society. But men belong to other communal groups as well. They are, for example, parts of the civil community; and if we consider human natural well-being in its totality, we can readily see that it is dependent upon the civil society. No one family or individual can provide for itself the balance of food, clothing, shelter, education, medical care, services, and material instruments which in their apportioned and organized collection make up a good human life. A man can exist as a solitary entity if he is deposited on an uninhabited island; but with reason this sort of existence is not to be considered a good life. Men need other men. The well-being of each of us depends upon a complex process of exchange of goods and services. By means of concentrating on a specialty that we learn to do well, and by means of exchanging the fruits of our labor, we share in a large number of benefits that would not otherwise be accessible. A carpenter can exchange his skilled activities for foods, medical care, education, recreation, etc. In short, man, more than any other animal, is a social organism. This means that he is not independent in any important sense of the term. Men by nature are parts of a whole, and they are obliged

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to respect the other individuals to which they are related in the whole, especially those to whom they are proximate. The members of society must aid one another; each must be concerned with the welfare of the whole; each has obligations to the whole. In the absence of due concern for the common welfare society deteriorates and the lives of men along with it. The misconceived individualism which has been central to Western political attitudes for several hundred years has blinded Western men to many important aspects of their lives. The awareness of the obligation to do one's job well and honestly, for example, which derives from the fact that exchange is for the good of all the parties to the exchange (an obligation which does not allow one's efforts to be currupted by an inordinate desire for profit) has been eroded over time to the point where today society suffers seriously in many areas from a lack of awareness of that obligation.

The Church, too, is a society to which all men are called to belong; and through the ecclesiastical community men are enabled to achieve a goal that transcends the operational capacities of their nature — union with the Lord of the Universe Himself.

Hence, in order to describe more fully the goal of human reproduction, we wish to say the following: The end of procreation is a young adult with habits of mind and will which dispose him to seek primarily the welfare of the communities to which he belongs (and his own welfare through it) in preference to making his personal gain the principal aim of his life. As a famous baseball player once said, "What is good for the Brooklyn Dodgers is good for Jackie Robinson". This concern for the common good means that individual human beings must be occupied not only with the proper relationships among the occupational categories of men within the societies to which they belong, but also that they must recognize that the benefits they seek for the community as a whole are to be preferred according to the proper priorities which exist among the benefits themselves. Those which are for the sake of mind and will, and which for that reason are sharable without being consumed (as distinct from something like a banana, which can be shared only by dividing it) call for preference.

Let a term not be a source of confusion. "Common good" is used to signify two things: 1) the communal order which promotes the variety of activities necessary for a full human life; or 2) the benefit(s) obtained (through activities) which man can share without the benefit being diminished. The common good, therefore, is not something alien, something distinct, something separate from men themselves. Jackie Robinson's remark illustrates the fundamental truth: the common good is the greatest good of the individual himself.

E. Two Worlds

If we consider the entire collection of entities that constitute the world in which we live, we can separate them into two categories: 1) those that are artificial; 2) those that are natural. Automobiles, television sets, clothing, etc. are the sorts of things that make up the category of artifacts. All are objects that owe what they are to human intelligence and volition. Artificial objects are made by man for his own use, and therefore he has a mastery over them. On the basis of the projected use or function of an object, man establishes its character. In short, by determining what artificial things do man himself determines "what they are ". In accomplishing this he gives them whatever " nature " — we sometimes extend the term this way they can be said to have.

Now natural things are first (but not exclusively) defined negatively; that is, they are first of all entities which are *not* caused by human activity. Their functions and their constitutions occur independently of human causality, and this is part of the meaning of "nature" and "natural" when they are applied to functions, entities, and constitutions. Of course, men sometimes facilitate natural processes by means of artificially supplied conditions which allow the natural activities to occur, as when someone puts chemical reagents in a test tube and applies a heat source to them. The juxtaposition of reagents is the result of human causality, and to that extent the process is artificial. The reaction itself, however, comes about through something intrinsic which the reagents (and the heat) possess independently of human agencies; and therefore it is rightly said to be natural. If "artificial" is used in connexion with processes such as these, it has a different, secondary meaning.

There exist whole categories of materials — plastics, for example — which are artificial in the limited sense described immediately above. Plastics are materials which ordinarily do not occur without the intervention of human causes. To illustrate: A plastic spoon has an artificial shape, but its stuff results from natural chemical reactions facilitated by human agencies. Thus, materials such as these are properly natural because they owe their character to the natural properties which are responsible for the chemical reactions which bring them about. It is also true that materials of this kind are of human interest by reason of the artificial things that are made from them, which things are artificial in the full sense of the term.

It is, of course, plain that man's relation to the two categories of entities is different. The artificial things he makes constitute a class to which he himself does not belong. Man is not an artificial object; he is outside the entire realm and stands in relation to it as its producer and its purpose. Man is, as it were, a kind of god in relation to the world of artifacts.

But man's relation to natural things (at times we shall use "nature" to signify this whole world — the context will tell when) is quite different. Man does not make the world of nature; rather he himself is one of the natural entities that are made. Nor does he stand in relation to the category as an outside agent; Artificial things receive their "nature" from man — natural things do not. Man does not determine either the functions or the constitution of the works of nature. He is lord of the realm only by reason of being its principal citizen and by reason of using the other citizens for his own benefit. Because man regularly uses other natural species, animate and inanimate alike, for all his needs, and because no other biological species regularly uses man for its food, clothing, instruction, etc., man does indeed have dominion over nature. His dominion, however, is limited; for as we have already noted, man is not nature's cause. The requirements of the well-being of what biologists call the "ecological community", requirements which are imposed from an agency outside man, limit his domination over the world of nature.

Biology teaches that man is a part of a community of organisms, a community of biological species, which, together with the surrounding environment of inanimate things, constitute a structured, organized system which requires to be considered as a whole if one is to understand in a full way the biological aspects of human life. This organized community, which bears a limited analogy to the organized human body, is what has come to be called the "ecological community", the "ecosystem", and like any other system or community it depends upon certain relationships among its parts. Ecologists are constantly understanding in more detail just how the biological species depend upon one another. A field, a forest, a pond is not just a grass covered piece of earth, a collection of trees, an impoundment of water; rather, a field is a community of plants, bacteria, insects, etc., which depend upon one another and which together are dynamically stable by reason of their interactions with each other and with the elements of the environment. Similarly, a pond is a body of water housing a variety of organisms living in mutual interdependence; so, too, the forest. Indeed, the entire planet is one community.

For the sake of establishing this point more solidly, we shall let an ecologist speak for us:

"... No animal or plant lives as a completely isolated individual. When groups of the same species are formed new effects appear... The interdependencies resulting from an aggregation of individuals of the same species may become very complex,... When several species of plants and animals are present, as is usual in a natural community, still further complications arise... widely varying combinations of plants and animals coexist in the many different habitats of the world. It is found that certain species live together in mutual adjustment, and these are spoken of as a natural community." 4

Further on the author speaks even more clearly:

"As ecology developed, it came to be realized that the animals of an area do not constitute a community entirely distinct from the plants of that area. It is true that in some situations, as for example in the desert, the interrelations between the animals and the plants may be less critical than the dependence of both upon the physical factors of the environment. Nevertheless, because of the fundamental dependence of animals upon green plants and the influence commonly effective in the reverse direction, the plants and the animals should be considered as one integrated community." 5

Man belongs to the world of nature as to a part of an *integrated community*; hence, an inborn tendency to love it can be expected of him. To love himself properly, he must first love the whole.

⁴ George L. Clarke, *Elements of Ecology* (New York: John Wiley & Sons, Inc., 1954), pp. 14-15.

⁵ Ibid.

Biologists speak of the self-maintenance of the complex of physiological activities within the human body by means of regulating mechanisms as "homeostasis". There is an analogy to this in the ecological community; for the whole structure tends to be actively self-maintaining and self-regulating. The ecosystem tends, in other words, to be "homeostatic", which means that certain properties of the whole incline to be stable, even in the midst of fluctuations of the parts. For example,

"... the rate of photosynthesis of a whole forest or a whole corn field may be less variable than that of the individual trees or corn plants within the communities, because when one individual or species slows down, another may speed up in a compensatory manner." ⁶

Or, as our other author says :

"The community, which Sears aptly refers to as "the living landscape", maintains itself as a working unit with all the necessary exchanges going on, more or less in balance, but in a dynamic and not a static balance... Modery ecology might thus be thought of as the "physiology" of the ecological complex in the sense that it deals with the functional aspects of the interactions, exchanges, and adjustments of the members of the community and of their environment." 7

Because man's biological well-being depends upon his relationship to other species, not merely as providers of food and raw materials but as functioning entities without which he cannot survive, he must have a concern for their continued existence. If together he and they constitute an integrated system, he cannot set himself over against them; he cannot exploit or devastate the community or its members; he can only use them within proper limits. Man's proper role is to complete and adorn the world of nature. He must seek to discover more and more precisely the character of the biotic community to which he belongs, and he must try to preserve the activities and the relationships which are entrained within it. Man cannot redo the biological world; he cannot redo nature; rather, he must take it as it is and come to terms with it, conducting himself in accord with the demands it makes.

But some may argue that the biologists can redo nature — at least they will be able to — on the grounds that control of genetic patterns is not beyond present technical capacities. Yet were biologists to successfully change the genetic structure of a frog, say, they would be obliged to take into account *all* the ecological relationships that belong to the organism. The experimenters would be required — before turning loose a new variety to propagate by itself — to understand how the organism would function as a part of the ecological community, especially insofar as that community realizes, as a principal effect, the well-being of the human organism.

The disorders which result when men ignore the requirements imposed on them by nature are, in some measure, known to most of us by reason of the publicity which has been given in recent years to the pollution problems that have appeared in so many parts of the world. It might be useful, however, to have in hand some

⁶ Eugene P. Odum, Ecology (Modern Biology series, New York: Holt Rinehart and Winston, 1963), p. 4.

⁷ Clarke, p. 18.

instances of what happens when man ignores the relationships in the natural community. The first example is of an improper use of insecticides, and we have taken it from an article which deals with the resistance which "pests" develop to insecticides used against them.

"During the interim period where the deterioration in control is combatted by an increase in the dosage or frequency of the original insecticide application, the possible ecological consequences on desirable species will obviously be aggravated. An example of such a development is the control of the gnat, *Chaoborus Ostictopus* in Clear Lake, California. The insecticide employed was DDD, because it involved far less hazard to fish than DDT. It was found necessary to apply insecticide every year instead of every three years, as originally expected, and control operations were finally discontinued in face of greater gnat populations than before. The death from unknown causes of hundreds of grebes (*Colymbidae*) which visited the Lake in winter was associated with the discovery of a large accumulation of DDD metabolites in the tissues of fish and grebes." ⁸

Another illustration, this time more familiar:

"Because of a lack of understanding of ecological principles, the efforts of well-intentioned conservationists and agriculturalists are frequently badly misdirected. A story is told of certain sheep ranchers who became convinced that coyotes were robbing them of their young sheep. As a result, the community rose up and by every possible means slaughtered all the coyotes that could be located for miles around. Following the destruction of the coyotes, the rabbits, field mice, and other small rodents of the region increased tremendously and made serious inroads upon the grass of the pastures. When this development was realized, the sheep men executed an about face, abruptly stopped killing the coyotes, and instituted an elaborate program for the poisoning of the rodents. The coyotes filtered in from surrounding areas and multiplied, but finding their natural rodent food now scarce, they were forced to turn to the young sheep as their only available food supply!" 9

Indeed, the human race must remember its condition; its interventions in the realm of nature must be cautious and illumined by more than a superficial knowledge of the relationships that exist between man, plants, animals, and the environment.

III. THE CENTRAL ISSUE

A. The Regulation of Births

The regulation of human births has become an important issue since the end of World War II. The rapid increase in populations everywhere, especially in many poorly-developed countries, has thrust the birth problem upon the consciousness of

⁸ A. W. A. Brown, "Ecological Consequences of the Development of Resistance", in Symposium: International Union for the Conservation of Nature and Natural Resources, ed. D. J. Kuenen (Leiden: E. J. Brill, 1961)

⁹ Clarke, p. 19.

man in a way he has not seen before. Malthus' gloomy considerations were all abstract, whereas the present problems are quite concrete; and they are what have given rise to new controversies over contraception.

In the non-human world of nature, births are regulated. In a natural ecological community populations of a species increase and decline, but ordinarily this occurs within limits. Factors external (to the species), along with phenomena such as marking out a territory, keep populations within limits. When there are too many individuals the food supply becomes inadequate and populations drop. If the species is the natural prey of some other animal, the latter tends to become more abundant and acts as a check against further population expansion. Individuals may appropriate to themselves certain areas of the habitat. Temperature variations, rainfall, etc., are also agencies that help control animal and plant communities. In short, within limits, populations of a given species in an ecological community are controlled; they are kept by nature within ranges that the ecological community can tolerate.

This control is exercised not only over individuals within a species, but over the species themselves. There is a limit to the number of what the ecologists call "niches" within the system, and hence there is a limit to the number of species that can be a part of the community. The limits are not highly rigid, of course, but they do exist. Briefly, then, the control of population is a normal part of the functioning of the biological community.¹⁰

It is plain that human births, too, must be subject to some sort of control. Neither the community nor the individual exercises reasonable judgment if he decides to have as many children as the generative processes can produce, this for its own sake. Such a view ignores the ultimate goal of procreation, namely the mature adult capable of directing his own behavior. Reproduction, it is true, is judged to be excessive from the point of view of how many children the family and the community can bring to maturity, but what is often not understood is that the excess must first and most fundamentally be defined from the point of view of the biological community as a whole. It is possible in principle to be faced with human populations so large that the ecosystem deteriorates to the extent that human wellbeing suffers seriously. And, in this connection it is necessary to add that the biological community is a benefit to man not only from the point of view of providing food, clothing, and raw materials for manufacture; it is even more necessary for the instruction and formation of his mind, and this is by far its greatest human value. The instruction of the human mind is sufficient reason in itself for the world of nature to exist. Indeed it is its primary justification; for in the realm of nature, too, man is most of all a contemplative animal. Consequently, we need to take care that the ecosystem is preserved in adequate measure to fulfill its instructional functions. Often the ordinary man's participation in such benefits is spoken of as recreational, because the instructional value of nature need not be realized in a formal or systematic way. A meditative hike through the woods, an observant

¹⁰ See Charles Elton, The Ecology of Animals (London: Methusen & Co. Ltd., 1953) especially chapters V and VI. There are also more extensive, later works on this topic.

climb over a mountain, a trip by canoe — none of these is *only* a physical benefit. On the contrary, they are mental as well, despite the fact that one might be hard pressed to single out exactly what he learns from them.

It is very easy, of course, to abuse the above notions, because at present we do not have clear ideas about population limits from the point of view of preserving the biological community. Pessimistic judgments about what constitutes too large a human population could be put forward by selfish people who simply want things all to themselves. Nevertheless, at the moment we are concerned not with a concrete problem but with a principle, and in principle it is necessary to realize that, from the point of view of the ecosystem as a whole, human populations could become so large at to destroy or irreparably damage the community and in so doing bring serious harm to the race of men itself. But let us turn back now to a more central issue.

The principal question is not whether human births should be subject to regulation, but how. There is a difference. Not all activities that have the same goal are morally equivalent. Restricting marriages and infanticide can both be used to control populations. Also we hear it said that rhythm is no different from contraception because its goal is the same, but the conclusion does not follow. Only if the end alone justified the means would the conclusion be warranted. But since the means, too, are important, we must discuss them.

B. Morals and the Production of Artifacts

The moral relationship of man to the artificial things nature does not make is not the same as it is in those things and processes which subserve nature. An artificial entity, we have noted, receives its character from man himself. Artifacts are produced by imposing a form or structure conceived in the human mind upon materials that are already there. In general these materials are for man's use; hence it is good that he employ them. The only question is whether the available materials are usefull for the objects for which they are intended. In short, there are no special moral problems in the production of artifacts, for none of the ordinary mechanical processes or objets are morally good or bad. (We do not include in this discussion arts such as literature, theater, opera, ballet, etc.) Again, although the use of artifacts is clearly open to being moral or immoral, the productive activity itself is separate from the use and implies neither moral order nor disorder. The situation is not the same in the realm of those arts which are therapeutic; here the relationship is different, and to this we now turn our attention.

C. The Relationship of Human Therapeutic Arts to Natural Entities and Processes

In all activities, both voluntary and natural, maladies occur which require the intervention of human causes for their remedy. In the human body their presence occasions the ministrations of a physician, who, although engaging in curative actions, is subject to limitations; for no one will knowingly permit himself to be the object of caprice. The limitations to which a physician is subject can be generally described as follows: Physiological activities or bodily functions are defective, either by reason of excess or insufficiency, or by reason of the presence of foreign, destructive substances of either a chemical or biological character. A gland supplying hormones, for example, may produce too much or too little. If the latter happens, the physician seeks to stimulate or substitute for the production; if the former, he attemps to inhibit it, or at least to counteract the excess; and if a destructive foreign substance is present he seeks to remove it or offset its effect. It goes without saying that medical art may not deliberately mutilate or poison a healthy and normally operating organ, and in general, that is the way medicine actually functions; and what is fundamental here is that medicine takes as a starting point a norm or standard which is established by investigation into what nature does. In other words, that which is normal or healthy and, therefore, beneficial or good is determined by nature; this is what sets limits to therapy. What is naturally beneficial and good in the human body does not depend upon, and is not the result of, human causality.

We wish to emphasize the fact that in this relationship between medical art and nature there are some evident moral principles implied. If we take as our notion of the moral that which benefits (is good for) the human individual, singly or in community, then it is clear that to stimulate or inhibit beyond normal limits, to injure, poison, or remove a healthy, normally functioning bodily part is immoral; for we all appreciate that properly functioning organs are beneficial to us. In short, the physician cannot morally interfere with a healthy organ. Few would deny that it is bad to remove a good arm, to stop a normal thyroid from secreting, to inhibit a normal pancreas, to impede the functioning of healthy lungs, heart, liver, etc. No matter what the part, an action of the physician is immoral if it moves the functioning of the part outside its normal limits. On the other hand, since a diseased part of the body threatens the existence of the whole, the body benefits from the removal of the afflicted part; and this is clearly licit. Similarly, men gain from the stimulation of an insufficiently active organ, and they profit from the inhibition of one that is overactive. All of this implies that what is natural is beneficial or good. The normal function is good; deviation is bad. Clearly, then, a therapeutic art subserves nature and is regulated by it. Therapy is obliged to seek as its goal a right functioning that is given in the thing itself independently of human causes. These are not new moral principles; they are old as the systematic treatment of ethical problems.

However, a point of some importance that does not seem to be clearly recognized at present, and one which we consider to be the main contribution of this essay, is that the moral directives under which the physician operates are but particular, albeit analogical applications of more general principles which bear upon man's relation to the whole of nature. To repeat: the application of the above principles to medecine is a particularization of very general moral directives which govern how man should act in relation to the ecological community as a whole. Let us look at these.

Whenever we can reasonably establish that something is harmful to the ecosystem as a whole, we discover that the harm is due to the introduction of some foreign physical or biological element, to some excess in the activities or the production of species in the system, or to a corresponding insufficiency. These occur either through natural calamities, exploitation, or by human pollution of the environment. Here, too, therapeutic actions may be taken to cure the malady; but again, if one is to act morally, he must limit his action to counteracting the excess, deficiency, or foreign element that is present. What is either clearly beneficial or not evidently harmful (we still suffer from great ignorance) one may not wantonly destroy. The human agent may reduce excess populations, and he may stimulate and protect underpopulated species; but except on those occasions when a species of organism constitutes an element foreign to some part of the community, he is not entitled to destroy it.

Also, it is clear that where disorders can reasonably be expected to be rectified (without new effects that are as bad, or worse) by the introduction of new biological species (as, for example, in cases of biological control of pests), this is morally justified, and, in a way, comparable to the techniques of artificial repair in the human body.

Or course, ecology is still young, and our knowledge imperfect; so the application of therapeutic techniques must be made cautiously. Nevertheless, the general principle obtains. Excessive killings of certain animal species, immoderate use of pesticides, deliberate pollution of water and air supplies are morally reprehensible and analogous to the deliberate mutilation, injury, or poisoning of bodily organs.

Even in affairs such as weather control men are subject to moral regulation. In a general way rainfall is beneficial to plants and animals, but this does not mean that every thunderstorm is good; on the contrary, there are excesses and defects here too, although the dividing points between the normal, on one hand, and the excessive and insufficient, on the other, are not precisely fixed. Yet, if one attempts, for example, to control the weather by seeding clouds, he must take pains not to make too much rainfall for the area affected. He must also exercise precautions to see that in providing moisture for one area he does not deprive another of that which it requires. Foreknowledge of such a result would make the cloud-seeding action immoral.

To pollute with full knowledge of what one is doing to the ecosystem is clearly immoral. The deliberate infliction of injury upon the body is immoral; so, too, the deliberate and willful introduction into the ecosystem of either harmful materials or materials whose probable effects are not known is immoral. Man may no more introduce disorber into the biological community as a whole than into the physical body of an organism. The general attitude of man toward nature, whether his own body or nature entirely, must be one. The biotic community is not ours to do with as we please, despite the fact that man has a certain dominion over it. He cannot do to nature what he can do to the world of artificial things he himself causes.

In connection with our point about the introduction of foreign elements into a living entity, we wish to note an important, although obvious, point: The use of dead or weakened organisms — or anything else with a similar effect — to produce immunity to disease (without damaging natural functions) clearly benefits the organism. Furthermore, the means employed is one which stimulates, one which "catalyzes" the production of antibodies, and it is therefore a process which subserves nature; it promotes or stimulates a natural function of the organism. Plainly the use of foreign elements in this way is morally legitimate.

Perhaps, too, we should emphasize that "immoral" is a term that can be applied to human activity according to an extended hierarchy of "degrees". Some things are immoral but nearly trivial, as, for example, if one were to take a grape from another man's vineyard. In this case, the amount of another man's property which is "stolen" is so small that one cannot really impute significant immorality. However, other activities can be morally deadly in the sense that their commission (or omission) subjects the moral life of the man responsible for them to a profound, radical disorientation. Thus in order to avoid seeing problems disproportionately, one must be especially conscious of the variation in "degrees" when he considers the harmfull things that are done to the ecological community. In many instances, too, the doings of the past occurred because of ignorance.

Also practices and habits of long duration sometime produce situations where one is obliged to tolerate — for a time — conditions that are harmful, with a view to gradually ameliorating the disorder over an extended period. This, we think, everyone will appreciate.

Thus, whether one speaks of therapy with regard to the body or the community of biota, the regulatory principle is the same. What is diseased may be removed; what is insufficient may be stimulated; what is excessive may be inhibited; what is foreign may be removed; where something is absent substitutions may be made for it. Beyond such limits our actions become immoral. Therapy requires preliminary investigation; we cannot act responsibly in a state of ignorance, and it matters not whether we speak of human or ecological therapy. In short, the ecological relations established between man, other biological organisms, and the environment — relations which are beneficial to the whole — are not of a kind that are produced by human art; on the contrary, they are discovered by science. To repeat, what is beneficial or good must be discovered, because what is natural is good *independently of and antecedent to human activity*. From this it follows that corrective operations are limited to the foreign and the deficient. In this respect the human body and the ecosystem are alike.

We should perhaps note that the therapeutic arts provide areas where "changes in morality" occur in the sense that new discoveries affect therapy and, therefore, the *applications* of moral principles. In times past medical art, by reason of an inadequate biology, bled people for some ordinary maladies; and in so doing the physician acted morally. However, a modern therapist who did the same thing would be guilty of immoral behavior.

D. The Moral Issue in Contraception

The use of the human procreative powers is subject to voluntary control, for coitus is an activity in which men consciously and willfully engage. In addition, the use of such operational capacities ought to be in accord with the goals which they are given by nature; yet as long as one recognizes these conditions, to regulate births by voluntary means in view of a family size commensurate with the goal of reproduction lies within a man's moral province.

However, the use of medications which alter the physiological processes of the ovulatory cycle in a healthy organ or which inhibit the production of sperm by healthy parts is not morally licit. As in all other cases, medications may be used morally only to stimulate processes that are insufficent, or to inhibit those that are excessive. They could, for example, be used to stimulate an inadequate production of sperm or inhibit — if such occurs — an overly active mechanism. Similarly, medicines can be used to correct defective parts of an oestrous cycle. But one may not morally introduce a medication to stimulate or inhibit — to disrupt — what is already healthy; such a use of medicines is immoral.

The employment of mechanical or chemical contraceptive devices (their use is not a medical question, but it is related to the same principles) also introduces a disorder into the human mode of operation. People who employ them are attempting to exercise the activity but at the same time to prevent the realization of the goal toward which the activity is naturally — by its constitution — directed. Because the organ exists for its function, the use of these means is morally equivalent to temporarily damaging the part for the sake of inhibiting its operation. Clearly, damage to a part is bad because of the ensuing interference with the function. Consequently, to interpose a mechanical device for the sake of interferring with the normal deposit of sperm is, as we said, morally equivalent to doing temporary damage to the part at the same time that its operation is sought; the act is, therefore, immoral. One must constantly keep in mind that human art may treat what is defective, but it may not disrupt what is biologically normal as this is determined by nature.

We must digress to consider an objection. Everyone is familiar with the kind of damage that is sometimes done to the body by medications which have side effects outside their therapeutic aims and with the injury done by a surgeon who must excise some, or make incisions in, healthy skin, muscle, bone, or other tissues in order to perform his task. But does it not seem that in these instances medicinal or surgical injury is tolerated in view of another benefit ?

The reply to this question must take note of two things. First, in many cases the injury to organs or tissues is temporary and of a minor nature; it does not seriously or permanently interfere with the functions of the afflicted part, and for that reason an *analogous* comparison can be made to the "stolen" grape. Furthermore, while we are recovering from this minor damage, we *do not* use the periods of disability as special times for exercising the organs involved; we do not seek the temporary damage as a special means, as a deliberate occasion for using the part in question, which is precisely what does happen when the aim is to prevent conception by medicinal, mechanical, or chemical means.

The second point bears on another matter. In connection with possible exceptions to the instances of minor damage, whatever they may be, a theoretical difficulty can be raised about an abstract contingency wherein one might be faced with alternatives which require choosing between serious damage leading to loss of function (or perhaps death of the person) in one part, or saving the function (the life) by means of sacrificing a healthy organ. But what this really means is hard to see. As a minimum one can note that the function to be saved by destroying the healthy part would have to be naturally preferred to the one sacrificed. But — to choose an extreme example — can we really be faced with, say, an alternative such as giving up a kidney to save the power of sight? An " instance " such as this is not very real. In the normal body there is enough physical separation of parts to grant the surgeon access without having to inflict irreparable damage upon the functions of healthy organs.

To come closer to the real world with a modified issue, surgeons do, as many know, occasionally use the saphenous vein to repair an artery; but this is certainly not mutilation in any ordinary sense. To transplant a vein within the body is not to destroy its function but to give it a new and more important one. To be sure, the saphena does not perform its former function, but in this connection it is germane to note that the saphena is described as a superficial, non-essential vein. It might be regarded, perhaps, as a "spare part". Certainly its removal does not seriously interfere with the veinous return system.

Although the morality of transplants is a complex affair, a few basic points similar to those above can be made. When an organ is taken from one living body and put into another, it is certainly clear that the transplanted organ's function is not destroyed but relocated; at least, this is the expectation. (If success is not likely, the operation is illicit.) Consequently, by means of the relocation the donor shares, so to speak, his physical existence with another human being by reason of making possible the continuance of the ill person's life. This is a clear gain, an easily recognized contribution to the welfare of another. But again, the goal which is sought is the relocated functioning of the organ, not the partial impairment of the donor's physiology. On the other hand, it is equally clear that a transplant cannot morally be done if it renders the function non-existent in the donor. A man with only one kidney would not be justified in giving his to someone else.

To an extent nature has provided the body with "back up systems", so that in some instances parts can be donated without serious interference in the functioning of the system affected. However, one must exercise great care in making judgments about affairs such as these. Some instances which do not involve transplants need consideration. A surgeon who inhibits growth in a normal leg so that its length does not greatly exceed that of the other one which has been affected by polio, say, does so because he views the growth in the longer leg to be, under the circumstances, excessive. Two shorter legs of equal measurement (two legs make up the normal organ of movement), are better for walking than one short and one long one. The surgical interference clearly facilitates the natural function.

At times when surgeons have removed a normal pituitary gland, in whole or in part, for the sake of controlling a cancer that had spread throughout an important segment of the body, they did so because in the circumstances the stimulating effect of the gland had become excessive. Its otherwise normal function, by reason of the metastasized carcinoma, had become excessive and a directly contributing cause of the cancer itself. In short, the gland was viewed - whether rightly or wrongly is not at issue — as a positive threat to the continued existence of the body. The principle under which such surgery was performed has been admitted for centuries, and it was introduced into our earlier considerations. When a part is diseased or in some way afflicted to as to constitute thereby a danger to the patient, it may be removed. Such a part has acquired a new causal relation with regard to the rest of the body; it has taken on the character of a destructive agent which acts against the organism; hence, it may be removed precisely because of that new character. To repeat: that which is removed is a threat to the continued existence of the patient; this is the basis for all prophylactic surgery. Even when the surgeon excises, for example, harmless moles or lesions, he does so because he thinks there is a reasonable proximate danger of their becoming a threat to his patient. He applies the principle enunciated. In none of these cases is destruction or damage an end in itself. However, as one surgeon, speaking of the sexual faculties, said to us: "There is no other organ that is purposely destroyed." In view of the general practice, this one case stands condemned.

Having finished the digression we may come back to the point of this section, the immorality of contraception. We wish to note that emphasis has been given to the fact that the immediate goal toward which coitus — as a part of the generative process — is oriented is the depositing of sperm in some proximity to the ovum, a proximity sufficient to make fertilization somewhat indeterminate but possible. The evidence which shows that this is the term for which the act exists is the same as for any natural operation: the activity of coitus terminates once the sperm is deposited. Therefore, the use of devices or chemicals to prevent the achievement of the end-state toward which the natural power is directed before it ever exercises its activity is to interfere with a relation of a function to the goal that is determinative of it.

E. Pleasure and Activity

It is said by those who advocate contraception that one of the ends of marriage which has equal status with procreation is the mutual love relation between husband

and wife, a relation which is founded on sexual activity. From this its advocates wish to argue that because contraceptive devices and medicines promote marital love, they can be legitimately used in the regulation of births.

We are not about to deny that sexual intercourse contributes to the well-being of husband and wife. Even those who hold that it is not the chief good of married life will admit that a successfull marriage does not ordinarily occur in the absence of satisfactory sexual relationships. But the point at issue here is the status of the love relation between husband and wife as a goal which one is asked to compare with the generation of children.

Although the love of husband and wife that is deepened by sexual relations cannot be wholly identified with the physical pleasure that accompanies coitus, nevertheless it is difficult to imagine that the race would survive without that pleasure as an incentive. Though not the whole of marital love, sexual intercourse is an essential part of it. Very appropriately, then, we may consider the relation of pleasure to its activity.

A modern author has written at some length about the importance of pleasure for the performance of activities. In connection with eating he notes that the pleasures "serve a profound purpose". The body needs the nutrients and calories that food supplies, but, "... if your cook served you merely a mixture of these substances, even though they are very important *per se*, you would be highly indignant".¹¹ The reason, of course, is that the immediate motive, which elicits the activity of eating, is the pleasure attached to it; indeed, pleasure has further effects upon the nutritional operations:

"The smell or sight of a tasty dish makes the saliva gather in one's mouth. This is a useful process; the saliva not only helps your food slide down your throat faster, but contains a ferment that is important in the digestion of all farineceous substances. The great Russian scientist Ivan Pavlov demonstrated further that the stomach begins to secrete the important gastric juice with added enthusiasm when the food tastes or looks good. This is the famous 'appetitive gastric juice', the bridge across the gap between man's sensory pleasure and the processes that take place, unknown to him, deep within. The better a food tastes, the better it is digested, because of the abundant flow of the appetitive gastric juice. This is an example of the physiological effect of sensory pleasure, measurable in conformity with the strictest scientific methods." 12

The author's point is clear: Pleasure is the motive for performing activities that involve a great many things we do not and need not understand in order to attain the biological goal by voluntary direction. So clear in the author's mind is the relation between pleasure and eating that he speaks of "the physiological effects of sensory pleasure". In his mind the activity of eating is an effect of which pleasure is the cause.

¹¹ Wolfgang von Buddenbrock, The Senses (Ann Arbor: University of Michigan Press, 1958), p. 46.

¹² Ibid.

He has more to say that is of interest:

"When a child refuses to swallow a dose of vile-tasting cod-liver oil, his mother will bribe him with the promise of a piece of chocolate. Although the child knows nothing about vitamins and their beneficial effect, he will swallow the medicine simply to get the delicious bit of chocolate. This is not a mystery to anybody, but very few of us realize that our daily lives are a part of the same pattern. Just as mother guides her unreasoning child by offering him a reward, so does Nature guide us, who regard ourselves as intelligent. A normal person, for instance, eats because he likes the taste of his food and because he is hungry. The fact that the food contains a certain number of calories and vitamins was still completely unknown a mere hundred years ago, but few people starved to death from refusing to eat. We do not act for the sake of the physiological effect ; in this respect we are no smarter than the child who swallows the cod-liver oil simply to get the chocolate." ¹³

Pleasure is a guide, a motive, an attractive adornment of an operation which moves us to perform biologically important operations. The author has made his point abundantly plain. Moreover, he has not overlooked the relation of pleasure to reproduction:

"The higher forms of life, and possibly the lower ones as well, would have become extinct a long time ago if it were not for the pleasures of love — which are thus more important than anything reason is able to produce." 14

Reproduction would not occur without the motivation provided by pleasure. Certainly it is more efficacious in this respect than a purely intellectual appreciation of the importance of procreation of the species; yet the pleasure itself is subordinate to the operation. In the viewpoint of the above author, the *operation* is the *effect* to which pleasure is directed.

As a summary of the points he has made von Buddenbrock offers the following lines:

"While pleasurable sensations are the most powerful motives that make human beings and animals perform biologically important acts, the unpleasurable ones are designed by Nature to deter unreasoning creatures from doing things that could result in harm to them."¹⁵

In sum, to perform activities that are important for our welfare and to avoid those that are damaging, we do not need an exhaustive understanding of their character; pleasure and displeasure suffice to move us to perform or to avoid them. All that is required of the mind is a general recognition of the purposes the pleasures subserve. Now there is nothing new in this position; it has been understood for years. Indeed, it is a part of our common knowledge.

¹³ Ibid.

¹⁴ Ibid., p. 48.

¹⁵ Ibid., p. 49.

Every one is familiar with the slogan, "We eat to live, not live to eat". The slogan sums up the relation that exists between pleasure and activity. Pleasure, we understand, facilitates activity; displeasure prevents it. A man who lives to eat we regard as immoral, as a glutton, and clearly his immorality consists in his making the pleasure of eating the goal in place of the operation itself. We have a similar view of the man who abuses the pleasures of drinking. In such cases the relation of priority between pleasure and act has been ruptured.

Consider what else we must admit if we attempt to justify contraception by the claim that activity can be for pleasure or the love that it is integral to. If this were the case, then self-abuse would be legitimate, together with homosexuality and unnatural relations with animals; for in all these instances the activities are accompanied by pleasure. Does the bond established in a homosexual relation justify the use of sexual organs? On the other hand, if we find perversions reprehensible, then it can only be because the indulged-in pleasures are not subordinated to the operations for which they are intended. Is there really any doubt that " mutual love " cannot be regarded as pursuable under such circumstances? What seems to be forgotten is that marital love is not a goal altogether independent and separate from the rearing of children; on the contrary, love cannot be defined apart from parenthood.

Of course the relationship which exists between pleasure and activity does not mean that when the mind and will initiate a biological operation which is pleasurable that one must always intend, in a highly particular way, the concrete realization of the biological goal. It should be plain that in eating, for example, we are not required to intend the introduction of so many calories, so many minerals, so many vitamins, so many trace elements, etc. This is not feasible, and for precisely that reason — as our earlier quotations showed — pleasure is introduced to move us to perform the act. Again, we say, a very general appreciation of the end in question suffices to carry out the operations in a voluntary way. Similarly, no one has an obligation to intend a pregnancy with every act of sexual intercourse. Here, too, all that morality requires is that one observe the right order of things, namely, that pleasure and marital love are for operation and not conversely. This right order implies not just an ideal but a limite one can transgress. Here, too, a very general appreciation of the goal toward which coitus is directed is sufficient for the moral use of the operative powers.

Perhaps we should note in this connection that just as nature provides plants with more seeds than will germinate and the human male with more sperm than the ovum can receive, so, too, it is entirely natural that more unions occur than can issue in pregnancies. We all know that men are not morally obligated to understand the physiology of reproduction in order to engage in it; hence a larger number of unions than pregnancies is a normal, natural state. However, once one does understand the natural process, he is morally justified in making use of periods of infertility as a voluntary means for regulating births. Just as the hunter intends that not all pellets shall strike the duck, so nature constitutes the reproductive power in such a way that not all intercourse ends in pregnancy. Are we to assert, therefore, in the face of what men have admitted for centuries, that sexual pleasure is a goal in itself which need not respect its subordination to procreation? Are we to adopt the slogan, "Life is for sex, not sex for life"? If we express these notions a bit differently, are we to say that marriage is more for the benefit of the married than it is for the children? Are we to say that marrial love is a goal separate from and on a par with parenthood? If such were the case, there would be no primary and secondary in the ends. Only an age that has become the victim of excessive self-concern could attempt to sustain such a view.

In the turmoil of the racial problem of our time much attention has been given to our Lord's command to love our neighbors as ourselves. We are constantly enjoined to love people, to become involved in their problems, to share their burdens. Now these injunctions, although not always wisely pursued, do issue from sound natural and supernatural instincts. The man who has become something noble himself truly loves his neighbor if he attemps to help him attain similar goals. We give much when we help bring about genuine maturity in others. Hence, to be causally responsible for the noble qualities of another human being — surely this is above all the dignity and glory of married life. The husband and wife who seek not only their own legitimate welfare but go beyond it by aiding the realization of natural and supernatural perfections of mind and will in their children rise to the true goal of family life. Can anyone seriously maintain, then, that the love relationship between man and wife is separable from such an end ?

F. Voluntary Control

As Humanae Vitae makes clear, we are left with only one legitimate means for the regulation of births - voluntary control, the mode of living appropriate to the human being. It is worthy of note that in those disorders which affect the individual himself no one advocates mechanical or medicinal means that interfere with normal bodily processes. The glutton who overeats is not given pills that interfere with the physiology of digestion. The physician does not insert mechanical devices to intercept the food before it enters the stomach; but, if he did, this, too, would be immoral, as was the Roman vomitarium. Our therapy consists in encouraging the overeater to discipline himself; which means we ask him to gain voluntary control over his emotions and acts. The drunk who does not control his consumption of alcohol is not regarded as having a purely physical problem, and the therapeutic approach employed is one which aims at helping him impose voluntary restraints upon himself, even though pills which lessen his excessive desire can be used as aids. The same is true with drug addiction. These and other disorders are regarded as matters of self-discipline precisely because they involve operational activities that are subject to voluntary control. Clearly, too, they are instances wherein pleasures are inordinately sought. Why, then, should anyone regard the use of sexual powers any differently? They are also subject to voluntary control; and, like other such powers, when they are responsible for some excess they must be brought under such control. To interfere by means of mechanical or medicinal devices in the digestive processes for the sake of the pleasures of eating is a moral disorder; similarly, to interfere in that way with coitus for the sake of indulgence in sexual pleasures is equally inadmissable. What makes the sexual issue have less subjective impact on men is the fact that no physical harm or pain comes to them from such interference. Procreation is an act directed toward something extrinsic to the agents themselves, a new human being; and so, because the agents are not subjectively affected in a sensible way, the immorality or the activity is harder to appreciate. The issue is indeed more abstract.

Influenced by the large numbers of impoverished human beings in some of the undeveloped countries, many people have become strong advocates of the various forms of contraception as a means of solving these pressing population problems. Against this *Humanae Vitae* stands firm, seemingly — in the eyes of many — with a hard heart. Who can contemplate the suffering of those unfortunate people and not feel some of their pain himself? Who would voluntarily take their place? Little wonder that political leaders should grasp at physical means of birth regulation; they are so quick and sure. Nevertheless, *Humanae Vitae* is right.

The civil or political society is a set of ordered relations among its citizens; and these relations have as their proximate foundation, their proximate base, the human activities which constitute the community's "life blood "; and these activities are voluntary. They issue from the minds and wills of individual men. They are, we repeat, the immediate base upon which the community is founded.

To recommend that a problem which results from the use of a voluntary power be treated by interfering with the physical causes of its function it to attack society in that which it presupposes, in that which must exist before it. Such means cannot be regarded as "therapeutic" in any sense of the term. Social relations do not directly result from anatomical or physiological causes. The mere physical occurrence of powers and their functions is not enough to establish a community; the mind and will must intervene. Consequently, to employ medicines, surgery, contraceptives, in a physical attack upon the organism for the sake of obviating a natural function is altogether illicit, precisely because one does not attack the immediate cause but something " innocent " which is necessarily presupposed to the use of the power and to the existence of the community itself.

Consider the Pandora's box one opens when he attempts this sort of "solution". If he starts from the proposition that social problems which come about from activities natively subject to voluntary control can be attacked in their remote, physical causes, then he has granted many things. The problem of too many old people and too many disabled persons can be solved by killing them off; the racial issue, too, can be settled by having one exterminate the other (as the Nazis sought to do). These examples might seem extreme, but they follow from the above proposition. The quite real proponents of abortion and euthanasia already avail themselves of it.

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We hear predicted the use of sterilizing drugs that can be added to the water supply to control births on a large scale. Any family that wishes to have a child will then be obliged to apply to the civil authorities for permission to use an antidote that offsets, for a time, the effects of the sterilizing drug. Such methods would certainly be efficient: complete control of births by computer.

And if populations may be controlled by physical means, so may other aspects of human life. Perhaps the political authorities will one day decide that we have too many bright people and that what society needs is a few more dull minds. Given the moral permissibility of attacking the social problem in its physiological causes, what is to prevent those authorities from deciding that you and I should be given chemicals to make us dull and therefore better suited to carrying out some of the monotonous, mechanical, robotlike activities the social system might require? Such a practice would be no more immoral than interfering physically with reproduction. It behooves society to reflect well on what it buys.

The same argument tells against those who plead the emotional problems of distressed parents. Here, too, one can sympathize with the clinician who is overwhelmed by the interior agonies of his patients, for the clinician's life is one of great suffering. But emotional problems, except those which stem from organic causes, have to do with acts that men perform when they are awake, with natively voluntary activities. Once again the solution, difficult though it is, must be gained in the human mode, that is, by helping the patient to acquire control over himself and his emotions. In one sense, only the strong — that is, only those who are capable of mature self-direction — can expect the full benefits of human existence, for *matu-rity is a necessary condition under which they are attained*. It is a false compassion that would grant emotionally distressed people adult privileges without first seeing them undertake the concomitant adult responsibilities.

G. Human Difficulties

The issue of contraception is not solely of theoretical interest; for that reason we wish to append the following remarks.

It is quite likely that one of the most persuasive aspects of contraception is the appeal it has as a means for alleviating emotional difficulties that men experience in connection with sexual behavior. The sex urge is powerful and universal among normal adult men; and it is extensive in a more moderate way among women. The history of the human race is testimony to the problems that sex is responsible for. Man can direct his passions, his urges, his emotions; nonetheless, the direction is not, for all that, easy. Nowhere is the problem more difficult than in sexual matters.

The difficulty that men of our time experience is compounded by the existence for many years of a philosophical attitude that has penetrated human society, and which teaches that the activities one should pursue are those which please, while the ones he should avoid are those that bring displeasure or pain. On the basis of such attitudes, a view of life has been produced which is dominated by the pursuit of comfort and the avoidance of difficulty.

Americans and Canadians, too, like to think of their ancestors as hardy, rugged frontiersmen and pioneers who endured great hardships to settle a wilderness continent; and, in many instances, this was true. But the frontiersmen, the pioneers, were the smaller part of the population even in their day; and in the established cities of the United States quite different attitudes could clearly be seen. Alexis de Tocqueville, when he visited the country in 1830, observed that Americans were possessed of a universal passion for physical gratifications:

"In America the passion for physical well-being is not always exclusive, but it is general; and if all do not feel it in the same manner, yet it is felt by all. The effort to satisfy even the least wants of the body and to provide the little conveniences of life is uppermost in every mind. Something of an analogous character is more and more apparent in Europe." 16

However, he notes that the effect of such a passion upon the actions of men is not the same in democratic countries as in aristocratic ones:

"... To build enormous palaces, to conquer or to mimic nature, to ransack the world in order to gratify the passions of a man, is not thought of, but to add a few yards of land to your field, to plant an orchard, to enlarge a dwelling, to be always making life more comfortable and convenient, to avoid trouble, and to satisfy the smallest wants without effort and almost without cost. These are small objects, but the soul clings to them; it dwells upon them closely and day by day, till they at last shut out the rest of the world and sometimes intervene between itself and heaven." ¹⁷

The comfortable life — la *dolce vita* — this has been the pursuit of the democratic countries in the era of commercialism and misconceived individualism.

How well the above passages describe not only the early part of the last century but 1970 as well! How much more extensive, too, these attitudes have become; how subtly they soak the whole fabric of human life. Indeed, so farreaching is the desire for the comfortable life that we now have arrived at the point where it is difficult to find people willing to undertake the discomfort and discipline required in the more responsible professions, arts, crafts, and trades.

Join the desire for the easy life and the reluctance to engage in self-discipline to a strong sexual urge surrounded by an environment filled with suggestions of sex, and there is little wonder that sexual emotions provide men with a major problem in self-discipline. There is little to be astonished at in the testimony of clinicians about the difficulties, the severe emotional problems, the sexual aberrations that have fallen upon the people of our times. Yet, these conditions are the result not of a prohibition against contraception but of past history, of past human teaching, attitudes, and moral habits. They have arisen in the midst of a civilization domin-

¹⁶ Democracy in America (Vintage Books, New York: Alfred A. Knopf, Inc., and Random House, Inc., 1945), Vol. 2, p. 136.

¹⁷ Ibid., p. 140.

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ated by an exaggerated view of physical gratifications, a view which, in its unholy union with a doctrine of misconceived individualism, has played so large a role in the formation of the modern, commercialized world.

The recognition that our times have become "soft" in the sense that we turn away from things that are difficult, has, we see, been noted for more than one hundred years. De Tocqueville has been joined in this recognition by people like Cardinal Newman and Pope Pius XII, both of whom spoke out about our "soft age". Unhappily, we fail to realize that the pursuit of the easy life does not yield the happiness which inspires its pursuit. An eminent Jewish psychiatrist who spent time in Nazi concentration camps during World War II has some strong words to say about the "pleasure principle" as a rule of life:

"When we set up pleasure as the whole meaning of life, we insure that in the final analysis life shall inevitably seem meaningless. Pleasure [comfort] cannot possibly lend meaning to life." ¹⁸

After elaborating upon this a bit, he adds:

"Life itself teaches most people that 'we are not here to enjoy ourselves'. ... How unsatisfying the pleasure principle is in theory as well as practice is evident from a commonplace experience. If we ask a person why he does not do something that to us seems advisable, and the only reason he gives is: 'I don't feel like it; it would give me no pleasure'; we feel that this reply is insufficient because we can never admit pleasure or unpleasure as an argument for or against the advisability of any action." ¹⁹

Frankl is, of course, correct. Rather than admit that we truly do seek our comfort, we rationalize what we do to make it appear justified by other factors.

In contrast to the man whose chief value is pleasure or comfort, there stands the person confronted by a set of conditions over which he has no control and who must accept an unhappy lot forced upon him:

"... Thus an apparently impoverished existence — one which is poor in creative and experimental values — still offers a last, and in fact the greatest, opportunity for the realization of values. These values we will call attitudinal values. What is significant is the person's attitude toward an unalterable fate. The opportunity to realize such attitudinal value is therefore always present whenever a person finds himself confronted by a destiny toward which he can act only by acceptance. The way in which he bears his cross, what courage he manifests in suffering, what dignity he displays in doom and disaster, is the measure of his human fulfillment." 20

Suffering is not an end in itself but a condition to be borne, and Frankl's passage states a truth every Catholic should know. Certainly it describes the child every parent would like to produce !

¹⁸ Victor E. Frankl, The Doctor and the Soul, 2nd ed. (New York: Bantam Books by arrangement with Alfred A. Knopf, 1967), p. 30. My attention was drawn to this book and particulary to these passages by my colleague, Thomas Sullivan.

¹⁹ Ibid.

²⁰ Ibid., p. 35

Unhappily our times are slow to learn that the comfort principle does not work and that there is value in enduring hardships. We are speaking now about a large number but not about all men. Obviously there are many people who, despite their own affluence, do not surrender to the pursuit of the easy life as their chief goal. A nation cannot put a man on the moon unless there exists in a part of it a dedication to something beyond its own comfort as the goal of its activities. But what this means is that we have a division in society, a division becoming more and more sharply drawn it seems, which separates more starkly than in times past those who do and those who do not make the comfortable life their aim.

To object to the pleasure or comfort principle is not to take a stand against the entire fruit of our modern times; it is not equivalent to advocating the return to a stone age existence. Earlier in this essay we remarked that artifacts are neither moral nor immoral in themselves; only their use is morally good or bad. Hence, a man can live in the midst of physical affluence and comfort and not be its victim. He can be a user of modern conveniences, he can enjoy many of the pleasures of modern life, without making comfort and pleasure his goal. In short, he can engage the fruits of the contemporary genius in an active pursuit of the common welfare according to the requirements of his occupation and the conditions of his existence. He can employ them to facilitate his labors and their contribution to the community.

But too often, usually because of insufficient reflection, this is not done. Unconsciously we seek what the mass of men seek — the removal of discomforts until that attitude comes to stand, as de Tocqueville says, between us and heaven itself.

But what are we to do? Surely we cannot advocate that, because the social edifice is built badly, we should alter the theory to fit the structure. On the contrary, difficult and painful as it may be, we must go back and build again the social edifice - those parts that need rebuilding - this time in accordance with sound theory. We need to remember that our fundamental moral problem is to gain control over our emotions; and we need to recall, too, that along with the struggle for self-dominion go the ever present pains and difficulties indigenous to human existence. One must keep in mind that he might not even be excused from the demand for heroic performances at high cost to his personal comfort. Not everything that is pleasant is good; not everything that is distasteful is bad. Let us not forget that Our Lord's life was a universal example by which each man must measure himself. From a purely human point of view, Christ was a teacher who was unjustly tried and executed by duly constituted authority. His life was, in the main, difficult and painful. And, since the servant is not above the master, we all must expect some of the same; we cannot expect to be excused because our problem is difficult. Therefore, we should not seek to avoid the ordinary obstacles and native pains that naturally accompany every striving for responsible adulthood; the problem of controlling the sexual impulse is one of these pains.

There are, however, remedies. Too often men think of God only in their financial need or in times of sickness. Too rarely do they look upon him as a friend

endowed with the power to help in the constant internal battle which is the stuff of human existence. Not seeking his assistance, they fall further into the habits they already possess, thereby increasing the pains of extrication. The clinical psychologist knows well there is no cure for his patient unless he, the patient, has the will to be cured and asks for help. Likewise, there is no moral help from above without the will to do and the petition for aid. A tragedy of our time is the often-found failure to recognize in the Lord a constant adult companion who can help and strengthen, direct and console, encourage, and — when necessary — chastise those who lose control of their interior lives. In short, difficult as the task is, the problem imposed by sexual emotion must be managed through voluntary means commensurate with the goal and mode of human living that are its special dignity. It seems we have no other recourse.