The Space and Time of Human Relationships in the Philosophies of David Hume and Jean-Jacques Rousseau

by

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EXPLANATORY NOTES

1. Information and comments relating to the text of the thesis which cannot be accommodated in footnotes, are given in numbered chapter notes at the end of the thesis. The numbers of these chapter notes are given in footnotes on the pages on which the text appears to which they refer. Extraordinarily long notes, especially those which are referred to more than once, are given as appendices at the end of the thesis after the chapter notes. The numbers of these appendices are also given in footnotes on those pages on which the text appears to which they refer.

Special Note on Chapter 2

The subjects space and time fill many volumes, and it stands to reason that only a small portion of this mass of literature can be studied for the purposes of a thesis which is not primarily concerned with space and time. I therefore limited my reading to those works that deal with the reawakening of the interest in time in the twentieth century, those that point out the inseparability of space and time, those that deal with time and history, and, above all, those that give clues to the connection of space and time with personality. My reading was, as it were, prescribed by what I wish to submit as my thesis: The connection of the human person with space and time provides the novel point of view from which the treatment of human relationships by Hume and Rousseau is seen.

It is the connection of space and time with personality, rather than space and time or space-time, that is of importance in this thesis; that is why the study of space and time in Chapter 2 is, as is indicated by the title of this chapter, focussed on it. Nevertheless, considerable "background" study was necessary in this context so that most of the appendices refer to space and time. The mat-
ter contained in these appendices falls outside the main path followed in Chapter 2, but is nevertheless important and the chapter would not be complete without them.

2. Passages from authors which appear in the text of the thesis as translations, will be found in the original languages as numbered chapter notes at the end of the thesis, unless they are quite short, in which case they are given in the original languages as footnotes.

3. In those cases in which a translated passage is taken from a published English translation of the work of an author, the reference in the footnote will relate to the work in the original language only, since a number of published translations were used in some cases, and if all were given in the bibliography, the list would become unnecessarily long. In any case, some translations are my own.

4. Where I quote from Prof. Whiteman's *Foundational Problems of Space and Time* I indicate only the chapters from which the quoted passages are taken and not the pages also, since page numbers are bound to be different in the published work. Page numbers will probably also differ in the final manuscript. The manuscript from which I worked, appeared to be a preliminary one.

5. During 1963 Prof. C.A. van Peursen delivered a lecture
at Stellenbosch which was recorded on tape by Dr. J.J. Degenaar. This is referred to in the bibliography and in notes as the "Stellenbosch Lecture."

6. Unless otherwise indicated, underlined words in quoted passages are words italicized by the authors of the passages. Wherever, in a quoted passage, words are inserted in parenthesis and are not the author's but mine, these words will be underlined. If they are those of the author, they will not be underlined. However, in most cases it should be quite clear whether such words are mine or those of the author.

7. The spelling and punctuation in quoted passages are those of the authors of the passages or the published translations of the works of the authors.

8. I use Galileian, derived from Galilei, whereas some authors use Galilean, derived from Galileo.
CHAPTER 1

Outline of the Subject and Historical Background

(i)

We shall be concerned in this study with the grounds and nature of human relationships as they are conceived in the thought of Hume and Rousseau. By implication, therefore, the notion of the grounds and nature of human relationships varies from person to person. We can hardly think otherwise than that our notions of these relationships are determined by our views on human beings, so that when we contemplate human relationships, we are at once involved in questions about human beings as human beings and quite apart from their relationships to one another. Questions about human beings which will be of the greatest importance to us will be those about human personality and human nature. We shall hold that both Hume and Rousseau treat human relationships in terms of human nature rather than in terms of human personality, and this study is, broadly speaking, a study of the consequences for the individual and society of this course in their thought. Our contention will be that they take this course in their treatment of human relationships because they adopt a
specific space and time, the space and time of the
science of their day.

Since the question of human personality is involved
in a study of Hume's and Rousseau's treatment of human
relationships, this thesis begins with a consideration
of the human person. We find, as the study proceeds,
that Martin Buber's notion of meeting provides a key to
the difference between human relationships seen in terms
of personality and human relationships seen in terms of
human nature. Buber sees this meeting, not as a mere
"coming across," but as a "coming together" which, we
shall find, is in effect a confluence or interpenetra-
tion of spaces and times of human persons, a notion
which is absent in the thought of our two philosophers.

In his contention that "All real living is meeting"
Buber accepts that men possess a directedness towards
one another which lifeless objects do not possess. Meeting
is the effectiveness of this vectorial nature of
men, and we shall hold that it involves a space and time
quite different from those which apply to scalar en-
tities such as stones which cannot meet. We shall hold,
also, that there is a connection between this space and
time and human personality which cannot exist between
personality and the space and time of lifeless objects.
The directedness of men consequently flows from human personality by virtue of this space and time, so that when we say that Hume and Rousseau see human relationships in terms of human nature rather than in terms of human personality, we intimate that they take human beings out of this space and time of personality and place them in the space and time of lifeless objects.

Human relationships seen in terms of human personality must have as their source the human person looked upon as a self-conscious, directed and acting being. (We find that words in all languages which indicate a directedness of men towards one another, more often than not require some sort of action, and these cannot but involve one's fellow men). To possess human personality a man must be considered to possess a freedom to act and exercise his directedness. Freedom is thus closely connected with action so that personality seems to be created by action. Consequently it is possible to lose personality or never to achieve it, or to achieve it only imperfectly.

It follows that when Hume and Rousseau take men out of the space and time of personality and place them in the space and time of lifeless objects, they take this ability to act away from them. They take away the directedness of men and therefore "dismantle" the human
person so that men can no longer meet.

Since the actions of men require a space and time quite different from the space and time of lifeless things, it is necessary, before going on to study those aspects of the thought of our two philosophers with which we shall be concerned, to investigate different spaces and times and to apply the knowledge gained to the questions of meeting and action. It will then become clear that if men cannot meet and act, they remain undifferentiated from one another, that is, they do not possess personality; they possess only human nature, which is what all men have in common. Men are then abstractions, and the basic guiding influence of Hume and Rousseau in their treatment of human relationships is precisely that they reduce human beings to abstractions. Hume is an empiricist and Rousseau has been called the father of romanticism, yet their thought has this common outcome. It would therefore be reasonable to surmise that there is an underlying bond between Hume's empiricism and Rousseau's romanticism, and that this common outcome is a mode in which it manifests itself. This bond we shall attempt to trace with respect to space and time.

However, we shall be concerned mainly with human relationships. The connection of the human person with space and time provides the novel point of view from
which the treatment of human relationships by Hume and Rousseau is seen. This is our thesis.

(ii)

For a better understanding of the common outcome in the thought of Hume and Rousseau and the underlying bond which it indicates, it is necessary that we examine them in the light of the century in which the two men wrote. Hume and Rousseau were contemporaries in the Enlightenment of the eighteenth century, and the characteristics of their age are interwoven with those of the philosophies of our two thinkers.

The age of the Enlightenment was "an age of ferment" following the passing of the system of life and thought of the Middle Ages, and the concern of Hume and Rousseau with society has its roots in this "ferment," in the disturbance in human affairs brought about by the passing of a long-established order of things. The "ferment" was really a "rethinking" of man and a search for new foundations for his life to replace those of the Middle Ages which had now been discarded. One must see the thought of Hume and Rousseau as part, not only of this search, but also of the discarding of the old foundations. The consequences of this "rethinking" of man reached beyond the eighteenth century into our own, and it is this that makes the philosophies of Hume and Rousseau important.
for our times.

We shall be concerned with four characteristics of the Enlightenment period which we find reflected in the writings of our two philosophers: 1) Its naïve self-assurance and its apotheosis of science (without a knowledge of its limitations, however); 2) its hostility to Christianity which issued from its boundless faith in science; 3) its physico-mathematical orientation in which the work of Galileo looms large; 4) its scientifically-inspired notion of progress as opposed to history.

We shall also be concerned with its conceptions of space and time, and its views on men, but these issue from its world view, which was one of rigid causality, objectivity, simplicity and absoluteness, from which the human point of view and the passage of time as it had been contemplated by the mediaeval thinker, had been eliminated. From such a world view the reduction of men to abstractions follows. The Enlightenment wished to study man as a phenomenon, that is, scientifically; a man consequently became nothing more than a standard example of something in which science was interested. It is in looking upon this man, an abstraction, as a subject for philosophy, that Hume and Rousseau are children of their times.

Two of the attributes of individual men which are
left out of account when the Enlightenment science and philosophy "construct" a standard man, are what we shall call their private subjective spaces and times. These subjective spaces and times are those by which men are able to meet, so that the "man-in-general" cannot meet another man. This inability of abstract men to meet determines what human relationships are in the thought of Hume and Rousseau. Both our philosophers see the human scene as a machine. As the parts of a mechanism function in spatial and temporal isolation and need a motive force outside them to set them in motion, so the men in the philosophies of Hume and Rousseau spatially and temporally exclude one another and have lost the ability to act of their own free will.

(iii)

Science, however, provided a closer bond between our two philosophers than the common outcome of mechanism in their treatment of human relationships, one from which, in fact, the common outcome of mechanism is a logical issue. Science brought NATURE to the fore, and it became the task of Enlightenment thinkers, scientists and philosophers alike, to prove the self-sufficiency of nature "without any transcendental mediation." Hence the hostility to Christianity in Enlightenment thought, and also in the thought of Hume and Rousseau.
We shall find that the space and time of this nature contemplated by the Enlightenment, are the space and time of the science of the age. We apply them still, in our times, to machines. Under the all-pervading influence of mathematics nature became identified with the "great machine," and man became a part of this machine. Purpose in his existence was taken away from him and scientific cause and effect substituted; his persuasion of a destiny in God was made a persuasion of a salvation in this world in a Utopia which was held to be within his grasp. We shall be concerned in this study with the share which Hume and Rousseau had in the establishment of this notion of a Utopia.

The preoccupation of the Enlightenment with nature and the Utopia cannot be seen out of the context of its idea of progress: there must be uninterrupted improvement (as there is in science) and everything must be better than that which preceded it. We shall find that this progress is quite unlike history, and had to take the place of history in Enlightenment thought. Now nature was reduced to a machine, consequently wherever nature enters into the views of our two philosophers on men and their relationships to one another, it enters in the guise of mechanism. The space and time of the Utopia then become the space and time of a mechanism.
Since it was the mathematical orientation of the thought of the eighteenth century that made nature synonymous with a machine, this orientation lies at the very root of the tendency of the Enlightenment to make human beings abstractions. The more spectacular results were shown by those sciences which made prediction possible, that is, the mathematical sciences. It became an assumption of the Enlightenment that reason with its mathematical weapon could cope with any investigation that had to be undertaken and "that the real may be identified with the quantitative." If Galileo had been correct in saying that God had written the book of the universe in mathematical characters, then man could be looked upon as a measurable quantity.

Hume takes up the study of man at this point, and looking upon himself as the "Newton of moral philosophy," wishes to see a "science of man" created so that order and certainty might enter into human affairs. Rousseau shares his belief in the possibility of such a science. Both link order in the affairs of men with foreseeability of these affairs, that is, if there is to be a Utopia, the way in which all men "function" must be known so that society can be pre-designed as it were. Now all men cannot be known except if only those characteristics which all have in common, are taken into account. Consequently
the science of man becomes a science of man-in-general, a science of abstractions, and the Enlightenment simplified man to take his place in the simplified universe of the mathematician. This meant a dismantling of the human person through which men became things.

This dismantling of the human person has a significance, quite apart from its effect on the treatment of human relationships by Hume and Rousseau, which we cannot neglect: it lends support to the control of human beings which issues as a corollary from the treatment of human relationships by our two philosophers. To establish order in human affairs both thinkers have to establish a rigid control over the citizens of the Utopia. Moreover, the reduction of men to things by Enlightenment thought was accompanied in history by the incipient industrialization of Europe and colonization by European powers all over the world. This control of matter made it necessary to control men in commerce and industry, so that we have a very definite reification of men by the events of history. The conclusion that thought and the actual events of history are intimately bound up with each other from the seventeenth century onwards, is difficult to escape, and this will be the subject of our investigation in the last part of this study. A more immediate task is an examination of space and time and
their connection with the human person to discover the process in the thought of Hume and Rousseau by which the human person is dismantled.

CHAPTER 2
Spaces and Times and the Human Person

(i)

The scope of our examination of space and time is determined for us by the purpose of our study, and we shall be interested in and examine 1) The nature of spaces and times which allow meeting. 2) The nature and purpose of space and time which do not allow meeting. 3) The derivation of the latter space and time as a necessary complement to and fulfilment of the needs of the development of science from the seventeenth century onwards. This space and time our two philosophers, under the influence of the science of their day, adopted for a "science of man."

The time element came into physics with the work of Galileo, and a new mathematics became necessary, a mathematics that could deal with both space and time. This was the infinitesimal calculus, but it could deal with space and time only by dividing them into infinitesimals, that is, by cutting them up as one would cut up a piece
of matter, and by treating them as separate entities. In 1908 Minkowski came to the conclusion that this space and time were abstractions and that nature treated space and time as inseparable. If this is so, then there must be a real space and a real time which cast these shadows; accordingly space and time were investigated de novo in the twentieth century. The result is that both have acquired, in many modern views, some at least, of the characteristics of the space and time contemplated by the mediaeval Christian who, in turn, inherited his conceptions of space and time from the ancient Hebrew through the Old Testament. This space and time of the Old Testament were a space and time closely connected with the human person in a manner which we shall find worthy of close attention, and we shall point to the severing of this connection in the philosophies of Hume and Rousseau as the very kernel of the subject of this study.

One of the characteristics that space and time conceptions of our century have in common with that of the mediaeval Christian is that space and time are subjectively constituted, that is, we have the presence of the human person in these views on space and time. In modern views on time we find the central conviction that time and change are connected in a way which cannot be deduced from the space and time of elementary mechanics, and that
space and time are connected with the human person in a way which we cannot discover in a where measured with a rule and a when indicated by a clock. This when indicated by a clock has nothing of the carrying effect of time which permeated the mediaeval Christian time philosophy through the association of time with purpose. We shall find the notion of purpose absent also in the thought of Hume and Rousseau.

(ii)

We can better appreciate the import of Hume's and Rousseau's adoption of the time of Galileian science for human relationships if we first consider the connection between the human person and that time which seems to "carry" us in its movement and which we can conceive as having a purpose. The notion of purpose in time and its carrying effect are lost unless time is in some way connected with the human person. The time measured by our clocks is, on the contrary, outside us. Its parts, like the spaces occupied by things, cannot overlap or interpenetrate, so that meeting in it can only be a contiguity or a "coming across." In the case of subjective spaces and times, however, parts can overlap or interpenetrate, and persons can meet. This time, moreover, is not outside us as is the time of our clocks. It "takes us along" and generates the notion of a destination in us.
Space and time subjectively constituted must be "lived" by the human person and must contain, so to speak, all the richness of the life and experience of the person who "lives" them. The present of this time has a "thickness" which is really the seat of the directedness of the human person. This "thickness" of the present issues from the fact that a man's existence is not confined to the immediate moment or his immediate surroundings, but is spread out temporally and spatially beyond himself. The past, as Bergson puts it, gnaws into the future and grows ever bigger; the present encompasses both past and future.

The "thickness" of the present is best understood by considering what is encompassed when a person speaks the word now. This short word really establishes a connection between time and the human person. It encompasses one's past experiences as well as one's hopes and fears for the future, but it also encompasses other persons, each with his own now, and as it "moves along" it describes one's world. This now is also inseparable from a here, so that we have the now as the heart of one's real time and the here as the heart of one's real space combined as the seat of one's directedness as a human person, that is, they constitute a continuum which makes meeting possible as a confluence of spaces and times.
Through a person's here and now by which his space and time flow together with those of other persons, he becomes connected with the events of his world, that is, with history. In this way the ancient Hebrew felt, and the Christian feels, himself assumed in history, as it were, and being carried by time to some destination. For both God created time and in God is their ultimate destiny; the end of time gives meaning to the present. History becomes a "story," the "story" of the dealings of God with men. It is a "story" with the human person at its core, for time is connected with human persons. It is a becoming, since there is a purpose in it.

Since in history so conceived we have a person standing at a now which encompasses other persons, morality is closely connected with the community, that is, with the state, so that both become historic. The dismantling of the human person must then become a denial of history as a becoming and a denial of morality as historic. Since freedom and morality are closely bound up with each other, freedom also becomes divorced from history. This is what we find in the thought of Hume and Rousseau.

It is in such words as becoming and story that we find the difference between history as the ancient Hebrew and Christian see it, and progress as the Enlightenment
conceived it. In history human choice emerges in situations which are unique. These situations involve one's fellow men and consequently the directedness of men towards one another. Freedom then becomes an exercising of responsible choice. In the Enlightenment view of progress, on the contrary, progress follows the natural order in the space and time of the nature of the scientist, and since this nature is a machine, there is no place in it for the responsible choice of men.

(iv)

In the thought of Hume and Rousseau there is no becoming. This observation brings us to a consideration of conceptions of time akin to the views of these two philosophers on that movement of the human scene which we call history, and contrast with those of the ancient Hebrew and mediaeval Christian. These time conceptions are divorced from personality and the notion of an end of things. This study raises the point that linear time conceptions such as that of the Hebrew can be linked with human personality while conceptions of time as cyclic, such as the Greek time conception seems to be, are conceptions of time in which human personality has no place. Furthermore, the notion of an end of things goes with the notion of history as a "story," the notion that there is a purpose in our existence, a destination to which
time carries us. We cannot then have a repetition of events, for the carrying effect of time would be lost.

In conceptions of time as cyclic, on the other hand, we cannot have personality at the core of a becoming, for human choice and action, redundant in inescapable cycles of events, would be eliminated. The "story" of history is replaced by what we may look upon as the rudiments of laws of nature, namely the predictability of events. Predictability is precisely what the philosophers of the Enlightenment, among them Hume and Rousseau, sought. Hume's conception of history is, in fact, an eternal return; Rousseau's is less explicitly so, but the notion of cycles of events permeates his political writings.

(v)

With the mention of laws of nature we have arrived at the question of the space and time of science. How did it come about that the West inherited the space and time conceptions of the ancient Hebrew, so closely associated with personality, yet also became the birthplace of the space and time of Galileian mechanics which are merely two separate frames of reference divorced from the human person? The answer seems to be that Galileian time, from fulfilling the function of a frame of reference in the study of moving bodies, was soon taken to be the only time, just as the space of Greek geometry, which was the
science of the spaces occupied by objects and the physical space in which they move, was taken to be the only space. This space and time are those treated by the calculus, and their cardinal property is that their parts cannot overlap. The ancient Hebrew looked upon space and time as created by God, but the space and time of Galileo's physics are "just there" as the result of the succession of events and objects, and their emergence, so to speak, was brought about by the necessity of counting and measurement. The space and time of Galileian physics were abstracted from real space and time by the exclusion of the element of personality, that is, Galileian space and time were obtained by making the spaces and times of particular persons "uniform" as men themselves were made uniform in the Enlightenment.

(vi)

The result of looking upon space and time as mere frames of reference had far-reaching effects which Galileo could not foresee, especially with regard to God. The Hebrew and mediaeval Christian view was that God was outside space and time (which He created) but the effect of Galileo's work was to place God's creation also outside space and time (which had become nothing but frames of reference). God as a final cause came to be excluded in scientific thinking, hence the rise of atheism when na-
ture, through the influence of mathematics, became the "great machine." The atomization of space and time, moreover, facilitated the atomization of human psychical processes and the destruction of the self with which we have to do in the thought of Hume and Rousseau. The Hebrew durée requires an unfragmented self and, conversely, an unfragmented self hardly experiences time as fragmented as it is in the calculus treatment of it.

CHAPTER 3

The Human Being in Derived Space and Time

(i)

In a mechanism the here and now of any particular part are points of reference on frameworks outside the part. We have here the separation of space and time from the action and substance of a thing. The parts of a mechanism cannot meet; they can, at most, touch. In the thought of Hume and Rousseau men are reduced to things such as the parts of a machine. In this chapter the process of this reduction is studied, and the starting point is Descartes, for it was in his philosophy that the human person first ceased to be a directed unity of body and soul. Descartes cleaves man into body and mind, that is, one part is the matter which, in motion, corresponds to the moving particles of elementary mechanics. Descartes,
moreover, intimates that God created the world in time; this time must therefore be a time outside things, uncreated by God. We have here an anticipation of the calculus view of space and time which we shall find in Hume's thought, and more latently in the thought of Rousseau. It was inevitable also, that Hobbes, devoted to mathematics, and much under the influence of Galileo, should see men in terms of mathematics and mechanics and produce a thoroughly materialistic philosophy. Everything in the universe is matter in motion, and human psychical life is fragmented into elements of sensation, caused by motion, in Galileian space and time.

(ii)

This fragmentation of human psychical life Hume carries to its logical conclusion in the destruction of the self. The human person ceases to exist and a man becomes an abstraction and a scalar entity. It is a fragmentation, moreover, which goes with his fragmentation of space and time as they are fragmented in the calculus. The similarity of Hume's treatment of space and time to the calculus treatment is, in fact, very close. As an interval of space or time in the calculus is a summation of fragments, so in Hume's thought an interval of space and time is a summation of fragments. They are also ideas or impressions in the same way as a tree is an idea or impression.
Hume "physicalizes" space and time outside the human person. He now has frames of reference; by making men things he has matter in motion against a background of these frames, and this he achieves by destroying the self. Human psychical life is fragmentary, he tells us; it consists entirely of ideas and impressions which "succeed each other with inconceivable rapidity and are in perpetual flux and movement." If human psychical life is so fragmentary, there cannot be a real, unfragmented self, that is, the human person ceases to exist.

(iii)

What strikes one with great force is that, for Hume, the human person is a function of the physical world --- in so far as the human person can be said to exist at all. Once it is admitted that there is really no such entity as the self, the projection of men as masses of matter against frames of reference of Galileian space and time becomes a matter of course, and Hume's critique of personal identity makes the existence of such a self impossible.

We find in Hume's destruction of the self the underlying concept in his thought of the hostility of reality to the intellect. The self is a mere abstraction of which the intellect is forced to make use because of its inability to know reality. This hostility of reality to
the intellect is also the source of Hume's destruction of causality. Causality, he says, is mere custom, and if there is no necessity in causality, there is also no necessity in the human person of which we have a notion only because it is caused. The idea of a soul "substance" which has never caused an impression on the mind, is decidedly intolerable. Only man a thing remains therefore. Man becomes an object, spatially and temporally isolated from other men.

This isolation of men from one another is, however, traceable in Hume's philosophy along a different path. His empiricism must, in the last analysis, lead to an idealism. The mind, says Hume, is simply a series of experiences or impressions; there is no mind or self as entity. This is objective idealism. Since, however, Hume also destroyed causality, we are not to infer that something causes these impressions, and we are left with subjective idealism or solipsism. The human being is then completely isolated, and there can be no question of a directed human person.

(iv)

Now how does Rousseau reduce human beings to abstractions? We have in the thought of this philosopher a destruction of the self as a result of a flight from time and the reality of the world rather than as a result of
a reasoning in which Galileian space and time are projected on the human person. We find Rousseau continually expressing the wish to "freeze" the world into changelessness. He does not accept change as a sine qua non for his being, and longs desperately for a state "where the soul finds a place of repose solid enough to rest there entirely and to collect there its entire being without having to recall the past or ponder the future; where time is nothing for it, where the present lasts for ever without, however, marking its duration and without any trace of succession...." Time is an enemy to Rousseau, and we shall find that this hostility to time cuts him off from the real world and also from his fellow men.

(v)

Rousseau separates past, present and future from one another. There is consequently a fragmentation of time; time is not a durée in Bergson's sense of the word. This fragmentation goes further than these few divisions, and where in Hume's thought we have a succession of impressions, we have in Rousseau's a succession of feelings. The result is the same, and ultimately Rousseau tells us that we must look upon spaces and times as a series, so that we encounter once again the calculus view of space and time.
Rousseau does not treat the past as unalterable; he changes it to suit his purpose, while the future he regards as something to be feared because it brings only unhappiness. The present divides these two and is an instant cut off from both, a Galileian moment. In all this we see a flight from time and from reality, and in the same way space is, for Rousseau, something that brings unhappiness as much as time does. His inability to see space as a mode of action and his hostility to it, becomes interwoven with his hostility to time.

(vi)

This flight by Rousseau from space and time cuts him off from his fellow men and from himself. He sees men as things of which the motions can be calculated by means of the laws of mechanics. From this stems his persecution mania. We have in Rousseau's fragmentation of time really a destruction of the unity of the human person. The human person ceases to be directed and becomes as much an abstraction as he does for the purposes of science. We find this dismantling of personality throughout Rousseau's Confessions. The final result is that we have in his thought a fragmentation of human psychical life as effective in destroying personal identity as that in the philosophy of Hume.

Rousseau's hostility to the established order of his
day may be traced to his flight from his fellow men, and that to his flight from space and time. Having reduced men to abstractions, and looking upon them as masses of matter, he is quite incapable of meeting them.

This reduction of men to abstractions penetrates to the core of Hume's and Rousseau's political and moral theories.

CHAPTER 4

The Reified Human Being in History

(i)

The question now arises: If Hume and Rousseau reduce human beings to abstractions, if they bring about a uniformity among human beings through which they cease to be differentiated from one another, how do these two philosophers regard the human scene in that movement of it which we call history?

We find in Hume's view of history a tendency towards that natural science which tinged the entire Enlightenment period, while in Rousseau's we find a flight from history as we found there a flight from time. The thought of both these philosophers leads to a view of history as an eternal repetition of events, and in neither is there an eschatology as there is in the historiography of the Old Testament. In the thought of both the study of his-
History becomes an instrument which must be made useful, and this use is closely related to the relationships among human beings that arise from their reduction to things which cannot meet.

History is essentially the "functioning" of humanity in a repetitive process in which the parts of the "great machine" have their places in spatial and temporal isolation. The space and time of history then become the space and time of Galileo's physics, and the human scene moves according to discoverable laws, hence the search for a "science of man." Hume's destruction of personal identity helps to create the "universal man" which is amenable to prediction as things are in the natural sciences. If history can help men to understand the principles of human nature, it can help to create the Utopia which the Enlightenment sought. Hence our dictum that the Enlightenment (exemplified in Hume and Rousseau) wished to substitute progress for history.

(ii)

Hume tells us that men are always and everywhere the same; Rousseau assumes that they are, and sees in the study of history the same use that Hume sees in it. But in Rousseau's thought we have the additional element of hostility, and we find him deliberately "lifting" his body politic out of that change which we know as the pas-
sage of time, and placing it in the space and time of Galileo's physics. He takes refuge from history in archetypes, and we cannot escape the conclusion that Rousseau sees himself as an archetype, destined to be a legislator for mankind, a reappearance in the world, so to speak, of Moses, Mohammed, Lycurgus or Solon.

Rousseau, cut off from his fellow men by his hostility to time, is unable to see history as a becoming of the world which encompasses all the people in it. Hence the absence of a sense of becoming in his Confessions. Rousseau's now encompasses only himself with other people as objects; it is not the heart of a real time which encompasses other persons by the overlapping of times. There is no interrelatedness of human beings.

The point to note is that both Hume and Rousseau believe in the possibility of a science of human nature; in other words, their philosophies are once again joined by the word nature. But nature for the philosopher of their time was the same as nature for the scientist, and the space and time of nature were those of science.

(iii)

Hume wrote history, and it is therefore natural to ask why he wrote it and what characteristics his view on history give his historiography. The most marked characteristic of this historiography is that Hume reverses the
chronological order as if to confirm his judgment that it does not really matter when or where one observes events since they are merely a repetition of events somewhere else and at some other time. He does not describe a becoming, but puts the events he describes to a use in the service of the "science of man." He condemns what his age wanted condemned and supports the clear-cut ideas of the Enlightenment. The result is that his history lacks really thorough research.

Rousseau did not write history, but we can see clearly that if he had written it, it would have been put to a use. One use would have been that of a weapon against the established Christian faith. There is, indeed, much history in the Social Contract and it is used to show that the world has deteriorated and must be saved somehow. This latter use of history goes with Rousseau's contention that the body politic is corrupted by contact with the things of time. The Social Contract then becomes an attempt to break with the past, and is therefore removed from time and history.

(iv)

Rousseau's attack on the Christian Church and Hume's view on history alike raise the question of what the position of God is in the thought of these two philosophers. This question leads in turn to the questions of
progress, morality and freedom in philosophies in which history as a "story" is denied. In this "story" the Hebrew and Christian find a purpose of their God. History describes a becoming, and through his choice and action the human person stands at the core of this becoming. Since his now encompasses not only his own actions, but his fellow men and their actions, morality is involved in human relationships, and both become historic.

But Rousseau's now encompasses only objects, so that his morality must have its source outside real time which has this now as its heart, and cannot be historic. The social contract becomes this source. Rousseau says that it creates a "moral and collective body." This source of morality is not the association of men in a becoming of the world, but "this act of association" among men whom Rousseau sees merely as masses of matter. The position in the thought of Hume, who reduces men to objects, is the same.

Now if the source of morality is not in time, then what is the position of the God of time and the morality of the Old and New Testaments? We find that since God cannot be the source of morality in the state as envisaged by Hume and Rousseau, these two philosophers have no choice but to replace Him as Sovereign with an entity which they regard as the "voice of the people." Hence the
hostility of both our philosophers to the established Christian Church. Both appear to look upon God merely as a mechanic, and religion becomes a social morality.

The important point to note in Hume's and Rousseau's hostility to Christianity is that, taking it together with their denial of God as a Sovereign, it removes the state from time and history as a "divine revelation."

(v)

We must now answer the question: What do these two thinkers mean by progress? What they regard as the cyclic nature of the events of the past makes progress, like the Good, "the birth of a simple moment" and the "product of a single effort." Progress amounts to nothing less than the breaking of the cycles of past events. History, our two philosophers find, is full of corruption, mistakes, folly and imperfection. Progress would eliminate all this because men would be educated to avoid it. History tells us of the rise of civilizations and their fall through a lack of knowledge of human nature. The future must be different; the advancement of the natural sciences can be transplanted on society.

Progress is therefore not a historic growth but a break with history by man. In fact, Rousseau forecasts a doom for mankind if it does not make this break with the things that time has produced --- cities, industries, all
man-created institutions that bring men together "like ants in an ant-heap."

(vi)

Progress then, can be brought about only by human intervention. Implied in this intervention is the Enlightenment notion that whatever follows a certain stage in history, must be better than that which preceded it. History, however, does not show such a course, consequently progress must replace history. This means, in fact, that the space and time of technics must be made to apply in society. In history as a "story" we have the presence of persons to one another by the overlapping or interpenetration of their personal spaces and times. This becomes impossible when men contract to isolated mass particles, and their relationships to one another are seen in terms of science and the space and time of science.

It appears that there is no real choice of men in this human intervention to replace history with progress. A "new order" has to come about by the application of a better knowledge of the laws of the science of man. Men are still abstractions which are amenable to prediction. They are given their morality by a general will and are not themselves to think what is right and what is wrong. Hume's 'corrected' society is bound to be as "uniform", with men still mutually exclusive, and consequently as
bereft of real freedom as that of Rousseau. It will have been removed from time and change and the only space and time left to it will be the space and time of Galileo's physics.

CHAPTER 5

The State and its Laws in Derived Space and Time

Rousseau does not look upon man as a "political animal" as does Aristotle. This is to be expected if one bears in mind what history is for Hume and Rousseau; the human scene is the motions of men as masses of matter in spatial and temporal isolation, that is, their motions resemble those of the parts of a machine. No philosopher who founds the state on a social contract can look upon man as a "political animal," for in the social contract theory we have the element of hostility between men. Rousseau thus lays the blame for man's ills on the growth of society, and this hostility of men towards one another and Rousseau's hostility towards society permeates his Social Contract in no uncertain way.

Rousseau wrote the Social Contract from the point of view that man is really not a "political animal," but that since he has been corrupted by his own advancement and fall into society, and has become insufficient in
himself and dependent on others, he is now in society and must get along with his fellow men somehow. Rousseau's task is to justify the subjection of men to society by finding some form of subjection to society which will, as far as possible, preserve the isolation of individuals from one another.

He may have chosen the expedient of a social contract to resolve the ills of society because he thought that men may really have been forced into such a contract by their continual warring against one another, but this expedient was certainly also the prevalent one of the time. Hobbes used it and so did Locke, while Hume, though not actually using it, nevertheless writes politics as if he supported it. Now if the social contract idea was the prevalent idea of the time, one must expect to find other ideas prevalent at the time, to lie at the root of it. One of these is the idea of mechanism. A mechanism is, as has been pointed out, a thing of which the parts function in spaces and times which do not interpenetrate. This is precisely the characteristic of the state founded on the social contract. Underlying the idea of any social contract is the notion that men are isolated from one another in space and time and at war with one another. Human relationships have become clashes of material particles in motion in Galileian space and time, the space
and time of a mechanism. Rousseau, in fact, tells us very clearly that this is how he sees men.

(ii)

Now if men in the body politic are merely masses of matter in motion, "bereft of all morality" as Rousseau says they are for him, then the body politic must derive all morality from outside men and, consequently, from outside real space and time. Morality is then nothing more than the regulation of the motions of masses of matter, that is, it is a forced, utilitarian morality. This Rousseau tells us in the Social Contract, and his words are at the same time an admission that this forced morality leads to two freedoms: the freedom of the state of nature and civic freedom. Between these two freedoms there is no bridge, and this too, Rousseau tacitly admits. We shall show, however, that what he calls civic freedom, is a spurious freedom. In Hume's philosophy we find something similar: Hume makes a distinction between "natural relationships" (friendship, family ties, etc.) and "artificial relationships" (those that arise because the state becomes necessary). This brings us to the question of legislation.

The General Will makes the laws, says Rousseau, but the General Will is atemporal so that its laws must also be atemporal. It legislates to stop the state of war be-
tween men, that is, it regulates the motions of men (masses of matter) in Galileian space and time to prevent clashes. In this sense its laws are a flight from real space and time. We find then, that the legislation of the General Will is legislation for civic freedom, a freedom into which, Rousseau tells us, men can be "forced," a freedom of which the space and time prove to be those of Galileo's physics. The legislation of the General Will is therefore legislation for Galileian space and time, for men who are spatially and temporally isolated from one another. Hume's political thought follows the same lines.

We now go on to study the characteristics of the entity which legislates, the General Will.

(iii)

Rousseau's men do not stand at a now in which they are faced with a particular situation which calls their wills and choice into action. Their wills are assumed in the General Will which makes all decisions and directs the wills of the individuals. The person therefore at once ceases to be free since his will is replaced by another which is not his. He can no longer strive after personality, since freedom of will and action is a prerequisite for this striving.

Now since the General Will has to keep these men who have become masses of matter, from clashing in chaos, it
is a device and not a person. Rousseau admits this when he speaks of the state as a *persona ficta*, and the contention that the General Will is a device is further supported by the method which Rousseau gives for determining it: by a mere algebraic summation. But the fact that the General Will is so very corruptible by the things of time that Rousseau has to place it in Galileian space and time, is perhaps the strongest testimony to its lack of personality. The Sovereign then becomes altogether ahistoric, and must be bound to the subjects by mechanical bonds and not through the confluence of spaces and times.

(iv)

Rousseau takes precautions to protect the General Will against corruption by the things of time and the "seduction of particular wills." It must be "educated" to know what is good for the people, and among the things that it must be taught is to see spaces and times as a series, that is, it must be taken out of real space and time and placed in the space and time of predictability.

In order to educate the General Will Rousseau needs the help of a Legislator. This Legislator will, however, like God, have to stand outside time, and would himself have to be something of a god if he is to be all that Rousseau wishes him to be. He would, moreover, soon have the General Will at his mercy and become the de facto
ruler of the state and make men even more isolated parts of a machine.

Hume regards men no more as "political animals" than does Rousseau. This follows from his fragmentation of human psychical life: If our inner life is an artificial composition of succeeding fragments of sensation, our outer life must be an artificial relationship of things in Galileian space and time. If a man becomes an abstraction, so must his society become an abstraction --- a collection of its. Hume does, in fact, look upon the state as an artificial construction.

CHAPTER 6
Justice and Morality in Derived Space and Time

(i)

If, in Hume's and Rousseau's states, human beings are alienated from their true selves and from every other person, we must expect to find in the thought of our two philosophers conceptions of morality quite unlike those which we find among persons related to one another through the overlapping of the spaces and times of their inner lives. We have found that human relationships are mechanical since men have become matter in motion. To prevent clashes the Sovereign has the duty of policing, and that it actually is a policeman, both Hume and Rousseau tell
us in the Treatise and the Social Contract. Justice becomes the keeping of the peace and is divorced from the meeting of men; it becomes utilitarian.

Hume's theory of good and evil is precisely that of Hobbes: they are nothing but new names for pleasure and pain respectively, and this pleasure and pain result largely from motions in Galileian space and time. The Sovereign must then see to it that no person causes pain to another: this is justice. It is clear that there is no connection between good and evil and society, that is, there is no history in morality; the individual is solitary and exclusive.

When Hume writes on morals he uses the language of a scientist, saying, for instance, that "in the production and conduct of the passions there is a certain regular mechanism...." He treats morality as Newton treats moving bodies. This is to be expected since he writes on morals in terms of the "universal man."

(ii)

Hume's theory of good and evil provides us with a clue for the breaking of the cycles of past events, that is, for the substitution of progress for history. To break these cycles an act of will would be required on the part of men, but men cannot choose except in so far as they can avoid pain and grasp at pleasure. Now if phi-
losophers (like Hume and Rousseau) can provide a blue­
print for a society with order and pleasure and without
pain, this absence of pain and presence of pleasure (ab­
sence of evil and presence of good) will awaken desire in
men and they will then adopt this society. The cycles of
the past will then have been broken.

Clearly Hume's morality is a morality of feeling.
This morality, associated with utilitarian justice (order
in society) gives us grounds for saying that as Hume dis­
tinguishes between "artificial" and "natural" relation­
ships, he implicitly distinguishes between an "artifi­
cial" and a "natural" virtue and an "artificial" and a
"natural" morality. "Natural" virtue and morality then go
with "natural" relationships just as "artificial" virtue
and morality go with "artificial" relationships. Between
them there is a wide rift which cannot be bridged, even
though both have their roots in feeling.

(iii)

Rousseau's feelings are all-important to him, and
virtue is, for him as for Hume, a question of feeling. It
has nothing to do with the relationships between persons
and is consequently ahistoric. Rousseau's autobiographi­
cal works, especially the Confessions, abound with in­
stances where the author lays stress on the virtue of his
or someone else's behaviour simply because that behaviour
touches his feeling. Provided an act could in some way be made to give Rousseau a feeling of virtue, it was virtuous. This virtue is not established by an I-Thou relationship; it is centred only on the person who feels.

Basically Rousseau's virtue of feeling is the same as Hume's. Whatever transmission of sympathy and morality there is between men, is purely mechanical; there is no overlapping of spaces and times, and no becoming. The transmission is similar to the conduction of heat in a solid where energy is handed from atom to atom: it is a matter of cause and effect. Consequently there is no connection between religion and morality in the thought of our two philosophers. Certainly Rousseau's "natural religion" cannot be founded on anything but feeling.

(iv)

Since morality is, for both philosophers, a matter of utility, one must expect religion also to become a matter of utility. It turns out, in fact, that both Hume and Rousseau wish to create a utilitarian state religion. The General Will, and not God, then becomes the Sovereign. We have here a very clear destruction of the "vertical" relationships between men and God wherever men regard such relationships as existing. Rousseau's natural religion is not itself the state religion, for it does not encompass other people; whatever one has to do with other
people is a matter for the state. Hence the state religion. This state religion is a designed religion closely connected with the control of people to which attention is given in the next chapter.

Now if the state is a mechanism outside real space and time, the state religion must also be outside real space and time. It becomes an instrument for regulating the motions of masses of matter, and its space and time are the space and time of Galileo's physics.

CHAPTER 7
The Control of Men as Masses of Matter

(i)

The hostility of men towards one another that underlies the social contract theory, makes this expedient to resolve the problems of society an expedient in which the control of men is inherent. We commence our examination of this control with the deprivation of their wills by Hume and Rousseau. Both require that for order among men to come about, men should place their wills at the disposal of some larger, all-embracing entity which Rousseau calls the General Will. This means that a person whose will is so assumed in the General Will, suffers a loss of will. Our two philosophers go further: they have the notion that a person can be forced into freedom. Dissenters
from the General Will, says Rousseau, must be compelled to bring their wills into conformity with their reason (which would tell them that the General Will is right). Compulsion is control; the individual becomes will-less and comes under the control of the General Will.

The "forcing into freedom" is then really a suppression of personality. Civic freedom becomes a freedom from clashes with one's fellow men, but can extend no further. Since real freedom is so closely bound up with human personality, and since men have, in the philosophies of Hume and Rousseau, come to be particles in motion, it should not surprise us to find these two philosophers using the word freedom to indicate something connected with forced morality and utilitarian justice. The freedom of Hume and Rousseau is something quite apart from human personality and consequently outside real space and time. It is, however, a spurious freedom. It is a freedom from fear of one's fellow men; a man wills laws, not because they are a striving to the Good, but because his will has been directed by the danger of exploitation by his fellow men, or by the control of the General Will.

(ii)

If morality in the body politic is forced, and if freedom itself is closely connected with compulsion, we
have a controlled and "designed" morality in the state. The state must then become that around which the control must centre, for morality and justice go no further than the keeping of the peace among men. Control and design of morality must, in turn, issue in a control of religion, consequently Hume and Rousseau alike are in favour of a state religion. This state religion is nothing more than an instrument to aid in the control of men in the ending of the war of man against man. It ends, however, in the isolation of God from men as men are isolated from one another. The state and its laws come first. We find then, that the space and time of this state religion are the space and time of Galileian mechanics.

(iii)

If one asks on what grounds a man should be expected to accept the state religion, the answer can only be that he must accept it if he wishes to be a good citizen. Privately the citizen can believe what he pleases "so long as their dogmas contain nothing contrary to the duties of citizenship."

The question of forcing a man into freedom, taken together with the notion of forcing him into a state religion, raises the question of whether it would be possible for anyone to consider himself as not having been a party to the social contract that created a particular
state with its legislative body. The answer seems to be that a man cannot do this. The social contract is then not a contract of consent; individuals are forced to consent as they are "forced into freedom."

(iv)

The control of the General Will over men extends further than their persons: it includes their property. Rousseau leaves no doubt that the individual is to have no choice or say in the matter of what he would be willing to part with in exchange for the blessings of citizenship. The General Will is the sole judge, and it can judge that it should control everything. Rousseau's (and Hume's) thought consequently contains the germ of state-owned property. We find that the arguments which Rousseau might have had against this judgment are not valid, and the conclusion which forces itself upon us is that the social contract expedient is a blueprint for a society in which men and their belongings are controlled as matter is controlled in a workshop. The space and time of Galileo's physics apply to men and things alike. The licence granted for "forcing into freedom" is really a licence granted for the enslavement of men by the "superman" as history has seen in several countries this century.

(v)

We now link up the thought of our two philosophers
with the actual events of history in their own century and after, and with certain characteristics of our times.

The state created by Hume and Rousseau, we have decided, is a mechanism, an artificial construction in which men are controlled as parts. This mechanism goes with the notion of Hume and Rousseau of a science of man. The purpose of the science of man is the creation of a good and orderly society, but this society turns out to be one which cannot be orderly without the control of the General Will over the citizens.

About a decade after the deaths of Hume and Rousseau the French Revolution, instead of establishing a true democracy, established an extensive coercion of men, a "forcing into freedom," and the bloodshed of this period in French history testifies to the force that is necessary to make men "universal men," and to strip them of the spaces and times proper to them.

At the same time there was an expansion of Europe to dominions beyond the seas, and Europe began to "think imperially." Imperialism meant movement, of both men and matter with little distinction between the two. It meant that men were subjected to the same space and time (that of Galileian science) as things. From the necessity to dominate matter flowed the necessity to dominate men, so that we have a blossoming of the slave trade and a total
disregard for the well-being of workers, male, female and even children.

(vi)

We end this thesis with a consideration of our own age. The worker in any industrial country is still very much a reified engine of production. He is, therefore, a controlled part of the mechanism which is modern industry, and his motions, like those of the things he handles, are in Galileian space and time. If we wish to point out that our industrial age seems to disregard what Bergson, Alexander, Heidegger and others regard as real space and time, we must also point out that our age is applying the space and time of the thought that produced the age. For some three centuries Europe has been told that space and time were outside the human person, imposed on him by the succession of events and things in the material world.

It seems that we can rightly speak of a space and time of freedom, and a space and time of control. In the space and time of control, which are the space and time of technics, the actions of men are not responsible actions and personality must be submerged in the necessity of law and prediction. The space and time of freedom are the space and time of the historicity of men, that is, their possession of choice and responsible action emerges.

The control of men as masses of matter may seem a
strange outcome in the thought of two philosophers who were champions of the individual. We can explain it only by the fact that they isolated the individual in space and time. They did not see him as a directed being with a subjective, personal space and time overlapping those of other individuals. For the sake of the individual they wanted a science of man and the order that goes with it; they failed to establish that order without subjecting the individual to control.

CHAPTER 8

A Postscript: From Hume and Rousseau to Heidegger

Heidegger is of special interest to us because we made such liberal use of his thought in this study. Now Heidegger is much concerned with the future of mankind, and this concern can be linked to the thought of Hume and Rousseau through the reification of men as we see it in the industrialized world of today, and their separation from the spaces and times proper to them. For Heidegger the central fact of man's present history is technology, through which he has acquired a domination over things and has achieved the first global civilization in history. This civilization was given to the world chiefly, or almost entirely, by the West, and Heidegger tells us that the West could do this because it inherited the thought of
the Greeks whose philosophy "detached clear and distinct objects from the enveloping presence of Being and made these into objects for rational research. Because the Greek philosophers began to grasp Being in a certain way, science became possible."

In the light of this thesis this separation of objects from Being is, in fact, a separation of things from the spaces and times proper to them. It was, we have said, because of the separation of men from their subjective spaces and times, the spaces and times proper to them, that men became things. Now Heidegger thinks that the age of technology will last a very long time. The consequence, he thinks, (which is really the consequence of the separation of things from Being and, in the light of this thesis, from the spaces and times proper to them) may be that man will lose his historic sense altogether and live in a present of ceaseless technological change.

For Heidegger, as for Spengler, our present era is the evening of the West, an evening before a night that may be very long before there is another dawn.
CHAPTER 1
Outline of the Subject and Historical Background

(i)

Certain words in the vocabularies of all languages derive their meaning from human intercourse, that is, they indicate that a man is a member of society. We point in English to such words as love, comradeship, sympathy, state, law and obligation, and we say that they cannot have a meaning for a man who is altogether cut off from his fellow men. When we use these words and others like them, we use them as implying some sort of bond between one human being and another (or others), that is, they indicate the existence of what we call human relationships. In this study we shall be concerned with the grounds and nature of these human relationships as they are conceived in the thought of Hume and Rousseau; by implication, therefore, different people have different notions of the grounds and nature of human relationships, that is, the concepts which such words as love, comradeship, sympathy, state, law and obligation convey to people, vary from person to person.

Now we can hardly think otherwise than that our notions of human relationships are determined by our views on human beings, so that when we contemplate human
relationships we are at once involved in questions about human beings as human beings and quite apart from their relationships to one another. Questions about human beings which will be of the greatest importance to us in this study will be those about human personality and human nature. We shall hold that both Hume and Rousseau treat human relationships in terms of human nature rather than in terms of human personality. This study is, broadly speaking, a study of the consequences for the individual and society of this course in their thought.

Our contention will be that they take this course because they adopt a particular space and time, those of the science of their day. The outcome of this choice is that, whereas for a thinker such as Martin Buber "Thou (that is, a human person) has no bounds," Hume and Rousseau give human beings sharply determined bounds and make them limited objects, as is suggested by Rousseau when he tells us that he sees men as "masses of matter." There is something profound in human relationships for Buber; for him "All real living is meet-

1) I and Thou, Page 4. In this statement Buber wishes to tell us that the physical limits of the human body are by no means the boundaries of human personality.

2) This is an important remark by Rousseau and we shall return to it in due course.
ing, "1) and it will become clear presently, that the word meeting provides a key to the difference between human relationships seen in terms of personality and human relationships seen in terms of human nature. Buber sees this meeting, not as a mere crossing of paths or as a "coming across," but as a "coming together." In the course of this study this "coming together" will be explained as in effect a confluence or interpenetration of spaces and times of human persons. We shall consequently encounter the notion that the human person is surrounded by a space, very much as a magnet is surrounded by a magnetic field, 2) and that it is possible for persons to have a common time in a sense quite different from being together at the same moment indicated by a clock. We shall point to the absence of such a notion in the thought of our two philosophers and the consequent inability of their men to meet.

In his contention that all real living is meeting, Buber expresses his conviction that men possess a directedness 3) towards one another which lifeless objects

1) I and Thou, Page 11.

2) Hence his "boundlessness" in Buber's sense of the term. The modern physicist is well aquainted with this notion. See Chapter Note 1.

3) See Chapter Note 2.
do not possess. Meeting is the effectiveness of this vectorial nature of men, so to speak, and we shall hold that it involves a space and time quite different from those which apply to scalar entities such as stones, which cannot meet. We shall hold, furthermore, that there is a connection between this space and time and human personality which cannot exist between personality and the space and time which apply to lifeless objects. The directedness of men consequently flows from human personality by virtue of this space and time, so that when we say that Hume and Rousseau see human relationships in terms of human nature rather than in terms of human personality, we intimate that they fail to recognize this space and time of personality and look upon the space and time of metre sticks and clocks as those of men and things alike, that is, as the only possible space and time.

As obvious indications of the directedness of men we can point to their speech, and to the fact that words such as love, comradeship, sympathy, state, law and obligation which men use in their speech, require their directedness if they are to have any meaning. (The "shade" or "tone" of the meaning of such words as these will, in fact, depend on the extent of the directedness which

1) Henceforth, whenever the word meeting is underlined, it will have the sense which Buber gives it.
we attribute to men). Now speaking is an action, and words which indicate a directedness more often than not require some sort of action, and these cannot but involve a man's fellow men. Furthermore, we look upon man's speech as the possession of a being endowed with reason and self-consciousness; we doubt the possession of this reason and self-consciousness by animals and plants, in fact, because they have no speech, though, no doubt, also for other reasons.

Human relationships seen in terms of human personality must have as their source, then, the human person looked upon as a self-conscious, directed and acting being. The Christian thinker, Kierkegaard for instance (and certainly St. Thomas Aquinas), would add to this: "which is a unity of body and soul," but for the moment we are concerned with the words acting and directed. To possess human personality a man must be assumed to possess a freedom to act and exercise his directedness. In the context of human personality the idea of freedom is an important one; thinkers of our century, in fact, seem to regard freedom as a sine qua non for the possession of personality, but since it is so closely connected with action, personality seems to be created by action, that is, by the "putting into operation" of freedom.

1) See Chapter Note 3.
Consequently it is possible to lose personality or never to achieve it, or to achieve it only imperfectly. ¹)

Now when Hume and Rousseau fail to recognize the space and time of personality and place human beings in the space and time of lifeless objects, they take this ability to act away from them; this follows necessarily from the contention that they do not see human relationships in terms of personality. It must follow also, that they take away the directedness of men. This amounts to a "dismantling" of the human person, so that men can no longer meet their fellow men. The actions of men then, require a space and time quite different from the space and time of the forced (or caused) motions of lifeless objects, and we shall find it necessary, before we go on to study those particular aspects of the thought of our two philosophers with which we shall be concerned, to investigate different spaces and times, and to apply the knowledge gained in this way to the questions of meeting and action. In the course of this investigation it will become clear how, if men cannot meet and act, they remain undifferentiated from one another as things are which have no personality, and possess only human nature, which is an attribute which all men have in

¹) An infant, therefore, has no personality, or is at most a very imperfect person. He has to acquire or "earn" personality in the course of growing up.
common. This means that if men are stripped, as it were, of the space and time of personality, they become abstractions, and the basic guiding influence in the thought of Hume and Rousseau in their treatment of human relationships is then precisely that they reduce human beings to abstractions.¹)

Now in studying the thought of Hume together with that of Rousseau, we are coupling two men with widely different characters, and we have every reason to expect that their methods and approaches to the questions they examine, differ as widely. We find that this is indeed so; Hume is an empiricist, and Rousseau has been called the father of romanticism, yet their thought has this common outcome of the reduction of men to abstractions. It would therefore not be unreasonable to surmise that there is an underlying bond between Hume's empiricism and Rousseau's romanticism, and that this common outcome in the thought of our two philosophers is a mode in which it manifests itself. This bond we shall attempt to trace with respect to space and time.

(ii)

For a better understanding of this common outcome in the thought of Hume and Rousseau and the underlying

¹) Compare Roubiczek's *Existentialism, For and Against*, Chapter 1, Page 11.
bond which it indicates, it is necessary that we examine them in the light of the century in which the two men wrote. Our two philosophers were contemporaries in the Enlightenment of the eighteenth century; only a year separated their births and two years their deaths,\(^1\) and their lives stretched over fully two-thirds of their century, so that, although they were among the makers of that century, they also stood fully exposed to its influences.

The age of the Enlightenment was, as Whitehead puts it,\(^2\) "an age of ferment" following the passing of the system of life and thought of the Middle Ages. The concern of Hume and Rousseau with society has its roots in this "ferment," in the disturbance in human affairs brought about by the passing of a long-established order of things.\(^3\) The "ferment" was really a "rethinking" of man and his position in the scheme of things, and a search for new foundations for his life to replace those of the Middle Ages which had now been discarded. One must see the thought of Hume and Rousseau as part, not


2) Science and the Modern World, Chapter 1, Page 1.

3) Though science, as we know it today, received a great impetus at the close of the Middle Ages, the period that followed was in many ways one of general disruption and decomposition. See Appendix 1.
only of this search, but also of the discarding of the old foundations. The consequences of the "rethinking" of man in the Enlightenment reached beyond the eighteenth century into our own, and it is this that makes the philosophies of Hume and Rousseau important for our times.

In his popular book The Story of Philosophy, Will Durant conveys the spirit of the times of the Enlightenment to us in the statement that "the ancient God fell from his throne along with the Bourbons, heaven faded into mere sky, and hell became an emotional expression."¹ We can add to this that, along with God and the Bourbons, man fell from his position of Crown of Creation which he had held in the Middle Ages, to being a phenomenon to be studied by science. The "rethinking" of man left no aspect of human life untouched. Temmer sees it as an attempt "to prove the self-sufficiency of nature and intellect as opposed to any transcendental mediation,"² and quotes (through Cassirer) the words of D'Alembert³ (who had a part in this rethinking) as

1) Chapter 6, Page 227.
2) See Chapter Note 4.
3) Éléments de Philosophie en Mélange de Littérature, d'Histoire et de Philosophie, (6 vols., Amsterdam, 1759), Vol. 4, Pages 3 and 4. Quoted by E. Cassirer in The Philosophy of the Enlightenment, Princeton, 1951, Page 6. (This footnote appears also as a footnote in Temmer's Time in Rousseau and Kant, Chapter 4, Page 58.)
testimony to its thoroughness: "Thus from the principles of the secular sciences to the foundations of religious revelation, from metaphysics to matters pertaining to taste, from music to morals, from the scholastic disputes of theologians... everything was discussed, and analysed, or at least mentioned..." Everything was discussed, however, in terms of what we might call a credo, worded by Hazard in such a way as to suggest that search for proof of the self-sufficiency of the intellect was considered quite unnecessary: 1) "Reason is self-sufficing. Whoso possesses reason and uses it aright, never goes astray: neque decipitur ratio, neque decipit unquam. Reason treads infallibly the road to Truth. Reason needs not Authority, of which she is, practically speaking, the precise antithesis, Authority being the fountain-head of error. Reason reeks not of Tradition; nor does she concern herself either with the Ancient or the Modern School. Every aberration comes of believing blindly in things without investigating them in the light of reason."

We shall be concerned with four characteristics of this period, which we shall find reflected in the writings of our two philosophers: 1) Its naïve self-as-

surance and its apotheosis of science (without a knowl-
edge of its limitations, however). 2) Its hostility to
Christianity. This issued from its boundless faith in
science. 3) Its physico-mathematical orientation in
which the work of Galileo looms large. 4) Its scientif-
ically-inspired notion of progress as opposed to history.

We shall, of course, be concerned with the concep-
tions of space and time of this age, and also with its
views on men, but these go with, and issue from, its
world view, which was one of rigid causality, objectiv-
ity, simplicity and absoluteness, from which the human
point of view and the passage of time as it had been
contemplated by the mediaeval Christian thinker, had
been eliminated. 1) From such a world view the reduction
of men to abstractions must necessarily follow. The En-
lightenment intellectual sees a man as a phenomenon to
be studied scientifically; an underlying assumption is
therefore that he is exactly like another man, that is,
he has lost his individuality and is looked upon as an
example of a class of beings. The man of the Enlighten-
ment is a "constructed" man, "built up" with attributes
which individual men have in common; he is the "uni-
versal" man or "man-in-general" and is a standard example
of a phenomenon in which science is interested. It is in

1) See Chapter Note 5.
looking upon this man, an abstraction required by science, as a subject for philosophy, that Hume and Rousseau are children of their times, and show us to what extent the science of their age permeates their thought. When the eighteenth century dawned, this science had become a veritable flood which no intellect could escape, so that even Rousseau, with all his antipathy to science, appears to have been more influenced by it than he knew or cared to admit.

Now two of the attributes of individual men which are left out of account when the Enlightenment science and philosophy construct a standard man, are what we shall call their private subjective spaces and times. The reason why they are left out of account is precisely that they are private and subjective and not common to all men. These subjective spaces and times are those by which men are able to meet; we shall find, consequently, that this constructed man cannot meet another man, and this inability of abstract men to meet determines what human relationships are in the thought of Hume and Rousseau. Hume's treatment of man on scientific lines (in which he adheres strictly to the methods prescribed by Francis Bacon) eventually leads him to see the human scene as a machine. Mechanism is also the outcome of

1) See Chapter Note 6.
Rousseau's contemplation of man among his fellow men, though it may seem, at first sight, a strange outcome in the thought of a man who was as hostile to science as was Rousseau. We have seen, however --- and it will become more evident as we proceed with this study --- that it is a result which is quite in keeping with the spirit of the age, the influence of the science of which he could not escape.

Now we shall be much concerned with the word mechanism and its import for human relationships. An immediate question therefore seems to be: What are the characteristics of a mechanism with which we would justify the statement that mechanism is the outcome of the thought of both our philosophers? We can point firstly to the fact that the parts of any machine function in spatial and temporal isolation, and secondly to the fact that these parts do not move of their own accord, but need a motive force outside them to set them in motion. Now if both Hume and Rousseau make men abstractions which spatially and temporally exclude one another and have lost the ability to act of their own free will, the similarity between the men in their thought and the parts of a machine at once becomes clear.

(iii)

Science, however, provided a closer bond between
Hume and Rousseau than the common outcome of mechanism in their treatment of human relationships, one from which, in fact, the common outcome of mechanism is a logical issue. This closer bond is associated, furthermore, with the hostility to the Christian faith which is so characteristic a feature of the Enlightenment, and which we find also in the thought of our two philosophers. It is to be found in the reply to the question: "What must I do to be saved?" This reply formulates what might be called the dogma of their age: "You know perfectly well what to do: your own nature informs you.... whether you looked without or within, Nature (without any supernatural revelation) offered you all that was needed for salvation."¹ Here then, we find another manifestation of an underlying bond between romanticism and empiricism: NATURE in which they both have their roots. We shall find that the space and time of this nature of the Enlightenment are the space and time of the science which brought it to the fore and sought to prove its self-sufficiency,² as Temmer puts it, without

1) See Willey's The Eighteenth-century Background, Chapter 1, Page 15.

2) Compare Maritain's Moral Philosophy, Chapter 6, Page 92: "From the time of the Renaissance to that of Kant, the spectacle offered by moral philosophy is one of progressive secularization or 'naturalizing' of the traditional Christian heritage."
any transcendental mediation.

But it would be an error to think that with the fall of the "ancient God" from his throne, Europe fell suddenly into atheism and that the Enlightenment reverence for nature was synonymous with atheism. What took the place of the Christian faith in intellectual circles was a deism. 1) This was a belief in a god through the universe; we have the view of a "divine universe" through the "rehabilitation of nature." 2) It was only when, through the influence of the mathematical sciences (which we shall discuss presently), nature became identified with the "great machine" that atheism could become a competitor with this deism which was as hostile to the established Christian faith as was atheism itself. There was no function for God after the construction of the machine which was the universe, 3) and He could therefore be dispensed with and eliminated from its further work-

1) See Chapter Note 7.

2) Willey's term. See his The Seventeenth-century Background, Chapter 2. Men's eyes had to be turned away from "other-worldly" things and fixed on nature. See Chapter Note 8.

3) See Appendix 3 and also Footnote 1 overleaf. There was, of course, those who did not require God even for a creation. Compare also Willey's The Eighteenth-century Background, Chapter 1, Page 11: "...the universe came more and more to be regarded as the Great Machine, working by rigidly determined laws of material causation."
ing, for it now ran in accordance with fixed laws and could be relied upon not to fail.

A part of this machine, a very intricate part perhaps, and really another mechanism, but still a part of the whole, was man. Man was induced to look upon himself, no longer as a being for whose benefit the universe existed, and placed therefore at its centre whence he could survey all in the light of Scripture, but as an item in Being, subject to all the laws of nature.¹ Purpose in his existence was taken from him and scientific cause and effect substituted; his persuasion of a destiny in God was made a persuasion of a salvation in this world in a Utopia which was held to be within his grasp. We shall be concerned in this study with the share which Hume and Rousseau had in the establishment of the notion of "the heavenly city of the eighteenth-century philosophers" as Becker calls this Utopia in the title of his book on the thought of this period. It is a share in which the notion of nature plays a significant rôle, but a rôle which is inseparable from their idea of progress.

¹) See Burtt's The Metaphysical Foundations of Modern Physical Science, Introduction, Pages 4, 5 and 6, and compare this description of mediaeval thought with that given by Leighton in his The Field of Philosophy, Chapter 13, Page 157, of the period that followed the birth of science. See Appendices 2 and 3 and also Chapter Note 9.
This is to be expected, since science made their age and science in its progress had brought nature to the fore. The preoccupation of the Enlightenment with nature cannot be seen out of the context of this idea of progress: there must be uninterrupted improvement (as there is in science), and everything must be better than that which preceded it. We shall find that this progress is quite unlike history and had to take the place of history in Enlightenment thought.¹)

Now once nature had taken the place of the "ancient God" its reduction to a machine by the all-pervading influence of mathematics was assured. Consequently where nature enters into the views of our two philosophers on men and their relationships to one another, it enters in the guise of mechanism, and progress becomes a machine-like movement or a series of machine-like movements. A machine is a neat and orderly thing, and through science nature had come to be synonymous with order, unity, perspicuity and proportion, the opposite of the non-repetitive universal change which we shall associate in the next chapter with the time of the Hebrew and Christian God and with history.

¹) We shall also find it difficult to resist asking: Does this sort of progress not lead to nothing? Is there not a sort of nihilism latent in it?
We shall encounter this mathematical orientation of the eighteenth century again when we come to investigate the space and time of a material mechanism and their derivation, but we are concerned at this point with its immediate effect on the contemplation of man. Since it was this characteristic of the eighteenth century which made nature synonymous with a machine, it lies at the very root of its tendency to make human beings abstractions. The more spectacular results were shown by those sciences which made prediction possible,\(^1\) that is, the mathematical sciences such as physics and astronomy, especially the subdivision of physics which we know as mechanics. It became an assumption of the Enlightenment that reason with its mathematical weapon could cope with any investigation that had to be undertaken and "that the real may be identified with the quantitative."\(^2\) So thoroughly did the mathematical sciences dominate the age that even "the later biological and sociological branches took over their basic postulates from the earlier victorious mechanics."\(^3\) If Galileo had been correct in saying that God had written the book of the universe

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1) See Chapter Note 10.
2) See Chapter Note 11 and also Appendix 3.
in mathematical characters, then man could be looked upon as a measurable quantity, "...for magnitude, body, motion, time, degree of quality, action, conception, speech and names (in which all the kinds of philosophy consist) are capable of addition and subtraction."¹)

Hume takes up the study of man at this point, and, looking upon himself as the "Newton of moral philosophy," wishes to see a "science of man" created²) so that order and certainty might enter into human affairs."But may we not hope," he asks,³) "that philosophers, if cultivated with care, and encouraged by the attention of the public, may carry its researches still farther and discover, at least in some degree, the secret springs and principles by which the human mind is actuated in its operations?

... a philosopher... arose who... determined the laws and forces by which the revolutions of the planets are governed and directed.⁴) The like has been performed with regard to other parts of nature. And there is no reason to despair of equal success in our enquiries concerning

¹) Hobbes in De Corpore, Chapter 1, Section 2. Hobbes visited Galileo in 1638. See also Chapter Note 12.

²) We shall return to this point in Chapters 4, 5 and 6.

³) Of the Different Species of Philosophy Sec. 1 of An Enquiry Concerning Human Understanding, Page 11 of Volume 2 of the Essays.

⁴) Hume is here referring to Newton.
the mental powers and oeconomy if prosecuted with equal capacity and caution."

It is clear from this passage how Hume --- and Rousseau shares his belief in the possibility of a science of man --- links order in the affairs of men with foreseeability of these affairs, that is, if there is to be a Utopia, the way in which all men "function" must be known so that society can be pre-designed as it were. Now all men cannot be known except if only those characteristics which all have in common, are taken into account. Consequently the science of man becomes a science of man-in-general, a science of abstractions. 1) The science of man becomes a science which, like any natural science, simplifies, and in the eighteenth century it simplified man to take his place in the simplified universe of the mathematician. 2) With such a dismantling of the human person La Mettrie's *homme machine* 3) becomes man a thing, even though he is still more complicated than a stone.

1) Compare Bultmann's *History and Eschatology*, Chapter 1, Page 8: "Man himself also became the object of natural science, and therefore the question of his real self, as something distinct from the world of sense experience, was eliminated..." See also Chapter Note 13.

2) See Chapter Note 14.

3) See Chapter Note 15.
This dismantling of the human person has a further significance, which cannot be neglected: it lends support to the control of human beings which issues as a corollary from Hume's and Rousseau's treatment of human relationships. The control of men is a necessary implication of the utilitarianism which emerges when we analyse the thought of these two philosophers: to establish order in human affairs and to create a Utopia, both Hume and Rousseau have to establish control over its citizens. Prof. Versfeld couples the utilitarianism of the times from Descartes onwards with, not merely an estrangement of human beings from one another, but a decided hostility between them, and traces both to the reduction of men to things which cannot meet: "It is a most curious metaphysical situation that the natural light in which the Cartesian subject was evident to itself, was used to illuminate the physical world, and to canalise the Western intellect in the direction of concentrating its energies on thinking about things rather than persons. The isolated spiritual atom concerned itself with illuminating the physical world, and when it thought about itself, it thought about itself as a thing.....One of the consequences of this reification of human beings is

1) See his Education for Africa.
to destroy the space and time proper to them. A stone spatially excludes another stone. When Thomas Hobbes reduced human beings to a sort of complicated stones, he made them exclusive of each other, and thereby laid the foundation of that egoism which served as an ideological basis for the exploitation of man by man."

The last sentence of this passage obviously refers to times after Hobbes, even after Hume and Rousseau, to our own times, in fact. 1) For the purpose of this introductory chapter, however, we look no further than the nineteenth century. In that century science became even more powerful, more independent and capable of more spectacular achievements, and from science man derived an ever greater self-assurance. 2) This was not only the century of Charles Darwin’s Origin of Species which seemed to destroy the last arguments of religion for a divine origin of man, but it was also the century of the explanation of chemical changes in terms of changing combinations of atoms. This latter achievement ultimately found its way into biology and consequently to the very basis of the life process. It seemed indeed that the mechanical and material view of the universe was being confirmed

1) This is evident when we read the quoted passage in its context in the essay.

2) See Chapter Note 16.
from every quarter of science. Galileo's mechanics, transplanted to men, made of them "blindly operating mass particles moving in space,"¹ and of their actions "the inescapable consequences of a blind push from the past......the inevitable echo of the past."²

This effect of science, moreover, went hand in glove with the effects of two important events in history: the incipient industrialization of Europe, and the colonization by European powers all over the world. The achievements of science and the new technology that was gradually beginning to flow from them, were the beginnings of the almost complete conquest of matter as we know it today, and the age of industrialism.³ These beginnings not only came at the same time as, but aided and also made necessary, the conquest and colonization of new worlds in almost every corner of the Globe by West-European nations, both for sources of raw materials and markets. So the control of matter made necessary the control of men; this control of men went a step further

¹) See Leighton's The Field of Philosophy, Chapter 14, Page 157, and also Appendix 3.

²) Ibid.

³) James Watt obtained his patent for his steam engine in 1769, for instance, about a decade before the deaths of our two philosophers. Here we have one of the beginnings of the rapid displacement of man in space and the annihilation of time in our century.
and became an actual manipulation of some men by others, so that we have a very definite reification of men by the events of history. Thought and the events of history move so perfectly "in step" with each other from the seventeenth century onwards that the conclusion that they are intimately bound up with each other, that the one is the outcome, or at least the justification or encouragement of the other, is difficult to escape. This will be the subject of our investigation towards the end of this study. Our immediate task, however, is an examination of space and time and their connection with the human person. We undertake this in order to discover the process in the thought of Hume and Rousseau by which the human person is dismantled by the destruction of what we have termed his subjective natural space and time.
CHAPTER 2

Spaces and Times and the Human Person

(i)

The scope of our examination of space and time is determined for us by the purpose of our study, and we shall be interested in and investigate 1) the nature of spaces and times which allow meeting; 2) the nature and purpose of space and time which do not allow meeting, that is, the space and time of the motion of lifeless objects; 3) the derivation of the latter space and time as a necessary complement to and fulfilment of the needs of the development of science from the seventeenth century onwards. We shall find that Hume and Rousseau, inspired by the science of their day, adopted this space and time in their quest for a "science of man."

Before Galileo the time element played no rôle in physics, though there are indications that its introduction had been felt to be necessary. The physics of Archimedes was an altogether timeless physics as the geometry of Euclid was (and is) an altogether timeless mathematics. With the advent of the Middle Ages and scholastic thought, the central problem that occupied the minds of men was not the material world and its conquest, but the relationship of man and the world to
God and eternity. The elements of space and time entered into the thinking of men through this contemplation and not the contemplation of the physical world. We shall have occasion to give attention to this rôle of space and time in mediaeval thought since we shall need a "background contrast" for the study of the space and time with which we shall be concerned; we shall find, moreover, that the mediaeval space and time not only provide a contrast to the space and time of Hume and Rousseau, but are a starting point from which the derivation of their space and time may be traced.

When, in the seventeenth century, the element of time came to the fore in physics, it made a new mathematics necessary, a mathematics that could deal, not only with space, as geometry had hitherto done, but also with time. This need was largely, or almost entirely, the result of the studies of Galileo Galilei, and we shall find that the coming to the fore of the time element in physics through that work, meant in reality the birth of that time with which we shall be concerned in this study. The mathematical method of dealing with it brought about the view of space with which we shall be concerned.

The infinitesimal calculus, invented simultaneously
but independently of each other by Leibnitz and Newton,\textsuperscript{1)} satisfied the needs of the introduction of time into physics, but it could only do so because it assumed a space and time which could be divided into infinitesimals. These infinitesimals imply a "cutting up" of space and time as one would cut up a piece of matter, an implication of which the consequences will prove to be far-reaching in the context of the human person. Moreover, the calculus treated, and in modern elementary mechanics still treats, space and time as two separate entities. In 1908, however, Minkowski came to the conclusion that nature treated space and time as inseparable, and judged these two separate entities of the calculus to be mere shadows or abstractions. But shadows or abstractions of what? If Minkowski was right, there must be another space and another time which cast these shadows, and these we shall call real space and real time, or original space and original time. One meaning which we must therefore attach to the phrase coined by Henri Bergson, that time must be "taken seriously,"\textsuperscript{2)} is that there must be this real space and time of which

\textsuperscript{1)} See Chapter Note 1.

\textsuperscript{2)} Bergson did not take space very seriously, but we shall find that it is necessary to do so as, according to Minkowski, nature does.
the space and time treated by the calculus are merely shadows.

Minkowski's use of the word abstractions, moreover, indicates that we have to do, in the case of these shadows, with a space and time simplified in accordance with the general trend of simplification by the science of the seventeenth and eighteenth centuries (and also of today). It was this simplified space and time that dominated thought from those centuries onwards, and only in the twentieth century did the necessity become apparent for a search for the real space and time behind these shadows. 1) We might say that the space and time of the seventeenth and eighteenth centuries issued from a decomposition, so that those thinkers who found it necessary to investigate space and time de novo, have really had to effect a composition. 2) Consequently space and time have acquired, in many modern views, some at least, of the characteristics of the space and time contemplated by the mediaeval Christian thinker who, in turn, inherited his conception of space and time from the ancient Hebrew through the Old Testament. Now this space and time of the Old Testament were a space and time closely con-

1) See Chapter Note 2.

2) It seems to me that this is, in fact, what physics has had to do. See Appendix 7.
nected with the human person in a manner which we shall find worthy of close attention, and we shall point to the severing of this connection in the philosophies of Hume and Rousseau as the very kernel of the subject of this study.

It is not in being Christian that the mediaeval view of space and time strikes one as being "contemporary;" rather, it is that in mediaeval thought space and time are subjectively constituted, that is, we have the presence of the human person in the mediaeval view on space and time. St Augustine's is a good example. In this view he anticipated Kant in a conception of time as subjectively constituted, as he anticipated Descartes in commencing his philosophical activities with the certainty of his own existence. His modernity is precisely that he looked upon space and time as connected with the human person in a way which we cannot discover in a where measured with a rule and a when indicated by a clock. So we find in the results of the investigation of time in our century, the central conviction that time and the continual change we see in the world about us,

1) See his Confessions, Book 11. On Page 254, for instance, he writes: "Let us see then, thou soul of man for to thee it is given to feel and to measure length of time."

2) See Chapter Note 3.
are connected in a way which cannot be deduced from the space and time of elementary mechanics, and that we ourselves cannot be eliminated from this connection in the way in which the human point of view was eliminated in the Enlightenment period.

A.S. Alexander, for instance, makes time creative, \(^1\) and in this follows Bergson whose views on time we shall find to be of special interest in this study, as we shall also find Heidegger's. Heidegger sees the problem of time directly connected with Being, and through Being with questions about man. \(^2\) He ends his investigation of Being with the questions: "Is there a way from primordial Time to the sense of Being? Does Time perhaps reveal itself as the horizon of Being?" \(^3\) Kierkegaard anticipates Heidegger in joining the question of man to the question of time. Not only is a man a synthesis of body and soul, he says, but he as the same time a synthesis of the temporal and the eternal. \(^4\) Now since, as has been said, mathematics can deal only with a space and time which can be

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\(^1\) See Chapter Notes 2 and 4.

\(^2\) See Chapter Notes 5 and 6.

\(^3\) *Sein und Zeit*, Page 437: "Führt ein Weg von der Ursprünglichen Zeit zum Sinn des Seins? Offenbart sich die Zeit selbst als Horizont des Seins?" We shall return to Heidegger presently.

\(^4\) See his *The Concept of Dread*, Pages 39 to 40. See also Chapter Note 7.
fragmented, we should expect to find mathematics powerless to deal with a time as closely bound up with Being in its entirety as it is in the thought of Heidegger, and when it is looked upon as "the very substance of a finite thing." Spengler, in fact, expresses this importance of mathematics when he says —— and according to him Goethe agrees with him on this point —— that mathematics describes the world-as-nature in contrast to the world-as-history. In the world-as-history, says Spengler, we have a picture of things-becoming. Now in this hyphenated word things-becoming we find the notion of the carrying effect of time which was associated with a purpose in time in the thought of the mediaeval Christian (and of the Biblical Hebrew). We shall find the notion of purpose entirely absent in the thought of Hume and Rousseau; both, in fact, look upon space and time as nothing more than the space and time that can be treated by means of the calculus.

(ii)

We shall better appreciate the import of Hume's and Rousseau's adoption of the time of Galileian science for

1) See Chapter Note 6.
2) See Chapter Notes 8 and 9.
3) See Chapter Note 9.
human relationships if we first consider the connection between the human person and that time which seems to "carry" us in its movement and which we can conceive as having a purpose and some destination. The time which is measured by our clocks gives us the impression that it is moving along outside us. 1) It is a time separated from our persons, and we unwittingly make it a frame of reference against which we project ourselves and our fellow men. The primary property of this time of our clocks is that every moment follows the preceding moment and is exclusive of every other moment, as it is the property of the spaces occupied by things that every part of them lies outside every other part. Meeting can be only a contiguity in this space and time, or a mere "coming across" or crossing of paths.

It is from space and time subjectively constituted, connected with our persons, that we derive the possibility of meeting as a "confluence" in Buber's sense, for in this space and this time, what we have called real space and time, parts can overlap, interpenetrate or be co-extensive with one another. The space and time of one person can overlap or be co-extensive with those of another, and men are not exclusive of one another. And we can, more-

1) We shall be much concerned with this "outside-ness" of the time of our clocks.
over, derive from such a time a consciousness of things-becoming, since the time which is connected with our persons does not move on outside us; it is in us and takes us along, so to speak, so that the notion of an ultimate destination is generated in us. Space and time subjectively constituted must be "lived" by a person and must contain, as it were, all the richness of the life and experience of the person who "lives" them. In this sense space and time can be said to define him and be modes of his being. In the context of this "living" of space and time Bergson has this to say with regard to time: "The inner life is...variety of qualities, continuity of progress, and unity of direction. It cannot be represented by images. But it is even less possible to represent it by concepts, that is by abstract, general or simple ideas....no image can reproduce exactly the original feeling I have of the flow of my own conscious life....No image can replace the intuition of duration."

The notions of the "living" of space and time and the confluence of spaces and times seem to accord with Heidegger's view that man's existence is not confined to

1) Compare Roubiczek's Existentialism, For and Against, Chapter 9, Pages 168 to 170.

2) Introduction to Metaphysics, Page 13. We find the same view expressed in his other works.
the immediate moment or his immediate surroundings in space, but is spread out temporally and spatially beyond himself. To give Barrett's words: something "has meaning to me now only because my own being is spread out temporally in such a way as to encompass the possibility of all those particular future experiences" in relation to that something. "Only a being whose being is essentially temporal can have concepts and meanings." And, of course, if a man's being is "spread out temporally," his time can coalesce with or interpenetrate that of another person, and they can meet. This is so also with a person's space.

The reality or originality of "lived" time is to be found in the fact that its present is not a mere tick of the clock which passes and is lost for ever as is the present of the time of science which is precisely such a tick of the clock. This real time has a present which has a "thickness" derived from the richness and experience of the life of the person who "lives" it. It is this "thickness" of the present that we find in Bergson's view on time as an accumulation, a growth or a duration. We shall find, presently, that it is in this "thickness" of

2) Henceforth the word durée will be used instead of duration. The French word is more expressive of what Bergson actually means than duration. See Chapter Note 10.
the present that we have the seat, as it were, of the
directedness of the human person, and that this "thick-
ness" of the present is inseparable from his "here-ness,"
which is more than his location in physical space.

Bergson looks upon durée as "the continuous progress
of the past which gnaws into the future and swells as it advances."\(^1\) The past is never lost, for "from the moment
it commences to enlarge itself ceaselessly, it also con-
serves itself indefinitely."\(^2\) The past then, abides in
what we have called the "thickness" of the present, in
the richness and experience of the life of the human per-
son. "Doubtless we think with only a small part of our
past," says Bergson, "but it is with our entire past.....
that we desire, will and act."\(^3\) "Each moment is not only
something new, but something unforeseeable."\(^4\) It is pre-
cisely through his action, choice and freedom that the
human person becomes a directed entity. Since, if we

\(^1\) L'Évolution Créatrice, Chapter 1, Page 4: "La durée
est le progrès continu du passé qui ronge l'avenir et
qui gonfle en avancant."

\(^2\) Ibid. "Du moment que le passé s'accroît sans cesse,
indéfiniment aussi il se conserve."

\(^3\) Ibid. , Page 5: "Sans doute nous ne pensons qu'avec une
petite partie de notre passé; mais c'est avec notre
passé tout entier.....que nous désirons, voulons,
agissons."

\(^4\) Ibid. , Page 6: "Chacun de ces moments.....n'est pas
seulement du nouveau, mais de l'imprévisible."
agree with Heidegger, meaning is impossible without time — only a temporal being such as man can give something a meaning and frame concepts — a person's choice and action can be meaningful only because they are "defined" by time. And since only a human being possessing personality can choose and act meaningfully, personality becomes a function of time, so to speak. Action and choice (and through choice also freedom) are then, by their very nature "functions of time," so that time is of the essence of the directedness of the human person. With his notion of the unforeseeability of each moment and the dependence of the events in it on human choice Bergson also establishes this connection between human personality and time. We shall proceed from it presently to show the separation by Hume and Rousseau of the human person from time and the "dismantling" of personality by this separation. This will be our task in the next chapter.

But the connection between time and the human person is similarly established by Van Peursen. His view on what is encompassed when a person speaks the word now will serve to give us a notion of the "thickness" of the present, and through this also of the directedness of the hu-

1) See Chapter Note 11.
2) Stellenbosch Lecture. It seems to me that Van Peursen here has some affinity to Kierkegaard. See Chapter Note 12.
man person in its connectedness with time (and, we shall find, also with space). This now is where a person stands in time; it is the heart of his private time which consists of past, present and future, but it is not a mere instant where the past is welded to the future. It encompasses a person's past experience\(^1\) as well as his hopes and fears for the future, but it is also that part of his time in which are encompassed other persons in the world in which he finds himself in his now. In this way any person's now overlaps those of other persons.\(^2\)

This now is, however, not a congealed instant; it is fluid, and as it moves along from the past into the future (Bergson would say: as the present gnaws into the future and the past grows), it describes the person's world as a moving point in geometry would describe a line. This now must obviously be inseparable from a person's here, and what is encompassed in the now must be encompassed in the here, so that we have a person's inner space and time as the source of that person's directedness. Hence, says Van Peursen, the greater the number of people I encompass in my now, the more fully am I a person. We might add to this that the greater the number of

\(^1\) Compare Bergson's notion of time as an accumulation and a durée.

\(^2\) Compare Heidegger.
persons with whose space my own overlaps, the more am I a human person. Through my here and now I am open to the world, to use Van Peursen's phrase. If this is so, then every person's private space and time have been enormously extended in our own century by the development of communications. It has become possible for a man to influence people many thousands of miles from him.1)

If we accept the views of Heidegger, Bergson and Van Peursen, it is in the sense of being able to say now with all that it entails in choice, action, experience and hopes, and its attachment to a here that a person 'lives' a space and time and has, each in his life, his own natural space and time and finds his differentiation from all other persons.2) There is no inseparable here and now in a space and time which are nothing more than frames of reference; a person projected on such frames is separated from the space and time which define him with their content, and consequently undifferentiated from others, with a here and now as points on those frames which do not allow meeting as a confluence of spaces and times. Against such a projection by Hume and Rousseau of human beings on space and time reference frames Buber

1) See Chapter Note 13.
2) See Chapter Note 14.
rises in rebellion. 1)

(iii)

From the view of spaces and times which issues from the here and now conceived as the seat of a person's directedness, it follows that a man must, through his here and now by which his space and time overlap those of other persons, become connected with the events of his world, that is, with history. 2) So the Biblical Hebrew was connected with the events of his people, and through the moving now felt himself and his people carried by time to some destination. This conception he handed down to Christianity, so that Hebrew and Christian alike felt their ultimate destiny to be God. 3) For the ancient Hebrew and Christian alike, it is the end of things in time, God's eternity, that gives to the present the sense that it has. 4) Through the end of things both ancient Hebrew and mediaeval Christian found the times of their inner lives connected with the eternity of God, and time, with

1) See his I and Thou, Pages 8 to 9. It is clear that Buber relies much on the notion of personal spaces and times in his notion of meeting. In this context it is of interest to note Karl Heim's treatment of space in dealing with the problem of the transcendence of God. See Chapter Note 15.

2) See Chapter Note 16.

3) See Chapter Note 17.

4) See Chapter Note 18.
everything in it, was the creation of God who created continually as time moved on.\textsuperscript{1}) In such a view, as in that of Heidegger, what is not in time, does not exist in the world of visible and tangible things.\textsuperscript{2})

The notion of the end of things and the conception of a real space and time inherent in personality leads easily to the conception of history as a \textit{becoming} which has the human person at its core. We have in such a philosophy of history the human person standing at the \textit{now} as the heart of the time of his inner life, of real time as a \textit{durée}, and deriving from this \textit{now} an opportunity of contact with the world in its \textit{becoming}\textsuperscript{3}) which is the events of the human scene. History then becomes a "story," that "story" which both Biblical Hebrew and mediaeval Christian read as the movement of the world to God. It is the "story" of God's continued creation and His dealings with men and things to His divine purpose.\textsuperscript{4}) No doubt this is how Thomas Carlyle saw history when he wrote: "Consider history with the beginnings of it stretching dimly into the remote time; emerging darkly out of the mysteri-

\begin{enumerate}
\item See Chapter Note 19.
\item See Chapter Note 20.
\item Van Peursen in his Stellenbosch Lecture.
\item See Psalm 78.
\end{enumerate}
ous eternity: the true epic poem and universal divine scripture." In the words universal divine scripture we have an echo of St. Augustine (whose philosophy of history we may regard as a model for the Middle Ages) in his making of history the "story" of the dealings of God with men.

When the Christians inherited the view on history as a "story" from the ancient Hebrews, they removed the emphasis from national history and placed it on a history of mankind, but in no way was the notion of movement, of the "story," lost; indeed, it could not be lost, for there is no break in the development of Christianity out of Judaism. 1) What is, however, important for the purpose of this study is that with the preservation of a "story", we also have the preservation of the presence of the human person at the core of history. 2) We have to do with a philosophy of history in which time is connected with the becoming of human persons, in which time is a durée and the present has a "thickness." It must be borne in mind, however, that such a philosophy of history need not be

1) Compare Albright's Archaeology and the Religion of Israel, Postscript, Page 176: "The Judaeo-Christian tradition is unique in this respect (of unbroken historical growth). No other great religion of the past can compete with Judaeo-Christianity as a phenomenon of historical order."

2) See Chapter Note 21.
Christian, in fact, need have no religious basis. What is important is that in this becoming of human persons, manifest in their choice and actions, we find their connectedness with other persons, and in this connectedness we shall find, presently, a notion of freedom and morality quite different from that of our two philosophers and their times.1)

It was the special genius of the Biblical Hebrew to be conscious of the effectiveness of his God in his life; that is why it was natural for him to project the time of his inner life, the life rhythms within his own person (which he received from God), on the life of his people, a process by which Jaweh became the God of each Hebrew and that of the Hebrew people. So the Will of Jaweh became the measure of the good and the bad of his actions and those of his people. In this way morality became closely connected with the community (which became the Hebrew theocratic state). Both became connected with history and time, since it was in time that the Hebrew saw the deeds of God with his people,2) which deeds constituted the history of that people. For the ancient Hebrew then, as for Bergson, time is a durée, and because he is aware

1) See Chapter Note 22.
2) See Chapter Note 23.
of time as a *durée*, he makes morality historic and intimately connected with the human person. We find, that is, that the Biblical Hebrew derives morality from that same directedness of men towards one another which we find in the thought of our century, and finds the human person at the core of history.

It is precisely in such words as *becoming* and *story* that we find the difference between history as the ancient Hebrew and mediaeval Christian see it, and progress as the Enlightenment conceives it. In *history* human beings are involved in situations which are unique and in which their choice emerges. These situations involve one's fellow men and consequently the directedness of men towards one another. From this choice the *now*, which is the point in time where we make this choice, derives its moral content; freedom then becomes the exercising of this responsible choice, and this is, of course, an action. In the Enlightenment view of progress, on the contrary, progress follows the natural order in the space and time of the nature of the scientist, and since this

1) Compare, for instance, Kwant's social philosophy of "togetherness," expounded in his *Sociale Filosofie*.

2) We shall have occasion to point to the difference between this freedom of responsible choice and that in Rousseau's *Social Contract* into which, according to the author, a man can be forced.
nature is a machine, there is no place in it for the responsible choice of men. Man can then not stand at the core of history as he must if he has such a responsible choice.

The dismantling of the human person must then become a denial of history as a becoming, and a denial of morality as historic. Now the space and time which we shall find in the thought of Hume and Rousseau are, as has been pointed out, the space and time of the newly-born mechanics of their day, abstracted, so to speak, from the space and time which, we have concluded, must lie behind them and which we have called real space and time. This process of abstraction, identical with the simplification and decomposition which gave us the simplified man of the Enlightenment, was, Heidegger would tell us, a process in which space and time were detached from Being. From the Biblical and Augustinian point of view this detachment was, in its essence, a separation of God from the events in the lives of men, and we shall find that this separation of God from the lives of men, that is, from history, becomes, in the thought of our two philosophers, a problem of what to do with God. It follows, of course, that the detachment of space and time from Being was at the same time a detachment of space and time from the human person, and if we accept that space and time are of the
essence of human personality, we have in this separation the basic operation in the dismantling of the human person.

(iv)

The absence of a notion of becoming in the thought of Hume and Rousseau, reflecting the Enlightenment idea of progress without the "story" which we find in the Bible and associate with an ability to act and choose, seems to bear a very definite relationship to the cyclic view of time which we find in many ancient cultures, notably the classical Greek. The connection seems to be the elimination of human personality. We have the presence of the element of personality in one view on time, the Hebrew, and the absence of this element in the other, the Greek, and we shall find that an exclusion of it from a contemplation of space and time is a major requirement for the derivation of the space and time of science.

If we accept that there will be an end to time and that time carries us to some destination, then we accept with this that no two succeeding situations in the world are identical, otherwise there would be no becoming.

1) See Chapter Note 24.

2) Compare Alexander's The Historicity of Things, Page 16 of Philosophy and History: "Novelty is the essence of history and so it is with the world of things. Every event is considered strictly new....it is not novelty that calls for explanation so much as repetition, regularity, uniformity."
movement to the end of time. It seems to be characteristic of a time unconnected with the human person that this eschatological element is absent from it.\textsuperscript{1)\textsuperscript{}} Our notion of an end to be reached, a purpose in time therefore, which goes with its movement, seems to be inseparable from human choice (which is redundant in an unpreventable repetition of events). There can be no unfolding towards an end in the absence of choice. Now both Hume and Rousseau resort in their treatment of human relationships to mechanisms of which the space and time are those of science, and we shall find in their thought a conception of the events of history as phases of cycles\textsuperscript{2)\textsuperscript{}} as we find time conceived in many ancient cultures as cyclic.\textsuperscript{3)\textsuperscript{}} We shall also find there that the choice of men has been eliminated. In Rousseau's writings, moreover, we find the strongest evidence of a hostility to time, just as we find a hostility to time in Plato's thought.\textsuperscript{4)\textsuperscript{}} Rousseau,

1) See Chapter Note 25.

2) We must distinguish, I think, between the time of science which is a frame of reference, but which, although separated from the person, still has a linear characteristic, even though some processes and events in it are cyclic as seen against the background of the frame of reference, and, on the other hand, the process of change of the universe itself as conceived as a cyclic time. This question is not a simple one, and is treated in Appendices 4, 5 and 6.

3) See Chapter Note 26.

4) See Chapter Note 27.
in fact, on more than one occasion indirectly expresses his admiration for Plato, and we cannot fail to note this affinity between the two philosophers on the question of time.

The attitude of our two philosophers to time is the very antithesis to that of the Biblical Hebrew for whom "Time is determined by its content," and in whose thought we have time rhythms rather than time cycles or lines. Now it is rhythm, rather than cycles or lines, that requires life and subjectivity, and it is in rhythm that we find the movement of time. The rhythms of the life of the human organism and in nature about him are then very easily projected by the time-conscious Hebrew.

1) Boman: Hebrew Thought Compared with Greek, Chapter 3, Page 131. We shall return to the word content later on in this study.

2) One might well wonder whether one can properly speak of Hebrew thought where time is concerned. The Hebrew seems to have been aware of time rhythms without thinking about them. See Chapter Note 28 and also Footnote 4 below.

3) See Boman's Hebrew Thought Compared with Greek, Chapter 3, Pages 133 to 134.

4) As every musician knows. Although we hear one note or one chord of notes at a time, we still have the impression of movement. The parts of a symphony are called its movements. Compare also Boman's Hebrew Thought Compared with Greek, Chapter 3, Pages 133 to 134 and Chapter Note 28.

5) See Chapter Note 28.
brew on the life of the whole people, so that the rhythm then becomes one of birth, growth, decline, death, birth and so on till the end of time.\textsuperscript{1} It is also of interest to note, when we compare the Hebrew time sense with that of the Greeks (or Boman and Spengler would say the Greek lack of it), that the Hebrew beginning of things was a beginning at the beginning of time, a very definite moment and act of creation, whereas the Greek beginning was a beginning in timeless Being.\textsuperscript{2} More significant for our purpose is the fact that in the Hebrew beginning we have a person, God, who is absent from the Greek beginning, just as the human person is necessary for the Hebrew time conception of rhythms, but is not necessary in the Greek time conception.\textsuperscript{3} The difference between a becoming in which human personality is involved, and a passage of things in which only human nature is involved,

\begin{enumerate}
\item Hence the historic sensitivity of the Hebrew. Compare Deut. 32:7: "Remember the days of old; consider the years of generation upon generation; ask thy father and he will show thee; thy elders, and they will tell thee." There is rhythm even in these words.
\item Parmenides, and also the Atomists. In fact, Greek philosophy had its genesis in the search for the unchanging behind the changing world.
\item See Chapter Note 29. Boman tells us that we can discern the difference between the two space and time conceptions even in the languages of the two peoples. This proposition has been challenged by, among others, Barr. See Appendix 5.
\end{enumerate}
is, in the light of Scripture, this: As soon as personality becomes involved, also God, who is a person, becomes involved, while God cannot be involved in a passage of things seen against a background-frame of space and time.

This absence of the element of "the person" in the time of Greek thought we find exemplified in the thought of Plato and we shall point to it in the thought of the man who so often took Plato as an example on which to model himself: Jean-Jacques Rousseau. It is, however, as absent in the thought of Hume. It is purpose in change that we miss in the philosophy of Plato. The change we see in the world about us, is unreal, he tells us, only the "forms" or "ideas" behind the world of visible, tangible and changing things are real. This change contains no "story," for if change is unreal, so must history be an illusion. The "story" in history gave to the Biblical Hebrew, and still gives to the Christian and Moslem, a promise of ultimate oneness with God and a freedom from

1) See Chapter Note 29.
2) See Chapter Note 27.
3) Only in the later Judaism. It is this later Judaism with its promise of a resurrection that gave rise to Christianity. In earlier Judaism the promise went no further than a promised land and a long and prosperous life in this world.
the tyranny of the material world. When the "story" is destroyed, so is the promise; consequently a time in which the element of personality is lacking, cannot give men a promise of any kind of salvation. Such a severance from the person, and therefore this absence of a promise, we find in the notion of a cyclic time, the notion that whatever events we witness now, will be repeated again and again. The "salvation" in such a time and history is that we ourselves reappear.¹)

Now in this notion of a cyclic time with its eternal recurrence, we approach laws of nature, something the Greek mind was always seeking,²) and something, as we shall find, Hume was seeking in a conception of history which is akin to the notion of eternal return. This notion resembles a formulated law of nature both in its origin and in the element of predictability which it implies. Obviously its origin is to be found in certain phenomena of nature such as the rising and setting of the sun, moon, stars and planets, the tides, the seasons and others which exhibit a return, and it has the element of predictability in that it simulates in the return of events the periodicity of natural phenomena.³)

¹) See Chapter Note 30.
²) See Chapter Note 31.
³) See Appendix 4.
With the mention of laws of nature we have arrived at the question of the space and time of science. If Christianity could, in the West, become the heir to the Biblical Hebrew of the conception of time as linear and of history as a "story," how did it come about that the same West could produce the derived space and time of the mechanics of Galileo? Bergson would reply that, though the Christian conception of time and history is a heritage, a time conception which is really spatial, is inherent in the Western psyche. Bergson would reply that the notion of time lines is inherent in Western languages, and consequently also in the Western psyche. Heidegger would reply that the West inherited Greek thought and simply continued (or repeated) the process which started with the Greeks, of separating objects from all-enveloping Being and making them objects for rational research, and in this way separated men from the spaces and times proper to them.

If we accept these views, it would be no accident that Galileian space and time were born in the West. With

1) See his Essai sur les Données Immédiates de la Conscience, Chapter 2.
2) See Chapter Note 32.
3) We shall return to this point in Chapter 8. Of course, separating men from the spaces and times proper to them is really the same as separating things from the "envelope" of Being.
regard to space and time Galileo would then be an artifi­
cer, but one who found his artifacts nearly ready-made
in Western conceptions and languages. It would appear,
however, that more is involved in the birth of Galileian
space and time than psyche and language (if we admit the
factor of language). We shall find that perhaps the Greek
heritage of the West did play the rôle which Heidegger
assigns to it. To get to the root of the matter one has
first to examine the nature and function of this space
and time of Galileo's mechanics.

The space and time used by Galileo for his studies
of moving bodies are nothing but frames of reference, and
have no content. They are, in fact, nothing more than
scales of measurement, and the significant fact is that
space and time are separate scales: a time scale can be
used without a space scale, and a space scale without a
time scale. The two scales became joined into one only
when Minkowski and Einstein pointed out that space and
time varied jointly and that a time dimension had to be
added to the three dimensions of space in order to de­
termine an event. In classical physics time is usually
regarded as being measured by the swing of a pendulum or
some other reciprocating movement in space, or the move­
ments of the hands of a clock. Perhaps, however, it would
be more accurate to say that these instruments effect the
subdivision of the straight line of time into units and sub-units in the same way as a measuring rule is subdivided into feet and inches or centimetres and millimetres. 1) Hours, minutes and seconds "ticked off" in this way are as spatial and physical as feet and inches, and are also placed one after another. Against the background of these subdivisions we see the men and things of the world move and have their being. Just as the foot-rule or metre-stick is a material thing representing an abstraction, the standard foot or metre, so this time scale marked off by pendula or clocks, is a representation of an abstraction: the time of Galileo's mechanics. 2)

The question which Galileian space and time help to answer is: How do objects fall or otherwise move under the influence of a force? This excludes all connection of space and time with the essences of the things that move. Moreover, the purpose of this space and time directs the attention to their cardinal property: that their parts do not overlap or interpenetrate. The motion of a piece of matter through space consists in its being

1) We have to do here with the difficulty mentioned in Footnote 2 on Page 97. See Appendix 6.

2) Modern physics goes even further and tells us that length is not something inherent in things, but changes with velocity. So also there is a time dilation with increase in velocity. Contrast Galilean space and time.
in one place in one moment and in another in the next moment. The impression it creates is that in moving it leaves the space it occupied in one moment, behind it and occupies a new space in the next, that is, space is exterior to it.\(^1\) We also have a succession of moments, otherwise the piece of matter would not move, and this succession of moments resembles a succession of points along a line. No body can be in two places in the same moment, just as it cannot be at the same place in two successive moments if it is moving.\(^2\)

In this property of derived space and time we discover the definitions of velocity and acceleration given in books on elementary mechanics: velocity is the time-rate of displacement, and acceleration is the time-rate of change of velocity. One has to do here with a fragmented or atomized space and time, as its treatment by means of the mathematics of the calculus so clearly shows in the exact mathematical forms it gives these definitions of velocity and acceleration.\(^3\) Both displacement (space) and time are split up into minute fragments or infinitesimals. These, by the process of mathematical in-

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1) See also Margenau's *The Nature of Physical Reality*, Chapter 7.
2) See Chapter Note 33.
3) See Chapter Notes 33 and 34.
integration, which is in actual fact a summation of the fragments between certain limits, become an interval of space or time.\textsuperscript{1}) This mathematical integration amounts really to a placing end to end of fragments of space or time without overlapping. We discern in this mathematical process the simplification which the Enlightenment projected on man himself. It is this simplification which led ultimately to the control of matter in motion and which, projected on man, leads to the destruction of human personality and reduces man to an aggregate of matter in motion which, to use Rousseau's words, can be calculated by means of the laws of mechanics.\textsuperscript{2})

Now as the abstraction of physical time was achieved largely by the removal of the element of personality from what we have called real time, so we find that the abstraction of physical space from what we have called real space, was achieved in a similar way. The removal of the element of personality was, in fact, also the process whereby space and time became separated into two different scales of measurement, for personality joins space and time in one single continuum.\textsuperscript{3}) We have this examp-\textsuperscript{1}) See Chapter Note 34. \textsuperscript{2}) This too is an important statement by Rousseau to which we shall return later. \textsuperscript{3}) As has been said: "here-ness" and "now-ness" cannot be separated. See Chapter Note 35.
fied in the Hebrew view, so that in this context the contrast between the Biblical Hebrew and ancient Greek once again proves useful. Space did play a rôle in Hebrew life though, perhaps, as Boman would have us believe, a rôle which was inferior to that of time, and we find that it entered into Hebrew life through the ubiquitous nature of the Hebrew God. This God was everywhere; He was present at all times and in all places. 1) The Biblical Hebrew looked upon space, not as a void, but as something created by God. It was the presence of God, so to speak, though just as God was outside the stream of His time in His eternity, so He was outside the space which He created, 2) and only made His presence felt through that space in the history of the Hebrew people, which history was, of course, a history in time. Jammer 3) has this to say on

1) Compare, for instance, Psalm 139:
   "Whither shall I go from thy Spirit? Or whither shall I flee from thy presence?
   If I ascend up into heaven, thou art there: if I make my bed in hell, behold, thou art there.
   If I take the winds of the morning, and dwell in the uttermost parts of the sea;
   Even there shall thy hand lead me, and thy right hand shall hold me."

2) Compare Jammer's Concepts of Space, Chapter 2, Page 32, where the author points out that for Christian and Moslem alike, as for the Hebrew, the question "Where was God before creation?" has no meaning.

3) Ibid. Jammer also says that for the Hebrew, space was "metaphysically the way to God." See also Appendix 6. It seems clear that the rôle of space in Hebrew thought cannot have been insignificant.
the Hebrew view on space: "Space, the entity that is neither corporeal nor immaterial, serves as the intermediary between the two worlds (that of man and that of God). Indeed, it was created by God for the fulfilment of His function...."

So through God, a person, and his own directedness towards God, the Hebrew was able to effect a union of space and time1), which he could not have achieved without the binding factor of the human person. We must conclude, moreover, that in a space which is "metaphysically the way to God," the overlapping and interpenetration of spaces or parts of space would necessarily follow. One would also regard it as something to be expected that, as Boman tells us, the absence of boundary lines is typical of Hebrew thought.2)

This real space and this real time in which the presence of the element of personality is so manifest, were the Biblical legacy of mediaeval Christendom in the West. But, at the same time, that same West inherited as rich a legacy in Greek geometry. Now the science of space for the Greeks was geometry3) and, conversely, the space of ge-

1) See Chapter Note 36 and also Appendix 7.
2) See Chapter Note 37. Contrast the perfect definition of space in Greek art.
3) Compare Heidegger's view of the separation of objects from Being by the Greeks.
ometry with its sharply defined lines, and angles and surfaces is Greek, whether it be Euclidean or non-Euclidean geometry. 1) When, with the passing of the Middle Ages, under the influence of the cupidó scienti, the nominalistic tendency in the thought which contributed to the crumbling of the system of the Middle Ages, made itself felt in the scientific investigation of particular things, geometry gave to the science of the day its space. 2) At the same time that which most easily gives us the sensation of the passing of time, moving objects and succession of events, gave that science its time. 3) This meant that the space of geometry was to the Westerner of the sixteenth, seventeenth and eighteenth centuries the space of the real universe, and the time of moving objects and clocks its real time. 4) The study of the things of the ma-

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1) See Chapter Notes 38 and 40 and also Appendix 5.

2) Compare Einstein's Relativity: The Special and General Theory, Part 1, Chapter 1, Page 2: "It is not difficult to understand why......we feel constrained to call the propositions of geometry 'true.' Geometrical ideas correspond to more or less exact objects in nature, and these last are undoubtedly the exclusive cause of the genesis of those ideas."

3) Hence Hobbes' definitions of space and time: "Time is the phantasm of before and after in motion." (De Corpore, Chapter 7, Section 3) ...."to compound space of spaces or time of times is first to consider them one after another and then altogether as one." (De Corpore, Chapter 7, Section 8).

4) See Chapter Note 39.
terial world necessitated measurement, and if, as Bergson holds, the Western time conception is really spatial, the "spatialization" cannot be seen apart from the necessity of measurement. ¹ We use numbers in measurement, and numbers were first given to man by physical objects which could be counted. These physical objects were, and, of course, still are, in physical space, so that, in order to measure time we must, as Prof. Whiteman points out, first measure space. ² Galileo and his contemporaries, and those who succeeded them, appear unconsciously to have worked from the supposition that when spatial and temporal relationships have been established by measurement, space and time have been established, whereas the difficulty is that "we cannot explain the universal concepts of space and time in terms of measurements which presuppose them."³ The conclusion one must arrive at is that Galileian space and time came into being through that same process of simplification and "making uniform" that gave us the Enlightenment man: what is left when we abstract from the private spaces and times of men, are the

¹) See Chapter Note 40.

²) See Chapter Notes 40 and 41. It seems to me that in this measurement we have to do with what Heidegger would call the separation of space and time from Being.

³) See Prof. Whiteman's Foundational Problems of Space and Time, Chapter 3. See also Appendix 8.
universal space and time of the mechanics of Galileo. 1)

(vi)

It is doubtful whether Galileo fully appreciated that the space and time of his mechanics and the physical universe were not the real space and time of the universe as the Biblical Hebrew and mediaeval Christian saw it, the universe created by the God in whom Galileo continued to believe. It is clear, however, that the question of God did arise for him, and that he encountered those difficulties that made God a problem for Hume, difficulties which led in some philosophies of the Enlightenment and after to a complete denial of God. After Galileo, moreover, when telescopic astronomy had grown into the extensive body of knowledge that it is today, the treatment of physical space and time as the only real space and time led to a state of affairs which gave rise to the jest that "the housing shortage has arisen in the case of God," 2) since in this physical space, God had nowhere been seen in a telescope. For Galileo the problem did not develop quite so far, but he did destroy God as a final cause 3)— no doubt without being conscious of it.

1) See Chapter Note 41.
2) See Chapter Note 42.
3) See Chapter Note 43.
But even if Galileo did not clearly and emphatically himself destroy God as a final cause, that destruction was the outcome of his and Kepler's work. "Galileo never thought of denying an ultimately religious answer to the problem of the universe," Burtt assures us, but a scheme of things in which God is a first cause, nature essentially mathematical and in independent existence after creation while man stands outside nature, we owe to the work of Galileo. He appears to have realized that man was not mathematical, but he also did not appreciate that the space and time of his mechanics were a derived or abstract space and time. In this scheme of things there was no longer any question that creation and continued existence had ceased to be indivisible actions, as St. Thomas Aquinas had held them to be.

Whereas the Biblical Hebrew and mediaeval Christian view had been that God stands outside time and His creation, the effect of the work of Galileo was to place God's creation also outside time. It had become external to space and time, something fortuitous and observable

1) The Metaphysical Foundations of Modern Physical Science, Chapter 3, Page 91. See also Chapter Note 44.

2) Burtt (Op. Cit., Page 91) gives us a diagram to illustrate this scheme. The diagram consists of three quite separate circles, one representing God, one nature and the third, man.
only when things are viewed against space and time as a background or frames of reference. We shall see, presently, this consequence of Galileo's work in the philosophy of Descartes. Now when human beings are viewed against these frames, the effect is that they are seen, not as active selves, but as masses of matter moved by some unknown force. Time is detached from their choice which, indeed, ceases to exist; it is detached from their actions and freedom, and this separation brings about the reduction of human beings to controlled particles of matter in motion.

When we consider the "time rhythms" of the ancient Hebrew, the Bergsonian view of time as a durée and the mediaeval Christian time conception, we realize that they all require an unfragmented self. No mere succession of conscious states can account for a "time rhythm" or durée, and it will be shown in the next chapter that it is because Hume destroys the self by fragmenting human psychic-al life that he sees human beings as particles moving in Galileian space and time. A similar result issues from Rousseau's hostility to time and change. In his thought space and time become as fragmented as they are in Hume's, and Rousseau is cut off from himself and his fellow men so that they become, in his view, nothing more than masses of matter in motion.
CHAPTER 3
The Human Being in Derived Space and Time

(i)

When we say that the parts of a mechanism function in spatial and temporal isolation, we mean that the here and now of any particular part are points on a frame of reference or on frames of reference; we also mean that no part can have a here and a now which encompasses any other part, that there can never be a common space between two parts and that a common time between them is merely fortuitous. In other words, we have to do with the separation of space and time from the action and substance of a thing. The parts of a mechanism cannot meet; at most there can be a contiguity between them in physical space, the space of science.

Now it is a fundamental proposition in this thesis that a basic guiding influence in the thought of Hume and Rousseau with regard to human relationships is the reduction of human beings to abstractions. We shall find that they reduce men to things that cannot meet; in their philosophies men do, in fact, become parts of a mechanism, for they make the state a mechanism. It will be our task in this chapter to study the process of the reduction of

1) See Chapter Note 1.
men to abstractions before we go on to the consequences of this reduction in the treatment of human relationships by our two philosophers. Our starting point is the philosophy of Descartes, for it was in his thought, the first of the great scientifically worked-out systems of the seventeenth century, that the human person first ceased to be that directed unity of body and soul which was the man of the Christian Middle Ages. ¹) In his examination of man Descartes attempts to show how, on the assumption that the human body is nothing but a material thing, the mechanical motions of its parts alone account for what we call its life. He writes, for instance: ²) "But since we know, from the nature of our soul, that the diverse motions of the body are sufficient to produce in it all the sensations which it has, and since we learn from experience that several of its sensations are in reality caused by such motions, while we do not discover that anything besides these motions ever passes from the organs of the external senses to the brain, we have reason to conclude

1) The dissolution of this unity had far-reaching consequences, as will be evident throughout this study. We have one of the first echoes in the thought of La Mettrie, already referred to. In our own century there appears to be a return to the directedness of men; it seems to be the very kernel of the thought of, for instance, Kwant and Teilhard de Chardin.

2) Principles of Philosophy, Part 4, Page 257.
that we in no way likewise apprehend that in external objects, which we call light, colour, smell, taste, sound, heat or cold, and the other tactile qualities, or that which we call their substantial forms, unless as the various dispositions of these objects which have the power of moving our nerves in various ways."\(^1\) We have, in other words, the notion that life itself is matter in motion.\(^2\) It is one that issued from the science of the day, and prepared the way for the mechanism which we find in the century of Hume and Rousseau.

Such a notion is a natural basis for Descartes' cleaving of man into two distinct substances: "... I did afterwards discover these (bodily functions like those of animals, not dependent on mind) as soon as I supposed God to have created a Rational Soul, and to have annexed it to this body in a particular manner which I described."\(^3\)

"And although we suppose that God united a body to a soul so closely that it was impossible to form a more intimate union......the two substances would remain really distinct, notwithstanding this union; for with whatever God connect-

\(^1\) We shall find, presently, the same view put forward by Hobbes.

\(^2\) We shall be much concerned with matter in motion in subsequent chapters --- hence the importance of this notion in the thought of Descartes.

\(^3\) *Discourse on Method*, Part 5, Page 46.
ed them, he was not able to rid himself of the power he possessed of separating them, or of conserving the one apart from the other, and the things which God can separate or conceive separately, are really distinct."

For a solution of the difficulty of how mind (or rational soul) and matter, so diverse in nature, can influence each other, Descartes could fall back on God. Like Galileo, Descartes never lost his belief in God, but God he found, not in the unrolling of time, not in a progressive revelation, but from the principle of causality: God causes our ideas of Himself. We see immediately how God is reduced to a sort of super-mechanic and the human being to something which resembles a mechanism in that he consists of at least two main parts, body and mind, which "touch" each other. (His body can then be further subdivided into material parts). Man is no longer a unity, but a duality of body and spirit; he is not directed or vectorial, but scalar, and because he is scalar, he is an isolated entity. In Descartes' thought we also have the notion of a soul substance, something which can apparently enter or leave the body, or is generated by at least a part of the body, the brain. This soul substance Hume

1) Principles of Philosophy, Part 1, Page 220.
2) See Chapter Note 2.
demolished with great success\(^1\) as he also demolished causality.

But it is not his splitting of the human person into two parts, taken by itself, that makes Descartes our starting point. With this dichotomy we must also take its consequence: if we accept that "the very substance of a finite thing is time," then the cleaving of man into body and soul means, in fact, that he is taken out of the time which "defines" him and placed in a time which flows on outside him. On this point Descartes could hardly be more explicit:\(^2\) "...we consider the nature of time, or the duration of things; for this is of such a kind that its parts are not mutually dependent, and never co-existent; and, accordingly, from the fact that we now are, it does not necessarily follow that we shall be a moment afterwards, unless some cause, namely that which first produced us, shall, as it were, continually reproduce us, that is, conserve us."

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1) Compare Bultmann's *History and Eschatology*, Chapter 1, Page 10: "Human nature was conceived in terms of substance as something static and permanent, an unvarying substratum...In fact, Hume had already destroyed this conception of human nature by replacing the concept of mental substance by the concept of mental process."

2) *Principles of Philosophy*, Part 1, Page 202. In Part 2, Page 240 Descartes makes it clear that he also regards space as something sharply marked off by bodies, that is, spaces cannot overlap, and are not a mode of action.
Here we have an anticipation of the somewhat less explicitly calculus view on space and time that we shall find in Hume's thought, and the influence of the work of Galileo could hardly be clearer. No doubt we can trace Descartes' lack of historical sensitivity to this view on space and time.¹ He wished to control matter in motion,² and the space and time involved in the study of matter in motion are the space and time of the physics of Galileo. Indeed, Galileo's study was of matter in motion, and his space and time were derived for that purpose.

Now when once a man has been reduced to two separate substances, one of which is matter, and placed in a time which does not "define" him, the projection of that mass of matter against the Galileian space-time frame or frames of reference must necessarily follow. Matter is, after all, something that affects the senses, and its motion is best observed against a frame of reference or frames of reference of derived space and time in which the senses are also involved. It was inevitable, therefore, that Hobbes, devoted to mathematics, and very much under the influence of Galileo, should have seen men in terms of mathematics and mechanics, and declared that "...every

¹) See Chapter Note 3.
²) Science had to be made useful. See Chapter Note 4.
man brought philosophy, that is Natural Reason, into the world with him...."¹) and defined philosophy as the knowledge "of effects and appearances (as) we acquire by true ratiocination....By ratiocination I mean computation."²)

From this view the definitions of space and time already given, must follow.³)

For Hobbes, as for Descartes, time is not the "very substance of a finite thing," and temporality and change do not "belong to its very being" and do not "define what it is." So also spatiality is not a "mode of action" of things, since things have no action which is not a blind motion originating in a push in the past, against a background of a space-time framework outside them, the space-time frame of Galileo's physics, a physicalized, derived and separate space and time. With the projection of this frame of reference on human beings and their thought, and the application of the doctrine that all is matter in motion in the universe, Hobbes ultimately arrives at the

¹) De Corpore, Chapter 1, Section 1. No doubt when Hobbes visited Galileo in 1636 he was greatly impressed by studies which were then entirely new in physics. It is known that Hobbes did his best to become proficient in mathematics.

²) Ibid., Section 2.

³) Chapter 2 of this study. Space is compounded of spaces and time of times. Note the similarity to the views of Descartes. We shall find these again presently in the thought of Hume.
conclusion that, in our psychical life, "all that is real being the concussion or motions of parts of that nerve.... apparition of light is really nothing but motion within... ..."1) and "....there is no impression in a man's mind which hath not first, wholly or by parts been begotten upon the organs of sense."2) Imagination, says Hobbes, is decaying sense, both being motions. We must conclude then, that we cannot have a thought which is not simply a mathematical summation of fragments of sensation as an interval of Galileian time or portion of Galileian space is a mathematical summation of fragments.

(ii)

This fragmentation of human psychical life Hume carried to its conclusion in the destruction of the self, and it is the culminating point in his thought where the human person ceases to exist and a man becomes an abstraction and a scalar entity. The same fragmentation is found in his treatment of space and time; indeed, his fragmentation of human psychical processes and his fragmentation of space and time go together as they go together in the philosophy of Hobbes. Since "All the perceptions of the human mind resolve themselves into two distinct kinds, which I

1) De Homine, Chapter 2, Section 7.
2) Ibid., Section 8.
shall call impressions and ideas, and since, as we shall see presently, Hume regards the mind as nothing but a bundle of perceptions, our conceptions of space and time can be nothing but a collection of ideas, that is, they come from the world outside us. Hume tries to represent space as a series of points which he regards as both mathematical points and minima visibilia, and describes time as merely the consciousness of succession."\textsuperscript{2})"Tis therefore certain," he says,\textsuperscript{3})"that the imagination reaches a \textit{minimum} and may raise up to itself an idea of which it cannot conceive any subdivision, and which cannot be diminished without total annihilation."

The resemblance of the substance of this passage in words to the meaning of the mathematical expression in symbols of the essence of a differential coefficient is noteworthy. A differential coefficient\textsuperscript{4}) is the limit of a ratio of which one infinitesimal, the denominator, tends to zero, but would, if it actually reached zero, destroy the meaning of the limit, and so also the differential co-

\textsuperscript{1)} A Treatise of Human Nature, Book 1, Part 1, Section 1, Page 311.
\textsuperscript{2)} Compare Hobbes.
\textsuperscript{3)} A Treatise of Human Nature, Book 1, Part 2, Section 1, Page 335.
\textsuperscript{4)} See Chapter Note 34, Chapter 2 of this study.
efficient.\textsuperscript{1)} As was shown in the preceding chapter, the space and time of Galileian physics are treated mathematically with such differentials: displacement, velocity, acceleration and time are regarded as variables and a process of fragmentation into infinitesimals is imposed on them. Hume proceeds to apply precisely this treatment to space and time:\textsuperscript{2)} "I first take the least idea I can form of a part of extension, and being certain that there is nothing more minute than this idea, I conclude that whatever I discover by its means, must be a real quality of extension."

He can then repeat this operation, and by means of what amounts to simple summation, or in the parlance of the calculus, an integration of infinitesimals, arrive at infinite extension. The argument serves also to show that the infinite divisibility of space is impossible, but what is of importance here is the compounding of "space of spaces and time of times" as Hobbes compounds them, for time can be treated in a similar manner. "The idea of time," says Hume,\textsuperscript{3)} "being derived from the succession of 

\begin{equation}
\int \frac{\Delta y}{\Delta x} = \frac{dy}{dx} \quad \text{as} \quad \Delta x \to 0
\end{equation}

The $\Delta$ means an infinitesimal of. If the $\Delta x$ should become zero, the meaning of $dy/dx$ would be destroyed.

\textsuperscript{1) A Treatise of Human Nature, Book 1, Part 2, Section 2, Page 337.}

\textsuperscript{2) Ibid., Section 3, Pages 341 to 344.}

\textsuperscript{3) Ibid., Section 3, Pages 341 to 344.}
our perceptions of every kind, ideas as well as impressions, and impressions of reflection as well as of sensation, will afford us an instance of an abstract idea, which comprehends a still greater variety than that of space, and yet is represented in the fancy by some particular individual idea of a determined quantity and quality..... 'Tis evident that time or duration consists of different parts: for otherwise we could not conceive a longer or shorter duration. 'Tis also evident that these parts are not co-existent, an unchangeable object, since it produces none but co-existent impressions, produces none that can give us the idea of time; and consequently that idea must be derived from a succession of changeable objects, and time in its first appearance can never be severed from such a succession.... There is another very decisive argument which establishes the present doctrine concerning our ideas of space and time, and is founded only on that simple principle that our ideas of them are compounded of parts which are indivisible."

Hume then treats this "decisive argument" in which he returns to the conviction that space and time are ideas. He is also concerned with the detailed treatment of space as mathematical points and minima visibilia,1) but the im-

Important points which emerge from his whole treatment of space and time can now be listed:

1. The quasi-mathematical treatment of space and time and the assertion that both space and time are composed of parts that are not co-existent. "It is a property inseparable from time, and in a manner which constitutes its essence, that each of its parts succeeds another, and that none of them, however contiguous, can ever be co-existent." ¹)

2. The separation of the time of a being from its substance ²) and the separation of space from its action.

(What was said above of the thought of Hobbes, is equally true of that of Hume).

3. The dependence of the notions of space and time on the human senses which must receive them before they are simple, distinct ideas.

The significance of these points is that they are a summing-up of the "physicalization" of space and time by Hume outside the human person, for he not only treats them in the same way as space and time are treated in Galileo's physics, but he makes them functions of the outside world, that is, of the physical world in which Galileian physics


²) Compare Heidegger's notion of the separation of objects from all-enveloping Being. Have we not here the separation of space and time from Being?
applies. He now has frames of reference; by making men things, undifferentiated from one another, he has masses of matter in motion against the background of these frames of reference, and this he achieves by destroying the self.

Space and time are ideas and impressions in a psychical life which is fragmentary and also dependent on the outside world in that "All the perceptions of the human mind resolve themselves into two distinct kinds, which I shall call impressions and ideas. The difference betwixt these consists in the degree of force and liveliness with which they strike upon the mind...." Thus we find that all simple ideas and impressions resemble each other; and as the complex are formed from them we may affirm in general, that these two species of perception are exactly correspondent....we shall here content ourselves with establishing one general proposition, That all our simple ideas in their first appearance are derived from simple impressions which are correspondent to them, and which they exactly represent." 2)

Now if human psychical life is so fragmentary and de-

1) Compare Hobbes' motion philosophy. It seems to me also that Hume is here not very far removed from Locke's notion of the mind as a tabula rasa.

2) A Treatise of Human Nature, Part 1, Section 1, Pages 311 to 314.
dependent on impressions, there cannot be a real and unfragmented self. "I desire those philosophers," Hume challenges,¹ "who pretend that we have an idea of the substance of our minds, to point out the impression that produces it, and tell distinctly after what manner it operates, and from what object it is derived.....I may venture to affirm to the rest of mankind that they are nothing but a bundle or collection of different perceptions which succeed each other with inconceivable rapidity, and are in perpetual flux and movement. Our eyes cannot turn in their sockets without varying their perceptions. Our thought is till more variable than our sight."²

Bergson would term Hume's treatment of space and time and human psychical life a treatment according to the cinematographical method to which physics is restricted.³ In contrast to Hume's treatment of the human psyche we accordingly have Bergson's. One may think of one's perceptions as a motley crowd, he says,⁴ but, deep down,

1) A Treatise of Human Nature, Book 1, Part 4, Sections 5 and 6, Pages 517 and 534.
2) See Chapter Note 5.
3) Bergson seems to me to have some affinity with Heidegger. There is a separation between parts and the whole. The cinematographer makes separate pictures of something that cannot really be split up. See Chapter Note 6.
4) See Chapter Note 7 and also Appendix 9.
there is an unfragmented self, something combining and containing the motley crowd of perceptions into which Hume dissolves the self. Kant, having been awakened "out of his dogmatic slumbers" by Hume, set about finding an answer to him, but though space and time are subjective for Kant (as forms of thought), time is still not a durée and space not a mode of action, and both are connected with the human person, as Spengler points out, according to a scheme.\(^1\) Hume was, no doubt, not conscious of the fact that his conception of space and time was that which had given mathematicians so much trouble through the ages. Had he been more of a mathematician and had he had the "new physics" at his disposal, he might have been more aware of the problem of Zeno's flying arrow.\(^2\)

Though Hume's time is an experienced time in the sense that it is (as space is) an impression or idea from the world outside the person, it is not a durée immediately experienced in the sense in which Bergson speaks of a durée and in the sense in which the Hebrew of the Old Testament experienced it. Hume's time, the time of Galilean science, is, according to Heidegger,\(^3\) itself in

1) See Chapter Note 8 and also Note 3, Chapter 2.
2) See Chapter Note 9.
3) Sein und Zeit, Introduction to Division 2, Page 278, See also Chapter Note 10.
time, that is, derived time is in real time very much as a chair is in a room. In the same sense, of course, Hume's derived space is itself in real space. Van Peursen would perhaps say that derived space and time are only "edges" of real space and time, or their "shells."

(iii)

What strikes one with great force is that, for Hume, the human person is a function of the physical world --- in so far as the human person can be said to exist at all. The human person is not directed to the world, but the physical world is, as it were, the source of the human person. From Hobbes, Locke and Hume sprang the "Associationist" school of psychology which sought to explain all the more complex mental processes as results of the compounding (mathematical integration) of atom-like sensations and images, one of the laws of compounding being association by contiguity in space and time as conceived in the physics of Galileo. We see then, how human beings are projected as masses of matter against the framework of Galileian space and time. Once it is admitted that there is really no such entity as the self, this projection becomes a matter of course, and this destruction of the self Hume achieves in his critique of personal identity which is inseparable from the atomization of
psychical processes. "The identity which we ascribe to the mind of man," he says, 1) "is only a fictitious one, and of a like kind with that which we ascribe to vegetable and animal bodies. It cannot therefore have a different origin, but must proceed from a like operation of the imagination upon like objects....It is evident that the identity which we attribute to the human mind, however perfect we imagine it to be, is not able to run the several different perceptions into one, and make them lose their characters of distinction and difference, which are essential to them. It is still true that every distinct perception which enters into the composition of the mind, is a distinct existence, and is different and distinguishable, and separable from every other perception, either contemporary or successive....the understanding never observes any real connection among objects....even the union of cause and effect, when strictly examined, resolves itself into a customary association of ideas."

We find in the above passage the underlying concept in Hume's philosophy of what Prof. Versfeld terms the hostility of reality to the intellect. The self does not exist; it is a mere abstraction of which the intellect is forced to make use because of its inability to know re-

ality. We are, in fact, mere constructs.\(^1\) We have here an interesting situation: It seems that Hume himself was dissatisfied with his treatment of personal identity and felt himself to be more than a mere construct; \(^2\) but, at the same time, we have no other treatment of personal identity by him, and since this treatment goes with his fragmentation of psychical processes and the fragmentation of space and time, we must look upon it as an integral part of Hume's philosophy. We shall find also that it is inseparable from his isolation of individuals in his treatment of human relationships.

Such is the result, then, of founding our notion of personality on causality, that is, on the conviction that the outside world causes our loose impressions and ideas and that these are the mind. But, according to Hume, causality is itself mere custom.\(^3\) "Whatever changes, he (the person) endures," says Hume, \(^4\) "his several parts are still connected by the relation of causation... As a memory alone acquaints us with the continuance and extent of this succession of perceptions, 'tis to be considered,

\(^1\) See Chapter Note 11.
\(^2\) See Chapter Note 12.
\(^3\) See Chapter Note 13.
\(^4\) *A Treatise of Human Nature*, Book 1, Part 4, Section 6, Page 542.
upon that account chiefly, as the source of personal identity. Had we no memory, we never shou'd have any notion of causation, nor consequently of that chain of causes and effects, which constitute our self or person." And if there is no necessity in causality,\(^1\) if it is merely custom, there is as little necessity in the human person, while the idea of a soul "substance" which has never caused an impression, is decidedly intolerable. One cannot fail to notice that Hume's treatment of causality is inseparable from his fragmentation of human psychical processes and his fragmentation of time. A person cannot stand at a now and look to past and future. "For all inferences from experience," says Hume,\(^2\) "suppose as their foundation that the future will resemble the past.... It is impossible (therefore) that any arguments from experience can prove (this) resemblance of the past to the future."

We notice that whereas Descartes still needed God to bring his matter and mind together, there is no need for God in Hume's philosophy, since there is no mind and no soul substance, only matter projected against a Galileian space-time frame of reference. Hume does bring God into

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1) See Northrop's remarks on Pages 19 to 28 of his Introduction to Heisenberg's Physics and Philosophy.

2) Sceptical Doubts, Part 4 of Concerning Human Understanding, Page 33 of Volume I of the Essays.
his thought, but for quite another purpose. We shall find that he brings God in merely as an aid and that he does not really need Him. Now since Hume has effectively disposed of mind, the human person has been completely dismantled and men are objects which cannot have an "inner time" as in the Old Testament time is the inner time of the person connected with the time of a whole people. The impossibility of connecting the event with the person in Hume's philosophy is reflected in his theory of history which we shall examine in the next chapter.

We cannot help asking why Hume should include a quasi-mathematical treatment of space and time in a work on human NATURE. The only possible reply seems to be that he did so because his anthropology demanded it. Hume wrote when man had become a phenomenon to be studied by science, subject to all the laws of nature, a thing without choice. Observation of this phenomenon demanded its separation from the space and time natural to it.\(^1\) We have, in other words, in Hume's empiricism the choice of a specific space and a specific time for a specific purpose, though, no doubt, Hume was not conscious of the fact that he was making this choice. The choice is made when he isolates every individual from every other individual by the frag-

\(^1\) Compare Heidegger. See Chapter Note 14.
mentation of human psychical life and the destruction of the self.

This isolation must, of course, necessarily follow from the destruction of the directedness of the human person if we accept that real space and time are of the essence of this directedness, but we can arrive at the fact that it is inherent in Hume's philosophy by argument along a different path. It can be pointed out that his empiricism must, in the last analysis, lead to an idealism of some type or other. In general idealism lays down that everything that can be known, that is, every object of experience, is really the contents of consciousness. 1) Now the mind, says Hume, is simply a series of experiences or impressions. If we take objective idealism to mean that experiences always consist of ideas (without reference to the subject to whom ideas and consciousness belong) then, since for Hume there is no self or mind, we judge him to be an objective idealist. We are assuming now that we can infer that something causes these experiences; but since Hume also destroyed causality, we are not to infer that anything causes these experiences, and we are left with subjective idealism or solipsism which defines the content of consciousness as a purely subjective process. The human

1) See Chapter Note 15.
being is then completely isolated, and there can be no question of a directed human person.

(iv)

Now how does Rousseau reduce human beings to abstractions? Hume sets about his philosophizing empirically and his maxim is: "What I see I believe." Rousseau is not so methodical and is more inclined to believe what he feels. In the end, however, human beings are, as he sees them, also removed from the reality of the time process. He sees them as "mechanical beings.....masses....bereft of all morality."¹ We have this strange outcome that Hume, the rigorous empiricist, and Rousseau, the romantic, both move away from concrete reality when they think about human beings. Whereas in the philosophy of Hume the destruction of the self follows logically on the fragmentation of human psychical processes by the projection of the human person against the Galileian space-time frame of reference, the philosophy of Rousseau is not so rigorous and direct on its path to that outcome which we are about to discuss. In his case the destruction of the self is the result of a flight from the process of change which is time, and from the reality of the world in which he lives and which

¹ Les Rêveries du Promeneur Solitaire (Huitième Promenade) Pages 130 and 131: "...des êtres mécanique.....des masses.....dépourvues de toute moralité." This passage will be quoted more fully in a later chapter.
is subject to that time process of change, rather than a result of a reasoning in which Galileian space and time are projected on the human person. It must be remembered that Rousseau was not a professional philosopher in the modern sense of the word; he was an eighteenth-century French philosophe, a "philosophizer" rather than a philosopher.

"To my mind," says Rousseau, 1) "the distinctive faculty of an active or intelligent being is the ability to give a meaning to this word is." Rousseau finds: "this word is" (ce mot est) indicative of much more than mere existence, and he says further: 2) "In the ability to will, or rather to choose, and in the consciousness of this ability we find only pure spiritual actions of which we cannot explain anything by the laws of mechanics." We make these two assertions by Rousseau our starting point.

Now if we accept with Bergson, St. Augustine and others that time is the substance of a being, or with Heidegger that what is not in time, is not, then time is the very essence of "this word is." But we shall find that time is

1) Émile, Book 4, Page 552 of Volume 2 of the Œuvres de Rousseau: "Selon moi la faculté distinctive de l'être actif ou intelligent, est de pouvoir donner un sens à ce mot est."

2) On the Origin of Inequality, Page 170 of the Everyman's volume. Original French in Chapter Note 16.
precisely what Rousseau takes away from men, and that in the end we have to explain the actions of his men "by the laws of mechanics." If we accept that time defines reality, then we must accept a flight from the one as a flight from the other, and Rousseau finds it easy to dream himself into a world of his imagination. This he admits only too clearly in his *Confessions* and other works of an autobiographical nature.

Now this private world into which Rousseau can so easily flee, must be one in which men of the real world have no place; we shall see presently how Rousseau is, in fact, cut off from his fellow men by his hostility to the realities of time. Obviously, were he not cut off from them, he would have no need of a refuge from them. He looks upon the men of time as part of the world of time in which "All is in a continual flux on the earth. Nothing preserves a constant and fixed form, and our affections which become attached to outside things, necessarily pass away and change as they do. Always in front of and behind us, they recall the past which no longer exists or precede the future which often cannot be: there is nothing solid to which the heart can attach itself. Also one has here only pleasure which passes; I doubt if lasting happiness is known. There is hardly in our greatest enjoyments an instant when the heart can truly say to us: I would that
this instant could last for ever."¹)

Rousseau here really expresses a wish to be able to freeze the world in an eternal now-ness. The man who does not flee from time, who accepts time as, so to speak, a sine qua non for his being, would reply to Rousseau: Of course everything is in a continual flux in the world. Change is the becoming of the world to what it is at each moment of one's life.

The everlasting change which is the subject of Rousseau's lament is the reality of the time process, so that his dislike of change is, in fact, a dislike of time. (One notices in the passage quoted above, the division between past and future by the present. We shall return to this point presently). It cannot be by mere coincidence that we find an almost exact parallel to Rousseau's words in Plato's Theaetetus²) "All things we are pleased to say 'are,' really are in a process of becoming, as a result of movement and change and of blending one with another." It would appear that some connection can be found between Rousseau's hostility to flux and Plato's theory of the passing nature and unreality of things, and the reality of

¹) Les Rêveries du Promeneur Solitaire, (Cinquième Promenade), Page 83. For the original French see Chapter Note 17.

²) 152 D.
the ideas or forms, which are timeless and rigidly unchanging. These realities, says Walsh,1) quoting the above passage from Plato, "not only are what they seem to be, but further are eternally what they are. Each of them is all it is capable of being, timelessly itself." The things of the world about us contrast with them just by failing to possess this quality; the fact that they are liable to change makes Plato say that, strictly speaking, they are not anything at all but are merely becoming something. Change to Plato means variability, and variability means deceptiveness, in things just as in men. True reality is single and simple, appearances many and various."

Rousseau longs desperately for a state "where the soul finds a place of repose solid enough to rest there entirely and to collect there its entire being without having to recall the past or ponder the future; where time is nothing for it, where the present lasts for ever without, however, marking its duration and without trace of succession...."2) Again we see the desire to freeze the world into an everlasting now-ness. But this now-ness would not be the eternal now-ness as one would regard the

1) Metaphysics, Chapter 2, Pages 23 to 24.

2) Les Réveries du Promeneur Solitaire (Cinquième Promenade), Pages 83 to 84. For the original French see Chapter Note 18.
now-ness of God to be. If we look upon a person's now as the heart of his real time\(^1\) which encompasses the world around him, and fashions the becoming of the world for that person by its fluidity, its "moving along," then we can look upon the eternal now-ness of God as a now in which all the universe in all its past and future is encompassed,\(^2\) and which need not be fluid or moving for a description of the universe. From this eternal now-ness of God the now's of humans, the time of the ancient Hebrew and the Christian issue by His creative action. From the frozen now for which Rousseau longs, a now plucked out, so to speak, from God's time, time would not issue; the everlasting now-ness of which Rousseau dreams, would be a state removed from time, in which men would resemble an array of statues and busts in a museum. It would be a mathematical instant\(^3\) isolated from others.

We conclude then, that Rousseau regards time as an enemy. It is, moreover, an enemy with which he is very much preoccupied\(^4\) because he senses somehow that his chaotic

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1) Van Peursen's Stellenbosch Lecture.

2) To such a now the now of Daniel approximates.

3) The poet N.P. Van wyk Louw describes the world seen in such a frozen state in a mathematical instant in his poem Suïwer Wiskunde. See Chapter Note 19.

4) Compare Poulet's Études sur le Temps Humain, Chapter 10, Page 165, where the author says that for Rousseau time is a place "du mal et du malheur," and "ce drame du temps il l'a vécu jusqu'à l'angoisse, jusqu'à l'affolement."
life and the "disjointed" way in which he experiences time, are connected. 1) His Confessions appear very much as an attempt to "take stock" of himself and to find a unifying bond in his life which was, to say the least, most fragmented. We have an attempt to provide his life with some interior coherence where he tells us in the Confessions 2) that his appetite for reading saved him from himself in his growing sensuality, a sensuality which was part of Rousseau as a man of the real world, but found no outlet in that real world because Rousseau was cut off from it. So once again he had recourse to a remedy (for his sensuality) outside real space and time. "This consisted in feeding myself upon the situations which had interested me in the course of my reading, in recalling them, in varying them, in combining them, in making them so truly my own that I became one of the persons who filled my imagination and always saw myself in the situations most agreeable to my taste; and that finally, the fictitious state in which I succeeded in putting myself, made me forget my actual state with which I was so dissatisfied....In the sequel we shall see

1) Compare Temmer's Time in Rousseau and Kant, Introduction, Pages 10 to 11. See also Chapter Note 20.

2) Book 1, Volume 1, Pages 74 to 75. Note that he says that "we shall see more than once the curious effect of this disposition." For the original French see Chapter Note 21. See also Chapter Note 20.
more than once the curious effect of this disposition, apparently so gloomy and misanthropic, but which is really due to a too affectionate, too loving and too tender a heart, which, being unable to find any existence resembling it, is obliged to nourish itself with fancies."

The effect of Rousseau's hostility to time is the effect to which he admits in this passage: he is cut off from the world and his fellow men, and, in fact, also from himself.

(v)

In his struggle with time Rousseau separates past from future by separating the present from both. There is, in other words, a fragmentation of time and no durée in the sense in which Bergson uses the word to indicate the essence of real time. It is, moreover, a fragmentation which goes further than the few divisions between past, present and future; it is a fragmentation brought about by a succession of feelings. ¹) When we read Rousseau's autobiographical works, we are struck by the fact that whereas he sometimes makes mistakes when he has to deal with facts and actual events, ²) and sometimes alters facts "to suit his art;"

1) Compare Temmer's *Time in Rousseau and Kant*, Chapter 3, Page 41: "Jean-Jacques prefers to link feelings in order to mark succession of his being."

2) We have the testimony of people of his time and immediately afterwards that this is so.
as Temmer puts it, there is never any uncertainty in his mind about his feelings. After all, he tells us more than once in the Confessions that it is really his soul that he wishes to bare to his readers. We must assume then, that actual events and facts are of secondary importance, and that only Rousseau's feelings matter. These follow one another precisely as Hume's impressions do, and do not constitute a durée. In fact, Rousseau tells us clearly in the Confessions that these feelings do indeed rapidly succeed one another:

"I am a man of very strong passions, and, while I am stirred by them, nothing can equal my impetuosity...with the exception of the single object which occupies my thoughts, the universe is nothing to me. But all this lasts only for a moment, and the following moment plunges me into complete annihilation."1)

In view of the fact that Rousseau admits that his Confessions are not meant to describe a becoming and that his now does not encompass other persons, the question seems to arise: How would he regard space and time unconnected with his feelings? He answers this question himself and tells us in the Social Contract2) that they must be regarded as a

1) Part 1, Book 1, Page 67: For the original French see Chapter Note 22.

2) Du Contrat Social, Book 2, Chapter 6, Page 96. This important passage will be referred to again. See also Chapter Note 23.
series. This, we already know, is precisely the conclusion concerning space and time that we find in Hume's thought, and precisely the view of space and time that we find in the elementary calculus. The significant thing is that we find this "scientist's" view of space and time coupled in Rousseau's writings with his fragmented experience of time, and we shall find that we can only conclude that Rousseau, realizing that the chaos in his own life stems from his hostility to and his "disjointed" experience of space and time, is suggesting the space and time of science as a space and time of order.

But the space and time of the calculus are still a fragmented space and time, and we are at the moment concerned with this fragmentation. When one regards time as a unity, as a durée, when one stands at a now as the heart of a real time which joins past to future, which, in fact, encompasses past and future, the past is what it is, quite unalterable, but if time is not a unity, as it is not for Rousseau, and the past is severed from the present, one can alter the past to suit one's purpose, as indeed, Rousseau does. It is known that some of his autobiography is fiction, and it turns out that it is fiction to a purpose. That purpose, we shall find in a later chapter, is closely connected with his feelings and his notion of virtue, but it also serves the purpose of helping Rousseau to flee from reality.
When one alters the past, then, since this past is encompassed in one's now, the now cannot encompass reality. Consequently, in contemplating a past which is not the past which he has lived, Rousseau really extricates himself from history and breaks with reality and his fellow men. So, in the *Confessions*, he movingly describes his boyhood in which he was, as he would have us believe, cherished by a father who, in fact, gave many indications that there were times when he was more at ease without his turbulent son.

Temmer shows by means of a most effective simile how Rousseau's past often stands outside real time and contains little of reality: ¹"The thought or objectified past is a major source of Rousseau's ideas concerning himself. Motionless and ironic, they resemble the fragments of a broken mirror, suggesting the outline of a possible whole. By dint of contemplation he seizes their respective meanings, and the joining takes place when the order and purpose of his life are understood. We shall see that the *Confessions* abound with such sudden insights, often followed by expiation and elegy. Accepting the implications of such insights, the autobiographer resists the temptation to deny their essential truths, although he alters them to meet the demands of his art." It seems appropriate to remark in this context

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¹ *Time in Rousseau and Kant*, Chapter 3, Page 38.
that if Rousseau is so prepared to take liberties with the writing of the history of his own life, one would hesitate to entrust the writing of the history of mankind to him. We shall see, when the question of history is considered, that he would indeed have written history to suit himself.

Rousseau recreates the past to suit his art, but what can he do about the future? Nothing, so he does not wish to dwell on it. The future, he thinks, is the part of time which is to be feared, and he exclaims in low spirits: "Foresight! foresight which unceasingly carries us beyond ourselves....here we have the true cause of our miseries. How stupid of a being as transitory as man to look always far to the future which so rarely comes, and to neglect the present of which he is certain."¹) The future then, Rousseau regards as the time of possible (indeed, probable) unhappiness. The primitive man, the savage, or infant, living in a present of pure sensation, is much better off since he is without past and without "foresight."

It must be stressed again, however, that this present which Rousseau has in mind, is not the present of real time since such a present would encompass past and future. The present which Rousseau has in mind, is timeless since it is

¹) Émile, Book 2, Page 432 of Volume 2 of the Œuvres de Rousseau. For the original French see Chapter Note 24. The Confessions, Rousseau's Correspondance, La Nouvelle Héloïse and Émile abound with such passages.
cut off from the past and the future, and "physicalized" into a Galileian moment. It is not a now in Van Peursen's sense of the word. For primitive man, as for the infant, "all their knowing is in sensation," says Rousseau; the life of primitive man "was the life of an animal, bounded in the beginning by pure sensation." Poulet comments that Rousseau's primitive man and infant are "without past and future, without foresight and without memory," a blissful state to be in, since it is timeless. It is a single isolated moment without the torments which time holds for Rousseau. What is important, however, in this theory of the life of primitive man and the infant is that we have in it the same fragmented time and the same fragmented psychical life that we have in the thought of Hume. There is no durée and no real person.

Rousseau tells us in his Confessions that his predilection for imaginary objects and the ease with which he can take possession of them completes his dislike for everything around him and initiated in him his love for solitude.

1) Emile, Book 2, Page 451 of Volume 2 of the Œuvres de Rousseau: "... tout leur savoir est dans la sensation."
2) See his On the Origin of Inequality, Pages 169 to 179 of the Everyman's volume.
3) Études sur le Temps Humain, Chapter 10, Page 158: "..... sans passé et sans futur, sans prévoyance et sans mémoire!"
4) Part 1, Book 1, Page 75. Here, if anywhere in Rousseau's writings, we have an undisguised admission of flight from reality.
He also says:¹ "We do not exist where we are, we only exist where we are not." And as if to illustrate this in his own case, he tells us in the Confessions² of his powers of imagination which can transport him from one calling to another and beautify each as he wishes. He can, moreover, take up his abode in any of his many castles in the air without any difficulty since none of them is far from the place where he is. Evidently space is as much something that brings unhappiness as is time.³ Since space is not a mode of action to Rousseau, it is not surprising that he cannot become attached to real things; his lack of appreciation of what we have termed real space, becomes interwoven with his hostility to time.

(vi)
Rousseau then, is not fleeing only from time, but also from space, and we can now examine more closely the effect which this flight has on Rousseau himself, on his fellow men and on his relationships with his fellow men. We have already concluded that his hostility to time cuts him off from them. The extent to which he is cut off from them,

1) Émile, Book 2, Page 432 of Volume 2 of the Oeuvres de Rousseau: "Nous n'existons plus où nous sommes, nous n'existons qu' où ne sommes pas."

2) Part 1, Book 1, Page 78.

3) See Chapter Note 25.
Rousseau himself tells us all too frequently in all his works in passages such as that in which he compares men with things of which the motions can be calculated by means of the laws of mechanics. From this stems his persecution mania, and it is significant that this feeling that he is always being persecuted is projected on his youth some thirty years afterwards when he writes his *Confessions*.

Poulet comments on Rousseau's fragmentation of time\(^1\) that it "has dismembered, so to speak, the different parts of our inner being, and the sensing of our existence is clouded by it. By our desire we live in the future, by our passions in the past, by our sensations in the present. Our I (ego) is cut up at different points in the *durée*. We have to do with the opposite of concentrating all the strength of our being comprehended by the soul in the present instant." What we have in Rousseau's fragmentation of time is really a destruction of the unity of the person through the absence of a *now* in Van Peursen's sense of the word. The human person ceases to be directed and ceases to give a "sense to this word *is*."

The whole of Rousseau's *Confessions* tells us of this dismemberment of personality. The author gives only elements (and these in no particular order) which the reader must

\(^1\) *Etudes sur le Temps Humain*, Chapter 10, Page 170. For the original French see Chapter Note 26.
assemble for himself. So he tells us: "As in general, objects make less impression on me than my memories of them, and since all my ideas assume the form of images, the first traits which imprinted themselves on my mind have remained there and those which subsequently imprinted themselves on it have rather combined with them than effaced them. There is a certain succession of effective states and ideas which modify those that follow them and which must be known in order to be properly grasped. I always endeavour to develop the first causes in order to make the concatenation of effects felt." We seem to have here a fragmentation of human psychical life as effective in destroying personal identity as that of Hume; we have the same atom-like entities in Galileian space and time. We have mentioned that the Associationist school of psychology sprang from the thought of, among others, Hume, but here in Rousseau's philosophy we have the same basic principle.

1) Compare Temmer's simile of the broken mirror. We shall return to Rousseau's method of presenting the events of his life when we come to consider his views on history.

2) Confessions, Part 2, Page 171. For the original French see Chapter Note 27.

3) Compare Green's Jean-Jacques Rousseau: A Critical Study of his Life and Writings, Chapter 1, Page 44: "But here, surely, Rousseau is the victim of the fallacy that the fundamental self of the individual can be recomposed from a series of juxtaposed 'elements' of psychic states." See also Chapter Note 28.

4) See Chapter Note 28.
From such a fragmentation of psychical life, and the consequences for personal identity which must issue from it, must necessarily follow the reduction of human beings to abstractions in precisely the same way as this reduction follows on the destruction of personal identity by Hume. It is therefore not surprising that Rousseau who writes that his "too tender a heart...being unable to find any existence resembling it, is obliged to nourish itself with fancies,"¹ should also write of his fellow men² that they "...were to my mind nothing but mechanical beings, acting only on impulsion, (and) of which I could calculate the actions only by the laws of motion....in this way their inner disposition ceased to be something to me; I furthermore looked upon them only as masses moved somehow, bereft, to my mind, of all morality."³ Throughout his life Rousseau felt himself persecuted by others; when he died he hardly had a friend in the world. He quarreled also with Hume who certainly bore him no ill will. Having reduced men to abstractions, and looking upon them as mere masses of matter, he was quite incapable of meeting them.

This reduction of men to abstractions by both Hume and

1) See Page 142 of this study.

2) Les Rêveries du Promeneur Solitaire (Huitième Promenade), Pages 130 and 131. For the original French see Chapter Note 29.

3) See Chapter Note 30.
Rousseau: strikes deeply into their philosophies; it penetrates into the core of their political and moral theories, that is why it was pointed out in the first chapter of this study that it is the basic guiding influence in their treatment of human relationships. We can now begin to consider that treatment of human relationships.
The question to which we shall find an answer in this chapter is: If Hume and Rousseau reduce human beings to abstractions, if they bring about a uniformity among human beings through which they cease to be differentiated from one another, how do these philosophers regard the human scene in that movement of it which we call history? This history the Old Testament Hebrew regarded as the living out of the relation of the Divine Will to human wills in which each person was related to every other person in the onward flow of a God-created time. How do the views of Hume and Rousseau contrast with this view?

The preceding chapters lead us to expect that we shall find in Hume's view on history a tendency towards that natural science which tinged the entire Enlightenment period, and in Rousseau's thought a flight from history as we found there a flight from time. This is indeed what we do find. We shall discover, moreover, that, as in the end the thought of Hume and Rousseau, apparently so diverse in nature, have the common outcome of the reduction of human beings to abstractions,
so the thought of both these philosophers lead to a view of history as an eternal repetition of events, that is, in the thought of neither one or the other is there an eschatology as there is in the historiography of the Old Testament. In the thought of both our philosophers the study of history becomes an instrument which must be made useful, and in the thought of both, the use of this study is closely related to the relationships among human beings that arise from their reduction to things which cannot meet.

Hume is most explicit in giving us his view on history; he does it in one quite short paragraph:1) "Mankind are so much the same, in all times and places, that history informs us of nothing new or strange in this particular. Its chief use is only to discover the constant and universal principles of human nature." We have here a view on the human scene in terms of what Spengler calls the set-fast,2) that is, in terms of that about which laws can be formulated. But for a better appreciation of the "rigidity" of the human scene as Hume sees it, it is worth quoting a longer passage from his essay.

"It is universally acknowledged," says Hume, "that there

1) Of Liberty and Necessity, Section 8, Part 1 of An Enquiry Concerning Human Understanding, Page 68 of Volume 2 of the Essays.

2) Decline of the West, Introduction, Page 49.
is a great uniformity among the actions of men, in all
nations and ages, and that human nature remains still the
same, in its principles and operations. The same motives
always produce the same actions: The same events follow
the same causes.... Would you know the sentiments, incli-
nations and course of life of the GREEKS and ROMANS? Study
well the temper and actions of the FRENCH and ENGLISH: You
cannot be much mistaken in transferring to the former most
of the observations, which you have made with regard to
the latter." Even irregularities in human actions Hume
looks upon 1) as "in a manner the constant character of hu-
man nature." There is constancy "notwithstanding these
seeming irregularities; in the same manner as the winds,
rain, clouds and other variations of the weather are sup-
posed to be governed by steady principles," in spite of
apparent capriciousness.

We see clearly in this view on history, the eigh-
teenth-century construction of the "universal man" which
has so much in common with the universal falling body, the
universal expanding gas or the universal compressed fluid.
This "universal man," we shall find, is the man we meet
as a citizen in the state reduced by Hume and Rousseau to
a mechanism. Hume's view of the universe is essentially

1) Of Liberty and Necessity, Page 72 of Volume 2 of the
Essays.
mechanistic, and it is as no more than a material part that man has a place in it. All men in it are similar, and history is essentially the "functioning" of humanity in a process of repetition in which these parts have their places in spatial and temporal isolation. This means that the space and time of history become the space and time of Galileo's physics. Human beings are then similar to pendula; generations that come and go mark off the Cartesian axis of time in a sort of reciprocating movement. Every generation is precisely the same as the one before it, but finds itself a little further on in time.

Now since history is the movement of the parts of a machine, the human scene moves according to discoverable laws which must really be laws of nature, since this machine of which human beings are parts, is nature. We begin to see the use that the study of history must have when we read: "How could politics be a science, if laws and forms of government had not a uniform influence upon society? Where would be the foundation of morals, if particular characters had no certain or determinate power to produce particular sentiments, and if these sentiments had no constant operation on actions?" Hume's view on his-

1) See Chapter Note 1.

2) Of Liberty and Necessity, Page 73 of Volume 2 of the Essays.
tory is inseparable from his idea of himself as a "Newton of moral philosophy."\(^1\) Newton was a man who sought laws of nature, hence we find throughout Hume's writings, a desire to establish a "science of man" which "is the only solid foundation for the other sciences."\(^2\) "There is no question of importance," says Hume, "whose decision is not comprised in the science of man; and there is none, which can be decided with any certainty, before we become acquainted with that science." It is clear that, in Hume's opinion, the study and writing of history must stand in the service of this "science of man;" indeed, history is regarded as a handmaiden of the other sciences: "History," says Hume,\(^3\) "is not only a valuable part of knowledge, but opens the door to many other parts, and affords materials to most of the sciences."

It is understandable now that Hume's great work should be a work on human NATURE and not personality, for it is human nature that people have in common\(^4\) and is the

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1) Hume's biographer, Mossner, seems to consider this an important point. He draws our attention to this rôle which Hume singled out for himself, in Chapter 10, Page 131, of his The Life of David Hume.

2) A Treatise of Human Nature, Introduction, Page 5. We find this notion also in Rousseau's thought.


4) See Chapter Note 2.
one element which can possibly make them amenable to
treatment according to scientific law and the prediction
that goes with it. It is human NATURE that is associated
with the reduction of human beings to abstractions with
which science can deal. These abstractions have mental
processes which are subject to definite laws which the
study of history can help to elucidate. Here we find the
connection between Hume's destruction of personal identity
and his view on history: his destruction of personal iden-
tity helps to create the "universal man," an abstraction
of which the movements, with those of other "universal
men" in Galileian space and time, create the human scene
of which the laws are found in history. So in his Of the
Rise and Progress of the Arts and Sciences he sees laws
in history and explains the cycles of growth and decline
in past centuries in terms of human nature.

Now if history can help us to understand human na-
ture better, then it can help us to create a better world,

1) See Chapter Note 3.
2) See Chapter Note 4.
3) Compare Stewart's The Moral and Political Philosophy
   of David Hume, Chapter 11, Page 293: "....we have
   the cyclic theory (of history) set forth in Of the
   Rise and Progress of the Arts and Sciences, (1742) and
   The Natural History of Religion (1757)....The rise
   and fall of the arts and sciences, in short, can be
   explained in terms of human nature and men's circum-
   stances."
that world which the Enlightenment saw as a Utopia.\(^1\) To create a better world was, of course, also Rousseau's goal as set in the *Social Contract*, and we shall return to the Enlightenment ideas of progress presently. At this point we merely stress that the whole point of a "science of man" is this better world which it must help to build. We must not look upon it as a science for its own sake. Through its service to the "science of man" history can make its contribution to this Utopia, but it would not be able to do so if mankind were not "so much the same in all times and places." A view of history as a "story" is at variance with the ideals of science and indicates an absence of control by man.\(^2\) In science improvement goes hand in hand with control and predictability, hence the absence in Hume's view on history of an eschatology. The purpose we find in his philosophy we find in the use of the study of history and not in the direction of the movement of history as we do in the philosophy of history of the Christian\(^3\) and the Old Testament Hebrew. In his view on history Hume gives the human memory a pragmatic function, and the contingent has no place in it; hence our

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1) See Chapter Note 5.
2) See Chapter Note 6.
3) See Chapter Note 6.
dictum that the Enlightenment (exemplified in Hume and Rousseau) wishes to substitute progress for history.

(ii)

Hume tells us that men are the same at all times and everywhere; Rousseau assumes that they are, hence the phrase *taking men as they are* in the opening paragraph of the *Social Contract*. There would, after all, be no point in writing a blueprint for what he considers to be a model society if he did not assume this. He also assumes, in other words, the possibility of a "science of man," in spite of his antipathy to science. So he tells us: "I am seeking Right and Reason; I am not arguing about facts." 2) The preface to the *Discourse on the Origin of Inequality*, in fact, begins with the statement: "Of all human sciences the most useful and most imperfect appears to me to be that of mankind......For how shall we know the source of inequality between men if we do not begin by knowing mankind?" Furthermore, *Emile* seems to be based on the assumption that there must be such a science (for educational purposes). Rousseau clearly thinks in terms of the "uni-

1) See Chapter Note 7.

2) A sentence in the original draft of the *Social Contract* quoted by Green in his *Jean-Jacques Rousseau: A Critical Study of his Life and Writings*, Chapter 7, Page 283. We shall refer to this statement again.
versal man" of the Enlightenment. "We must then," he says in *Émile*, 1)"generalize our views and consider in our pupil man in general --- man exposed to all the accidents of human life." One cannot fail to notice too, the frequent use in the *Social Contract* of words such as always and ever: the priestly interests would always be stronger than those of the state, 2)no state has ever been founded without a religious basis, 3)and so on.

With this assumption that men are always and everywhere the same, Rousseau embarks on his prescription for a better world with "universal men" moving, as we saw in the preceding chapter, in Galileian space and time, as they also move in Hume's philosophy. We find, however, in addition to the element of "eternal return," a decided element of hostility to history in the sense in which the Christian and Biblical Hebrew see history. Here we have a man who is in history, who makes history and is even, as we shall see, prepared to use history, but at the same time denies it. History in the sense of a "story," of course, means change, and we are by now acquainted with

1) Book 1, Page 403 of the *Oeuvres de Rousseau* (Volume 2): "Il faut donc généraliser nos vues, et considérer dans notre élève l'homme abstrait, l'homme exposé à tous les accidents de la vie humaine." Note the word abstrait.

2) *Du Contrat Social*, Book 4, Chapter 8, Page 116.

Rousseau's hostility to change. It comes as no surprise, therefore, when we find that Rousseau deliberately lifts his body politic out of that change and places it in the space and time of Galileo's physics, which are the space and time of repetition and consequently of certainty and prediction. He tells us that contact of the Sovereign with the things of real time corrupts it, and takes measures to protect it against this corruption. He tells us accordingly that the General Will of the body politic is to be taught "to see times and spaces as a series," which is as Galileo, Hume and all users of the calculus see times and spaces. This space and time are the space and time of a science, and we must conclude again that Rousseau wishes to see human beings in terms of a science, as nature is seen by scientists. Here we see again how much Rousseau was influenced by the science against which he directed his abuse, and we see again how the notion of nature forms an underlying bond between Hume's empiricism and Rousseau's romanticism.

1) Du Contrat Social, Book 2, Chapter 6, Page 96. This contention by Rousseau is an important one in our attempt to gain an insight in his attitude to time, and will be referred to again in the next chapter.

2) Ibid. This statement too, is most important. It has already been referred to and will be referred to again. For the original French see Chapter Note 8. Is this the influence of Descartes, or the direct influence of Galileo?
All through Rousseau's writings we find a longing for the past. In his Confessions he longs for days that he spent in quiet picturesque places, and for circumstances that could no longer be at the time when he wrote his autobiography. In the Social Contract he longs for the "good old days" of Greece and Rome when, so he thinks, the world was a better place. This hostility to history leads Rousseau to hide from it in the refuge of archetypes. The Judaic law (of Moses)," he tells us, "which still subsists, and that of the child of Ishmael, which, for ten centuries, has ruled half the world, still proclaim the great men who laid them down....the true political theorist admires in the institutions they set up, the great and powerful genius which presides over things made to endure." He also mentions Lycurgus with approval, and one cannot escape the conclusion that Rousseau sees himself as a great lawgiver, destined to legislate for mankind, a reappearance in the world, so to speak, of Moses, Mohammed, Lycurgus or Solon.

1) It is in this longing for the past that Rousseau fails to make sense of time in his autobiography. One expects an autobiographer to establish some connection between himself and the passing events of his time. This Rousseau fails to do. See Chapter Note 9.

2) See Chapter Note 10.

3) Du Contrat Social, Book 2, Chapter 7, Page 101. For the original French see Chapter Note 11.

4) Ibid., Page 98.
He betrays himself in this respect in a short sentence in the **Confessions** where he relates how angry he became when his cousin was ridiculed by a crowd of young hooligans, and actually started a brawl in his defence. "Behold," he says, "me already a redresser of wrongs." The word *already*\(^1\)* is the eloquent word in this remark.

Rousseau's **Confessions** do not tell us of a man who stands at a **now** as the heart of his personal time which encompasses other persons by the overlapping of spaces and times and which describes the becoming of the world to him by its movement; consequently Rousseau cannot see the movement of the human scene which is history, as a movement which is brought about by the interrelationship of human beings. Rousseau, it must be borne in mind, is cut off from his fellow men, so that we have in the **Confessions** no consciousness of a connectedness between the becoming of the author and the becoming of the world of human persons. We have, instead, nothing more than a collection of incidents, not necessarily in the correct chronological order, not necessarily **true**, and betraying a lack of historic sensitivity, if by historic sensitivity we mean a consciousness of

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1) Book 1, Volume 1, Page 53: "Me voilà déjà redresseur des torts." I cannot see that the word *already* can indicate anything else. If Rousseau did not look upon himself as a (future) master lawgiver, why did he use this word here? See also Chapter Note 12.
the relatedness of one's own becoming to the becoming of the world. In this context it cannot go unnoticed that in the *Confessions* Rousseau gives us, at the very beginning\(^1\) where he describes his boyhood, a character sketch of himself as a man some thirty years older, as if in those thirty years he had undergone no change. One might say that in this work which we are asked to look upon as the author's autobiography, Rousseau shows no concern over "making sense of himself" in the context of the world about him.

The sharpest contrast one can find in the literature of the world with respect to life descriptions is perhaps the contrast between Rousseau's *Confessions* and the Old Testament books of the Prophets. In the latter we have, not only what these ancients regarded as a direct communion with God, but a consciousness of every Prophet of the closest connection between himself and the events of his time. In this context we can couple the *Confessions* with Greek literature in which autobiography and biography are almost completely non-existent\(^2\), while in the works of the dramatists of the classical period we have no character development, and situations instead of durée. The absence

\(^1\) Part 1, Book 1, Page 67.

\(^2\) Plutarch is perhaps an exception, but he came long after the classical period --- after the beginning of the Christian era.
of the connection between the person and the events of the human scene in the Confessions makes this work a flight from history, and this flight Rousseau also projects on his treatment of human relationships in his political works. Prof. Versfeld can consequently point out that the contrast between Rousseau and the Old Testament Prophets exists also between Rousseau and St. Augustine. Rousseau's Confessions, says Prof. Versfeld, 1) goes with the Social Contract as St. Augustine's Confessions goes with the City of God.

We can do no better, if we wish to demonstrate the difference in historic sensitivity of an Old Testament Prophet on the one hand and Rousseau on the other, than to quote with the opening chapter of the Book of Daniel, 2) the opening paragraph of Rousseau's Confessions. (Historic sensitivity we look upon as the consciousness of the connectedness of one's own becoming with the becoming of the world). 3) Daniel begins by telling us of the events of his time: "In the third year of the reign of Jehoiakim, King of Judah, came Nebuchadnezzar, King of Babylon, unto Jerusalem and besieged it." Only in the sixth verse do we read: "Now among

1) Rousseau's Moral and Religious Views and their Consequences. We shall examine the timelessness of the social contract body politic presently.

2) See Chapter Note 13.

3) See Chapter Note 14.
these (those taken into exile) were of the Children of Judah, Daniel, Hananiah, Mishael, and Azariah...." Compared with this there is a decided ring of arrogance and aloofness from the world and its becoming in the opening lines of the Confessions: "I wish to show my readers a man in all the truth of nature; and I shall be that man."¹ We shall return to these words presently; we are concerned at the moment only with what they can tell us about Rousseau's historic sensitivity. One is struck by the narrowness of the now which must be Rousseau's, for it encompasses really only Rousseau himself, whereas we find that the now of Daniel encompasses every member of his people, in fact, a span of the future history of the world as well as its past. We have in Daniel's a now which, so to speak, approximates to the eternal "now-ness" of his God, but the now of Rousseau centres on his own nature, and encompasses his fellow men only as objects. It is, in the light of the rest of his Confessions and his other works, not the heart of a real time which, in moving, describes the events of his world.

(iii)

Now Hume wrote history, and the question might well be asked: Why did he write history, and what are the charac-

¹) "Je veux montrer à mes semblables un homme dans toute la vérité de la nature; et cet homme ce sera moi."
teristics given to his historiography by his views on his­
tory? The first marked characteristic of his history writ­
ing is that he does not proceed with his treatment of events
according to the chronological order of these events. It is
as if he wishes to confirm his judgment that it does not
matter when or where one observes events, since they are
merely a repetition of events somewhere else and at some
other time. 1) He commences then, with events in the Britain
of the Stuarts and ends with events in Roman times. 2) One
cannot fail to notice here too, the sharp contrast with the
historic sensitivity of the Old Testament Prophets. We find
in Hume's history, not an intention to describe a becoming,
but an intention to put the events which he describes, to a
use, that use being service to the "science of man." His
age had clear-cut ideas, ready-made by philosophers (in con­
flict, more often than not, with the established Church) on
society, justice and morality, and these went into Hume's
historiography. 3) The result was, furthermore, that Hume's

1) It must be borne in mind that Hume wrote history in
terms of the "universal man" of the Enlightenment. See
Chapter Note 15.

2) His first volume (published in 1754) covers the reigns
of James I and Charles I. His second (1756) covers the
period from 1649 to 1689. He then wrote two more volumes
covering the Tudor dynasty and then another two on medi­
aeval England. By 1761 he had completed his history of
England from Julius Caesar to William III.

3) See Chapter Note 16.
history was written without really thorough research and scholarship.\textsuperscript{1} He had, however, ideas concerning the task of the historian as clear-cut as the ideas of his age on society, justice and morality. That task was to serve these ideas and to improve the world. "The history of all ages," he wrote in a preface for the second volume on the Stuarts\textsuperscript{2} --- and we note the words of all ages --- "and none more than that of the period, which is our subject, offers us examples of the abuse of religion; and we have not been sparing, in this volume more than in the former, to remark them......The historian, therefore,.....may retain the highest regard for true piety even while he exposes all the abuses of the false."

Now as Hume wrote history, and no autobiography as a major literary work, so Rousseau wrote autobiography but no

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1) Compare Greig's \textit{David Hume}, Chapter 20, Page 267: "We need not waste time examining his 'antient English History.' He undertook the task lightly, and performed it in the same spirit. It is readable, of course, but not history. He wrote it with his feet up on a couch." In a footnote Greig says: "Henry Mackenzie says that this is literally how he wrote the book --- which may or may not be true. Metaphorically, it is indisputable." See Chapter Note 17.

2) This passage is taken from the original draft, according to Mosser (\textit{Life of David Hume}, Pages 306 to 307). The preface was never published, says Stewart on Page 392 of his \textit{The Moral and Political Philosophy of David Hume}, but its essence appears as a footnote in the volume for which it was meant to be a preface. Hume wrote it because he was surprised at the criticism roused by his first volume on the Stuarts.
history. But the question can still be asked: What sort of history would he have written, had he written history? There is much history in the Social Contract, though this work was not meant to be historical, and the history we find there gives us a clear indication that, had Rousseau written history, it would also have been utilitarian. One of its uses would have been that of a weapon against the Christian Church. "Of all the Christian writers," he says, "the philosopher Hobbes alone has seen the evil ('that whenever the clergy is a corporate body, it is master and legislator of its own country') and how to remedy it. But he should have seen that the masterful spirit of Christianity is incompatible with his system, and that the priestly interests would always be stronger than that of the state." (In the Middle Ages, of course, the interests of the state and the "priestly interests" could be thought of as not in conflict; the notion that that conflict must be there, was part of Rousseau's heritage of dualisms). He continues: "I believe that if the study of history were developed from this point of view, it would be easy to refute the contrary opinions of Bayle and Warburton, one of whom

1) We find something similar in Macchiavelli's writings. One short quotation from The Prince will suffice to show how a ruler must use history. See Chapter Note 18.

2) Du Contrat Social, Book 4, Chapter 8, Page 200.
holds that religion can be of no use in the body politic, while the other, on the contrary, maintains that Christianity is its strongest support. We should demonstrate to the former that no state has ever been founded without a religious basis, and to the latter, that the law of Christianity at bottom does more harm by weakening than good by strengthening the constitution of the state.  

It is clear that this particular use of history against the Christian Church must be seen in the context of the wider use it would have for Rousseau in his idea of creating a better world. We shall find that he actually replaces the Sovereignty of God with the Sovereignty of the General Will, while the Christian of the Middle Ages looked upon God as the Sovereign of the state. Rousseau continually refers us to past civilizations (Greece and Rome) and a state of things which no longer exists (or no longer existed in his time), as if to tell us that the world has deteriorated and must be saved somehow. The remedy he proposes is, of course, the state as he sees it in the Social Contract. The use of history in demonstrating to us the superiority of

1) See Chapter Note 19 for the original French.

2) See, for instance, Book 3, Chapter 12 and Book 4, Chapter 4 of the Social Contract, but there are many other instances.

3) See Chapter Note 20.
past communities must, in its turn, be seen together with the notion, already referred to, that by contact with the things of time the General Will is corrupted.\(^1\)) We have here a pessimism which anticipates Spengler, and we shall return to it towards the end of this chapter. But one must not infer that because Rousseau refers us to the past, he looks upon the institutions of the future as possibly growing from those of the past. On the contrary, we shall find in the next chapter that he sees in the established order of his day the evils of things to come, and wishes to break with the past.\(^2\)) There would, after all, be no point in Rousseau's or anyone's establishing a fixed pattern for society such as the Social Contract is meant to establish if he thought that the coming of the Utopia could be left to history and evolution. The Social Contract is an attempt to break the cycle of birth, expansion, decay and death\(^3\)) which is the life-course of a society as Rousseau sees it in history.

One must also not be deluded into thinking that men change in the course of this cycle; men are everywhere and at all times the same, and merely corrupted, like the Gene-

\(^1\) Du Contrat Social, Book 2, Chapter 6, Page 96. See also Chapter 7 and Book 3, Chapter 10.

\(^2\) See Chapter Note 21.

\(^3\) See Chapter Note 22.
eral Will, by the things of time such as science and culture as is Rousseau's judgment in his Discourse on the Origin of Inequality and his Discourse on the Arts and Sciences to which more attention will be given in the next chapter.

It is precisely because the Social Contract is meant to be a permanent blueprint for society that we are justified in saying that it is timeless and removed from history. 1) In this context it must be pointed out that there is no social contract event in history; the social contract is a device and not a historical event, 2) though we shall find in the next chapter that Rousseau may have considered it as a possible historical event.

(iv)

Rousseau's attack on the Christian Church and Hume's view on history both raise the question of what the position of God is in the thought of these two philosophers. It will be remembered that it was pointed out in Chapter 1 that the reduction of human beings to abstractions develops in the end into a question of what to do with God. This question leads, in turn, to the question of progress, morality and freedom in philosophies in which history as a "story" is denied. We have seen that the Biblical Hebrew

1) See Chapter Note 23.
2) See Chapter Note 24.
and the Christian find a purpose of their God in this "story." History describes a becoming, and through his choice and action the human person stands at the core of this becoming. And since his now encompasses not only his own actions, but also his fellow men and their actions, morality is involved in human relationships and both become historic.

But if one's now encompasses only objects, as does that of Rousseau, one's morality cannot be established by this now which, by its movement, describes the becoming of the human scene. Morality must then have its source outside real time which has this now as its heart, and cannot be historic. We shall find that this is so in the thought of both our philosophers. Rousseau says in the Social Contract:

"Each of us puts his person and all his power in common under the supreme direction of the general will, and, in our corporate capacity, we receive each member as an individual part of the whole. At once, in place of the individual personality of each contracting party, this act of association creates a moral and collective body,¹ composed of as many

¹ We shall analyse this passage again in a subsequent chapter to show that "this act of association" actually renders a person will-less; attention is here drawn to the words in place of the individual personality of each contracting party. We must take these words as they stand. If Rousseau did not mean that the individual's personality is replaced, he should not have used these words.
members as the assembly contains votes, and receiving from this act its unity, its common identity, its life and its will."\(^1\)

We notice that Rousseau's source of morality is not the free association of men in a becoming of the world, but "this act of association" in which the word association does not indicate an I-Thou relationship, since Rousseau sees men as "masses moved somehow, bereft (to my mind) of all morality." There cannot, therefore, be a confluence of spaces and times; in fact, Rousseau need not tell us that he sees men as masses of matter to make this clear, since he tells us in the passage quoted above that the personalities of the individuals are replaced. For Rousseau the good is "the birth of a simple moment" (the act of association); it is the "product of a single effort,"\(^2\) and not a becoming in history as a "story."

There are, to be sure, relationships between a man and the "whole" in Rousseau's state, but this whole, "composed of as many members as the assembly contains votes," and a thing with a "common identity" (which abstracts, therefore, from the separate identities of those who compose it), can hardly be a person. Rousseau says of the subjects of the

1) Book 1, Chapter 6, Page 68. See Chapter Note 25 for the original French.
2) See Chapter Note 23.
state that "as a member of the sovereign he is bound to the individuals, and as a member of the state to the sovereign." 1) These words bound to, we have just seen, can have no bearing on historic I-Thou relationships and must therefore refer to a mere mechanical attachment in Galileian space and time. Rousseau tells us that the state is a person2) with a will (the General Will), but in the absence of concreteness it can be a person only in the sense in which a company is a person in law.3) We shall return to this point in the next chapter; we note here merely that Rousseau's Sovereign is too abstract to be "directed," that is, to allow the establishment of I-Thou relationships.

We also defer a discussion of the nature of morality in the thought of our two philosophers to the next chapter, and note here simply that it is ahistoric. The ahistoric nature of this morality, however, raises the question of the position of God. If God is the God of time and history (and therefore the source of historic morality) as He is to the Biblical Hebrew and Christian, then He can have no connection with an ahistoric morality. He cannot, in any sense,

1) Du Contrat Social, Book 1, Chapter 7, Page 69. For the original French see Chapter Note 26.

2) Discourse on Political Economy, Page 236 of the Everyman's volume.

3) In the Social Contract Rousseau admits that the state is a persona ficta. (Book 1, Chapter 7, Page 71). See Chapter Note 27.
be regarded as a lawgiver. Now when Rousseau makes "this act of association" by which the General Will comes into being, the source of morality, he at once replaces God with the General Will. This he confirms when he tells us that the Sovereign is "in the position of an individual who makes a contract with himself" so that there "neither is, nor can be any kind of fundamental laws binding on the body of the people --- not even the social contract itself." 1) If the social contract itself, which is the source of morality, cannot be binding on the Sovereign, we must conclude that the laws of God cannot hold for it either, especially since the Sovereign is not created by God, but by "this act of association," and "draws its being wholly from the sanctity of the contract." 2) Any doubt one might have concerning the replacement of God by the General Will, is removed by Rousseau's assurance that the General Will is infallible and impeccable, 3) and "can never bind itself, even to an outsider, to do anything derogatory to the original act, for instance to alienate any part of itself, or to submit to another sovereign." 4) It

1) Du Contrat Social, Book 1, Chapter 7, Page 69. For the original French see Chapter Note 28.

2) Ibid., Page 70: "...ne tirant son être que de la sain­teté du contrat...."

3) Ibid., Book 2, Chapters 3 and 4.

4) Ibid., Book 1, Chapter 7, Page 70. For the original French see Chapter Note 29.
can hardly be doubted that Rousseau makes God an "outsider"\(^1\) since God has no part in the contract; and even if God were in some way a Sovereign, the General Will still could not submit to Him.

In addition to this clear exclusion of God from the regulation of relationships between men, we have in the Social Contract an equally clear expression of the author's hostility to the established Christian Church of his day. This hostility, we can hardly doubt, sprang precisely from the question of sovereignty and the "sanctity" of the social contract. If the body politic were to recognize God as the Sovereign, it would mean that the General Will alienates a part of itself and submits to another Sovereign. There is a gulf between the state with God as the Sovereign, and the social contract state with the General Will as the Sovereign, which Rousseau cannot bridge. He is forced to surrender the one or the other, and he surrenders the sovereignty of God. Hence his attacks on the servants of the Church. He does not regard priests as good citizens or makers of good citizens, for they want to be legislators,\(^2\) and turn the attention of the people away from the constitution of the state. In any case, the General Will would not

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1) Kant's philosophy has a somewhat similar outcome. See Appendix 10.

2) *Du Contrat Social*, Book 4, Chapter 8, Page 200.
be safe in the hands of Christians, for they do not care enough for the sovereignty of the General Will, and are interested only in the sovereignty of God. They are, we must conclude, some of the things of time which corrode the General Will. A truly Christian state could not last, Rousseau thinks. The reason he gives is Christian meekness, that is, the philosophy of turning the other cheek. A single Catiline or Cromwell (Rousseau looks upon these two as "self-seekers") would become master of a Christian state in a short time. "Christianity preaches only servitude and dependence." "True Christians are made to be slaves, and they know it and do not much mind: this short life counts for too little in their eyes." For the Christian, says Rousseau, "the essential thing is to get to heaven, and resignation is only an additional means of doing so." Rousseau's final summing-up is that "Christianity as a religion is entirely spiritual, occupied solely with heavenly things; the country of Christianity is not of this world."

If Rousseau's philosophy was an undermining of the Christian religion, Hume's was a devastation of it. His arguments constitute a veritable arsenal for the atheist, even

1) Du Contrat Social, Chapter 8, Book 4, Pages 204 to 205. See Chapter Note 30 for the original French of the relevant passage. One notices how abstract Rousseau's Christians are, how they can be collected as a class of things without differentiation between members of the class.
though Hume himself professed, throughout his life, some sort of belief in a Supreme Being. This Supreme Being he needs, as we have seen, as a mechanic to start his mechanism, but beyond that his thought destroys all the certitude which the Christian looks upon as given by revelation. Hume being an empiricist, tells us that, since our ideas cannot reach further than our experience we can have no knowledge of divine attributes and operations. Accordingly natural reason does not permit us to judge otherwise than that the scope and intention of man's creation is limited to the present life.¹) We can now understand Hume's indifference, one could almost say contempt, towards the New Testament, which we find in his works on questions relating to religion.²)

Hume's view on history and his method and purpose when he writes history are in direct opposition to the Christian view of history as a "story."³) The events of the human scene as Hume sees them, are, we have established, an infinite repetition "ticking off" Galileian space and time. God, therefore, cannot be the creator of space and time; space and time must be "just there" as the result of things

¹) See his Essay on Immortality
²) See Chapter Note 31.
³) See Chapter Note 32.
and events which give us a sensation of them. It follows, therefore, that morality cannot be historic and must, as for Rousseau, have a source outside real space and time. As in the philosophy of Rousseau, it is "designed" to keep the peace between men in a state of conflict; this "design" will occupy our attention in the next two chapters. Morality in the thought of our two philosophers, we shall find, stems from the regulation of the motions of particles of matter in Galileian space and time; it is utilitarian.

When Hume writes philosophy and history to combat prejudice and superstition, he includes under this heading much of the Christian faith. His history must therefore be coupled with his religious views, and the use which both must have, serves as the connecting link between them. He does not believe in miracles and concludes (rightly, no doubt) that one cannot be a Christian unless one does. 1) This repudiation of the New Testament goes with his views of God as a mechanic, 2) and his view of himself as a "Newton of moral philosophy," a man who seeks laws of morality outside history as a "story," in periodicity and away from God whom he cannot observe, 3) and must assume, from his observations of the world around him, to be a mechanic — if He

1) See his Essay on Miracles.
2) See Chapter Note 1.
3) See Chapter Note 33.
exists at all. Since history is, in Hume's opinion, not a unique series of events in linear time, one must expect him to repudiate with the New Testament, also the Old Testament as a "story" of revelation, and certainly as a canon. That he does indeed repudiate the whole Bible is hinted at in a conversation which he is reported by his biographer to have had with Lord Charlemont concerning Rousseau. The latter, he said, "has a hankering after the Bible and is indeed little better than a Christian in a way of his own."1)

But, as we have seen, Rousseau could not have regarded the Bible in a light very different from that in which Hume regarded it.2) He was a believer in natural religion,3) the utilitarian consequences in the context of human relationships of which we defer till the next chapter. Both Hume and Rousseau do allow their states to have a religion because, as Rousseau puts it, "no state has ever been founded without a religious basis."4) God is, in this way, removed

1) Lord Charlemont: Anecdotes of Hume in RIA, MS-12/R/7 f.519. Quoted by Mossner in his Life of David Hume.

2) See Chapter Note 34.

3) Compare Barbara Bray's article on Rousseau's religion in the March 1962 issue of the Unesco Courier in which she describes Rousseau as the founder of natural religion which needs no mediator between God and man. See also Chapter Note 34.

4) Du Contrat Social, Book 4, Chapter 8, Page 201. See also Chapter Note 35.
from His position as sustainer of the becoming of the world by the living-out of the relation of human wills to the Divine Will, and made useful to the state. The important point to note in Hume's and Rousseau's hostility to Christianity is precisely that, taking it together with the denial of God as a Sovereign, it removes the state from time and history as a divine revelation (as Carlyle puts it). They both ask us to think of history in terms of human nature which they wish to study with its aid, and we must constantly bear in mind this contrast between history seen in terms of human nature (which makes it a constant repetition) and history as a "story" which is written by human personality with the will and choice which it involves.

The use which God and religion must have for the state can, however, become something more than a function of binding or cementing the body politic; it can, as we shall discover in the penultimate chapter, become an instrument of control in the hands of the Sovereign.

(v)

The use that history and the writing of it must have according to Hume and Rousseau, the use that God and religion must have, and the utilitarian nature of morality, all have a direct bearing on what these two philosophers regard progress to be. The cyclic nature of the events of
the human scene makes progress, like the good, "the birth of a simple moment" and the "product of a single effort." It amounts to nothing less than the breaking of the cycle. Progress is therefore not a historic growth, but a break with history by man. The argument in the thought of our two philosophers seems to run along the following lines: Communities and civilizations are born, they grow and expand, and ultimately decay and die. In this way cycle after cycle comes and goes. Time passes without bringing anything really new. In every cycle there is human misery, immorality, corruption, greed, ignorance, prejudice, superstition and hostility between men. If more were known about human nature, education could eliminate the evils that cause the decay in societies, and ultimately the Utopia will have been established --- when man's knowledge of man is complete. Barrett agrees that the Enlightenment vision of the future was one in which the cycles of past events will have been broken. He writes: 1) "In the eighteenth century (however) the notion of progress enters.....Here indeed, in all aspects of his life, man will have a future that is radically different from his past. The modern consciousness of history thus begins not so much from a new understanding of the past as from a radically different expectation of the

1) What is Existentialism? Chapter 8, Pages 202 to 204.
future...The historical vision of the Enlightenment is an optimism intoxicated with the possibilities of reason operating in all areas of human life: history will henceforth move onward and upward, if not always in an unvarying straight line, at least more or less continuously and without any catastrophic breaks or drops in the curve.1)

That Hume wishes to break the cycles of past events as he sees them, becomes clear when one reads his Political Discourses and notes his ideas on moral development in his Treatise. Here Hume appears to be writing history, but contrary to his views on history, we have here traces of a "linear" history.2) On a little reflection, however, one finds that he is writing what Stewart describes as "speculative history," that is, a history as he would have it if it conformed to his idea of progress, or a history as the human scene would have been if the cycles had been broken right at the beginning. He treats, as Stewart puts it, the logical steps in man's moral advance as chronological steps. One might say that Hume here makes use of a device very

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1) Compare also Bongie's David Hume, Prophet of the Counter-revolution, Chapter 2, Page 81: "Good education for the individual and for the society, good legislation, can change man, not overnight of course, but at least in a generation...history becomes bunk, and progress, even indefinite progress, becomes a real possibility."

2) I regard this as an important point. The apparent conflict requires an explanation. See Appendix 11.
much as Rousseau does when he founds the state on a social contract (which is not a historical event).

In Of the Origin of Government Hume proceeds in the same way, and it is worth quoting from that essay to illustrate this: After telling us that men find it necessary to protect themselves against their own weaknesses, he says: ¹)
"Men must therefore endeavour to palliate what they cannot cure. They must institute some person...whose peculiar office it is, to point out the decrees of equity, to punish transgressors, to correct fraud and violence, and to oblige men, however reluctant, to consult their own real and permanent interests....The persons, who first attain this distinction by the consent, tacit or express, of the people, must be endowed with superior personal qualities....and after government is established, a regard to birth, rank and station has a mighty influence over men, and enforces the decrees of the magistrate. The prince or leader exclaims against every disorder, which disturbs his society. He summons all his partisans and all men of probity to aid him in correcting and redressing it....He soon acquires the power of rewarding these services; and in the progress of society, he establishes subordinate ministers and often a military force....Habit soon consolidates what other principles of

¹) Pages 114 to 116 of Volume i of the Essays.
human nature had imperfectly founded...."

Hume then admits that what he has written here is "invented history," for he says: "But though the progress of human affairs may appear certain and inevitable, and though the support which allegiance brings to justice, be founded on obvious principles of human nature, it cannot be expected that men should beforehand be able to discover them, or foresee their operation. ¹) Government commences more casually and more imperfectly. It is probable that the first ascendency of one man over multitudes began during a state of war; where the superiority of courage and of genius discovers itself more visibly....the long continuance of that state, an incident common among savage tribes, enured the people to submission...."

This "hypothetical history" and his notion of breaking the cycles of human existence, must be seen with Hume's idea of progress in the context of his (and Rousseau's) belief in the possibility of a science of man. This belief, we can hardly doubt, stems from his admiration for the advancement achieved in the natural sciences (to which the frequent mention of Newton's name bears testimony). Hume saw the natural sciences advancing on all fronts, yet the

1) This history must help man to do. Note the distinction drawn between history and progress in this passage. The Enlightenment saw progress as an unbroken and continuous improvement.
events on the human scene, as he saw them, could not achieve a breaking away from an eternal repetition in which man was ever subject to a decay in society. Naturally then, progress in the moral field could only come if a science of man were established to break these cycles and bring about a progress comparable with that of natural science. ¹)

In the context of history and progress Rousseau's contention, given in the Social Contract, that the General Will is always corrupted by the things of time, goes with his view, as found in Émile,²) that "Men were not made to live in crowded ant-heaps, but scattered over the earth which they must till. The more gregarious men become, the more they corrupt each other." It is this cycle of the birth of men in happy isolation from one another, their coming together in communities and consequent corruption and final death of the community that must be broken. "Do not forget, please," Rousseau wrote to Charles Bonnet in 1755, "that according to me, society is natural to the human species in

¹) The idea that our two philosophers have of progress as a break with history, a single moment, is the very antithesis of that of Kwant. According to Kwant real progress is always sustained by the past; the world, the "humanized world," he calls it, finds a thrust in tradition. Such was his exposition in a private lecture.

²) Book 1, Page 416 of the Oeuvres de Rousseau: "Les hommes ne sont pas faits pour être entassés en fourmilières mais épars sur la terre qu'ils doivent cultiver. Plus ils se rassemblent, plus ils se corrompent." The growth of cities is, of course, history, a product of time.
the way that decrepitude is natural to the individual."1) We have here, not only a hostility to the things which time has produced --- towns, cities and industries --- but a forecast of doom for humanity, an anticipation of Spengler's doom of culture in the "big city." What it all amounts to is, as Green puts it,2) that unless human consciousness can be reorientated in a more natural direction (that is, really away from the time process which has produced cities and industries) our cult for scientific social progress will result in the global extinction of humanity --- for this bunching tendency among men occurs everywhere and always, and man falls from a state of nature into a state of society and time.

(vi)

The difference between history and progress as the Enlightenment conceived it, is now clear. Progress is not inherent in history;3) it has to be made by human intervention.4) Implied in this human intervention is the notion ---

1) Quoted by Green in his Jean-Jacques Rousseau: A Critical Study of his Life and Writings, Chapter 7, Page 284: "N'oubliez pas, je vous prie, que, selon moi, la société est naturelle à l'espèce humaine comme la décrépitude à l'individu."


3) See Chapter Note 36.

4) See Chapter Note 37.
and this is what is typical of the Enlightenment — that whatever follows a certain stage in history, must be better than whatever preceded it if there is to be progress. ¹) Now if the study of history is to be an aid in the study of human nature (which is considered to remain constant) in order to bring about this uninterrupted improvement, then history must be the relation of something which shows repetition, and its space and time must be those applicable to something in which repetition and law apply, that is, science. As soon, however, as human personality enters into one's consideration of history, the space and time of technics can no longer apply, since these are not the space and time of personality. On the contrary, personal subjective spaces and times will be involved, and there will be a confluence of these spaces and times. In terms of Buber's thought: there will be a presence of persons to one another, and if we accept God as a person, there will be the presence of God who will direct history through His presence. History cannot then be the relation of events which exhibit the same repetition as do the pistons in their motion in an internal combustion engine.

But in the thought of our two philosophers, in which history is associated with human nature, men immediately

1) See Chapter Note 38.
contract to isolated mass particles which cannot be present to one another, and, since personality is excluded from history, God as a person is excluded and no longer directs history to a purpose. Hence progress must replace history and the movement of the human scene is made purposeless. History seen in terms of personality is brought about by the action and choice by which personality is gained and preserved; history seen in terms of human nature is devoid of human action, and men move, as Rousseau sees them, in accordace with the laws of mechanics.

It seems clear that in a picture of events on the human scene as cyclic, men must be quite choiceless. They are caught in a trap of never-ending sameness out of which they have never succeeded in escaping. One might think that human intervention such as the writing of the Social Contract and Hume's condemnation of prejudice and superstition, gives men the opportunity of breaking the sameness by choosing to do so, but it turns out that we have to do with a spurious choice, and that, in the end, men are controlled into the "new order." This we shall examine in the next two chapters; we end this chapter with a short contemplation (for the sake of interest) of the characteristics of a society "reformed" to conform to the principles of our two philosophers.

The "new order" has to come about by application of a
better knowledge of the laws of the science of man. Men are still abstractions which are amenable to prediction. They are given their morality by the General Will which makes the laws, and are not to think, individually, what is right and what is wrong. In fact, Rousseau tells us quite clearly\(^1\) that a man's private will must sometimes conflict with the General Will, but there is no doubt about which will prevail in the making of laws. In this way morality becomes utilitarian and religion an instrument of control, for men are particles of matter, spatially and temporally isolated from and exclusive of one another, moving in Galileian space and time, and have to be prevented from clashing.

Since one of Hume's postulates is that men are not particularly interested in one another's welfare and are basically selfish, it is difficult to see that his philosophy, in spite of its condemnation of prejudice and superstition, and its purpose of making society better, is any less pessimistic than that of Rousseau\(^2\). We do not find any explicit forecast of doom in it, but it seems to imply that unless humanity mends its ways, that doom will surely follow. It furthermore gives rise to pessimism, for we cannot escape the question: Will a society created on Hume's principles

\(^1\) Du Contrat Social, Book 1, Chapter 7, Page 71.

\(^2\) See Chapter Note 39.
really be better than the one he is trying to correct? He gives us no reason to believe that his will not be a society of absolute dull uniformity in which men will be as abstract as he made them in order to establish his science of man. They will not be good or bad because their morality will be imposed on them by the General Will. There will be no march of events on the human scene, that is, there will be no history created by human personality; there will not even be cycles of events, for these will have been eliminated by the establishment of continuous improvement in the place of history. Society will merely exist without end or purpose; it will have been removed from time and change, and the only space and time left to it will be the space and time of the motions of its reified citizens, which are the space and time of Galileo's physics. Will such a Utopia not be self-contradictory? It seems that in the absence of an eschatology in Hume's (and Rousseau's) progress, we are left with a kind of nihilism.

This society — it is also the society which Rousseau wishes to see created — for which only the space and time of Galilean physics are left as frames of reference against which motions of people who cannot meet, are projected, will now be studied in greater detail.

1) See Chapter Note 40.
CHAPTER 5

The State and its Laws in Derived Space and Time

(i)

When we bring the contents of the Social Contract into conjunction with Rousseau's other works which relate to man and society, it is hardly possible to conclude otherwise than that he did not look upon man as a "political animal." Indeed, it is difficult to see that man can be a "political animal" in any theory of the state based on a social contract. The reason is the element of hostility in this theory which has as a basic assumption *homo homini lupus.* \(^1\) For Aristotle, on the other hand, man is a "political animal" (or what is the same thing, a "social animal") because he is born into the company of other men and wants to be in it. There is a directedness in Aristotle's men which we do not find in the men of the social contract; Aristotle's men meet, because they cannot come into existence if they do not. But bearing in mind what the views of Hume and Rousseau on history are, we cannot expect a view on man in society from either of our two philosophers comparable with that of Aristotle; for them the human scene consists of

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1) See for instance Hobbes' views on society in Chapter Note 7.
masses of matter moving in spatial and temporal isolation like the parts of a machine, and it is by something more than coincidence that both refer to the state as a machine.1)

Aristotle held that the City was invented to preserve life and existed to further the good life.2) Compare with this judgment Rousseau's letter to Charles Bonnet: "Do not forget, please, that according to me society is natural to the human species in the way that decrepitude is natural to the individual." For Aristotle a man's need of other men is natural and makes him necessary to society; for Rousseau a man's need of other men is an insufficiency, and makes society necessary to him. We must note in this context that Rousseau's letter to Bonnet indicates that he is hostile to society in general, any society, and not only to the society of the France of his time or some other particular society. If we interpret this letter in any other way, we should be giving it a meaning which it does not have, and it would then certainly contradict the judgment which its writer gives in Émile: the more gre-

1) Rousseau in Du Contrat Social, Book 2, Chapter 7, Page 97, and Hume in Idea of a Perfect Commonwealth, Volume 1, Page 493 of the Essays. We shall quote the relevant passages in due course.

2) See his Politics, Book 1, Chapter 2, Pages 3 to 4. For Aristotle the state really precedes the individual
garious men become, the more they corrupt one another. 1) It would then, in fact, contradict the whole of his judgment on society as we find it in his two Discourses. In these he attributes the ills of mankind to the growth of society, the arts and the sciences. Rousseau's hostility, we may be certain, is towards human society in general and not specifically towards the society which his writings helped to set on fire towards the end of the eighteenth century.

This hostility permeates the Social Contract in no uncertain way in its author's wish to break with what history had produced in his day, that is, in this work Rousseau's hostility to time and his hostility to society become closely connected. The society to which he is so hostile is what Bergson would call an accumulation, a product of time. We might say that Rousseau's hostility to time manifests itself as an antipathy towards society. It seems certain that Rousseau wrote the Social Contract from the point of view that man is really not a "political animal," but that since he has been corrupted by his own

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1) We shall find, presently, that this judgment by Rousseau can be connected with a characteristic of the Sovereign in the Social Contract, namely its corruptibility by the things of time. It lies at the root of the control of men in society which issues from Rousseau's treatment of human relationships, and must affect our judgment of his plea for government by consent. See also Chapter Note 1.
advancement in time and has become insufficient in himself and dependent on others, he is now in society and must get along with his fellow men somehow. Rousseau must, in other words, "justify the abandonment by uncivilized man of his natural liberty and primitive happiness" by finding some form of subjection to society which will, as far as possible, preserve the isolation of individuals from one another. Time has brought men into society, and Rousseau must, as far as possible, undo the damage of time.

Green appears to be very much under the impression of the hostility of men towards one another which permeates the Social Contract. According to him the question of how man came to live in society was always a mystery to Rousseau who was convinced that political society was never comprised in nature's plan. He thinks that Rousseau actually did, at least at a certain stage of his life, re-

1) We find a similar notion in Plato's Republic, though Plato does not condemn society because men are mutually dependent. In Book 2 (Page 60) Socrates says: "A State, I said, arises, as I conceive, out of the needs of mankind; no one is self-sufficing, but all of us have many wants. Can any other origin of the State be imagined?" Adeimantas then replies: "There can be no other."


3) Ibid., Page 286. Certainly Rousseau was always attracted by the micro-world rather than the macro-world: if there must be societies, let them be small.
gard the establishment of the social contract as a historical event, or to have had some historical event as a background. Green writes: "Civilized society as we know it, he (Rousseau) thinks, originated in a series of terrible accidents which forced men to choose between extinction and an association based on a pact which seemed equitable but was really a cunning trick to enslave them, invented by a clever minority who exploited the simplicity of the ignorant masses. Now this hypothesis, which is contained in the second Discourse,¹ does not reappear in the Social Contract...." In this work, of course, Rousseau simply says that he does not know how it all happened, and we have established that he and his contemporaries, certainly his contemporaries, did not care very much. But Green is not satisfied that Rousseau did not think about the matter, even though he may not have taken much trouble to go into facts. Green continues: "It is, however, a painfully evident fact that our primitive ancestors somehow took the wrong turning. Yet they might just as easily have taken the right one leading to a very different kind of political association. Rousseau now takes us back to that crucial bifurcation and speculates on what might have occurred had there been no clever, rich and guileful mi-

¹ Voltaire called this work "the second book against the human race."
nority, but only a mass of simple, bewildered and desperate individuals like the 'independent man' in the original version of the Social Contract. Given such a situation, what kind of association would have been most likely to appeal to the individual and best calculated to ensure his future happiness?"

The answer to this question is given in the Social Contract. "What can make it (political society) legitimate? That question I think I can answer."1) Throughout this answer Rousseau is led by the conviction that the becoming of society is the source of all those human ills that issue from the inequality of men: ".....as there is hardly any inequality in the state of nature, all the inequality which now prevails, owes its strength and growth to the development of our faculties and the advancement of the human mind, and becomes at last permanent and legitimate by the establishment of property and laws."2) This means, in fact, that man is everywhere in chains because of advancement and change, those processes at the very heart of which lies time. That is why Poulet sees the transition of man from the state of nature to the state of society in Rousseau's political phi-

1) Du Contrat Social, Book 1, Chapter 1, Page 55: "Qu'est-ce qui peut rendre légitime? Je crois pouvoir résoudre cette question."

2) Discourse on the Origin of Inequality, Page 221 of the Everyman's Volume. See also Page 190.
losophy as a fall, a degradation, into time. 1) In the phi-
losophy of Aristotle the state is good because it is neces-
sary, and it is necessary because it is good; 2) Rousseau
makes the state a necessary evil.

Rousseau sees that the state is necessary, an accom-
plished fact which he cannot undo; he therefore wishes to
minimize the evil of the necessity, so to speak. "I mean to
inquire if in the civil order, there can be any sure and
legitimate rule of administration, men being taken as they
are and laws as they might be. In this inquiry I shall en-
deavour always to unite what right sanctions with what is
prescribed by interest in order that justice and utility
may in no case be divided." 3) Clearly Rousseau here indicates
that the fall of man into the state of society brings about
a clash between right and interests, between justice and
utility; 4) this is the same as saying that men have come to
be at war with one another. But this he tells us more ex-
plicitly in his basic supposition: 5) "I suppose men to have
reached the point at which the obstacles in the way of their

1) See Chapter Note 2.
2) See Chapter Note 3.
3) Du Contrat Social, Book 1, Introduction, Page 53. For the
original French see Chapter Note 4.
4) See Chapter Note 5.
5) Du Contrat Social, Book 1, Chapter 6, Page 65. For the
original French see Chapter Note 6. Rousseau is here not
far removed from Hobbes.
preservation in the state of nature show their power of resistance to be greater than the resources at the disposal of each individual for his maintenance in that state....the human race would perish unless it changed its manner of existence."

Rousseau may have thought that the social contract had real historical events as a background, but in using this expedient to resolve the ills of society, he made use of what seems to have been a prevalent idea of the time. Hobbes used it, and so did Locke; and we can hardly doubt that the reduction of men to isolated masses of matter had made it the prevalent idea of the time. Hume did not actually use this device, but he did write on politics in a way which makes it clear that he had no doubt concerning the hostility of men towards one another. In his writings he supposes, as does Hobbes, that men have come to be in a state of war with one another. 1) "Nothing is more certain," he says, 2) "than that men are, in a great measure govern'd by interest, and that even when they extend their concern beyond themselves, 'tis not to any great distance.....'Tis no less certain that 'tis impossible for men to consult their interests in so ef-

1) Although Hume repudiates the social contract device, he "drifts" into a not very different origin for the state. See Appendix 12.

factual a manner, as by universal and inflexible observance of the rules of justice, by which alone they can preserve society, and keep themselves from falling into that wretched and savage condition which is commonly represented as the state of nature. "1) The only difference between Rousseau's ideas and those of Hume in this respect seems to be that whereas for Hume man is at war with his fellow men in the state of nature, for Rousseau he has fallen into that state of war because of his fall into society and time. Hume supposes that laws (that is, the state) had their origin in scarcity, so that scarcity seems to be the cause of this war between men. Justice, upon which Hume looks as synonymous with keeping order in society, would be quite useless in a world of plenty. "For what purpose make a partition of goods," he asks, 2) "where every one has already more than enough?..... Why call this object mine when, upon the seizing of it by another, I need but stretch out my hand to possess myself of what is equally valuable? Justice, in that case, being totally USELESS..... could never possibly have place in the catalogue of virtues."

Now if the social contract was a prevalent idea of the

1) See Chapter Note 7.

2) Of Justice, Section 3 of Concerning the Principles of Morals, Page 180 of Volume 2 of the Essays. Hume's thought seems to be very close to the social contract idea here.
time of the Enlightenment and the century that preceded it, we must expect other ideas prevalent at the time, to lie at the root of it. One of these is the idea of mechanism, so that we find Rousseau resorting, in spite of his antipathy to science (which pointed the way to mechanism) and his preoccupation with feeling, to a feelingless mechanism. As has been pointed out, a mechanism is a thing of which the parts are temporally and spatially isolated. We find that the state founded on the social contract model possesses precisely this characteristic of a mechanism. Underlying the idea of the social contract, any social contract, is the notion that men are isolated from one another in space and time\(^1\)(and, we repeat, at war with one another). Human relationships have become clashes of material particles in motion, and the state has to be created to regulate these motions. Men are then the isolated parts of a mechanism which have to be kept in an orderly motion in Galileian space and time in that machine.

Rousseau tells us very clearly that this is how he sees men. Though he may in the **Social Contract** be trying to soften the harshness of Hobbes' Sovereign (the Leviathan, the "mortal god"), he sees men no less as particles in motion when he says of them that they "are in my opinion nothing

\[^1\) See Chapter Note 7.\]
but mechanical beings, acting only on impulse, of which I can calculate the actions only by the laws of motion. So it is that their inner disposition ceased to be something for me and I looked upon them more as masses of matter moved somehow, bereft, to my mind, of all morality."¹)

The expedient of the social contract goes well with Rousseau's whole life. The supposition that man is a wolf to man is not strange for a man who continually felt himself persecuted by his fellow men and was, through his hostility to the realities of the world and to time, so cut off from them that he should write that since he is unable to find any existence resembling his own, he is obliged to nourish himself with fancies.²)

(ii)

Now if men in the body politic are merely masses of matter in motion, "bereft of all morality," as Rousseau says they are to him, then the body politic must derive all morality in it from outside men, and consequently from outside time. We shall find that this is so in the thought of our two philosophers. It means, of course, that morality is detached from human personality, of which time is of the essence, and made dependent on human nature which all men

¹) For the original French see Chapter Note 29 of Chapter 3.
²) See Chapter Note 21 of Chapter 3.
have in common. Morality is then nothing more than the regulation of the motions of masses of matter. It must be, that is, a morality "foisted" on men, a forced morality. This also Rousseau tells us: "The passage from the state of nature to the civil state produces a very remarkable change in man, by substituting justice for instinct in his conduct, and giving his actions the morality they had formerly lacked."\(^1\) Rousseau further confirms that morality is not in men but outside them when he says that "Although he (man) deprives himself of some advantages which he got from nature, he gains in return others so good... that did not the abuses of his new condition often degrade him below that which he left, he would be bound to bless continually the happy moment which took him from it for ever."\(^2\)

This is an important passage in the *Social Contract*. We must note, firstly, the word *moment* in it. The good is the "birth of a single moment." It is a moment which stands alone, an "air-tight" division between past and future, a small cell, so to speak, which lies between past and future and is sundered from both. This moment is not a now in which responsible decision is taken, but is, as we shall see presently, a moment in which a decision is thrust on men from

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1) *Du Contrat Social*, Book 1, Chapter 8, Page 72. For the original French see Chapter Note 8.

2) Ibid. For the original French see Chapter Note 9.
outside themselves by the necessity of self-protection. This is what makes Rousseau's morality as utilitarian as that of Hume. Secondly one can point in the words did not the abuses of his new condition often degrade him below that which he left, the fall of man into time and society. There is in them, furthermore, an admission on Rousseau's part that the dualism between the freedom of the state of nature and civic freedom, and the rift between the subject and the Sovereign cannot be wholly eliminated. In Hume's thought we have the same dualism, but Hume admits its existence more explicitly in his Of the Origin of Government: 1) "In all governments, there is a perpetual intestine struggle, open or secret, between AUTHORITY and LIBERTY; and neither of them can ever absolutely prevail in the contest."

Hume distinguishes between "natural" relationships and "artificial" relationships; 2) the former are those relationships which exist between men because they must have the companionship of other men, and include the family, friends and other persons close to one, while the latter correspond to Rousseau's civic relationships, that is, relationships which arise because the state becomes necessary. Now the fact that Hume calls such relationships artificial is im-

1) Page 116 of Volume 1 of the Essays.
2) Hume was a very sociable man, and his disposition seems to clash with much of what he wrote on the relationships between men. See Chapter Note 10.
portant, for the word at once betrays spatial and temporal isolation, and we shall have to return to this point presently as we shall have to return to the matter of the dualism of freedom in the state of nature and civic freedom. The point in this dualism at this stage is that if it cannot be eliminated, we cannot escape the conclusion that at least some force is necessary in a social contract state, that its morality is a forced morality from outside men, and therefore a timeless and ahistoric morality. It serves also as a starting point for an examination of the legislation which imposes this morality.

If Rousseau's whole attitude to change and time is one of hostility, we must expect this hostility to be reflected also in his treatment of legislation and everything connected with it, that is, in his measures to regulate the relationships between moving masses of matter. The assumed changeless core around which Rousseau builds his theories is, as he says in his explanation of the purpose of the Social Contract, "men as they are and laws as they might be." But for Rousseau "men as they are," are masses of matter without morality; all men are the same, that is, he regards them as so many similar natures rather than as persons.

1) *Du Contrat Social*, Book 1, Introduction, Page 53: "(prenant) les hommes tels qu'ils sont, et les lois telles qu'elles peuvent être."
He wishes to make laws, therefore, for men who are isolated from one another. Rousseau confirms this when he gives us a definition of a law. He asks: "But what, after all, is a law?" and replies: "(But) when the whole people decrees for the whole people, it is considering only itself.... In that case the matter about which the decree is made is, like the decreeing will, general. This act is what I call a law." He continues: "On this view, we at once see that it can no longer be asked whose business it is to make laws, since they are acts of the general will...." The word general in this passage indicates to us, wherever it occurs, that the man Rousseau has in mind here is the "constructed man" of the science of man, that is, the man "built up" with all those attributes which all men have in common, the man who cannot meet other men. We shall discover presently, moreover, that the General Will is obtained by a mere algebraic summation of spatially and temporally isolated parts and that, consequently, the laws made by the General Will are made by something without personality and something atemporal, if we accept personality to be associated with real space and time.

The General Will comes into being by "this act of association" and is the product of a moment plucked out of

1) Du Contrat Social, Book 2, Chapter 6, Page 94. For the original French see Chapter Note 11.
time rather than a historical event issueing from growth. It is something which must cope with a situation among men, namely the state of war between man and man. Its laws must regulate the motions of human beings to prevent this, and that the legislation of the General Will is really to this end Rousseau admits when he says: "...what a man, whoever he be, commands of his own motion cannot be a law.... Laws are, properly speaking, only the conditions of civil association."\(^1\) Rousseau finds that he needs a Legislator to enlighten the General Will\(^2\) and by the very fact that he says that the General Will does not always know what is good for it, he admits the necessity of the regulation of the motions of men so that "the parts are made to work exactly together and the whole is raised to its highest power."\(^3\) Here, if anywhere in Rousseau's writings, is an expression of spatial and temporal isolation of the parts of the "great machine" and the necessity of regulation in Galileian space and time.

We might usefully contrast Rousseau's legislation by the General Will to the Law which Israel looked upon as given to them by God (as we contrasted his \textit{Confessions} to

1) \textit{Du Contrat Social}, Book 2, Chapter 6, Pages 94 to 95. Original French in Chapter Note 12.

2) \textit{Ibid.}, Chapter 7. We shall return to this presently.

3) \textit{Ibid.}, Chapter 6, Page 96. For the original French see Chapter Note 13. Note the suggestion of "drilling" in Rousseau's words. We shall return to this also.
the Books of the Prophets). The Legislator of Israel is a person, God. This Legislator sets norms for human relationships with Him and relationships of men among themselves, but requires no "forcing into freedom." The state, that is, human society is an established fact since it precedes the individual, as it also does in Aristotle's thought. It requires no justification and no social contract to come into being. It is in being because there is a directedness of men towards God and towards one another, and is not the product of a "single moment." The Decalogue is accordingly a code "for time;" it is a code for the will of each man and not the product of a summation of votes in order to deal with a war of man against man. Since the execution of these laws requires free action and the choice of men, they presuppose personality, and accordingly issue from the confluence of spaces and times. Lawgiving such as this can be said to be, in a sense, a construction of human time in that it gives free play to human choice and action; for the same reason it offers men a possibility of realizing values --- a possibility which only exists when actions are meaningful.\(^1\) If this is so, then Rousseau's legislation must be looked upon as a destruction of human time, since what should be the actions of men, issue from the forced morality of the social

\(^1\) Compare Heidegger on meaning and time (Chapter 2 of this study). See also Chapter Note 14.
contract state and are really blind motions devoid of all meaning.

Laws which require a free choice and action are a necessary condition for history, since history issues from the exercising of such a choice and from action; laws such as those of Rousseau's General Will, in which the choice and action of the individual are rendered impotent, may allow progress in the sense in which the Enlightenment understood the term, but not history in the ancient Hebrew and Christian sense. Now if we accept history as a *becoming*, we cannot exclude the future from it, for we find that the future belongs to history through our hopes and desires. That our desires relate to the future also accords with Heidegger's view that we are projected, as it were, beyond the present moment. In the parlance of existentialism: man's being is a *to-be*; he desires because he is not yet what he wishes to be. Law in society must be concerned with the situations which arise from the desires of men, that is, laws must be concerned with the futures of men, and society must, as Prof. Versfeld points out, \(^1\) progressively reveal to us what we are and consequently what we desire. In this sense also, legislation should be a construction of human time. Legislation in a social contract state is, however,

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\(^1\) See his *Law and the Idea of the Contemporary*. 
legislation for the present only, a present in which men are a threat to one another. There is no relation to past or future; indeed, there cannot be, for the General Will must ignore the will of the individual and "consider only itself," as Rousseau tells us, and it has no history since it is the product of a moment. It can have no history because, as we shall see, it is not a person.

We have seen that in Rousseau's (and Hume's) thought there are two freedoms, a natural and a civic (Rousseau uses civil) freedom. Rousseau states this explicitly:¹)

"What man loses by the social contract is his natural liberty...what he gains is civil liberty..." In the Repubblicana Christiana of the Middle Ages the two were thought to be one; there was not an exchange. To suggest such an exchange is to admit the existence of a dualism between the Sovereign in the state and its subjects, and to admit the necessity of compulsion²) into freedom in the state is to admit failure in justifying completely the existence of the state, at least by means of the device of the social contract. For the Christian of the Middle Ages, as for Aris-

¹) Du Contrat Social, Book 1, Chapter 8, Page 73. For the original French see Chapter Note 15.

²) The notion of forcing a man into freedom (we find it also in Hume's thought) will have to be examined again, so we postpone quoting Rousseau's and Hume's actual words. The notion is an important consideration in the control of men which is examined in the penultimate chapter.
totle, the state needed no justification, and the dualism which Rousseau admits, is part of his heritage of dualisms after the Middle Ages. One might point out, furthermore, that to admit that the state cannot be completely justified by means of the device of the social contract, is to admit that any state founded on a social contract rests in the last analysis on force, that very force which Rousseau finds in the society of his time and to which he is so hostile.

Rousseau's legislation is legislation for this civic freedom into which men can be forced. He as much as tells us this: 1) "...when we have defined a law of nature, we shall be no nearer the definition of a law of the state." 2) He then goes on to define a law and gives the definition already quoted. Rousseau tells us also that men are quite incapable of appreciating the justice which emanates from God3) and says: "Humanly speaking, in default of natural sanctions, the laws of justice are ineffective among men: they merely make for the good of the wicked and the undoing of the just, when the just man observes them towards everybody and nobody

1) Du Contrat Social, Book 2, Chapter 6, Page 93: "...quand on aura dit ce que c'est qu'une loi de la nature, on n'en saura pas mieux ce que c'est qu'une loi de l'État."

2) The state is all-important to Rousseau, as we shall see in due course.

3) Du Contrat Social, Book 2, Chapter 6, Page 92.
observes them towards him.\textsuperscript{1})

In Hume's writings we find a similar idea: "Had every man sufficient sagacity to perceive, at all times, the strongest interest, which binds him to the observance of justice and equity and the strength of mind sufficient to persevere in a steady adherence to a general and a distant interest, in opposition to the allurements of present pleasure and advantage; there had never, in that case, been any such thing as government or political society, but each man, following his natural liberty, had lived in entire peace and harmony with all others."\textsuperscript{2}) In this passage there is, unmistakably, an overtone of the corruption of the General Will by the things of time, as well as one of the origin of the state in scarcity, and accordingly also of "forcing into freedom."

In considering Rousseau's treatment of man as a member of society one must constantly bear in mind that Rousseau is not dealing with history. He does not tell us how the passage from one state, the state of nature, to the other, the state of society, was effected, though, as we have seen, he may have had the idea at the back of his mind that it

\textsuperscript{1}) \textit{Du Contrat Social}, Book 2, Chapter 6, Page 92. For the original French see Chapter Note 16.

\textsuperscript{2}) \textit{An Essay Concerning the Principles of Morals}, Section 4 (Of Political Society), Page 197 of Volume 2 of the Essays.
This "dormant" notion in Rousseau's mind of men warring for domination over one another and for one another's goods—which is present also in Hume's thought in his notion of the origin of the state in scarcity—is eloquent of the isolation of men from one another in space and time. We cannot, therefore, expect a solution to the problem of society from our two philosophers which involves history; we must expect rather the solution that we do get from them, that is, a mechanical device of pieces of matter in motion, incapable of meeting. The legislation of Rousseau's General Will must therefore be expected to be legislation for Galileian space and time. One might bear in mind that it is the General Will that must be taught that spaces and times are a series, that is, that they are Galileian. In this sense this legislation is a flight from real space and time.

Now if we regard men as historic beings in the sense that they each stand at a here and a now which encompass other men and in which they exercise decision and choice, and that the world in its becoming is described to them by the movement of their here and now (which are inseparable),

1) Green fears that one might be "hypnotized" by Rousseau's fluent style into believing that there actually was such a transition. Compare his Jean-Jacques Rousseau: A Critical Study of his Life and Writings, Chapter 7, Page 283. But Rousseau was, as we have seen, not interested in facts.
then the men of our two philosophers cannot, as parts of a machine, be the "political animals"\(^1\) that men are in the thought of Aristotle. This fact that Rousseau's and Hume's men have no real time with a now as its heart, is a link between the loss of will by the subjects of the state and the absence of personality in the Sovereign with which we are now about to deal. The position is, in short, that an entity composed of people who have been rendered will-less by their composition of that entity, is an entity composed of people who have lost personality and cannot itself be a person. The loss of will by men through the assumption of their wills in the General Will\(^2\) serves, in fact, as an introduction to questions about the characteristics and functions of the Sovereign. These questions we are obliged to ask by what we have discovered about the legislation of the General Will for Galileian space and time.

(iii)

Rousseau tells us quite clearly that his men do not stand at a now in which they are faced with a particular situation which calls their wills and choice into action.

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1) See Chapter Note 17.

2) We shall see that at least some of these wills are forced into the General Will, but a loss of will is suffered also by those who submit to the General Will without being forced to do so. They actually surrender their wills to the General Will.
He says: "Each of us puts his person and all his power in common under the supreme direction of the General Will..."\(^1\)

Here again, as where Rousseau speaks of the compulsion of the individual\(^2\), he destroys the will of the person. If an agency, the General Will or any other will but a person's own, directs the person, as Rousseau here tells us, that person at once ceases to be free, except perhaps in so far as he has that freedom into which he has been forced, but that can hardly be a freedom in which he can have a choice and action. If we mean by freedom the absence of outside compulsion in a predetermined direction on the will in its choice in the now which is to have moral consequences, this freedom is a spurious freedom, and can be shown to be so.

Since, however, this spurious freedom is closely bound up with the control of men, we defer discussion of it to the penultimate chapter. The point at this stage is simply that if a person is forced to do a thing, his will has been replaced by another which is not his; he can no longer strive for personality (if we accept that a freedom to act is of primary importance in the gaining of personality). And if we accept that the human person is inseparable from real space

1) Du Contrat Social, Book 1, Chapter 6, Page 68. The entire paragraph in which these words appear, is italicized by Rousseau. We can only deduce that he wished to emphasize a surrender of the individual. Original French in Chapter Note 18.

2) Ibid., Book 1, Chapter 7, Page 72.
and time, then this surrendering of the "person and all his power" is, as Prof. Versfeld puts it, an "a-chronic suspension of personality." But we can recall, of course, that Rousseau tells us that the personality of the individual is replaced.

Now these men of whom the meeting is, owing to the suspending of their personalities, a mere crossing of paths or a "coming across" in mechanical motion instead of the spatial and temporal confluence that meeting is for Buber, are the masses of matter which the Sovereign, the General Will, has to keep from clashing in chaos. This Sovereign is then a device and not a person. Rousseau, in fact, admits the absence of personality in his Sovereign when he speaks of the state as a persona ficta. The General Will is obtained rather easily with the help of a little elementary mathematics: "There is often a great deal of difference between the will of all and the general will; the latter considers only the common interest, while the former takes private in-

1) *Rousseau's Moral and Religious Views and their Consequences.*

2) See Section iv of Chapter 4 of this study.

3) *Du Contrat Social,* Book 1, Chapter 7, Page 71. It has already been pointed out that the state, in Rousseau's thought, is similar to a company in law.

4) *Ibid.* , Book 2, Chapter 3, Page 82. We shall examine this point in the context of the control of men in the next two chapters. For the original French of the passage see Chapter Note 19.
terest into account, and is no more than the sum of particular wills: but take away from these same wills the plusses and minuses that cancel one another, and the General Will remains as the sum of the differences." In the society of the Middle Ages the Sovereign was a person, God, but, as we have seen, God can hardly be a Sovereign in Rousseau's political thought. However, the point to note is that if the General Will can be obtained by means of algebra, it cannot be a person, and if it is not a person, it is itself a-chronic, that is, it can have no other space and time than the derived space and time of Galileian physics. It is interesting to note Rousseau's use of mathematics in the passage quoted above. One might say that the "will of all" is a simple arithmetic sum, while the General Will is an algebraic sum. The particular wills in the General Will come and go, but this algebraic sum of wills which is the General Will, remains unchanged because it is nothing but an algebraic sum. It is changeless, that is, it is a-temporal, and has to legislate only for the changeless situation between men: their war against one another.

A striking attribute of the General Will which testifies strongly to its timelessness and lack of personality, is that it is corruptible by the things of real time, that time which also, according to Rousseau, corrupts men whenever and wherever they come together in colonies. It is so
corruptible that Rousseau thinks it wise to remove it from real space and time, but in doing so he strips it of personality and the directedness of a person. With reference to the education of the General Will Rousseau says: 1) "...it must be got to see objects as they are, and sometimes as they ought to appear to it; it must be........secured from the seductive influences of individual wills, taught to see times and spaces as a series, and made to weigh the attractions of the present and sensible advantages against the danger of distant and hidden evils." (We note here Rousseau's fear of the future and his wish to suppress the desires of men).

Compare this "education" of the General Will in Rousseau's Social Contract with the duties of the magistrates in Hume's blueprint for a good society. The magistrates must "oblige men, however reluctant, to consult their own real and permanent interests," 2) because, like Rousseau's General Will, frequently "he (man) is seduced from his great and important, but distant interests, by the allurement of present, though often very frivolous temptation. This great weakness

1) Du Contrat Social, Book 2, Chapter 6, Page 96. For the original French see Chapter Note 20.

2) Of the Origin of Government, Page 114 of Volume 1 of the Essays. I say here blueprint for a good society because although Hume here treats the origin of government, it is clear that his notions are similar to those contained in his Idea of a Perfect Commonwealth.
is incurable in human nature." To be sure, Hume does not wish to instil a mistrust of the future into his body politic as does Rousseau, but, like Rousseau, he has no doubts about the proneness of the body politic to seduction and the necessity for education of the people by some entity placed over them. It is clear also, that in the thought of both our philosophers, society does not progressively reveal to men what their desires are, and consequently what they wish to be, but prescribes their desires, as it were, and makes becoming impossible for them. Another difference between Hume and Rousseau which seems to emerge from the two quoted passages is that Hume's "education" of the body politic leans more towards a discipline than does Rousseau's. One feels obliged to point out in this context that if the General Will is to be protected from the seductive influences of individual wills, it is extremely difficult to see that the General Will can ever represent those individual wills (or even some of them) which have been assumed in it.

We see in the underlined words in the passage quoted from the Social Contract a purposeful attempt by Rousseau to remove the Sovereign from space and time and to place it in the predictability to which the space and time of science must lead. Times and spaces as a series are times and spaces which do not overlap, and in which men cannot meet. The General Will must be taught to see men as matter in motion, and
must look upon itself as an it. If this is so, men cannot be bound to it through the confluence of spaces and times, but must be bound to it by some means which goes with mechanism. How hostile Rousseau is to a Sovereign in real space and time he indicates to us when he assures us that "Legislation is made difficult less by what it is necessary to build up than by what has to be destroyed."¹) Obviously, it is the things that history as a "story" has produced, that have to be destroyed. One becomes aware of this mechanical bond between the state and its subjects also in Hume's writings; and, like Rousseau, he refers to the state as a machine:²) "Perhaps, rust may grow to the springs of the most accurate political machine, and disorder its motions."

(iv)

In order to educate the General Will Rousseau needs the services of a Legislator. Now according to Rousseau this Legislator will not interfere with or detract from the sovereignty of the General Will, but if he is to be what Rousseau says he has to be, he will soon have the General Will

¹) Du Contrat Social, Book 2, Chapter 10, Page 109. For the original French see Chapter Note 21. Rousseau is here very much a child of the Enlightenment. See also Chapter Note 22.

²) Idea of a Perfect Commonwealth, Page 493 of Volume 1 of the Essays. But Hume thinks that his Commonwealth could last for a very long time. It is meant to be changeless, therefore, that is, outside real time.
at his mercy and be the de facto ruler of the state. 1) "It would take gods to give men laws," says Rousseau, 2) and that is precisely what his Legislator would have to be. He would, like God, have to stand outside time: "It would have in the march of time, to look forward to a distant glory, and working in one century, to be able to enjoy in the next." 3) It would even have to feel itself "capable, so to speak, of changing human nature, of transforming each individual, who is by himself a complete and solitary whole, into part of a greater whole from which in a manner he receives his life and being." 4) Another admission, we might remark, on Rousseau's part that in his political thought man is a particle of matter in motion, undirected, and exclusive of all other men. We might remark further that, though he may receive life and being from Rousseau's state, it would be as "a part of a greater whole" (the greater whole being a machine) and therefore a being which he would have in common with all

1) See Chapter Note 23.

2) Du Contrat Social, Book 2, Chapter 7, Page 97: "Il faudrait des dieux pour donner des lois aux hommes."

3) Ibid. For the original French see Chapter Note 24.

4) It seems to me that Rousseau's Lawgiver very closely resembles Hobbes' "mortal god." A question arises: Why does Rousseau's translator (G.D.H.Cole) here refer to the Legislator as it? No doubt he looks upon the Legislator as a body of men, but it does seem to rob the Legislator of personality.
other objects, for he would hardly receive personality from the state.

If Hume's political ideas are akin to those of a social contract, one can hardly expect to find that he regards man more as a "political animal" than does Rousseau.\textsuperscript{1)} Like Rousseau's men, Hume's are not real, but abstractions, artificial constructions. He carried the fragmentation of human psychical life to its logical conclusion and destroyed the self making man an artificial composition of succeeding fragments of sensation. A man becomes an isolated bundle of sensations with no space and time of the inner life which would make \textit{meeting} possible. Now if one's inner life is an artificial composition of succeeding fragments of sensation, one's outer or public life must of necessity be an artificial relationship\textsuperscript{2)} of things in Galileian space and time, in contrast to a relationship of human persons. If the man becomes an abstraction, so must society become an abstraction, and must cease to be, as it was in the mediaeval Christian state, a state of union and inclusion; it becomes a collection of \textit{its}. Hume does, in fact, look upon the state as an artificial construction, that is why he divides human relationships into "natural" and "artificial" relationships.

\begin{itemize}
\item \textsuperscript{1)} See Chapter Note 25.
\item \textsuperscript{2)} See Chapter Note 26.
\end{itemize}
The whole of his Idea of a Perfect Commonwealth is written from this point of view. In this commonwealth men are so much at war with one another that the author has to make provision for safeguards everywhere. Hume's men, like those of Rousseau, cannot receive personality from the state, for the state is an entity which must ensure a peaceful and orderly not-meeting, so to speak, rather than a meeting. The human beings in Hume's state, as in that of Rousseau, are alienated from their true selves, from every other human being and, as we shall see presently, in the eyes of the Christian, also from God.
CHAPTER 6
Justice and Morality in Derived Space and Time

(i)

If, in Hume's and Rousseau's state, human beings are alienated from their true selves and from one another, we must expect to find in the thought of our two philosophers conceptions of morality quite unlike those which we find in the thought of a philosopher who looks upon persons as related to one another through the interpenetration or coalescence of spaces and times. We have seen (in the preceding chapter) that Hume and Rousseau alike make morality ahistoric, that is, they contemplate morality outside real space and time. They do not look upon it as arising from a relatedness of men through a confluence of the spaces and times of their inner lives. We must now give our attention to the nature of this ahistoric morality.

Hume is not obscure when he says: 1) "The minds of all men are similar in their feelings and operations; nor can anyone be actuated by any affection of which all others are not in some degree susceptible. As in strings equally wound up, the motion of one communicates itself to the rest, so all the affections readily pass from one person to another, and beget correspondent movements in every human creature..."

1) A Treatise of Human Nature, Book 2,
When I perceive the causes of my emotion, my mind is conveyed to its effects, and is actuated by a like emotion.... No passion of another discovers itself immediately to the mind. We are only sensible to its causes and effects. From these we infer the passion; and consequently these give rise to our sympathy." It would be difficult to imagine anything more mechanical in human relationships than the relatedness of men as sketched here by Hume, and as difficult, consequently, to imagine a passage anywhere in which men are made more uniformly amenable to calculation "by the laws of motion," to use Rousseau's phrase. We need only note such words as the minds of all men are similar, all other correspondent movements and causes and effects. Clearly, the morality of men related in this way, the morality of which Hume wishes to be the Newton, must be a morality for the constructed "man-in-general" of the Enlightenment.

In terms of Hume's thought the vibration of a string set up by that of another string, as is daily demonstrated in instructional laboratories in physics, is a sympathy of one string with another. What Hume, in the field of human study calls sympathy, the physicist in the field of the study of the behaviour of material bodies calls resonance. Sympathy has, in other words, a mechanical and material basis; there is no I-Thou relationship in which there is a confluence of spaces and times. One might note in this con-
text that the wound-up strings which Hume uses as an analogy, are things of which the motions in Galileian space and time can be calculated; definite mathematical formulae exist for the treatment of the vibrations of such stretched strings. We recall that Rousseau saw his fellow men as masses of matter of which he could calculate the motions by means of such formulae.

It is not difficult to see that it is only a small step from Hume's view on the relatedness of men to one another, to utilitarianism. The whole notion of mechanical relationships among men underlies the device of the social contract, as we saw in the preceding chapter, whether it be the social contract of Hobbes, Locke or Rousseau (or Hume for that matter). If men are objects in motion, the main function of the Sovereign is to prevent clashes, and policing becomes one of its main purposes. Goodness, justice and, as we shall see presently, even religion, do not go beyond mere use. "So true is it," says Hume, 1) "that (this) virtue derives its existence entirely from its necessary use to the intercourse and social state of mankind." He continues: "Thus the rules of equity or justice depend entirely on the particular state and condition, in which men

1) Of Justice, Section 3, Part 1 of An Enquiry Concerning the Principles of Morals, Page 181 of Volume 2 of the Essays. Also Page 183. See also Chapter Note 1 and Note 26 of Chapter 5.
are placed, and owe their origin and existence to that UTILITY, which results to the public from their strict and regular observance."

It was pointed out at the beginning of this study that the elimination of personality by the adoption of the space and time of science issued in the thought of both Hume and Rousseau in the problem of what to do with God. Now this problem of God is connected with the fact that morality in the social contract state is a result of the policing function of the Sovereign. That this Sovereign is a policeman, both our philosophers tell us. "By means of these two advantages, in the execution and decision of justice," says Hume,¹) "men acquire a security against each other's weakness and passion, as well as against their own, and under the shelter of their governors, begin to taste at ease the sweets of society and mutual assistance." (We notice in these words the "insufficiencies" of men which make them seek the state). Protection by policing is the purpose of the state also for Rousseau: "The problem is to find a form of association which will defend and protect with the whole common force the person and goods of each associate...."²)


²) Du Contrat Social, Book 1, Chapter 6, Page 66. Original French in Chapter Note 2. The underlining is mine; these words are not italicized by Rousseau.
Justice, we notice, does not flow from the meeting of men so that personal spaces and times cannot be involved. The use that justice must have indicates to us what it really is for Hume and Rousseau: basically it is nothing but order among men who are hostile to one another. We can now attempt to answer the question of what virtue and good are for our two philosophers, and we shall find that the notion of justice as order in society flows from their views on good and evil.

We find that Hume's theory of good and evil is precisely that of Hobbes: they are nothing but new names for pleasure and pain respectively. In fact, Hume himself does not hesitate to equate good to pleasure and evil to pain. If this is so, then the function of the Sovereign would be mainly to see to it that one person does not cause pain to another, that is, that no-one does evil, and this prevention of evil would be justice. Virtue, morality and justice then all arise from feeling (agreeable sensation) and in society ultimately become synonymous with order and discipline. Beyond this there is no connection between good and evil and society; rather, there is an absence of any relationship between one person and another, and an absence of God. The individual is solitary and exclusive, and there

is no growth of good and evil in the sense in which Maritain sees such a growth in the parable of the sower.

Hume continues: 1) "Desires arise from good, considered simply, and aversion from evil. The will exerts itself when either the presence of good, or the absence of evil, may be attained by any action of the mind or body." 2) In the words of any action we have the rudiments of a law of nature, and we are reminded again that Hume looked upon himself as the Newton of moral thought. If this is so, we must expect him to write about morality and virtue as predictable motions of pieces of matter, and to use the language of Newton. This he does: "There is a general course of nature in human actions, as well as in the operations of the sun and the climate....The knowledge of these characters (of nations and men) is founded on the observation of an uniformity in the actions that flow from them; and this uniformity forms the very essence of necessity....in judging of the actions of men we must proceed upon the same maxims as when we reason concerning external objects." 3)

We have here once again the "universal man" which is

2) See Chapter Note 3.
3) A Treatise of Human Nature, Pages 184 to 185 of Volume 2. The Treatise abounds with passages such as the one quoted here.
in Hume's moral "science" what the universal revolving planet is in Newton's natural science. The behaviour of this man can be predicted, and if it can be predicted, the man himself can be controlled, and this is very necessary if there is to be order among men who are hostile to one another. The use of the "universal man" is that a society of universal men would be orderly; justice and virtues therefore have the use that they would promote an orderly society. Hume says that\(^1\)...there are some virtues, that produce pleasure and approbation by means of an artifice or contrivance, which arises from the circumstances and necessity of mankind. Of this kind I assert justice to be...for the notion of injury or injustice implies an immorality or vice committed against some other person....Instead of departing from our own interest, or from that of our nearest friends, by abstaining from the possessions of others, we cannot better consult both these interests, than by (such) a convention; because it is by that means we maintain society, which is so necessary to their well-being and subsistence, as well as to our own....I observe, that it will

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1) A Treatise of Human Nature, Book 3, Pages 252 to 268 of Volume 2. For Hume justice is an artificial virtue since it applies in an artificial construction, the state. It has nothing to do with the directedness of the human person, and consequently the space and time which apply are the space and time of Galileian science.
be for my interest to leave another in the possession of his goods, provided he will act in the same manner with regard to me. After this convention, concerning abstinence from the possessions of others, is enter'd into and every one has acquir'd a stability in his possessions, there immediately arise the ideas of justice and injustice. our property is nothing but those goods, whose constant possession is established by the laws of society; that is, by the laws of justice."¹)

(ii)

Newton had the view that the universe consisted of "massy, impenetrable particles," and the parallel in Hume's thought seems to be that humanity consists of "massy, impenetrable particles" which, Rousseau tells us, has motions which he can understand in terms of the laws of mechanics. The far-reaching consequences of this view for Western society will be examined in the next chapter; at this point we follow a clue, provided by Hume's notion of good and evil, for the breaking of the cycles of history, that is, for the substitution of progress for history. To break these cycles an act of will would be required on the part of men,

¹) Compare Orr's David Hume and his Influence on Philosophy and Religion, Pages 167 to 168: In the "development of the utilitarian philosophy in Britain, Hume's writings take a very important place. In some respects the theory of utility has never found a better advocate than it did in him."
but men have no free will and cannot choose, except in so far as they can avoid pain and grasp at pleasure. Now if philosophers (like Hume and Rousseau) can provide a blueprint for a society with order, and pleasure and without pain, this absence of pain and presence of pleasure, that is, the absence of evil and presence of good, will awaken desire in men and they will then adopt this society. The cycles of history will then have been broken; but the breaking of these cycles will then not be an act of free will, but an act of desire. Men will grasp at that which they suppose to be without pain and offers them pleasure. 1) "In general," says Hume, 2) "it is certain, that, wherever we go, whatever we reflect on or converse about, every thing still presents us with the view of human happiness or misery, and excites in our breast a sympathetic movement of pleasure or uneasiness."

Clearly Hume's morality is a morality of feeling. But this he tells us quite clearly: 3) "It appears evident, that the ultimate ends of human actions can never, in any case, be accounted for by reason, but recommend themselves entire-

1) See Chapter Notes 3 and 4.


ly to the sentiments and affections of mankind, without any
dependence on the intellectual faculties....something must
be desirable on its own account and because of its immediate
accord or agreement with human sentiment and affection. Now
as virtue is an end.....it is requisite that there should
be some sentiment, which it touches; some internal taste or
feeling, or whatever you please to call it, which distin-
guishes moral good and evil, and which embraces the one and
rejects the other."

This morality of feeling, associated with a utilitarian
justice (order in society), affords good grounds for say-
ing that as Hume distinguished between "artificial" and
"natural" relationships, he implicitly distinguishes be-
tween an "artificial" and a "natural" virtue and an "arti-
ficial" and a "natural" morality. In fact, Hume does speak
of justice as an "artificial" virtue, so that we can infer
that there must also be an "artificial" morality. "Arti-
ficial" morality and virtue go with "artificial" relation-
ships that arise with the necessity of the state, and are
really little more than new names for order and discipline.
Hume writes:1)".....as every man has a strong connexion with

1) Why Utility Pleases, Section 5 of Concerning the Prin-
ciples of Morals, Page 209 of Volume 2 of the Essays.
See also Book 3, Part 2 in Volume 2 of the Treatise of
Human Nature.
society and perceives the impossibility of his solitary subsistence, he becomes on that account, favourable to all those habits and principles, which promote order in society .... As much as we value our happiness and welfare, as much must we applaud the practice of justice and humanity, by which alone the social confederacy can be maintained and every man reap the fruits of mutual protection and assistance."

"Natural" virtue and morality, of course, go with "natural" relationships and are matters of feeling. We feel that we must repay money lent to us in secret by friends, even though they have no recourse to the law, and we feel that we are virtuous if we do so. There is therefore a wide rift between the two virtues and moralities, just as there is, as Hume admits, a wide rift between government and governed which cannot be wholly overcome. It must be borne in mind though, that "artificial" virtue and morality are also rooted in feeling, the acceptance of pleasure and the rejection of pain. "If usefulness, therefore, be a source of moral sentiment," Hume argues,¹ "and if this usefulness be not always considered with reference to self; it follows, that every thing, which contributes to the happiness of so-

ciety, recommends itself directly to our approbation and good-will." We approve of things that are useful to the state, in other words, because they are indirectly useful to us; they bring pleasure to us and avert pain. The virtue and morality which are synonymous with the acceptance of pleasure and rejection of pain, really only become separated into an "artificial" and a "natural" virtue and morality when, in the body politic with its "artificial" relationships, absence of virtue and morality is likely to be punished with pain, whereas in "natural" relationships there is no such threat. 1)

(iii)

As is the position in Hume's thought, virtue in that of Rousseau has little or nothing to do with the I-Thou relationship of one person to another as a confluence of spaces and times, and certainly nothing with the time process of change, growth and history. In goes with his "natural religion," in fact, as Christian virtue goes with the Chris-

1) One might be deluded into thinking that "natural" virtue issues from an I-Thou relationship, since persons close to one are involved, but this is not so. Persons close to one are, after all, not the only ones who have spaces and times that can overlap with one's own. The plain fact is that exercising a "natural" virtue (such as paying back money borrowed in secret) is pleasant since it gives us the feeling that we are honourable --- it rouses pride in us. This is what Hume tells us. See Page 334 of Volume 2 of the Treatise. We shall return to this.
Christian religion. Rousseau's virtue is, no less than Hume's, a virtue which is ultimately made useful, but, like Hume's, it is one of feeling. This bond between virtue and feeling is something which Rousseau both found and helped to create in his age. He was the founder of the romantic movement in literature and philosophy, but he also found his audience very receptive. It must be remembered that when Rousseau lived, faith and the morality of the Christian Church had already been undermined, and that what had taken their place in the minds of those who sought their salvation elsewhere, was a sentimental ecstasy.1)

Now Rousseau's autobiographical works, especially the Confessions, abound with instances where the author lays stress on the virtue of his or someone else's behaviour simply because that behaviour touches his feeling. We must, in this context, compare Rousseau's life with his philosophizing.2) We have to do with a man who writes much about morality and justice, yet whose life abounds (if we are to believe the Confessions, or even parts of it) with acts anti-social, a-social and even criminal by his own standards.

1) See Chapter Note 5.

2) Compare Prof. Versfeld's Rousseau's Moral and Religious Views and their Consequences. Prof. Versfeld points out that since Rousseau preaches one thing and practises another, his preachings must be suspect.
set in the Social Contract. So he writes a philosophy of education and abandons his own children to an orphanage, an act which he "white-washes" by comparing himself with Plato (who advocates state care of children). He is a partner in the purchase of a girl of twelve for purposes which we do not hesitate to call immoral, and again tells us that it was really a virtuous act since he taught her music while waiting for her to become old enough to be of use to him and his partner. We can multiply instances, but these two will suffice to illustrate the principle that as long as an act could in some way be made to give Rousseau a feeling of virtue, that act was virtuous. This principle is spread over many pages in Rousseau's works, but we find it stated explicitly and clearly on one page of Hume's Treatise: 1)

"The chief spring or actuating principle of the human mind is pleasure or pain; and when these sensations are remov'd both from our thought or feeling, we are, in a great measure, incapable of passion or action, of desire or volition. 2) 

......moral distinctions depend entirely on certain peculiar sentiments of pain and pleasure, and that whatever mental quality in ourselves or others gives us a satisfaction,


2) Hence our clue to how the cycles of history as Hume and Rousseau see it, are to be broken. Men will grasp at a new order because it promises them pleasure.
by the survey of reflection, is of course virtuous; as every thing of this nature, that gives uneasiness, is vicious. Now since every quality in ourselves or others, which gives pleasure, always causes pride or love; as every one, that produces uneasiness, excites humility or hatred: It follows, that these two particulars are to be consider'd as equivalent, with regard to our mental qualities, virtue and the power of producing love or pride, vice and the power of producing humility or hatred. In every case, therefore, we must judge of the one by the other; and may pronounce any quality of the mind virtuous, which causes love or pride; and any one vicious, which causes hatred or humility." Hence we can say that Hume's "natural" virtue, though it may appear so, does not issue from an I-Thou relationship. There is no necessity for an I-Thou relationship to establish Hume's or Rousseau's virtue; it is quite independent of other people, and is centred only on the one who feels.¹

But though this virtue is centred on the one who feels, it is not difficult to see that any communication to or by others of whatever causes these feelings, must depend on what Hume calls sympathy. We recall the analogy of the two wound-up strings.² Men must communicate in this way, of

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¹ See Chapter Note 6.
² See Chapter Note 7.
course, because they are spatially and temporally isolated and cannot meet. And one of the men least capable of meeting is Rousseau himself, whose isolation from his fellow men is reflected in his use of the mechanical bonds of the state to establish morality among men. This use of mechanical bonds to establish morality becomes very evident when one studies his idea of a state religion, as we shall do presently. Such a morality must, of course, be utilitarian, as Hume's is utilitarian, and in such a scheme of things whatever is communicated or transmitted between men, must be communicated or transmitted mechanically. There is no striving for the Good, that is, there is no history. This sort of transmission is very similar to the conduction of heat in a solid: energy is handed from atom to atom. Men take the place of atoms and remain spatially and temporally isolated; there is no confluence of spaces and times, so that the space and time of a virtue of feeling and a utilitarian morality must be those of Galileo's physics.

(iv)

It seems quite obvious now that there can be no connection between morality --- utilitarian morality --- and religion in the thought of our two philosophers. To be sure, both are derived from feeling and both are ahistoric, but this does not provide any connection in the sense in which
Christian morality is connected with the Christian religion. It is hardly possible that Rousseau's natural religion can be founded on anything but feeling. If he does not accept a mediator between man and God, he cannot accept the Old Testament as the relation of a progressive revelation of God to man, promising a culmination in an Incarnation. And since, as Hume holds, one cannot arrive at God empirically, the only other source of religion for Rousseau is his feeling. Nevertheless, the name Rousseau gives it --- natural religion --- suggests a link with the "science of man," the study of human nature. We cannot doubt that this link is provided by the fact that Rousseau wishes to incorporate, as it were, religion in the "science of man" by establishing a state religion based on what he regards as sound principles of political science. It must be noted, however, that the religion is then based on the principles of political science, and not political science on religious principles. The state is all-important in Rousseau's thought, as we shall find in the next chapter.

It seems inevitable now, that this natural religion of feeling which really has nothing to do with morality as conceived by Hume and Rousseau, should in the end also turn out to be utilitarian, or, as is the case, give rise to a utilitarian religion for the state. This state religion
turns out to be an instrument of control of human beings; we defer the matter, therefore, to the next chapter. What is of importance here is that in this state religion the Sovereignty of God disappears and the religion becomes subservient to the state in which the General Will is the Sovereign.

The Sovereignty of God had a very definite meaning for the thinker of the Christian Middle Ages. It meant that the relationships between human beings were governed by God through His Christian Church; the rulers of the world were delegates of God who found their guidance for their rule in the Decalogue and the teachings of Christ. The term Sovereignty of God survived after the Middle Ages, but before phrases like Will of the People and General Will it has lost its force. Rousseau must be looked upon as one of the testators who bequeathed this problem of reconciling the Will of the People with the Will of God to the generations after him, the problem which arose with his deposition of God as Sovereign of the state. This deposition was, moreover, accompanied by a very definite destruction of the "vertical" relationships which men of the Middle Ages had felt to exist between themselves and God (and which pious persons must necessarily feel to exist). Furthermore, if we look upon our faith as a belief that we live in a state
of union with and inclusion in the Kingdom of God, then our religion is directed, not only to God, but also to our fellow men according to the command that we must love our neighbours as we love ourselves.

But natural religion is an affair purely for the isolated individual and cannot encompass other people. Now since Rousseau was, of all people, perhaps the one least able to meet other people and communicate something to them, whatever has to do with other people is, in his view, a matter for the state. It is precisely because his natural religion does not encompass other people that Rousseau has to find another religion for the state which does, in some way or other, encompass people. However, because the state is a mechanism and its citizens are bound to the Sovereign by means of mechanical ties, one must expect this civil religion, as Rousseau calls it, to bear all the hall-marks of a mechanical tie. We shall find in the next chapter that this is so. The relationships between people is a matter for the state, and civil religion is one of its instruments. It cannot encompass people through a confluence of spaces and times, and must be as ahistoric and atemporal as Rousseau's natural religion; consequently it must also be regarded by those who adhere to a faith of revelation, as a destruction of relationships with the God who reveals Him-
self in time and history.\(^1\)

With regard to the state religion we can point out that Rousseau makes a very definite point of cutting the bond between God and the citizen when he says:\(^2\) "All justice comes from God, who is its sole source; but if we knew how to receive so high an inspiration, we should need neither government nor laws.... Humanly speaking the laws of justice are ineffective among men.... conventions and laws are therefore needed...." He then places the making of the laws in the hands of another Sovereign, the General Will, and these laws become, as he says, nothing more than the conditions of living together. When Rousseau says that there are no fundamental laws by which the Sovereign can feel bound,\(^3\) he does not exclude the laws of God.

Hume's words are not as direct as those of Rousseau, but their effect is the same. "That the DEITY is the ultimate author of all government, will never be denied by any...."\(^4\) He then goes on to show that governments are all based on force instead of on consent, and says: "Were all

\(^1\) See Chapter Note 8.

\(^2\) *Du Contrat Social*, Book 2, Chapter 6, Page 92. Original French in Chapter Note 9.

\(^3\) Ibid.

\(^4\) Of the Original Contract, Pages 440 to 450 of Volume 1 of the Essays.
men possessed of so inflexible a regard for justice, that, of themselves, they would totally abstain from the properties of others; they had for ever remained in a state of absolute liberty, without subjection to any magistrate or political society: But this is a state of perfection, of which human nature is justly deemed incapable."

For Hume, as for Rousseau, religion is something to be used to cement the state. Morality is nothing more than a mechanical relationship between undirected human beings, and since the religion of the state is derived from this morality, it becomes a social morality, as utilitarian as the relationships between human beings from which it is derived. Hume's "designed" religion, like that of Rousseau, cannot shape the relationships among men beyond binding them in a more or less mechanical way to the super-It which is the Sovereign. Beyond that the shaping of human relationships is reserved for that super-It. This fact that morality and religion alike, in the thought of our two philosophers, have the properties of physically transmissable substances or energy (compare Hume's stretched strings) makes them the logical morality and religion for the state looked upon as a mechanism. If the civil religion is "of use" to the state, and the state is there to govern the motions of reified human beings in Galileian space and time,
then the space and time of this religion are those of the physics of Galileo.

What is important for us to note for the purposes of the next chapter is that this religion, sundered from time and history, is only a "binder" in the state, a sort of gravitational pull which must act on the citizens. We shall see what becomes of it in the context of the control of men as masses of matter.
CHAPTER 7

The Control of Men as Masses of Matter

(i)

The hostility of men towards one another that underlies the social contract theory of the state makes this expedient to resolve the problems of society one in which the control of men is inherent. The state comes into being so that order may be created or restored among men at war with one another, and this order cannot come about except through control. Now Hume and Rousseau reduce men to masses of matter; the political theories of our two philosophers consequently become theories for the control of masses of matter in motion. For an examination of this control an appropriate starting point is the deprivation of human beings of their wills.

Both Hume and Rousseau require that for order among men to come about, men should, so to speak, place their wills at the disposal of some larger, all-embracing entity. Rousseau calls this entity the General Will, and he says that men must place their person and all their power "in common under the supreme direction of the General Will."1) This amounts to an assumption of the will, and one has difficulty in concluding otherwise than that it is lost to the wills.

1) Du Contrat Social, Book 1, Chapter 6, Page 68.
person whose will is thus assumed. Moreover, the will is assumed into an entity which, we have discovered, is atemporal, that is, it is placed outside time which is of the essence of personality.

Our philosophers, however, go further. With regard to the infallibility of the General Will, for instance, Rousseau says:¹) "How can a blind multitude which often does not know what it wills because it rarely knows what is good for it, carry out for itself so great and difficult an enterprise as a system of legislation? Of itself the people wills always the good, but of itself it by no means always sees it. The General Will is always in the right, but the judgment which guides it is not always enlightened......the individuals see the good they reject; the public wills the good it does not see. All stand equally in need of guidance. The former must be compelled ²) to bring their wills into conformity with their reason; the latter must be taught to know what it wills." What is immediately striking in this passage is that though the General Will can be guided, the individuals must be compelled, and we might well ask how it would be possible to guide the General Will after the in-

¹) Du Contrat Social, Book 2, Chapter 6, Pages 95 to 96. For the original French see Chapter Note 1.

²) The underlining of this word is mine; it is not italicized by Rousseau.
individual wills have been compelled.

We have another dualism in this passage: as the words stand they indicate that the individual will and reason are opposed to each other if the individual does not submit to the General Will. The opposition can be eliminated by compulsion, says Rousseau, but in that case the will of the individual must disappear. We conclude then, that whether the individual is made to conform to the General Will, or whether he "surrenders" his will to it, he is rendered willless. It must follow that the legislation of the General Will and "forcing into freedom" go together, and that this "forcing into freedom" is nothing less than a suppression of personality. If a man chooses and acts of his own free will, he can be told that he must conform to the law as formulated according to the "science of man." In this way civic freedom becomes a freedom from clashes with one's fellow men, but can extend no further. This is a controlled state and can hardly be called freedom.

The word guidance in the passage now becomes suspect. If the General Will is to be guided after the individual wills have been compelled, the guidance would seem to contain the germ of the maxim that "the King can do no wrong," which easily becomes "the Government can do no wrong," and finally, when the government is government by a dictator,
"the dictator can do no wrong." We shall see presently that, in fact, this guidance leads, in many cases, to precisely that.\(^1\) Certainly the word *compelled* makes it quite clear that Rousseau's citizens are masses of matter that are propelled in the mechanism which is the society of the social contract, itself a product of an age of the apotheosis of science and mechanism with their space and time of Galileian physics.

Now here again it will not do to argue that by the word *compelled* Rousseau really meant something else, for instance that the individual must be made to understand by argument that he really wills what his reason tells him to will. If Rousseau did mean something else, why did he use *compelled*? Argument is guidance, and guidance Rousseau reserves for the General Will. In any case, whatever device one uses to make a person's will something other than what it is, one destroys that person's will, and if the individual is *made to agree* with the General Will, that individual becomes will-less\(^2\) and he comes under control.

Since freedom is so closely bound up with human personality, and since men have, in the philosophies of Hume

\(^1\) During Mussolini's period of government in Italy, the common slogan was: *Il Duce ha sempre ragione* (The Leader is always right).

\(^2\) See Chapter Note 2.
and Rousseau, come to be particles in motion, bereft of all personality, it should not surprise us to find that when our two philosophers use the word **freedom**, they use it to indicate something connected with the forced morality and utilitarian justice which we have found the morality and justice of the state based on a contract to be. Rousseau can hardly be clearer than he is in the **Social Contract:**  
"In order that the social compact may not be an empty formula, it tacitly includes the understanding, which alone can give force to the rest, that whoever refuses to obey the general will, shall be compelled to do so by the whole body. This means nothing less than that he will be forced to be free." We notice how close together the words compelled and forced are used. Hume is hardly less clear than Rousseau in telling us that a man can be "forced into freedom." He says:  
"But government... not contented to protect men in those conventions they make for their mutual interests, it often obliges them to make such conventions, and forces them to seek their own advantage, by a confluence in some common end or purpose." One might venture to

1) **Du Contrat Social**, Book 1, Chapter 7, Pages 71 to 72. Original French in Chapter Note 3.

2) **A Treatise of Human Nature**, Volume 2, Page 303. This notion of forcing a man into freedom seems to have a Greek background. See Chapter Note 4.
say that any reigning king of the eighteenth century could have put the arguments of both Hume and Rousseau to good use by justifying any act of force against his subjects with them. We shall find, in fact, that it is precisely this use which men after our two philosophers had for their arguments.

What one must find a little extraordinary about the notion of freedom in the thought of Hume and Rousseau is that there would be men, even though they may be only a few, who would have to be forced to accept it. This freedom is therefore something quite apart from human personality and consequently outside real time. It is the civic freedom of the state of the social contract, a freedom which presents us with the paradox that men have to be controlled when they possess it. It is the very antithesis of Bultmann's notion of freedom. For Bultmann (whose view on freedom is essentially Christian) freedom belongs to the person in his historicity, that is, it is freedom "for responsible acting."¹) Rousseau makes freedom something that one has "only negatively as being untouched by encounters," since it is something into and in which men are controlled. An encounter, Bult-

¹) History and Eschatology, Chapter 10, Page 149. See also Hulsbosch's God's Creation, Chapter 3, Page 64: "My freedom cannot be affirmed by somebody other, because the originality of my own person would thereby be denied."
mann says, "is something which calls a man's unfettered choice into action; it is the essence of the historicity of men."¹)

The paradox of a freedom in which men are controlled, and the consequent "absence of encounters" provide us with a means of showing that the freedom in the thought of our two philosophers is a spurious freedom. We ask first: What does Rousseau set out to do in the Social Contract? The reply has already been given: He wishes to justify the existence of the state. He wishes to propound a political theory by which the individual in the state, while obeying the laws framed so as to reflect the General Will and interest, should remain as free as before.²) One infers that for Rousseau natural liberty is not a complete liberty, since it is limited by the extent to which a man can defend himself against others. Then, if a man submits to such an incomplete freedom in the state of nature, he would more readily submit to human laws which he himself has willed because they are necessary for his safety. This is the exchange of natural liberty for civic liberty. But civic freedom then becomes a freedom from fear of his fellow men, and we must ask: Is this real liberty, and has he really willed:

¹) See also Bergson's *Time and Free Will.*
²) *Du Contrat Social,* Book 1, Chapter 6, Page 66.
the laws be free, responsible choice? It seems rather that it is a freedom born in his isolation from his fellow men whom he fears and with whose motions his own are regulated in the space and time of Galileian physics. He wills laws, not because they are a striving to the Good, but because his will has been directed by the danger of exploitation by his fellow men and what he looks upon as a promise of an absence of pain. His will is not morally responsible, and since civic freedom is not a freedom of striving, there is no real action. If personality is created by action, that is, by the putting into operation of freedom, then this "forcing into freedom" is a destruction of personality, for it goes contrary to action.

Now when a law becomes the will of the majority — and according to Rousseau's method of determining the General Will it is more often than not the will of the majority — it is no longer the will of those who are not among the majority. The notion that one's real will is implicit in the General Will fails here.

(ii)

Now if morality in the body politic is forced (as we have seen that it is in the social contract state) and if freedom itself is closely connected with compulsion, the state must become that around which control and compulsion
must revolve, that is, it must replace the individual in importance. Control of morality must issue in a control of religion, consequently we find that Hume and Rousseau alike are in favour of a state religion. Hume conceives a state in which religious matters are strictly under the supervision of the state, while Rousseau puts loyalty to the state before loyalty to any church except that which is created by the state to serve its interests and is therefore an integral part of its organization and functioning.

Rousseau tells us in the Social Contract\(^1\) that "no state has ever been founded without a religious basis," and that\(^2\) "it matters very much to the community that each citizen should have a religion.... There is therefore a purely civil profession of faith of which the Sovereign should fix the articles.... The dogmas of civil religion ought to be few, simply and exactly worded, without explanation or commentary. The existence of a mighty, intelligent and beneficent Divinity, possessed of foresight and providence, the life to come, the happiness of the just, the punishment of the wicked, the sanctity of the social contract and the laws...." Here we have a religion specifically "designed"

1) Book 4, Chapter 8, Page 201. For the original French see Chapter Note 5.

2) Ibid., Page 206. Original French in Chapter Note 5. We note that the Sovereign, not God or the Church, fixes the articles of faith.
to serve a purpose as an engineer would design a piece of machinery. We find no historic growth in it, no progressive revelation and no Incarnation.

We cannot fail to note the name Rousseau gives his state religion: civil religion. It goes, of course, with civil (or civic) freedom. This name, coupled with the inclusion of the sanctity of the social contract as part of the dogma of the Rousseauian state religion, makes it the very antithesis of the Christianity of the Middle Ages. The state is the end and the religion the means, whereas in the Middle Ages the state was an institution of God which grew out of the service of God. But one must not be misled into thinking that this civil religion is Rousseau's natural religion. Natural religion is purely Rousseau's private affair of feeling which is ambiguously related to other men, and really has no bearing on human relationships. Rousseau and Hume make the state the end and religion the means to that end the moment they transfer the sovereignty from God to the people, and when religion becomes an instrument, it must cease to be historic, and can be effective in human relationships only as a mechanical tie.

That the state is ever uppermost in Rousseau's mind and that the God in whom he professes to believe, really takes second place, one can hardly doubt when one finds
that he condemns sin only because it affects the state: 1) "Those who distinguish civil from theological intolerance are, to my mind, mistaken. The two forms are inseparable. It is impossible to live at peace with those we regard as damned; to love them would be to hate God who punishes them: we positively must either reclaim or torment them. Wherever theological intolerance is admitted, it must inevitably have some civil effect; as soon as it has such an effect, the Sovereign is no longer Sovereign, even in the temporal sphere: thenceforth priests are the real masters, the kings only their ministers." This passage, of course, makes it clear what sin really is in Rousseau's opinion: It is disobedience to the state and nothing more. It cannot be anything more if morality is no more than the regulation of motions in Galileian space and time, and justice no more than order in society.

We find Rousseau placed in the position of having to choose between, on the one hand admitting God and history into the state and confounding his notions of an infallible and almighty General Will, and, on the other, retaining the General Will as almighty and making God a mere instrument in the service of the state. There is no doubt about which

1) Du Contrat Social, Book 4, Chapter 8, Page 208. For the original French see Chapter Note 6.
he chooses: he isolates God from men as he isolates men from one another. The state and its laws come first, and he sees the established Christian Church as a threat to them: 1) "There is a (third) sort of religion of a more singular kind, which gives men two codes of legislation, two rulers and two countries, renders them subject to contradictory duties, and makes it impossible for them to be faithful both to religion and to citizenship....such is Roman Christianity. 2) It leads to a sort of mixed and anti-social code which has no name." Rousseau goes on to say that this kind of religion "is so clearly bad that it is a waste of time to stop to prove it such. All that destroys social unity is worthless; all institutions that set man in contradiction to himself are worthless."

Here again Rousseau admits the existence of a dualism which he cannot bridge with his mechanism. In the truly Christian state there is no divided loyalty, and man is not set in contradiction to himself; loyalty to the state is looked upon as loyalty to God. 3) But in Rousseau's mind, as

1) Du Contrat Social, Book 4, Chapter 8, Page 201. For the original French see Chapter Note 7.

2) Rousseau's rejection of a Mediator does not lead one to think that he is better disposed to Protestantism than to Catholicism.

3) See Chapter Note 8.
in the mind of most Enlightenment philosophers --- those who are not atheists --- there is a rift between the Will of God and the Will of the People, the Sovereignty of God and the sovereignty of the people.

(iii)

Now if one asks on what grounds a man should be expected to accept the state religion of Hume and Rousseau, the answer can only be that he must accept it if he wishes to be a good citizen. If he wants to be a good citizen, he has no choice in the matter of religion, and his mind, as far as the religious ties with his fellow men are concerned, is made up for him. Rousseau, in fact, tells us so:1) "Now it matters very much to the community that each citizen should have a religion. That will make him love his duty...

...There is therefore a purely civil profession of faith of which the Sovereign should fix the articles, not exactly as religious dogmas, but as social sentiments without which a man cannot be a good citizen or faithful subject. While it can compel no one to believe them, it can banish from the State whoever does not believe them --- it can banish him, not for impiety, but as an anti-social being, incapable of truly loving the laws and justice....If anyone, after pub-

1) Du Contrat Social, Book 4, Chapter 8, Pages 206 to 207. For the original French see Chapter Note 9.
licly recognizing these dogmas, behaves as if he did not believe them, let him be punished by death: he has committed the worst of all crimes, that of lying before the law."

Privately, of course, the citizens can believe what they please (as Rousseau privately has his natural religion) "so long as their dogmas contain nothing contrary to the duties of citizenship. But whoever dares to say: 'Outside the Church is no salvation,' ought to be driven from the State, unless the State is the Church and the prince the pontiff."¹

Rousseau could hardly have stated more clearly that good citizens must be controlled with regard to their religious matters as they are controlled in their relationships towards one another in Galileian space and time. And clearly the state is uppermost in Rousseau's mind; the Church, religion and God become servants of the state.

Rousseau, it seems, would, if he could, model his state religion on the state worship inherent in the political life of many ancient states such as Sparta and Rome. We must remember that in Rousseau's opinion, the world has deteriorated. He recognizes that ancient religions had their weaknesses, but he still considers them good "in that it unites the divine cult with love of the laws, and making

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¹ Du Contrat Social, Book 4, Chapter 8, Page 209. For the original French see Chapter Note 10.
country the object of the citizen's adoration, teaches them that service done to the State is service done to the tutelary god. It is a form of theocracy in which there can be no pontiff save the prince, and no priests save his magistrates. To die for one's country then becomes martyrdom; violation of its laws impiety; and to subject one who is guilty to public execration is to condemn him to the anger of the gods.\(^1\) Obviously Rousseau regards time that brought Christianity with its close connection with history as a "story," as the Great Corrupter.

Hume does not offer the citizen of the state a religion which is materially different. He institutes the Sovereign for precisely the same purpose as does Rousseau, that is, for preventing clashes between people who are so many material bodies moving in Galileian space and time, so that one must expect him to extend the control of the Sovereign over the subjects as far as he considers it necessary — and he considers it necessary, for the sake of order (justice), to extend this control to what spiritual life he grants the people:\(^2\) "The Presbyterian government is established; and the highest ecclesiastical court is an assembly or synod of

\(^1\) Du Contrat Social, Book 4, Chapter 8, Page 207. For the original French see Chapter Note 11.

\(^2\) Idea of a Perfect Commonwealth, Page 486 of Volume 1 of the Essays. See also Chapter Note 12.
all the presbyters of the county. The magistrates may take any cause from this court and determine it themselves. The magistrates may try and depose or suspend any presbyter."

Now the question of forcing a man into freedom taken together with the notion of forcing him into a state religi­on; raises an interesting question: Would it be possible for anyone to consider himself as not having given his consent to being governed by a particular General Will, that is, can a person look upon himself as not being a party to the con­tract that created a particular state with its legislative body? It might be argued that since Rousseau perhaps looked upon the social contract merely as a device for justifying the state as an accomplished fact, the question really does not arise. However, since the device is used to found govern­ment on consent, the question seems to be of material in­terest; if the question of whether a man can consider him­self not bound by the contract does not arise, the whole problem of justifying the existence of the state need not arise either.

We have established that the social contract comes into being, that is, government by consent comes into being be­cause men have come to be in a state of war with one another. It must stand to reason that to prevent the continual war­ring of man against man, the Sovereign must of necessity
oppose each man who opposes his will against that of his fellow man, that is, a general control of men must be established, and Rousseau does make the point that the social contract must come into being by unanimous consent. Therefore, if there are some individuals who refuse consent, there can be no social contract; at least some individuals would then remain in a state of natural liberty and be able to continue the war against one another. Now Rousseau applied his notion "forcing into freedom" only to dissenters from the General Will, but if the social contract comes into existence because people are at war with one another, then it is not clear that this contract serves any purpose unless all are forced into peace (and "freedom"). No man can then have the alternative of not being a party to the contract. One must conclude then, that the social contract is not a contract of consent; individuals are forced to consent as they are "forced into freedom" if they act contrary to the dictates of the General Will. Once again we see the difference between the social contract state and the state of Aristotle: for Aristotle the state exists because men are directed towards one another, that is, their spaces and times overlap or interpenetrate; the social contract herds people together in a state by forcing them into it. This force is either that of circumstances of continual hostility
issueing from random motions in Galileian space and time, or that of an entity which denies them existence outside the state.¹)

(iv)

The control of men extends further than their persons, and includes their property. Rousseau makes this quite clear when he tells us that all men put their persons and their power under the direction of the General Will.²) Surely their power must include the ability to acquire property and therefore the property itself. Rousseau tells us further: "Each man alienates, I admit, by the social compact only such part of his powers, goods and liberty as it is important for the community to control, but it must be granted that the sovereign is the sole judge of what is important."³) Rousseau here leaves no doubt that the individual is to have no say or choice in the matter of what he would be willing to part with in exchange for the blessings of citizenship; the General Will judges.⁴) When this General Will is incarnate in

¹) The fact that a man cannot choose to remain outside the social contract seems to have a further consequence with regard to the relationships between states. See Chapter Note 13.

²) See Chapter Note 14.

³) Du Contrat Social, Book 2, Chapter 4, Page 86. For the original French see Chapter Note 15.

⁴) See Chapter Note 16.
one man, as it is in a dictatorship, its judgment is usually that it should control everything.

With regard to the control of the citizens of the state Green writes: 1) "The twentieth-century reader must be forgiven if he views the last statement (that the General Will is the sole judge of what is important) with some distrust, seeing in it the very idiom of... every totalitarian régime which places the citizen at the complete mercy of what is called the State, obliterating him, in fact, as an individual. To this skepticism Rousseau would react by pointing out that in a good state, based on a proper social contract, the citizen has only himself to blame if he allows such an iniquitous system ever to materialize. And he would add that in these despotic or totalitarian states the social contract has been dissolved because the people were so stupid and apathetic as to transfer their sovereignty into the hands of an individual or clique. The inhabitants of such countries have really lapsed back into the state of pure nature and each is therefore free to follow his own caprice regardless of his neighbours."

If this would really be Rousseau's answer to the objection that his State is a totalitarian state in embryo, we might point out, firstly, that the moment the General Will

becomes an algebraic sum of wills, and therefore the will of the majority, as according to Rousseau himself it does become, the individual is already in the hands of a "clique." Secondly, the Lawgiver is made so strong that he is bound to become a dictator as, in fact, he did during the French Revolution. Lastly, everyone is not again as free as he was in the state of nature to follow his own caprice when a totalitarian régime places itself in power; everyone is then in no uncertain way under the iron control of the state.

But one must remember that for Hume and Rousseau alike, morality and justice are order in society, and orderly totalitarianism is not contrary to this morality and justice.

Green also gives us Rousseau's probable reply to the statement that his philosophy contains the germ of state control of property and the loss of all property by the citizen. It is this: He really cannot lose anything "because man in the natural state had no real possessions since, at any moment, they could be taken from him by superior force. It is only by the social contract that such a precarious tenure is transformed into property, that is to say, into possession approved and guaranteed by the community. Moreover, although in principle the state is the sole master of all the goods of its members, it is the latter who, as the sovereign people, will fix the régime under which property
is held." Here again we might reply to Rousseau that once
the régime becomes totalitarian, the people are no longer
in control of it, and cannot guarantee anything. The guaran-
tee of possession is closely bound up with the stability of
the state as a democracy in which the people are sovereign,
and in the philosophy of both Hume and Rousseau, the posi-
tion of the people is, to say the least, very precarious.
The state exists, after all, to prevent the warring of man
against man, and it does so by controlling men.

The implication of the social contract theory that the
state must control all property, receives further strength
from the Enlightenment notion that all men are the same.
This notion contains the germ of state ownership of proper-
ty. Differentiating factors mean differences between men,
and therefore inequalities. When the emphasis is placed on
the destruction of inequalities, as it was in the Enlighten-
ment, it means also the bringing down of the privileged to
the level of common humanity. Private property differenti-
ates one man from another, and if one wishes to do away
with all differentiating factors, one must surely abolish
the private ownership of property and place all property
under the control of the state. Rousseau, in fact, seems to
have been very conscious of this differentiation of persons
from one another by private property, for we read in the
Discourse on the Origin of Inequality: 1)"......all the inequality which now prevails, owes its strength and growth to the development of our faculties and the advancement of the human mind, and becomes at last permanent and legitimate by the establishment of property and laws."

It is true that equality of wealth does not appear explicitly in Rousseau's scheme, says Green, 2) but he quotes from Vaughan: ".....no citizen shall be rich enough to buy another or so poor as to be obliged to sell himself." (Compare the state ownership of industry in Communist countries because one person must not work for another). "In short," says Green, "there must be no extremes of wealth or poverty. The paramount consideration, always, is to maintain the strength and unity of the State which cannot, obviously, be done if rich individuals are able to impose their will on their poor neighbours. The object of all legislation must be to achieve a state of things whereby '.....each citizen is perfectly independent of all the others and excessively dependent on the State.'" 3)

1) Page 221 of the Everyman's volume.

2) Jean-Jacques Rousseau: A Critical Study of his Life and Writings, Chapter 7, Page 294. ".....que nul citoyen soit assez opulent pour en pouvoir acheter un autre et nul assez pauvre pour être contraint de se vendre." (V.1:61).

3) V.1:61. ".....que chaque citoyen soit dans une parfaite indépendence de tous les autres et dans une excessive dépendance de la cité." Note the isolation of one person from another.
The conclusion which forces itself upon us is that the social contract expedient is a blueprint for a society in which men and their belongings can be controlled as matter can be controlled in a workshop. The significant thing is that the space and time of the physics of Galileo apply to both men and things; both are seen against the background of this space-time frame of reference. The licence granted for the "forcing into freedom" is really a licence granted for the enslavement of men by "the superman with his pure activism,"\(^1\) as history has seen in several countries this century.\(^2\) In the General Will Rousseau forged an instrument of control as effective as a military command in an army.

(v)

It remains now to consider the linking-up of the thought of our two philosophers and their times with the actual events of history in their own century and after, and with certain characteristics of our time. Our starting point is the conclusion already arrived at in preceding chapters that the society of Hume and Rousseau is a mechanism, an artificial construction of artificial persons. The answer has also already been given to the question: For what purpose is this

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1) Prof. Versfeld's Oor Gode en Afgode, essay Rousseau die Verslawer van die Mensdom, Page 41.

2) See Chapter Note 17.
machine constructed? For the purpose of order and control.
There is a related question: If we wish to know something about men, for what purpose do we want this knowledge? The answer is again: For the purpose of control, that is, if we wish to create a society with discipline and order according to the social contract model. This was the outcome, if not the expressed purpose of the "science of man." When man has been made subject to the science of man, everything is decided and controlled for him, because everything can be predicted. The Sovereign is there, says Hume, "to oblige men, however reluctant, to consult their own real and permanent interests. In a word OBEDIENCE is a new duty which must be invented to support that of JUSTICE; and the tyes of equity must be corroborated by those of allegiance....Order in society, we find, is much better maintained by means of government; and our duty to the magistrate is more strictly guarded by the principles of human nature, than our duty to our fellow-citizens."

About a decade after the deaths of Hume and Rousseau the French Revolution shattered the old order in France, but instead of true democracy replacing that order, the new or-

1) See Chapter Note 18.
2) See Chapter Note 19.
3) Of the Origin of Government, Volume 1 of the Essays, Pages 114 to 115.
der soon came to be government by the few as a result of the state of war between the populace and the anti-popular elements. At this time men were coerced extensively into accepting what the few regarded as good for them; there was, in other words, an extensive "forcing into freedom," and, to use Hume's expression, obedience became a duty to support justice, and justice became the control of men. We find put into practice the idea of the education of the General Will and the guidance of the Lawgiver; it was, in short, a time in which men were regarded in practice as "universal men." The bloodshed during this period of French history testifies to the force that is necessary to make men "universal men" and to strip them of the spaces and times proper to them.

Another phenomenon in the history of these centuries relevant to our purpose, is the expansion of Europe to dominions beyond the seas. When the science of the seventeenth century had issued in the hostility to Christianity of the eighteenth century and technology was beginning to stir, Spain and Portugal had already succeeded in dividing the South American continent between them, the Netherlands had

1) See Chapter Note 20.
2) See Chapter Note 17.
3) See Chapter Note 21.
4) See Chapter Note 22.
had its Golden Age of colonization and art, and France and Britain were struggling for supremacy in India and North America. To the expansion of intellectual horizons, more specifically scientific horizons, was added an almost unlimited expansion of geographic horizons of available territory for exploration and exploitation. The isolation of Europe had been ended by the sudden discovery of a new hemisphere and new continents practically unpenetrated and unknown. Europe had begun to "think imperially," to use the words of Joseph Chamberlain a century later, and we shall find that this "imperial thinking" found a source of encouragement in the philosophies of, among others, Hume and Rousseau.

Now imperialism meant movement, both of men and of matter, with little distinction between the two,¹) for the world steadily became commercialized and commerce meant the necessity of ever faster and more efficient transport. It meant that men were subjected to the same space and time measurement as things, the Galileian rate of displacement measured in miles or kilometres per hour, and there was no question of personal or natural spaces and times. But what is relevant to our purpose is the fact that from the domination of matter in commerce and industry, flowed the necessity to

¹) See Chapter Note 23.
dominate men,\(^1\) not only those in the mother countries, but also those in the colonized lands. The consequence was the atrocious conditions under which people worked in factories and mines in Europe, imposed on them without regard for either their physical or spiritual well-being.\(^2\) We have also in this period of history, an almost unparallelled blossoming of the slave trade; men were literally treated as goods and moved about as such.

\(\text{(vi)}\)

We can end this thesis with a consideration of our own age. Though slavery has been abolished and the atrocious working conditions in industry have disappeared,\(^3\) the worker in any industrial country in the world is still very much a reified engine of production, since production, sales and distribution (and therefore transport) are still keywords in the society of our century. If a worker is to produce, and if this production is, as it must be, largely the motion of things in Galileian space and time, then one must expect the worker to be a controlled part of a mechanism. His own motion must be in the space and time of Galileo's physics.\(^4\)

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1) See Chapter Note 24.
2) See Chapter Note 25.
3) See Chapter Note 26.
4) See Chapter Note 27.
A modern industry has to do with mechanisms and is itself a mechanism of which the parts, those responsible for production, function in spatial and temporal isolation under the control of the management. This is also true of those who are made responsible for the transport and distribution of manufactured goods. We say that in order to function properly, industry must be well organized, but organization has come to be merely another word for control of men and machines without any distinction between the two. 1)

Now in the case of this very refined mechanism --- our modern industry, organized to perfection --- of which the workers are parts, we have a very definite contract: the employer agrees to pay the worker for his labour and the worker agrees to work for the employer and submit to the control of the management. In a large number of cases, in fact, the contract is actually a written one. We have, therefore, in industry, a social contract state as both Hume and Rousseau conceived it; we have in it, not only the control of men as matter in motion, but also that rift between subject and authority 2) which both our philosophers admit, cannot be bridged in the states they regard as good, states of which the space and time of Galileo's physics are the only space

1) See Chapter Note 28.
2) The cause of so many strikes. See Chapter Note 29.
and time.

If we wish to point out that our industrial age seems to be disregarding what Bergson, Heidegger, Alexander and others regard as real space and time, and that men are really separated from their natural spaces and times, we must also point out that our age is applying the space and time of the thought that produced the age.¹) Galileo commenced the control of material bodies by studying their motions under the influence of forces and making a space-time artifact for this purpose. From these simple studies flowed the almost perfect control of matter in motion as we know it today in, for instance, the rocket missile, flung electronically controlled, not only between continents, but between celestial bodies. From Galileo's rolling balls and falling weights to these missiles there was a time interval of some three centuries in which Europe was told that space and time were outside the human person, imposed on him by the succession of events and things in the material world, that they were, in fact, only frames of reference for measuring position and motion.²) We find then, that since the time of Galileo there has been a superimposition of the space and time of elementary mechanics on the personal spaces and

¹) See Chapter Note 30.
²) See Chapter 2 of this thesis.
times of human beings, so that the latter became latent.¹) No doubt, the process was quite unconscious, flowing naturally from the thought of these centuries, but Rousseau, we have seen, appears to have grasped somehow that Galileian space and time could be associated with order and organization, for one of the things which, according to him, the General Will is to be taught, is "to see times and spaces as a series."²) Times and spaces as a series are precisely as Hume conceives them and are applicable to human beings only when they have been reduced to abstractions as Hume and Rousseau reduces them and, as is the case for production in industry, are not required to meet.

In the space and time of control, which are the space and time of technics, the actions of men are not responsible and personality must be submerged in the necessity of law and prediction. In the space and time of freedom the historicity of men, that is, their possession of choice and responsible action, emerges. The control of men as masses of matter may seem a strange outcome of the thought of two philosophers who were champions of the individual. We can explain it only by the fact that they isolated the individual in space and time. They did not see him as a directed

¹) See Chapter Note 31.
²) See Chapter Note 32.
being with a subjective space and time overlapping those of other individuals. They both wanted a science of human nature, and science requires a measurable space and a measurable time. For the sake of the individual they wanted this science and the order that goes with it; they failed to establish that order without subjecting the individual to control.
CHAPTER 8

A Postscript: From Hume and Rousseau to Heidegger

The separation of men from the spaces and times proper to them, and their consequent reification as we see it in the industrialized world about us, is bound to turn the thoughts of some thinkers towards the future. Heidegger, for whom "the future is the primary tense,"\(^1\) is an example. He is of special interest to us, of course, since we have made such liberal use of his thought in distinguishing between real and derived space and time. Through his whole development this philosopher became extremely conscious of what he calls the separation of things from Being (to which we have already referred). This is really another way of saying that he became conscious of the projection of things against a frame of reference of Galileian space and time. In this study we have occupied ourselves with the projection of human beings against such a frame of reference, a projection by which they became things. In terms of Heidegger's thought, therefore, we have occupied ourselves with the separation of human beings from Being, hence our further interest in him.

Now in Sein und Zeit man is characterized as an es-

\(^1\) Barrett in *What is Existentialism?*, Chapter 8, Page 202. Another thinker who is preoccupied with the future of man, is, of course, Teilhard de Chardin.
sentially temporal being, and this makes him an essentially historic being. "It was to be expected, therefore," says Barrett,¹ "that Heidegger's thought, as it developed, would pass into that great area of the philosophy of history..... the theme of history is central to the later Heidegger, and whatever he attempts to interpret --- whether it be poetry, the meaning of technology, or a pre-Socratic philosopher --- is understood within his own bold and simple scheme for Western history as a whole."

For Heidegger the central fact of man's present history is technology, through which he has acquired a domination over things² (as was pointed out in the preceding chapter) and has achieved the first global civilization in history. This global civilization, however, cannot be seen apart from the so-called population explosion, and the nett result is that human existence is becoming more and more "artificial." By this we mean that man has more and more machines to aid him, and is in ever closer contact with his fellow men. The world is becoming ever more mechanized and humanized. We have at least some of the progress which Hume and Rousseau and other philosophers of the Enlightenment

1) _What is Existentialism?_, Chapter 8, Page 201.

2) For this conclusion one must peruse Heidegger's later works, _Holzwege_ (1949) and _Collected Essays and Lectures_ (1954).
hoped for — better medical services, more consumer goods, better working conditions — although, of course, this progress has also brought its disadvantages and its new problems and fears to off-set the advantages. New problems and new fears are not included in the Enlightenment scheme, and are quite contrary to its notion of progress, but they are part of history — something the Enlightenment wished to abolish in favour of progress. Heidegger, however, sees them as history and recognizes the grip that we have given science and technology on the world, as history. Whether we are for it or against it, there is nothing we can do about it, and Heidegger thinks that it will continue for a very long time.

What is more relevant in the context of the separation of men from the spaces and times proper to them, and the reification of human beings by Hume and Rousseau, is the very long philosophical preparation which went before our present technological era. We pointed out in Chapter 2 that it was perhaps no accident that the space and time of the science of the seventeenth and eighteenth centuries came into being in the West. Now technology is also a product of Western civilization. Art and religion we find in both East and West, but science is a Western product only,¹ and tech-

¹) See in this context also Ortega y Gasset's *The Revolt of the Masses*, Chapter 12.
nology goes with it. This science, Heidegger tells us, begins with the Greeks, and if we ask why it begins with the Greeks, the answer is: Because they were orientated towards it by their philosophical conceptions, while the Chinese, Indians and other non-occidentals were orientated differently. It is not the case that the Greeks (or the Westerners) were mentally superior to the Orientals. Barrett gives us Heidegger's conclusion: 1) "Greek philosophy detached clear and distinct objects from the enveloping presence of Being, and made these into objects for rational research. Because the Greek philosophers began to grasp Being in a certain way, science became possible. ... philosophy prepared the way by a certain conception of Being that made science possible." 2)

Now if the grip of technology on mankind is to last a very long time, as Heidegger says it will, what can we expect of the future? What Heidegger tells us in fact, is that the space and time of technics, the space and time of the society of Hume and Rousseau, will be man's space and time for a long time to come. The result, Heidegger thinks, may be that tradition will be lost. The separation of things

1) What is Existentialism?, Chapter 8, Page 210.
2) Compare with what was said in Chapter 2 on the derivation of Galileian space and time.
from Being (and we add: the separation of humans from their spaces and times) means the greater "objectification of objects." Objects cease to have human associations; motor cars and modern furniture are replaced after a few years and do not become family heirlooms. Modern housing schemes do not consist of buildings that can be treasured by posterity. Even nature has receded before man, and who knows when nature reserves will have to make room for housing schemes which consist of houses that can be broken down after a few years without any sense of loss? In short, man may lose his historic sense altogether and live in a present of ceaseless technological change.

For Heidegger, as for Spengler, our present is the evening of the West --- an evening before a night that will be very long before there is another dawn.
CHAPTER NOTES

CHAPTER 1

Outline of the Subject and Historical Background

Note 1

See, for instance, Teilhard de Chardin's *The Phenomenon of Man*, Chapter 1, Page 41, where he says that the modern physicist knows that, instead of finding that the cosmic corpuscle (electron, proton, neutron, etc.) has a radius of action as limited as its dimensions, "we find, on the contrary, that each of them can only be defined by virtue of its influences on all around it. Whatever space we suppose it to be in, each cosmic element radiates in it and entirely fills it. However narrowly the 'heart' of the atom may be circumscribed, its realm is co-extensive, at least potentially, with that of every other atom. This strange property we will come across again, even in the human molecule."

Note 2

Compare Degenaar's *Die Sterflikheid van die Sie!,* Page 49: "Op die vraag wat die mens is, antwoord ek: die mens vind homself as deurleefde liggaam wat van homself bewus kan word. Op die vraag hoe vind die mens homself? antwoord ek: altyd as deurleefde liggaam wat iets doen, wat handelend optree, wat gerig is, wat hom oriënteer in die wêreld....Ek as deurleefde liggaam wat van homself bewus kan word, staan hier voor u, ek kyk op die papier en ek spreek u aan. In hierdie handeling en aktiwiteit waarin die deurleefde liggaam homself bevind, lê die gerigtheid van die mens....Hierdie gerigtheid openbaar sig as 'n gerigtheid op die wêreld, op die medemens en op 'n Mag wat meer is as die wêreld en medemens....Die mens ken homself via die wêreld waaraan hy handel, via die medemens met wie hy verkeer en via die Mag teenoor wie hy hom bevind."

Degenaar here speaks of a directedness towards God. If we accept the existence of God, therefore, we must also accept that a man has, in addition to the "horizontal" relationships with his fellow men, "vertical" relationships with God. Compare Hulsbosch's *God's Creation*, Chapter 3, Page 53: "Our relation to our fellows is not incidental, but a necessary dimension of human existence.
taken as directedness to God, in the sense that both aspects belong indissolubly together...."

**Note 3**

Compare Frederick Copleston's *Contemporary Philosophy*, Chapter 8, Page 104: "But in the case of modern thinkers.....the emphasis is laid on freedom rather than self-consciousness. Freedom becomes recognized as the chief characteristic of the human person. Perhaps, however, it would be preferable to say that human freedom is regarded as the efficient cause of personality, or at least as its necessary condition, for personality is looked upon as something to be won, something to be created and maintained with effort."

Compare also Roubiczek's *Existentialism, For and Against*, Chapter 9, Pages 171 to 174.

**Note 4**

See Temmer's *Time in Rousseau and Kant*, Chapter 4, Page 58: "The efforts of Rousseau and Kant to constitute themselves mediators of the conflicts of their lives and thoughts become more comprehensible when these efforts are envisaged in the context of the history of ideas. The complexity of this transformation has been well emphasized by Paul Hazard and Ernst Cassirer. The latter's study *The Philosophy of the Enlightenment*, in particular, stresses the rise of a critical movement that sought to prove the self-sufficiency of nature and intellect as opposed to any transcendental mediation. This eighteenth-century critique was all-inclusive and the reappraisal was complete."

See also Hazard's *European Thought in the Eighteenth Century*, Part 1.

**Note 5**

Compare Degenaar's *Die Filosofiese Klimaat van die Moderne Wêreldbeeld* in which he gives the following view of the universe of the Enlightenment:

1. "Absoluutheid: die wêreld is objektief en absoluut; menslike gesigspunt is uitskakelbaar.
2. "Enkelvoudigheid: die wêreld is deelbaar in eenvoudige en deursigtige elemente.
3. "Tydloosheid: die tydsverloop is elimineerbaar.
4. "Oneindigheid (absolute ruimte): die wêreld strek sig
uit in 'n oneindige ruimte.
5."Kousaliteit (absolute determinasie): alle gebeure in
die wêreld is absoluut bepaal deur noodsaaklike kousali-
teit."

Note 6

The very name Enlightenment seems to me to indicate that
the thinkers of the eighteenth century had the notion
that the entire world lived in darkness till they ar-

Note 7

See Willey's The Eighteenth-century Background, Chapter 1,
Page 18, where the author quotes Hazard as saying that
the deists of this time were "rationalists with a nostal-
gia for religion." That is, says Willey, they were men
"who had allowed the spirit of the age to separate them
from orthodoxy, but who liked to believe that the slope
they had started upon, was not slippery enough to lead
them to atheism."

But to atheism it did lead some of them as the
"great machine" became more important than its mechanic
through the cupido scienti and the cupido dominandi (to
which we shall have to give attention in due course).

Note 8

The "rehabilitation of nature" of the eighteenth century
has its origin really much further back than that cen-
tury. We can trace it, in fact, to a dualism which had
long existed in mediaeval thought, namely that between
Nominalism and Realism. As early as the ninth century
A.D. Nominalism asserted that, not universals, but the
particular things about us, the things of the senses with
which reason could easily deal, which could easily be ob-
served and about which laws could be formulated, were the
only realities. This Nominalism issued in the seventeenth
century in the science of Da Vinci, Gilbert, Harvey, Kep-
pler, Copernicus, and ultimately Isaac Newton (whom Hume
mentions several times in his writings). The things of
the tangible world were the things of nature to which man
was advised by the thought of the Enlightenment to look
for salvation. Science made this nature divine, and ro-
manticism echoed its divinity. See also Chapter Note 7
above.

Note 9

Compare Bultmann's History and Eschatology, Chapter 1,
Page 8: ".....human life is determined (in Enlightenment
philosophies).....by natural laws. Therefore man is un-
derstood as a natural being, and anthropology becomes
biology. Human life is understood as determined by cli-
mate and geography and economic conditions."

Compare also Collingwood's The Idea of History, Sec-
tion 9, Page 79: "Man (in the Enlightenment).....is re-
garded as part of nature, and the explanation of histori-
cal events is sought in the facts of the natural world.
History so conceived would become a kind of natural his-
tory of man, or anthropology....."

Note 10

It must not be accepted that prediction became the prin-
cipal aim of science. It was the cupido scienti which was
then, as it is now, the motive behind the activities of
the scientist. The modern scientist seeks coherent sys-
tems and rational explanations which will serve as in-
struments and direction pointers for further investiga-
tion, rather than prediction, though prediction and its
fulfilment provide the test for his achievements and the
correctness of formulated laws. Prediction is, however,
a necessity when the results of science are handed over
to technology for application in the conquest of matter,
and it is prediction that gives mathematics with its ex-
actness its enormous rôle. For Hume and Rousseau, of
course, predictability meant the presence of order in hu-
man affairs. It is for this reason that they wanted a
science of man.

Note 11
Note 11

See Sullivan's *The Limitations of Science*, Chapter 6, Section 3, Page 135: "...the developing scientific outlook owed its main features to the predilections of the mathematician. And the main assumption of the philosophy accompanying this scientific achievement is that the real may be identified with the quantitative. Compared with the fully developed modern scientific outlook, we see that these early men of science were too prone to legislate for the universe on the basis of certain a priori assumptions --- assumptions which were really expressions of their dominating mathematical predilections. The modern scientific outlook differs from theirs by the more tentative character of its assumptions.....it is no longer an article of belief that nature is necessarily mathematical."

At least another two and a half centuries of development in science and mathematics after Galileo was necessary before Bell (*Men of Mathematics*, Pages 31 to 32) could reply to Galileo's judgment that God had written the book of the universe in mathematical characters: "If we care to inspect the symbols in Nature's great book through the critical eyes of modern science, we soon perceive that we ourselves did the writing, and that we used the particular script we did because we invented it to fit our own understanding....If 'Number rules the universe,' as Pythagoras asserted, Number is merely our delegate to the throne, for we rule Number."

Compare also Sir James Jeans' remark (*The Mysterious Universe*) that "The Universe begins to look more like a Great Thought than a Great Machine."

Note 12

See *De Corpore*, Chapter 1, Section 2: "Philosophy is such knowledge of effects or appearances, as we acquire by true ratiocination from the knowledge we first have of their causes or generations as may be from knowing first their effects....By ratiocination I mean computation. Now to compute is either to collect the sum of many things that are added together, or to know what remains when one thing is taken out of another."

Note 13

Compare Becker's *The Heavenly City of the Eighteenth-century Philosophers*, Chapter 3, Page 100: "For the task of
the philosopher-historian, theoretically speaking, was to note the ideas, customs and institutions of all peoples at all times and in all places, to put them side by side, and to cancel out as it were those that appeared to be merely local or temporary: what remained would be those that were common to humanity. From these common aspects of human experience it would be possible, if at all, to discover, as Hume put it, the 'constant and universal principles of human nature' and on these principles to base a reconstructed society."

Note 14
To the scientist, also of today, simplicity is beauty. Copernicus simplified the mechanical model of the solar system, but this simplicity also appealed to him and his followers on aesthetic grounds. It must be obvious, however, that when a man is simplified by making him an abstraction, the simplification (with the purpose of making him "fit in" with nature, in a comprehensive and beautiful system) is achieved at the expense of personality. The Enlightenment sought to "explain" man as a natural phenomenon. In physics a fact is explained by showing how it can be inferred from something more general. Before Newton's day there were no general laws of mechanics; there was only a variety of specific laws, each applicable to a specific mechanical system, one for planets, one for falling bodies, one for pendula, and so on. It was Newton's calling to show how many such specific laws were implicit in other more general ones. A large number of facts could, for instance, be inferred from his laws of motion and gravitation, and since Newton's day this unifying process has extended further and into more and more branches of physical science. It reached its greatest heights in our own century with Einstein's attempt at a unified field theory in which he sought to bring gravitation and electro-magnetism under one roof. Compare in this context Fletcher's Geometrodynamics: the Geometry of Space-Time: "All the diverse efforts of theoretical physics can be said to have a single common goal: unification, the explaining or understanding of as many varied physical phenomena as possible in terms of the minimum fundamental concepts and assumptions." According to Fletcher geometrodynamics seeks also to reduce electric charges and elementary particles of matter to the geometry of space-time. See Appendix 7.

Not only did this process of unification give an immense power of prediction to the mathematical sciences,
but also greater power of explanation (in the sense in which physics explains things). It is therefore not to be wondered why Hume held Newton in high esteem and sought to apply his procedure to man.

The search for simplicity by science and its method of obtaining it by abstracting from things in their concrete totality, derived their first impetus from the nominalism of the thirteenth century, and in this first impetus a principle known to physicists as Occam's Razor or rule of economy of hypotheses looms large, for it really set a course in simplification. A gift to science from William of Occam, it has come to be one of the canons of scientific method, and lays down the rule that when more than one explanation of an observation is available, one must provisionally choose the one that involves the least number of assumptions. Occam was, in fact, a forerunner of Francis Bacon, infusing long before him that induction into thought which has since become the very backbone of science, while his insistence on the reality of things in contrast to universals heralded the empiricism which Hume applied so rigorously after him.

Note 15

The more a man is made an abstraction, the fewer become the attributes that separate him from lifeless objects. It seems to me that the usefulness of having as few dividing lines as possible between beings overshadowed all other considerations in the Enlightenment. It is this action of science which led Benedetto Croce to prefer art to it. The sciences take us away from the individual and the actual world to one of ever-increasing abstraction. Art, on the contrary, takes us directly to the particular person and the unique fact or situation, to the concrete individual.

Exemplifying simultaneously the erasing of lines of demarcation in the Enlightenment period and the search for proof of the "self-sufficiency of nature and intellect as opposed to any transcendental mediation" is La Mettrie's L'Homme Machine. Commencing with Descartes' automatism of animals, La Mettrie argued that if animals could feel and act without an immortal soul, then man, being merely an advanced animal, had no need of a soul either. Here we see the notion of nature in the thought of the time. We have a scientist, a doctor to be precise, who looks upon the human body which he dissects when it is dead, as the entire man, and looks upon this man in a way hardly different from the way in which Galileo looked
upon his falling weights and swinging pendula. La Mettrie was not one of the great names of the Enlightenment, but he is of interest in the context of the erasing of lines of demarcation because he was succeeded in the centuries after him by biologists who contended (and still contend) that the distinction between the animate and inanimate is really only an arbitrary one.

Note 16

Compare Whitehead's *Science and the Modern World*, Chapter 6, Pages 147 to 148: "The convergent effect of the new power for scientific advance....transformed the middle period of the (nineteenth) century into an orgy of scientific triumph. Clear-sighted men of the sort who are so clearly wrong, now proclaimed that the secrets of the universe were finally disclosed."

This self-assurance was already evident, however, in the eighteenth century. We find it, for instance, in La Mettrie's *L'Homme Machine*, and it is present also in the works of Descartes in spite of his starting point of his uncertainty about everything. It seems to me that even in the seventeenth century Galileo possessed a good measure of this self-assurance when he declared that God had written the book of the universe in mathematical characters. We shall find, however, that in his case this self-assurance was tempered by the problem of man who did not behave as mathematically as did rolling balls and pendula.

CHAPTER 2

Spaces and Times and the Human Person

Note 1

Perhaps it would be more correct to say that Leibnitz and Newton "codified" the calculus. Archimedes already had the fundamental notion of limiting sums from which the integral calculus sprang, and actually applied that notion. He also used the method of the differential calculus in one of his problems. Fermat also had the notion of the calculus, while Galileo himself used a method which is now used in the teaching of the integral calculus to make clear the elementary notion of an integral as a sum, a method akin to what we know as Simpson's rule and the mid-ordinate rule for finding areas when one deals with plane figures which have no regular geometric shapes.
Note 2

According to Du Toit (Die Tyd as Antropologiese Kategorie by Kierkegaard, Page 7) Kierkegaard had a "lion's share" in the reawakening of the interest in the question of time in the twentieth century. This he had through, among others, Heidegger and Barth. Du Toit points out that in his Spinoza and Time, Alexander says that he looks upon the "discovery of time" as the most important characteristic feature of the thought of the first quarter of the twentieth century.

Note 3

But even Kant does not appear to have been able to grasp the connection of the human person with space and time fully. Spengler points this out in a footnote on Page 6 of Volume 1 of his Decline of the West: "Kant's error, an error of wide bearing which has not even yet been overcome, was first of all in bringing the outer and inner Man into relation with the ideas of space and time by pure scheme...." However, the fact that he did bring the outer and inner Man into relation with the ideas of space and time is important. "The concept," says Barrett in his What is Existentialism? (Part 2, Chapter 2, Pages 172 to 174) "is temporal structure of experience.....There can be no meaning without time --- that is the momentous conclusion that Heidegger extracts from Kant.....Kant (thereby) paves the way for an ontological analysis of human existence as essentially temporal and finite." (It would be well to remember at this stage that Kant wrote his Critique of Pure Reason as an answer to Hume).

Note 4

See his Space, Time and Deity, Volume 2, Page 48: "Time is the principle of motion and change.....Commonly it is personified in the figure of a scythe-man mowing down the old to make room for the young. This figure represents rather the transitoriness of things than the real nature of Time.....It forgets that the same Time which mows down the grass produces the new crop.....Time is in truth the abiding principle of impermanence which is the real creator." Alexander says further, on Page 337, that Time "is creative: (that) something comes into being which before was not."

See also Note 9 below.
Note 5

See Heidegger's Sein und Zeit, Chapter 2, Page 17: "We shall point to temporality as the meaning of the Being of that entity which we call 'Dasein.' If this is to be demonstrated, those structures of Dasein which we shall provisionally exhibit, must be interpreted over again as modes of temporality."

(Als der Sinn des Seins des Seienden, das wir Dasein nennen, wird die Zeitlichkeit aufgewiesen. Dieser nach­weis musz sich bewähren in der wiederholten Interpretation der vorläufig aufgezeigten Daseinsstrukturen als Modi der Zeitlichkeit).

Note 6

Compare Prof. Versfeld's St. Augustine as Psychotherapist: "Ontology is the science of being, and we have to remem­ber that for Augustine, as for Heidegger, questions about man are primarily ontological questions....If he could say: aeternitas ipsa Dei substantia est, he can now say: tempus ipsa creaturae substantia est: the temporality of a creature is its very substance. Temporality is a mode of being, and the very substance of a finite thing is time. This does away at one stroke with the notion of time as an empty continuum or framework of reference into which be­ings are interjected so that their position in time is something extrinsic to what they are, and in that sense fortuitous. Temporality and change not only belong to their being but are at the very centre of it and define what it is. Ontology then becomes primarily an investigation of time."

It seems to me that in his notion of anxiety Heidegger has some affinity with Kierkegaard who puts forward the notion of dread as a means to realization of being for man, though Heidegger has denied any connection with Kierke­gaard. For Heidegger nothingness is the alternative to being, and being is being in Time.

Note 7

Du Toit, however, points out (in his Die Tyd as Antropologie Kategorie by Kierkegaard, Page 289) that Kierkegaard speaks of the temporal and the eternal and not of time and eternity. He points out that whereas the terms time and eternity relate to metaphysical realities, tempo­ral and eternal have no claim to substantiality. Kierke­gaard wants to investigate time as an anthropological re­lation, that is, he wishes to connect time with the human person.
Note 8

Decline of the West, Volume 1, Introduction, Page 6: The description of the world-as-history "reviews once again the forms and movements of the world in their depths and final significance, but this time according to an entirely different ordering which groups them, not in an ensemble picture of everything known, but in a picture of life, and presents them not as things-become, but as things-becoming."

See also Note 9 below.

Note 9

The notion of things-becoming with a purpose is the core also of Whitehead's philosophy. To grasp this philosophy fully, one should read with his Science and the Modern World, also his Process and Reality, his Principles of Natural Knowledge and his Concept of Nature. What is relevant to our purpose is that, for Whitehead, the notion that nature consists of material atoms occupying fixed places at fixed times, and constituting more complex things by being moved from one place to another, is false. Mind does not consist of fixed entities in time as we shall find to be the case in Hume's philosophy. Passage is an essential character of nature. God's purpose is the evocation of intensities. There is creative advancement in the universe. Time is the primal motion stuff, the principle of creativity, and this creativity is always towards individuation, greater intensity and self-realization.

Note 10

See Bergson's L'Évolution Créatrice, Pages 1 to 23. Miss Cleugh warns (Time, Chapter 5, Page 111) against a too direct translation of Bergson's word durée with duration: "We have immediate apprehension of durée in a way in which we do not have immediate apprehension of duration... Bergson...insists that durée is directly and intimately experienced as a ceaseless flow." The word underlined (flow) gives "the key to the difference --- more often felt than experienced --- between durée as Bergson uses it and duration as it is commonly understood in English... When we talk of duration we think of something enduring through a period of time, of lastingness. This lastingness is the very antithesis of what Bergson wishes to express: his durée is not endurance but flow." We shall have occasion to compare this durée with the time rhythms of the
ancient Hebrew and to find that it also contains Spengler's becoming and the carrying movement of time in Christian thought.

Compare the above also with Kierkegaard's The Concept of Dread, Page 77: "(But) precisely because every moment, like the sum of the moments, is a process (a going-by) no moment is a present, and in the same sense there is neither past, present nor future. If one thinks it possible to maintain this division (of time into moments) it is because we spatialize a moment, but thereby the infinite succession is brought to a standstill, and that is because one introduces a visual representation, visualizing time instead of thinking it."

In his Essai sur les Données Immédiate de la Conscience Bergson also maintains that we really try to visualize time.

Note 11

See Bergson's Essai sur les Données Immédiate de la Conscience. It must be borne in mind that the time of our elementary mechanics is a time of prediction, whereas in his private time the person is placed in a situation which has no precedent and is not governed by laws. See Van Peursen's treatment of the now which now follows in the text.

Note 12

Van Peursen's view of the now seems to me to be in full agreement with Hilda Oakley's statement in History and the Self (Chapter 12, Page 265) that "...I hold that subject or 'spirit' is necessarily individual. Its individuality seems involved in the nature of the subject. That there exist other subjects with which it is in relation appears also to be involved in the nature of experience for any subject, even the most purely contemplative experience. For all such experiences imply self-transcendence, and self-transcendence begins in the apprehension of other selves. Without this the individual could not be aware that his knowledge involved any relation except to the parts and elements of his own being.....Past, present and future belong to the very being of the self, even though the past into which the future (through the present) is ceaselessly moving, has alone existential being in its content, the future being a form with imagined content. The imagination of this content is indispensable to the activity of the self. History then seems implicit in the being of a society of selves. Its being is found to depend
on the meaning given by selves to events."

Compare now Van Peursen's view of the now with Kierkegaard's "glance-of-the-eye" notion (The Concept of Dread, Page 78): "Nothing is so swift as a glance of the eye, and yet it is commensurable with the content and value of... eternity.... A glance is therefore a designation of time, but note that this means of time in the fateful conflict when it is touched by eternity." On Page 48 he says: "The present is the eternal or rather, the eternal is the present, and the present is full."

Note 13

Compare Teilhard de Chardin's The Phenomenon of Man, Book 4, Chapter 1, Page 240: "Through the discovery yesterday of the railway, the motor car and the aeroplane, the physical influence of each man, formerly restricted to a few miles, now extends to hundreds of leagues or more. Better still: thanks to the prodigious biological event represented by the discovery of electro-magnetic waves, each individual finds himself henceforth (actively and passively) simultaneously present, over land and sea, in every corner of the earth."

Note 14

Compare Prof. Versfeld's Education for Africa: "But in fact, as anthropologists and others are showing, every culture has its own space and time. In fact, recent work in existential psychiatry has shown that there is a sense in which every individual has his own space and time. Thus pathological boredom is treated as a disorientation of the individual's time sense, and therapy consists in the redintegration of the patient's personal time. Nor is this so very new, for in principle the approach is that of St. Augustine."

Compare also Prof. Versfeld's St. Augustine as Psychotherapist: "There are as many kinds of time as there are kinds of creature. In a sense, indeed, there are as many times as there are men, because each man is a unique personality, and has the kind of time which is proper to his being as a person."

Compare also Sweeney's Do Cells Have Clocks? and Treisman's The Psychology of Time.

Note 15 .......
Note 15

Buber writes in his I and Thou, Pages 8 to 9: "If I face a human being as my Thou, and say the primary word I-Thou to him, he is not a thing among things, and does not consist of things. This human being is not He or She, bounded from every other He and She a specific point in space and time, within the net of the world; nor is he a nature able to be experienced and described, a loose bundle of named qualities. But with no neighbour, and whole in himself, he is Thou and fills the heavens. This does not mean that nothing exists except himself. But all else lives in his light.....

"And just as prayer is not in time, but time in prayer, sacrifice not in space, but space in sacrifice, and to reverse the relation is to abolish the reality, so with the man to whom I say Thou. I do not meet with him at some time and place or other....Even if the man to whom I say Thou is not aware of it in the midst of his experience, yet relation may exist. For Thou is more than It realises. No deception penetrates here; here is the cradle of real life."

In his God Transcendent Karl Heim speaks of boundaries of content in the case of two spaces that are physically separated but adjacent (physical space). In the case of spaces that are not separated physically and can have no physical boundary, yet are not the same, he uses boundary of dimension for the description of the separation between such spaces. But these spaces can interpenetrate, and in this way he arrives at the possibility of a beyond for God whom we cannot reach with an astronomical telescope. One must, however, in the interpretation of the spaces of persons, not visualize any sort of identifiable separation between the two or more spaces. They coalesce completely.

Note 16

Compare Pannenberg's Was ist der Mensch?, Chapter 11, Page 98: "Die Lebensgeschichte des einzelnen....vollzieht sich nicht in künstlicher Abgeschlossenheit, sondern ist ganz und gar verflochten in die Geschichte anderer Menschen, in die Gemeinschaft, in der der einzelne die Erfüllung seines besonderen Strebens findet und der er mit seiner Tätigkeit dient. Gerade auch seine Individualität gewinnt der einzelne nur durch den Dienst an der Gemeinschaft, in der er steht oder zu der er sich mit andern zusammenfindet....die einzelnen Menschen (finden) ihre Bestimmung nicht je für sich allein, sondern...die Bestimmung des Menschen (ist) letztlich eine für alle. Nur der Weg der einzelnen zu dieser für alle Menschen gemeinsamen Bestimmung ist ein je besonderer, und
er bildet die Individualität der einzelnen Menschen aus.

Note 17

Compare Poulet's *Études sur le Temps Humain*, Introduction, Pages 4 to 5: "Dieu, Conservateur de l'être, était par le fait même Conservateur du principe des actions de l'être.... Tout devenir dans l'ordre de la nature, comme dans l'ordre de l'esprit, requérait une détermination directe de Dieu. (Poulet here refers his reader to St. Thomas Aquinas for whom "creation and continued existence are one indivisible action.").....Ainsi l'opération divine fondait le temps non seulement en la permanence qui le rendait possible, mais en l'actualité qui le rendait nécessaire et réel. Actualité qui pouvait être instantanée, mais qui, lorsqu'elle était temporelle, l'était selon la continuité d'un mouvement ininterrompu vers un fin....Le temps finalement emportait le chrétien vers Dieu."

Note 18

Compare Du Toit's *Die Tyd as Antropologiese Kategorie* by Kierkegaard, Page 17: "In die Joodse en Iraniese apokalip­tiek is dit (weer) die eschaton, die eindtyd, wat die teen­woordige sin gee." See also the Book of Daniel, Chapter 12, Verse 12, in which Daniel receives to his question concern­ing the "end of these things," the reply: "But go thou thy way till the end be: for thou shalt rest, and stand in thy lot at the end of the days."

Note 19

Compare Poulet's *Études sur le Temps Humain*, Introduction, Pages 1 to 2: The mediaeval Christian world, he says, was "un monde de choses substantes qui ne subsistaient pas par elles-même. Si du néant elles passaient à l'être, si du possible elles passaient à l'actuel, si leur existence restait contingente et dépendante, c'est que ces existences étaient des existences créées. En un sens, elles continuaient à chaque moment d'être créées, non que Dieu en chacun de ces moments s'obligeat de les creer à nouveau, mais parce qu'en tout leur champ existentiel, c'est de la même action créatrice qu'elles continuaient de recevoir l'être."

Note 20 ......
Note 20
See, for instance, Heidegger's Sein und Zeit, Chapter 2 of the Introduction, Page 18: "Wenn Sein aus der Zeit begriffen werden soll und die verschiedenen Modi und Derivate von Sein in ihren Modifikationen und Derivationen in der Tat aus dem Hinblick auf Zeit verstandlich werden, dann ist damit das Sein selbst --- nicht etwa nur seierdies als 'in der Zeit' Seiendes, in seinem 'zeitlichen' Charakter sichtbar gemacht. 'Zeitlich' kann aber dann nicht mehr nur besagen 'in der Zeit seiend.' Auch das 'Unzeitliche' und 'Überzeitliche' ist hinsichtlich seines Seins 'zeitlich.' Und das wiederum nicht nur in der Weise einer Privation gegen ein 'Zeitliches' als 'in der Zeit' Seiendes, sondern in einem positiven.....Sinne.

Note 21
Compare Pannenberg's Was ist der Mensch?, Chapter 11, Page 96: "Der Mensch is seinem Wesen nach geschichtlich.....Es handelt sich hier zunächst um die Lebensgeschichte des einzelnen Menschen, wie sie etwa in einer Biographie oder Autobiographie rückschauend beschrieben werden kann." We shall return to this point of autobiography when we come to study Rousseau's Confessions, and we shall show how Rousseau extricates himself, as it were, from history.

Note 22
In a footnote on Page 49 of the Introduction to his Decline of the West Spengler quotes from Goethe: "The Godhead is effective in the living and not in the dead, in the becoming and the changing, not in the become and the set-fast; and therefore, similarly, the reason is concerned only to strive towards the divine through the becoming and the living, and the understanding only to make use of the become and the set-fast." We shall find that the Enlightenment notion of progress was one akin to scientific law rather than to organic growth.

Note 23
Compare Toynbee's An Historian's Approach to Religion, Part 1, Chapter 1, Pages 5 and 8: "When a number of claimants, standing at different points in Time and Space, make the identical claim that each claimant's own particular point in Time-Space is the central one, common sense suggests that, if Time-Space does have any central point at all, this is not to be found in the local and temporary standpoint of any
generation of any parochial human community. This astronomical view of History provides a radical correction of the bias towards self-centredness that is innate in every living creature; but it corrects self-centredness at the price of taking the significance out of History --- and indeed, out of the Universe itself."

**Note 24**

Compare Toynbee's *An Historian's Approach to Religion*, Book 1, Chapter 1, Page 11: "...the picture of a non-repetitive Universe governed by a personal God promises to give History a maximum significance...."

**Note 25**

Compare Du Toit's *Die Tyd as Antropolgieëse Kategorie* by Kierkegaard, Pages 20 to 21: For us, the author says, "Die stroom van die tyd laat hom nie omkeer nie. Anders vir die primitiewe gesteldheid vir wie die tyd wesenlik omkeerbaar is.....Die 'omkering' van die tydsrigting is daarin geleë dat elke moment sy werklikheid nie in sy eie uitsluitende selfstandigheid vind nie, maar in partisipering aan die oorsprongsgebeure.....Elke handeling is as rituele herhaling sigself en die oerhandeling; alle tye val saam in die oer-tyd." See also Note 26 below.

**Note 26**

Compare Toynbee's *An Historian's Approach to Religion*, Chapter 1, Page 8: "One of these views (the Graeco-Roman and Indian view) sees the rhythm of the Universe as a cyclic movement governed by an Impersonal Law. On this view the apparent rhythm of the stellar cosmos --- the day-and-night cycle and the annual cycle of the seasons --- is assumed to be the fundamental rhythm of the Universe as a whole.....From this astronomical standpoint it is impossible for an historian to believe that his own here and now has any special importance; but it is equally difficult for him to believe that any other human being's here and now has ever had, or will ever have, any special importance either."

**Note 27**

See Boman's *Hebrew Thought Compared with Greek*, Chapter 3, Page 127: "Plato's interpretation of time deserves particu-
larly to be observed by a theologian; while the sober Aristotle analyses the time of natural science, Plato occupies himself with the time of religion. Therefore the problem of the relation of time to eternity arises for him; eternity for him is not endless astronomical time, but the life-form of the divine world to which God alone belongs. Time designates for him the life-form of the world of nature, the world produced by God. Plato calls time a moving image of eternity. We see here also how the spatial governs Plato's line of thought; time is only a pictorial moving imitation of immovable and unalterable eternity which represents perfection." Boman continues on Page 151: "Our notion of eternity inherited from Plato is at base the same thing as the divine beyond, and is therefore rather more something spatial than something temporal." See also Appendix 6.

Compare with the above Prof. Versfeld's St. Augustine and the Sense of History: "Plato does not succeed in making time, history and actual human life meaningful. For him the intelligible world is a timeless world of forms, which we shall find beyond the miseries of the cave of history." Prof. Versfeld finds the contrast between the Christian time conception and the Greek in the contrast between St. Augustine and Plato, and says that in Plato "we do not, like Augustine, see the presence of God and His grace in the movement itself, but only at the point where the movement ceases, and we contemplate the Good in a timeless ecstasy where our differentiation as persons is transcended."

Note 28

Compare Boman's Hebrew Thought Compared with Greek, Chapter 3, Pages 133 to 134: "As subjective time-determinants for man we may cite sleep and wakefulness, work and rest, meal-times; we may also have shorter rhythms, such as heart-beat, pulse-beat and respiration. It is common to all of these that they can determine a point of time or an interval of time without using any sort of spatial movement....the phases of the moon, the weaker and stronger heat of the sun in the course of a day are time-rhythms and not time movements. So for the Hebrew the seasons of the year too, are eternal rhythms:

Seedtime and harvest,
Cold and heat,
Summer and winter. (Gen. 8:22)

Human life runs its course as an eternal rhythm: earth-man-earth....we shall find in this alternation no trace of a circular line but purely and simply rhythmic alternation."

It seems to me that however one might argue against
crediting the Biblical Hebrew with an extraordinary time consciousness on the grounds of language, as does Barr, these arguments do not affect the historic sensitivity of the Hebrew and therefore his gift of connecting the event with the person. If we do not accept that the ancient Hebrew had an almost unique time sense and the Greek a space sense, it would be difficult to explain why, in the Old Testament, music is mentioned so often (something of time and rhythm) and the Hebrews never gave the world an art of sculpture and architecture worth mentioning, while the Greeks, on the contrary, gave the world some of its most beautiful sculpture and architecture. And, obviously, if we do not credit the Hebrew with an extraordinary historic sensitivity, we cannot regard the Old Testament as a progressive revelation of God.

The time sense of the ancient Egyptians appears to have been something like that of the Hebrews. See in this context Spengler's *Decline of the West*, Introduction, Volume 1, and compare Du Toit's *Die Tyd as Antropologiese Kategorie* by Kierkegaard, Page 17.

Note 29

Compare Jean Guitton's *The Modernity of St. Augustine*, Page 10: "It is understandable that the inner history of an individual never suggested itself to the Greek mind. This was not because the Greek, as is so often said, had no conception of 'the person,' but rather because in the pure Greek view, there is no real connection between the event and the 'person.'" Contrast Hebrew thought. See Note 28 above.

Note 30

Compare Maritain's *On the Philosophy of History*, Chapter 1, Page 29: "...the acceptance of time --- and of history --- far from being a matter of course for man, is for him a difficult and dearly paid achievement. Man is naturally frightened of the irreversibility of his own duration and the very newness of unpredictable events. He refuses to face them. Hence the negation of time by archaic civilizations. They defend themselves against the dire reality of history either by constructing mythical archetypes, or by assuming periodic abolishment and regeneration of time, and a periodic recurrence of the same historical cycles...acceptance of time and of history was a conquest of Christianity and modern times..."

See also Mircea Eliade's *Cosmos and History, The Myth of the Eternal Return*, Chapter 4.
Note 31

Compare Bultmann's *History and Eschatology*, Chapter 1, Page 5: "Even the ancient Greeks saw the world as a sequence of coming to be and passing away, although they were looking not at history but at nature. But for Greek thinking also the question arose about the essence, the 'true existence' of man. And it was answered by the consideration that change was not subject to chance, but occurred according to laws, and that there was an order into which man fitted well."

Note 32

See his *Hebrew Thought Compared with Greek*, Chapter 3, Pages 137, 139 and 156: "For us space is like a great container that stores, arranges and holds everything together; space is also the place where we live, breathe and can expand freely. Time played a similar rôle for the Hebrews. Their consciousness is like a great container in which their whole life from childhood on and the realities which they experienced or of which they had heard, are stored.....For the Hebrews who have their existence in the temporal, the content of time plays the same rôle as the content of space plays for the Greeks. As the Greeks gave attention to the peculiarity of things, so the Hebrews minded the peculiarity of events.....Consequently the Hebrew language formed no specific expressions for designating the outline or contour of objects and did not even need them." (See also Appendix 5 in which the question of language is discussed).

It might be pointed out that if, for the Hebrew, time, and not space, was a great container, space would probably be closely connected with time in his thought. We shall return to this point presently. See also Appendix 7.

Note 33

We have to do here, of course, with the problem of Zeno's flying arrow. Since his time mathematicians have ever been involved in difficulties with the mathematical concepts of the infinite, limits and continuity, and these difficulties still haunt them today. See Bell's *Men of Mathematics*, Chapter 2, Page 38: "Time after time the paradoxes and sophisms which crept into mathematics with these apparently indispensable concepts have been regarded as finally eliminated only to reappear a generation or two later, changed but yet the same." We are confronted with these difficulties, no doubt, because our mathematical tools are inadequate for the treatment of the supra-physical space and time from which
physical space and time are abstractions. Compare Bergson's view (L'Évolution Créatrice) that we really split up the continuity of life into a series of "still" pictures such as those of a ciné film. Compare also Chappell's Time and Zeno's Arrow: "Modern physicists also hold that time is continuous and hence infinitely divisible, but for them there is no inconsistency in saying that something is infinitely divisible and yet composed of indivisibles, as there was for Aristotle." Bergson looks upon a trajectory as an act of progress and not a thing. It cannot be divided in its creation, only when it has been created (L'Évolution Créatrice). In his Essai sur les Données Immédiates de la Conscience he says also that the elements of time form a continuous or qualitative multiplicity with no resemblance to number. See also Appendices 7 and 8.

Note 34

In order to illustrate the atomization of space and time in Galileian mechanics we take an example from elementary mechanics. Let s be the displacement (space) of a body which moves with a constant acceleration \( a \) for a time \( t \), then

\[ s = \frac{1}{2}at^2 \]

By differentiation of \( s \) with respect to \( t \) we get the velocity of the body at time \( t \):

\[ \frac{ds}{dt} = v = at \]

Now both \( ds \) and \( dt \) are infinitesimals, tiny fragments of space and time, and the ratio \( ds/dt \) actually gives the movement over a tiny fragment of space \( ds \) in a tiny fragment of time \( dt \), and this is the definition of velocity, time-rate of displacement, for example centimetres per second.

The process of integration consists of placing fragments of space and time end to end between certain limits and so obtaining an interval of space and time. So the original distance \( s \) is obtained by the integration of the \( ds \) fragments and the \( dt \) fragments:

\[ \int ds = \int ft \cdot dt, \text{ i.e. } s = \frac{1}{2}ft^2 \]

The symbol \( \int \) is merely an elongated S to indicate that a summation is to be effected, so that it is clear that a mathematical integration is nothing more than a sum of parts that do not overlap. Note also that space and time are quite separate.

Note 35......
Note 35

Compare Prof. Versfeld's *The Problem of the Contemporary:*
"What is most relevant for our purpose is the Biblical and
Augustinian refusal to separate the time of a being from its
substance, and its substance from its action. Its action is
what it does here, and from the point of view of a spiritual
participant. Space, therefore, also becomes a locating rather
than a location. It is impossible to separate the being
here of a thing from its being now, any more than it is pos­sible
to separate the eternity of God from his omnipresence.
Action is what gives spatiality to things, and their spatial­ity is a mode of their action."

Note 36

God, according to the Biblical Hebrew and the mediaeval
Christian, created space and time, and did not, as Descartes
seems to hold, create in space and time. Now it is interes­ting
to note that geometrodynamics holds that "Space-time is
not an arena; it encompasses everything, and thus only geo­metric ideas are fundamental." (Fletcher's *Geometro­dynamics: The Geometry of Space-Time*). Compare A.S. Alexander's *Space,
Time and Deity*. Alexander combines space and time to con­s­titute space-time which he denies has anything to do with
the space-time continuum of physics. He uses the analogy
that time is the mind of space and space the body of time,
and in this way drives home the notion that they are inse­parable. It is this notion of the inseparability of space
and time that is relevant to our purpose. Space-time is, for
Alexander, no more a mere sum of space and time than real
space or real time was a mere sum of fragments for the an­cient Hebrew and mediaeval Christian. See also Appendices
7 and 8.

Note 37

Hebrew Thought Compared with Greek, Chapter 3, Page 157:
Boman goes on to say: "As the Israelites established natural
time units by means of their ends and boundaries, they did
the same thing with the natural units of area: the lands,
the isles of the world....the field of Ephron 'throughout
the whole area' means 'within its borders on every side.'
(Gen. 23:17)." It must be pointed out that in the case of
space too, Boman does not rely entirely on etymological evi­dence, so that his thesis with regard to the absence of
boundary lines in the Hebrew space conception must be allow­ed to stand. We have in Hebrew space "awareness" then, a
"formless" space in contrast to the form-consciousness of the Greek. (See Appendix 5). In his Concepts of Space (Chapter 2, Page 33) Jammer draws attention to the fact that long before the mediaeval Christian thinker (e.g. Tommaso Campanella) penned the thought that "space is in God, but God is not limited by space," the Hebrews wrote in their post-Talmudic literature that "the Lord is the dwelling place of His world, but His world is not His dwelling place."

Compare also Chapter 1 of Auerbach's Mimesis.

Note 38

Compare Burtt's The Metaphysical Foundations of Modern Physical Science, Chapter 2, Page 33: "Our current conception of mathematics as an ideal science, of geometry in particular as dealing with an ideal space rather than an actual space in which the universe is set, was a notion quite unformulated before Hobbes, and not taken seriously till the middle of the eighteenth century, though it was dimly felt after by a few Aristotelian opponents of Copernicus." See also Note 11, Chapter 1 of this study.

Note 39

Compare Fletcher's Geometrodynamics: the Geometry of Space-Time: "Geometry is one of the chief foundations upon which physical theories are built. In mechanics, for instance, many of the central concepts such as length and trajectory are purely geometric; in chemistry many gross properties of substance depend upon the size, shapes and spatial relationships of the molecules of which they are made. In fact, it is very difficult indeed to imagine physics without geometry; the mathematics of most branches of physics often begins with the introduction of co-ordinates (x, y and z) to describe the 'where' of various phenomena."

Note 40

Compare Prof. Whiteman's Foundational Problems of Space and Time, Chapter 4: "The actual criterion is that if there is a technique for attaching a measure to a construct in certain experimental circumstances, then in those circumstances the construct is said to be regarded as having an element of 'physical reality,' or as referring to an existing 'theoretical entity.' Obviously, then, the perceptual presentation is 'physical,' so measurability becomes also a criterion of 'physicality.'" It appears then, that Galileo's judgment that
mathematics was the language in which God wrote the book of the universe, is one of the most important judgments in the story of the abstraction of derived space and time from real space and time. It gave rise to the Enlightenment idea that "the real could be identified with the quantitative." (See Note 11 of Chapter 1 of this study).

Prof. Whiteman continues in Chapter 5 of his book: "For measurement of any phenomenon means attaching number to it; and if we say that the measure is seven units (for example), there is clearly implied some constructive means by which, in a certain sense, each of these units is the same. It is a prior question to be resolved, therefore, in what way precisely this sameness is determined. In all the commoner methods of time measurements it is clear that use is made of the movement of some cyclic system..." Prof. Whiteman then goes on to consider other methods such as radar technique and says: ".....the view that time-measurement can be established without prior appeal to the metrical properties of space (now) appears untenable...." See also Appendix 8.

Note 41

Compare Prof. Whiteman's Foundational Problems of Space and Time, Chapter 4: "It will be more correct, therefore, to think of the local Euclidean spaces 'carried' by different observers as being individually distinguishable but cohering conceptually (on account of their essential sameness) so that, after subjective differences are abstracted or transcended, a common substructural world is found to exist for all....Or we can simply think of each individual as participating in the common substructural world, which merges in his subjective space and time when physical actualization occurs for him." The same argument obviously also applies to time.

Note 42

"Die Wohnungsnort ist für Gott eingetreten." --- David Friedrich Strauss as quoted by Karl Heim in his God Transcendental, Page 31. Heim here wishes to point to the difficulty experienced in finding a place in the universe for God if we look upon space as treated by science by means of mathematics as the only or the real space.

Note 43

Compare Burtt's The Metaphysical Foundations of Modern Phys-
ical Science, Chapter 3, Page 90: "With final causality gone, God as Aristotelianism had conceived him, was quite lost; to deny him outright, however, at Galileo's stage of the game, was too radical a step for any important thinker to consider. The only way to keep him in the universe was to regard him as the First Efficient Cause or Creator of the Atoms....God thus ceases to be the Supreme Good in any important sense; He is a huge mechanical inventor, whose power is appealed to merely to account for the first appearance of the atoms, the tendency becoming more and more irresistible as time goes on, to lodge all further causality for whatever effects, in the atoms themselves."

Note 44

Compare also Von Weizsäcker's The Relevance of Science, Chapter 6. The author here points out that the last thing Galileo wanted was to become a martyr for science as he is so often described. He had no quarrel with the Church, and his sole purpose was, as Von Weizsäcker puts it, to "bring mathematics to the earth." (Geometry had till then played its major rôle in the study of the stars of the heavens). He thought that the secrets of the material universe could be solved by means of mathematics, and he wanted to apply mathematics to the motions of things on the earth as Archimedes had applied it to things in equilibrium. He never suggested, and probably never thought, that mathematics had to be extended to apply also to those matters pertaining to the Church, God and salvation. But, as Von Weizsäcker points out, Galileo did not grasp the rôle of science in history.

CHAPTER 3

The Human Being in Derived Space and Time

Note 1

Those who are acquainted with Cartesian co-ordinate geometry will have no difficulty in grasping the meaning of this statement. In this geometry, invented by Descartes, to whom we shall, by no mere coincidence, refer presently, we make use of a set of axes (at right angles to each other, though this is not essential), divided into equal parts which are numbered. We can thus have a space axis and a time axis, and by means of them locate a position in space and time as we locate a position in a town by counting a certain number of
streets in one direction and then a certain number in the direction at right angles to the first. We can have the Cartesian axes joined, or separate and moving relatively to each other as we please.

Note 2
See his Principles of Philosophy, Part 1, Page 201: "Thus because we discover in our minds the idea of God, or of an all-perfect Being, we have a right to inquire into the source whence we derive it, and we will discover that the perfections it represents are so immense as to render it quite certain that we could only derive it from an all-perfect Being; that is from a God really existing. For it is not only manifest by the natural light that nothing cannot be the cause of anything whatever...."

Note 3
Compare Lucien Lévy-Bruhl's The Cartesian Spirit and History, Page 192 of Philosophy and History: "The dominant tendencies of his (Descartes') thought, and his constant attitude in regard to the philosophy and science of his time... imply a lack of sympathy, one might even say a kind of aversion, or if it is preferred, an absence of comprehension, in relation to researches of an historical nature.... To listen to Descartes was to break with tradition, to consider it, as he did, as at the same time inadequate and injurious, and to join in the struggle to get rid of it."

Note 4
Descartes writes in his Discourse on Method, Part 6, Page 72: ".....it is possible to arrive at knowledge, which is very useful in life, and (that) instead of the speculative philosophy which is taught in the schools, a practical philosophy may be found, by means of which, knowing the power and the action of fire, water, air, stars and heavens, and all the other bodies which environ us, as distinctly as we know the various trades and crafts of our artisans, we might in the same way be able to put them all to the uses to which they are proper, and thus make ourselves, as it were, masters and possessors of nature. This is to be desired, (not only) for the invention of an infinitude of artifices which would allow us to enjoy without trouble the fruits of the earth and all its commodities....."

Compare also Von Weizsäcker's The Relevance of Science,
Chapter 7, Page 115: "The Christian concept of creation seems unnecessary if we do not want to say that God, being beyond time, created infinite time with the world. But Descartes tells us that the world has been made by God in time, and that God then gave it just that quantity of motion which is still present in it. . . . (Page 117) He still needs the omnipotent God for his proof that science is trustworthy; but he no longer needs God within science. Nature is satisfactorily described by geometry."

Note 5

It is of interest to note that "the whole magnificent movement of modern science is essentially of a piece; the later biological and sociological branches took over their basic postulates from the earlier victorious mechanics, especially the all-important postulate that valid explanations must always be in terms of small elementary units in regular changing relations. To this has likewise been added, in all but the rarest cases, the postulate that ultimate causality is to be found in the motion of physical atoms." --- Burt in The Metaphysical Foundations of Modern Physical Science, Chapter 1, Page 17.

Note 6

See his L'Évolution Créatrice, Chapter 4, Page 273: "It (physics) detaches (these) events from the whole, which at every moment puts on a new form and which communicates to them something of its novelty. It considers them in the abstract, such as they would be outside the living whole. . . . It retains only the events that can thus be isolated. . . . our physics dates from the day when it was known how to isolate such systems."

Note 7

Bergson contradicts Hume and is quite certain that the I (ego) does exist. (See Appendix 9). An interesting question arises: Did Hume believe in a life hereafter? All his life he professed to believe in God, but I find it difficult to see how he could bring a belief in a life beyond the grave to accord with his denial of personal identity, especially in view of the reduction of religion to a social morality.

Note 8. . . .
The value of Kant's treatment of time remains, says Miss Cleugh in her *Time* (Chapter 4, Page 108), "in his formulation of, rather than in his answer to the difficult problems which he first opened up: in his insistence upon the importance of time in metaphysical speculation and, more specifically, in his treatment of time as a principle by which events are given as connected in experience."

**Note 9**

Compare Burtt's *The Metaphysical Foundations of Modern Physical Science*, Chapter 7, Page 262: "The scientific notion of time has almost lost touch with duration as immediately experienced. Until a closer relation is regained, it is probable that science will never reach a satisfactory description of time."

See also Note 33 of Chapter 2 of this study. The matter of connecting the time of the physicist with the inner time of our lives seems to be of the utmost importance, and it is this problem that occupies Prof. Whitman in his *Foundational Problems of Space and Time*, a detailed discussion or long summary of which, however, falls outside the scope of this thesis.

**Note 10**

As a "physicalized" time. See Note 20 of Chapter 2. Compare with Stewart's *The Political and Moral Philosophy of David Hume*, Chapter 2, Page 31: "Hume's argument (here) is that we often treat our ideas of space and time as if those ideas themselves were independently real.... The word 'space' refers to the manner in which many of our perceptions, all those of extended things, appear to us. The word 'time' refers to the manner in which all our perceptions, those of both external things and of 'moral' activities, such as musical performances, social and political processes, and thinking undergo change. If all perceptions were annihilated ...... neither space nor time would remain. These two are not two independent beings or things, but instead they are the two fundamental ways of being. Space and time do not exist independently. They are the dimensions of existing beings and things...... What we call 'time' is the manner of appearance, an observed relation among our perceptions...."

It is not clear to me to which passage in Hume's works Stewart here refers. He writes merely of "the topic of most of the second part in 'Of the Understanding.'" He seems,
however, to accentuate the fact that Hume makes space and time functions of the outside world. They are not subjective since they are "the dimensions of existing beings and things." And however Hume may mean that annihilation of our perceptions would annihilate space and time, his treatment of them in the Treatise remains the same as that of Galileo and the calculus. If, therefore, Stewart wishes to intimate that Hume does not treat space and time as two separate scales of measurement (though perhaps the one scale must be used with the other as we need two numbers for the co-ordinates of a point in a plane) I cannot agree with him. I do not think, however, that saying that the word 'space' refers to the manner in which our perceptions appear to us, and the word 'time' to an observed relation among our perceptions, is any different to saying that when we have measured the distances between things and the volumes they occupy, and the intervals between events, we have established space and time.

Note 11

See Prof. Versfeld's Oor Gode en Afgode, Essay Die Begrip van 'n Christelike Geskiedenis, Page 141: "Ons eie selle is konstruksies.....rangskikkings geimponeer op die stroom van one bewussyn, waarduur ons dan eenvoudig voorgee dat ons selfidentiteit en substansiële realiteit besit. Dus is sowel die begrip van persoonlikheid as die begrip van die heelal as 'n stelsel van noodwendige verhoudings, albei illusies; en niks word aan ons oorgelaat behalwe die nuttelose spel om voor te gee dat ons persone is wat orde vind en orde maak in 'n ondeursigbare wêreld." Compare also with Appendix 9.

Note 12

Flew points out in his Hume's Philosophy of Belief, Chapter 1, Page 5, where he discusses Hume's treatment of personal identity, that "we know that he (Hume) was dissatisfied with what he had said, but could not see how to improve on it. For in the appendix, added to Book III (of the Treatise) on its first publication in 1740, he admitted that 'upon a more strict review of the section concerning personal identity, I find myself involved in such a labyrinth that I must confess that I neither know how to correct my former opinions nor how to render them consistent.' This dissatisfaction was, of course, for Hume a very good reason not to put his account of the matter before the public a second time. But for us it is an equally good reason to value that first report. We can use it to learn that what Hume was trying to do, cannot be
done; and why not. For surely he goes into this labyrinth as a result of his mistaken presumption that people are, as it were, bodiless collocations of experience." See also Appendix 9.

**Note 13**

Compare Whitehead's *Science and the Modern World*, Chapter 1, Page 5: "For we shall find that, since the time of Hume, the fashionable scientific philosophy has been such as to deny the rationality of science. This conclusion lies upon the surface of Hume's philosophy. Take for example the following passage from Section 4 of his *Inquiry Concerning Human Understanding*: 'In a word then, every effect is a distinct event from its cause. It could not, therefore, be discovered in the causes; and like the first invention or conception of it, a priori, must be entirely arbitrary.'

If the cause in itself discloses no information as to the effect, so that the first invention of it must be entirely arbitrary, it follows at once that science is impossible, except in the sense of establishing entirely arbitrary connections which are not warranted by anything intrinsic to the natures of either causes or effects. Some variant of Hume's philosophy has generally prevailed among men of science, but scientific faith has risen to the occasion, and has tacitly removed the philosophic mountain." See also Note 14 below.

**Note 14**

One might usefully compare Hume's empiricism with what Bergson calls the "true empiricism" in his *Introduction to Metaphysics*, Pages 31 and 32: "A true empiricism is that which proposes to get as near to the original self as possible, to search deeply into its life, and so on, by a kind of intellectual auscultation, to feel the throbings of its soul: and this true empiricism is the true metaphysics. It is true that the task is an extremely difficult one, for none of the ready-made conceptions which thought employs in its daily operations can be of any use...." This true empiricism Bergson considers to be connected with real space and time, and he points to the effect of an application of derived space and time to epistemology: "Instead of attaching ourselves to the inner becoming of things, we place ourselves outside them in order to recompose their becoming artificially. We take snapshots, as it were, of passing reality."

See also Appendix 8 and compare St. Thomas Aquinas'
dictur esse ipse actus essentiae ('to be' is the very act by which an essence is) (I Sent., dist. 33, qu. 1, art. 1, ad 1m.) See also Etienne Gilson's God and Philosophy, Chapter 4, Page 42 and Note 15 below).

Note 15

Prof. Versfeld points out in his Rondom die Middeleeue, Page 51, that if we knew only our ideas, our science would be a knowledge of nothing. (See also Notes 13 and 14 above). It is of interest to note that St. Thomas' sense of the concrete leads him to everything from which Hume's empiricism leads him away; and since time is of the essence of things, a sense of the concrete and of the existence of things is at the same time that historic sensitivity which we shall find absent in the thought of our two philosophers. For St. Thomas the first and most immediate act of the mind, says Prof. Versfeld, is to observe the existence of things. He is "at home" among the things that are.

Compare also S. Alexander's The Historicity of Things, Page 17 of Philosophy and History: "...Hume went too far, and left the world an atomic chaos. Atomism is no reproach... Atomism is one thing and disconnexion and chaos another. Absolute atomism and absolute unity are equally unacceptable. Hume himself betrayed his own excess of zeal in his breakdown over volition. He urged that there was nothing in the passage from a purpose to its execution by the bodily limbs to indicate compulsion. Nor is there; but he forgot that we have direct experience of the passage and it is this transition which is all that causality in this case means."

Note 16

Dans la puissance de vouloir, ou plutôt de choisir, et dans le sentiment de cette puissance, on ne trouve que des actes purement spirituels dont on n'explique rien par les lois de la mécanique.

Note 17

Tout est dans un flux continu sur la terre. Rien n'y garde une forme constante et arrêtée, et nos affections qui s'attachent aux choses extérieures passent et changent nécessairement comme elles. Toujours en avant ou en arrière de nous, elles rappellent le passé qui n'est plus, ou préviennent l'avenir qui souvent ne doit être: il n'y a rien la de solide à quoi le cœur se puisse attacher. Aussi n'a-t-on
guère ici-bas que du plaisir qui passe; pour le bonheur qui dure je doute qu'il y soit connu. À peine est-il dans nos plus vives jouissances un instant où le coeur puisse véritablement nous dire: Je voudrais que cet instant durât toujours.

Note 18

..... où l'âme trouve une assiette assez solide pour s'y reposer toute entière et s'assembler la tout son être, sans avoir besoin de rappeler le passé ni d'enjamber sur l'avenir; où le temps ne soit rien pour elle, où le présent dure toujours sans néanmoins marquer sa durée et sans aucune trace de succession....

Note 19

Die uurwerk kantel. En die ligbruin by hang roerloos voor die blom wat nooit bevrug word, nooit sal saadskiet, welk en nooit verby hierdie verstarde uur sal groei. Die lug het stil soos ys gaan staan, so wit en blou. Die brander wat wou oorbuig, val, en skuim, bly in sy ligte sirkels vasgehou en moet sy see 'n ewigheid versuim.

We need only look at the process of life itself to realize the impossibility of Rousseau's dreams. W.F. Pauli writes in his The World of Life, Chapter 3, Page 46: "This dynamic nature (of life) may be compared to the form and pattern of a waterfall, a fountain, a whirlpool, or perhaps to the organized symmetry of a juggler's act with ten balls in the air at the same time. The waterfall cannot be stopped in mid-air and still be a waterfall. The juggler cannot 'hold it;' the act must be dynamic or it will collapse. In the same way, life must continue as a dynamic system or come to an abrupt end in death."

Note 20

Compare Temmer's Time in Rousseau and Kant, Introduction, Page 10: "Uncommonly perspicacious in his insights into the nature of time, his ideas and remarks about it relate most often to his desperate wish to provide his chaotic life with an interior coherence....autobiographic works....represent an original effort to comprehend and justify his existence within the framework of human time, responsibility and sal-
vation. But in the very heart of his life-long synthesis Rousseau senses the insufficiencies of his integration."

**Note 21**

Dans cette étrange situation, mon inquiète imagination prit un parti qui me sauva de moi-même et calma ma naissante sensualité; ce fut de se nourrir des situations qui m'avaient intéressé dans mes lectures, de les rappeler, de les varier, de les combiner, de me les approprier tellement que je devinsses un des personnages que j'imaginais, que je me visse toujours dans les positions les plus agréables selon mon goû, enfin que l'état fictif où je venais à bout de me mettre, me fit oublier mon état réal dont j'étais si mécontent. On verra plus d'une fois dans la suite les bizarres effets de cette disposition si misanthrophc et si sombre en apparence, mais qui vient en effet d'un coeur trop affectueux, trop aimant, trop tendre, qui, faute d'en trouver d'existants qui lui ressemblent, est forcée de s'alimenter de fictions.

**Note 22**

J'ai des passions très ardentes, et tandis qu'elles m'agitent, rien n'égale mon impétuosité: je ne connait plus ni ménagement, ni respect, ni crainte, ni bienséance....hors le seul objet qui m'occupe, l'univers n'est plus rien pour moi. Mais tout cela ne dure qu'un moment, et le moment qui suit me jette dans l'anéantissement.

**Note 23**

Rousseau here as a bond with Hume, but they both link up with Descartes who tells us in his Metaphysical Meditations (Third Meditation, Page 129): "For the whole time of my life may be divided into an infinity of parts, each of which is in no way dependent on any other; and, accordingly, because I was in existence a short time ago, it does not follow that I must now exist, unless in this moment some cause create me anew as it were --- that is, conserve me." This cause must, of course, be God, so that God creates in time and does not create time.

**Note 24**

La prévoyance! la prévoyance qui nous porte sans cesse au déla de nous....voila la véritable cause de nos misères.
Quelle manie a un être aussi passager que l'homme de regarder toujours au loins dans l'avenir qui vient si rarement et de négliger le présent dont il est sur.

Note 25

Compare Poulet's Études sur le Temps Humain, Chapter 10, Page 164: "L'espace où maintenant il se trouve, n'est plus le lieu où s'épanouissait son moi, mais celui où le non-moi s'affirme, résistant, opaque, le lieu de la matière. L'instant présent n'est plus pour lui, ni celui qui le contentait, ni celui où il se décidait à assourdir un besoin simple dans l'instant qui suivait. Maintenant le futur tarde avenir dans la mesure même où on l'appelle, où on souhaite le voir remplacer le présent insatisfaisant. Le passé ne sert plus seulement le point de comparaison mais le lieu de regret."

Note 26

The fragmentation of time "a demembré pour ainsi dire les différentes parties de notre être interieur, et le sentiment de notre existence s'en est obscurci. Par nos désirs nous vivons dans le futur, par nos passions dans le passé, par nos sensations dans le présent. Notre moi s'écartèle aux différents points de la durée. Il s'agit inversement de concentrer toutes les forces de notre être saisie de l'âme dans l'instant présent."

Note 27

Comme en général, les objets font moins d'impression en moi que leurs souvenirs, et que toutes mes idées sont en images, les premiers traits qui se sont gravés dans ma tête y sont demeurés, et ceux qui s'y sont empreints dans la suite se sont plutôt combinés avec eux qu'ils ne les effaces. Il y a une certaine succession d'affections et d'idées qui modifient celles qui les suivent, et qu'il faut connaitre pour en bien juger. Je m'applique à bien développer partout les premières causes pour faire sentir l'enchaînement des effets.

Note 28

Compare Green's Jean-Jacques Rousseau: A Critical Study of his Life and Writings, Chapter 1, Pages 44 to 45: "...Rousseau, far from perceiving psychic states permeating one another or, as Bergson would say, 'organizing themselves like the notes of a tune,' perceives them as a succession,
each one of which determines that which follows. Such is exactly, in fact, the point of view of an associationist psychologist."

Note 29

... n'étaient par rapport à moi que des êtres mécanique, qui n'agissaient que par impulsion, et dont je ne pouvais calculer l'action que par les lois du mouvement.... C'est ainsi que leurs dispositions intérieurs cesserent d'être quelque chose pour moi; je ne vis plus en eux que des masses différemment mués, dépouvrues à mon égard de toute moralité.

Note 30

Compare Temmer's *Time in Rousseau and Kant*, Chapter 1, Page 16: "His (Rousseau's) fellow men become abstractions stripped of meaning; irreals of a mechanical nightmare. Timeless, like matter, their existence is nothing more than 'des masses différemment mués,' human matter set in motion by frightening and morally unaccountable forces."

CHAPTER 4

The Reified Human Being in History

Note 1

Compare Whitehead's *Science and the Modern World*, Chapter 5, Page 111: "Of course, we find in the eighteenth century Paley's famous argument that mechanism presupposes a God who is the author of nature, but even before.....Hume had written the retort that the God whom you will find, will be the sort of God who makes that mechanism. In other words, that mechanism can, at most, presuppose a mechanic, and not merely a mechanic but its mechanic." We shall come to Hume's break with Christianity presently.

Note 2

Compare Prof. Versfeld's *St. Augustine and the Sense of History*: "It is a defect in Plato's thought, from the moral philosopher's point of view, that he worked with the concept of human nature rather than with that of personality. Human nature is what we all have in common, and when we think of
it, we make abstractions from the differentiating circumstances of history, body temperament, and education and so on which makes each of us what he is."

Note 3

Compare Collingwood's *The Idea of History*, Part 2, Section 10, Page 83: "Hume's abolition of the spiritual substance amounted to laying down the principle that we must never separate what a mind is from what it does, and that therefore a mind's nature is nothing but the ways in which it thinks and acts. The concept of mental substance is thus resolved into the concept of mental process. But this did not in itself necessitate an historical conception of mind, because all process is not historical process. A process is historical only when it creates its own laws; and according to Hume's theory of mind the laws of mental process are ready-made and unchanging from the beginning. He did not think of mind as learning to think and act in new ways as the process of its activity developed. He certainly thought that his new science of human nature, if successfully achieved, would lead to further progress in the arts and sciences; but not by altering human nature itself --- that he never suggests to be possible --- only by improving our understanding of it.

Note 4

I do not think that I can agree with Bultmann where he says in his *History and Eschatology*, Chapter 1, Page 10, that Hume did not see the consequences for history of his substitution of mental process for mental substance. I think Hume saw it quite clearly, and also saw that his substitution and his view on history go together, that, in fact, the substitution was a *sine qua non* for his view on history.

Note 5

Compare Collingwood's *The Idea of History*, Part 2, Page 85: "The same error (of assuming human nature to be constant) gave them (the Enlightenment thinkers) a false view not only of the past but of the future, because it made them look forward to a Utopia in which all the problems of human life should have been solved. For if human nature itself undergoes no change when we come to understand it better, every new discovery we make about it will solve the problems which now perplex us because of our ignorance, and no new problems
will be created. Our advancing knowledge of human nature will therefore gradually relieve us of the various difficulties under which we now labour, and human life will consequently become better and better, happier and happier. And if the advance in the science of human nature extends to the discovery of the fundamental laws governing its manifestations, which thinkers of that age thought quite possible on the analogy of the way in which the seventeenth century had discovered the fundamental laws of physics, the millennium will be achieved. Thus the eighteenth-century conception of progress was based on the same false analogy between knowledge of nature and knowledge of the mind."

Note 6

See Maritain's *On the Philosophy of History*, Chapter 1, Page 1: "Christianity has taught us that history has a direction, that it works in a determined direction. History is not an eternal return; it does not move in cycles. Time is linear, not cyclical...." He continues on Page 28: "Now I would scarcely observe that time, the time of human history, has an inner structure.... Time has a meaning and a direction.... Here we are confronted, not only with the singularity of particular events, but with the singularity of the entire course of events. It is a story which is never repeated; it is unique."

I do not think that we must say that Hume looks upon time as cyclic. Time, in his philosophy, is altogether separate from history and does not possess an "inner structure." For him time is the time of Galileo's physics. It is the events of history in time that are cyclic and "tick off" time as does a pendulum. The events are seen against the background frames of reference of Galileian space and time.

Note 7

Compare Marion Osborne's *Rousseau and Burke*, Chapter 4, Page 86: "Rousseau had no doubt that man was capable of improvement, but he was convinced that if theories were to be of any practical value, they would have to be based on an understanding of men as they were, and as they would continue to be."

Note 8

This translation of the French text was taken from the English translation of the *Social Contract* by G.D.H. Cole.
(Everyman's Library). The French is as follows: "Il faut lui (the General Will) faire voir.... rapprocher à ses yeux les lieux et les temps...."

Note 9
One is inclined to have a little sympathy with Rousseau in his antipathy to the bigger cities of his time. Some ugly factories were beginning to appear around Paris and had already appeared around British cities where the Industrial Revolution was in full swing.

Note 10
Compare Mircea Eliade's Cosmos and History. Maritain, in his On the Philosophy of History, points out that Eliade stresses the fact that the acceptance of time and history is a "dearly paid achievement" for man. Maritain's words have already been quoted in Note 30 of Chapter 2. In the first chapter of his book Eliade holds that ritual in archaic cultures is really meant to be a "re-enactment" of some original action by a god or by the gods.

Note 11
La loi judaïque, toujours subsistante, celle de l'enfant d'Ismâîl, qui depuis dix siècles régît la moitié du monde, annoncent encore aujourd'hui les grands hommes qui les ont dictées; et tandis que l'orgueilleuse philosophie ou l'aveugle esprit de parti ne voit en eux que d'heureux imposteurs, le vrai politique admire dans leurs institutions ce grand et puissant génie qui préside aux établissements durables.

Note 12
Rousseau has the notion of a great lawgiver who must establish immutable laws outside time, in common with Descartes. Descartes writes in his Discourse on Method (Part 2, Page 13): "I fancied that those nations which, starting from a semi-barbarous state and advancing to civilization by slow degrees, have had their laws successively determined, and, as it were, forced upon them simply by experience of the hurtfulness of particular crimes and disputes, would by this process come to be possessed of less perfect institutions than those which, from the commencement of their association
as communities, have followed the appointments of some wise legislator."

We notice in this passage the hostility to history and the institutions which it produces, that is, to tradition. We shall come, in due course, to the ahistoricity of the laws of Rousseau's General Will.

Note 13

I chose to quote from the Book of Daniel because the author is so clear in connecting the event with the person, but what is true of Daniel is true of all the Prophets. I could have contrasted Rousseau with any of them. Now there may be those who would point out that in his Confessions Rousseau meant to give us only the simple story of his life, and that it is really not fair to compare his autobiography with a book which "had no author," as is often said about the Book of Daniel. This latter part of the criticism would stem from the modern view that the character Daniel did not really exist, that the Book of Daniel was written about 160 B.C. and not in the sixth century B.C., and that the unknown author made use of fiction to achieve his purpose. This is a view which, for reasons into which I cannot go here, I cannot accept, and I am supported in this by Prof. Fensham, of Stellenbosch, as well as by the writer of the article on Daniel in the Zondervan Bible Dictionary. I also seem to have the support of the Italian writer Manzoni who wrote in his La Rissurezione: "Daniel remembered the years which were not yet born." (E degli anni ancor non nati Daniël se ricordo). The comprehensiveness of Daniel's now is well put in this sentence.

With regard to the contention that Rousseau wanted to give only the simple story of his life and was not concerned with history, I point out that the simple story of one's life should be history. The whole point in autobiography, properly understood, is to make sense of oneself in the becoming of the world. This Rousseau does not do. In any case, the Confessions is also not a true story of his life.

Note 14

According to Spengler Goethe was a paragon of historic sensitivity. Spengler relates in his Decline of the West (Vol. 1, Page 25) how Goethe, standing at a bivouac fire on the evening of the Battle of Valmy, said to those assembled there: "Here and now begins a new epoch of world history, and you, gentlemen, can say that you were there!" Spengler
continues: "No general, no diplomat, let alone the philosophers, ever so directly felt history 'becoming.'"

Note 15

Compare Becker's The Heavenly City of the Eighteenth-century Philosophers, Chapter 3, Page 99: "They (the Enlightenment philosophers) were looking for 'man in general,' and it is unreasonable of us to be annoyed because they did not look for him at Ingelheim or Lustnau on July 1, 887. Man in general, like the economic man, was a being that did not exist in the world of time and place, but in the conceptual world, and he could therefore be found only by abstracting from all men in all times and all places those qualities which all men shared. No doubt Charles the Fat, being, like Socrates, a man, might exhibit at Ingelheim or Lustnau some of the qualities he shared with Socrates. The important point was to note those qualities as exhibited: it mattered not whether they were exhibited at Ingelheim or at Lustnau, whether on July 1 or on some other day, the exact time and place being no more than temporal 'accidents' useful chiefly for illustrative purposes."

Note 16

Compare Becker's The Heavenly City of the Eighteenth-century Philosophers, Page 109: "Hume managed with unobtrusive skill, to weave into the texture of the narrative a condemnation of the very things the eighteenth century wanted condemned --- tyranny, superstition, intolerance. The story is a narrative of events, but it is after all well told, and above all told en philosophe: that is to say, not in order to trace the evolution of events or to explain them in terms of their origins and effects, but in order to apply to events the 'idea of the just and the unjust,' in order to apply to them the ready-made judgments of the age of reason." We shall see in the next two chapters what the ideas of God were in Hume's age, but it must be pointed out here that in this context of historiography Hume seems to join hands with Karl Marx who also uses history for the purpose of condemnation. See also Note 18 below.

Compare also Stewart's The Moral and Political Philosophy of David Hume, Chapter 11, Page 298 to 299: "...in none of these works...does he display the true historian's love for the past. The same must be said of the History of England, a work which, like the Discourses, was written to teach lessons directly relevant to contemporary politics.... In view of its pragmatic nature, it is not surprising that
he wrote the History backwards...."

Compare also Greig's David Hume, Chapter 20, Page 268:
".....the weakness of the XVIIIth-century historians, taken as a group, is their lack of what we now call historic sense. .....the spirit of their age was self-assured, positive, and rather smug, and they judged the past as if it were the present."

Note 17

Compare Collingwood's The Idea of History, Page 77: ".....writers like Voltaire and Hume did very little to improve the methods of historical research. They took over the methods devised in the preceding generation.....and even these methods they did not use in a really scholarly spirit. They were not sufficiently interested in history for its own sake....Hume's History of England is a very sketchy piece of work until he comes to.....the age of the Tudors." The writer of the article on Hume in the 1950 edition of the Encyclopaedia Brittanica says that parts of his histories are little better than party pamphlets. Though this judgment is perhaps a little harsh, his first volume certainly did annoy the English Whigs of his time.

Compare also Trevor-Roper's Hume as Historian (Page 93 of the Symposium): "Neither Hume nor any of the 'philosophical historians' of the eighteenth century wrote vivid history. They did not seek, as their successors after the Romantic movement did, to plunge back, bodily and mentally, into the past. Archaic languages, local colour --- these devices for bringing the reader himself into the scenes of history never occurred to them. They sat in Edinburgh or London or Lausanne and wrote about remote, unvisited countries and distant, disagreeable centuries in the cool style of the eighteenth century. The idea that they should become part of the past, wear its clothes, sink into its conventions, sympathise with its bigotries would have shocked them." One might point out that this is precisely the attitude of an historian who looks upon history as an eternal recurrence of events.

Note 18

In Macchiavelli's The Prince, Section 3, Page 39, we read:
"The Romans, in the provinces they seized, did watch (these) matters carefully. They established settlements, appeased the weaker powers without increasing their strength, crush- ed the powerful, and did not allow any powerful foreigner to win prestige. The province of Greece provides a good ex-
ample...In these instances the Romans did what all wise rulers must: cope not only with present troubles but also with ones likely to arise in future, and assiduously forecast them." From the above we can deduce that for Macchiavelli, as for Hume and Rousseau, men are always and everywhere the same. Hume, in fact, on more than one occasion refers us to Macchiavelli.

Note 19

De tous les auteurs chrétiens, le philosophe Hobbes est le seul qui ait bien vu le mal et le remède.....Mais il a dû voir que l'esprit dominateur du christianisme était incompatible avec son système, et que l'intérêt du prêtre serait toujours plus fort que celui de l'état.....Je crois qu'en développant sous ce point de vue les faits historiques, on réfuterait aisément les sentiments opposés de Bayle et de Warburton, dont l'un prétend que nulle religion n'est utile au corps politique, et dont l'autre soutient, au contraire, que le christianisme en est le plus formé appui. On prouverait au premier que jamais état ne fut fondé que la religion ne lui servit de base; et au second, que la loi chrétienne est au fond plus nuisible qu'utile à la forte constitution de l'état.

Note 20

Compare Marion Osborn's *Rousseau and Burke*, Chapter 7, Page 159: "As a moralist, Rousseau could not see that the moderns had made any further progress toward perfection than the ancients had done before them. Indeed, he was inclined to believe that, if anything, there was evidence of retrogression."

Note 21

Compare Becker's *The Heavenly City of the Eighteenth-century Philosophers*, Page 98. Becker quotes Rousseau's words in the *Social Contract*: "Man is born free, and is everywhere in chains. How was this change made? I do not know." Becker then adds: "And we at once feel that they (the eighteenth-century philosophers) have it on the tip of their tongues to dismiss us with an impatient 'and we do not care.'"

Note 22

Spengler applies this cycle to cultures. We shall give at-
tention towards the end of this chapter to Spengler and his pessimism. In Rousseau's philosophy education is to be used to break the cycles of events on the human scene, and basically this is also the contention of Plato as put forward in the Republic. Education is to be used to create an immutable, perfect state.

Note 23

Compare Temmer's Time in Rousseau and Kant, Chapter 4, Page 57: Temmer here mentions the critique of C.E. Vaughan of Rousseau's political doctrine and writes: "He shows that, from a historical and theoretical point of view, Rousseau's notion of a social contract, which is to provide a foundation for the idea of right, presupposes a moral awareness of social obligations that are apparently the result of the contract. Vaughan therefore rejects Rousseau's assumption of a moral act outside the continuum of time and goes on to say: 'Time, however, is just what he is not willing to give ... the good is always, in his view, the birth of a simple moment, the product of a single effort. Thus all that is salutary in a man's record — the contract which gave him 'reason and humanity,' the Law which gave to that contract reality and substance — lies wholly outside the natural order. We should like to stress that this atemporality of the politico-moral act is in perfect harmony with the timelessness of ... a quest for moral self-fulfilment and for artistic self-creation in a timeless past and future...."

Note 24

Compare Green's Jean-Jacques Rousseau: A Critical Study of his Life and Writings, Chapter 7, Page 283: Green points to a sentence in the original draft of the Social Contract (which does not appear in the published work) which makes it clear that Rousseau is not concerned with historical facts, but solely with principles: "I seek right and reason and I do not argue about facts." (Mais je cherche le droit et la raison et ne dispute pas des faits). Green says: "This caveat was not embodied in the final version, so that the reader, surrendering to the appeal of Rousseau's style, is apt to be hypnotized into believing that, at some stage in human evolution, man actually entered into the association so minutely defined in his treatise. In fact, like Emile, the Social Contract is a fiction stylizing the author's political ideas and principles."

Note 25.....
Chacun de nous met en commun sa personne et toute sa puissance sous la suprême direction de la volonté générale: et nous recevons en corps chaque membre comme partie indivisible du tout. À l'instant, au lieu de la personne particulière de chaque contractant, cet acte d'association produit un corps moral et collectif, composé d'autant de membres que l'assemblée a de voix, lequel reçoit de ce même acte son unité, son moi commun, sa vie et sa volonté.

.....se trouve engagé, sous un double rapport: savoir, comme membre de souverain envers les particuliers, et comme membre de l'état envers le souverain.

Rousseau writes: ".....la personne morale qui constitue l'État comme un être de raison, parce que c'est pas un homme...." Cole's translation of this passage in the Everyman's Library edition of the Social Contract is as follows: ".....the moral person which constitutes the state as a persona ficta, because not a man...." Gasc's French dictionary gives the meaning of être de raison as imaginary being or creation of the brain.

.....il (the Sovereign) est alors dans le cas d'un particulier contractant avec soi-même; par où l'on voit qu'il n'y a ni ne peut y avoir nulle espèce de loi fondamentale obligatoire pour le corps du peuple, pas même le contrat social.

.....le souverain, ne tirant son être que de la sainteté du contrat, ne peut jamais s'obliger, même envers autrui, à rien qui déroge à cet act primitif, comme d'aliéner quelque portion de lui-même, ou de se soumettre à un autre souverain.

Le christianisme est une religion toute spirituelle, occupée uniquement des choses du ciel; la patrie du chrétien n'est
pas de ce monde....un seul hypocrite, un Catilina, par exemple; un Cromwell, celui-là très certainement aura bon marché de ses pieux compatriotes....Les vrai chrétiens sont faits pour être esclaves, ils le savent et ne s'en émeuvent guère; cette courte vie a trop peu de prix à leurs yeux.

Note 31
To anyone who reads Hume's Essay on Miracles it must appear as an attempt, even a very purposeful attempt, to reduce Christianity and its historical foundations, to a tissue of fables which is to be believed only by people who have taken leave of their reason.

Note 32
Compare Collingwood's The Idea of History, Part 2, Page 76: "Hume, in his historical work, and his slightly older contemporary Voltaire, stand at the head of a new school of historical thought. Their work, and that of their followers, may be defined as the historiography of the Enlightenment. By the Enlightenment, Aufklärung, is meant that endeavour...to secularize every department of human life and thought. It was a revolt not only against the power of institutional religion but against religion as such."

Note 33
Hume tells us in his Dialogues Concerning Natural Religion that we have no right to suppositions concerning the moral qualities of God. "Furthermore," his biographer Mossner comments (Chapter 22, Page 289 of his Life of David Hume), "the inference from a unique effect (the world) to a unique cause (the Deity) is branded as unphilosophical. In practice, consequently, historical religion loses utility for those who are capable of thinking for themselves." Note the word utility.

Note 34
Compare Cassirer's Rousseau, Kant, Goethe, Page 45: "In religion also Rousseau rejects any dependence on external authority and any subjection to it. This at once excludes tradition as a religious source. There is no traditional doctrine that can lead us by a royal road to God......The principle of mere scriptural authority is hence abandoned once and for all. The written word can never constitute the
mediator between man and God...."

Note 35

One might usefully compare our two philosophers with Comte who, apparently also regarding a religion as a necessity, wanted to make humanity itself the god and direct religion to its worship. We have a similar phenomenon in our own century. The zoologist Huxley wishes to replace God with Evolution which uses man as its instrument. In honour of Evolution Huxley foresees a new religion, complete with priests and rituals.

Note 36

It seems to me that the very derivation of the word progress (from progridior) indicates the historicity of progress and makes it dependent on a becoming. Compare Maritain's On the Philosophy of History, Chapter 1, Page 8: "...if we meditate on the simple notion of a rational animal, we find that progress towards good --- some kind of progress towards good --- is implied in the very concept of reason. Reason is by itself essentially progressive. Therefore a being endowed with reason must necessarily, in some way or other be progressive, not immutable, and progressive in the sense of progressing towards improvement, towards good." If we accept that progress and purpose are thus linked, then Hume's and Rousseau's conception of progress goes with the absence of an eschatology in their view of history, as eschatology that is, in the Old Testament sense. We shall find that the good in their thought is synonymous with the useful.

We find the same view on history in the thought of the Emperor Marcus Aurelius as we do in that of Hume. See his Meditations, Book 11, Chapter 1: "The properties of the rational soul are these:.....it traverses the whole universe and the surrounding void, views its forms, stretches out into infinite time, comprehends and considers the periodical death and rebirth of all things, and discerns that the men who come after us shall see no new things, and that they who lived before us saw nothing more than we, but that, so to say, every man who reaches two score years, and has been gifted with average intelligence, has contemplated all things past and all things future in virtue of the law of uniformity."
Note 37
Compare Cassirer's Rousseau, Kant, Goethe, Page 26: The author here relates that at the end of his life Rousseau wrote that it had never been his wish to turn back the wheel of history. This is quite understandable. To have wanted to turn back the wheel of history would have meant a repudiation, so to speak, of the Enlightenment notion of progress; but, at the same time, Rousseau is always referring us to the past when, so he thinks, the world was a better place.

Note 38
History, of course, does not show a continuous improvement of things. There are periods of decay as well as periods of growth, periods in which good predominates as well as periods in which evil seems to predominate. In his On the Philosophy of History (Chapter 2, Page 36) Maritain quotes, to illustrate what he calls the law of two-fold contrasting progress in history, the parable in Chapter 13 of the Gospel according to St. Matthew in which a man sowed good seed in his field, only to have his enemy come and oversow it with cockle, and says: "It means that good is not divided from evil in human history --- they grow together....It is in undergoing these two internal movements that human history advances in time. The Christian knows that, though constantly thwarted and constantly concealed, the work of the spirit is carried out in spite of everything as history goes on, and that thus from fall to fall, but also from obscure gain to obscure gain, time marches towards the resurrection." He continues on Page 38: "We have here a notion of progress which is quite different from the necessary rectilinear and indefinite progress which the eighteenth century dreamed of and in which future things were supposed to be always and by right better than past ones; and, on the other hand, from that negation of any progress and that disregard for the God-given élan at work in us which prevails among those who despair of man and of freedom." (See also Appendix 11).

Compare also Whitehead's Science and the Modern World, Chapter 1, Page 1: "The progress of civilization is not wholly a uniform drift towards better things. It may perhaps wear this aspect if we map it on a scale which is large enough. But such broad views obscure the details on which rests our whole understanding of the process."

Compare also Von Weizsäcker's The Relevance of Science, Chapter 5, Page 81: The author here also quotes the parable of the sower and makes the interesting comparison between the separation of good and evil on the Day of Judgment with the separation of Israel from other nations by the Covenant
of Sinai. The major point is that man is given a choice and through that choice there is an end in history. "History will come to an end." Von Weizsäcker then quotes Jesus himself: "The Harvest is the end of the world."

Note 39

Compare Orr's David Hume and his Influence on Philosophy and Religion, Chapter 10, Page 205: "On Hume's principles the only consistent philosophy of existence would be pessimism." Rousseau anticipated Spengler's pessimism; one might in this context also consider the philosophy of Arthur Schopenhauer, the most pessimistic the West has ever produced. In the thought of both Spengler and Schopenhauer we have to do with cycles, in the thought of Spengler with culture cycles and in that of Schopenhauer with the will continually growing and at the same time devouring itself. It seems that as soon as we have to do with cycles in history, that is, as soon as we dispense with eschatology, we have a pessimism.

Note 40

Compare Maritain's On the Philosophy of History, Chapter 1, Page 32: "...the essential question for the philosopher of history is: What is the end of history?" He then quotes Mircea Eliade's Cosmos and History: "...the horizon of archetypes and repetition cannot be transcended with impunity unless we accept a philosophy of freedom that does not exclude God. And indeed this proved to be true when the horizon of archetypes and repetition was transcended, for the first time, by Judaeo-Christianity...."

CHAPTER 5

The State and its Laws in Derived Space and Time

Note 1

Compare Cassirer's Rousseau, Kant, Goethe, Page 27: "When Rousseau examines the available forms of 'political philosophy,' he finds them all insufficient and without foundation...The Aristotelian doctrine that man is 'by nature' a social being...Rousseau rejects. He does not believe in that 'social instinct' on which the theorists of the seventeenth and eighteenth centuries hoped to found society.... By nature man has but a single instinct --- the instinct of
self-preservation."

Note 2

Études sur le Temps Humain, Chapter 10, Pages 163 and 165: "De l'état de nature l'homme passe ou tombe à l'état de société. Dans ce nouvel état le sujet s'oppose à l'objet, le moi se découvre un non-moi. L'homme ne vit plus dans une sorte d'absolu, ne se limite plus à la sensation pure.... A côté du présent, le futur et le passé se dessinent, incitent aux comparaisons et aux préférences. C'est le regne du relatif, et c'est le regne du temps....le temps est le lieu de l'insuffisance et, par consequent, du mal et du malheur...."

Note 3

See Aristotle's Politics, Chapter 2, Page 3: "And when many villages so entirely join themselves together as in every respect to form but one society, that society is a city, and contains in itself, if I may so speak, the end and perfection of government: first founded that we might live, but continued that we might live happily."

Note 4

Je veux chercher si, dans l'ordre civil, il peut y avoir quelque règle d'administration légitime et sûre, en prenant les hommes tels qu'ils sont, et les lois telles qu'elles peuvent être. Je tâcherai d'allier toujours, dans cette recherche, ce que le droit permet avec ce que l'intérêt prescrit afin que la justice et l'utilité ne se trouvent point divisées.

Note 5

Rousseau draws a distinction in this passage between justice and utility. We shall find that for Hume justice and utility are the same. Rousseau's distinction is, however, of little avail, for in the end his philosophy is as utilitarian as that of Hume.

Note 6

Je suppose les homme parvenus à ce point où les obstacles qui nuisent à leur conservation dans l'état de nature l'emportent, par leur résistance, sur les forces que chaque individu peut employer pour se maintenir dans cet état....le
genre humain périrait s'il ne changeait sa manière d'être."

Note 7

Compare Thomas Hobbes' *De Gibe*, Chapter 1, Section 2: "We do not, therefore, by nature seek society for its own sake, but that we may receive some honour or profit from it.... For if they (men) meet for traffic, it is plain every man regards not his fellow, but his business; if to discharge some office, a certain market-friendship is begotten, which hath more of jealousy in it than true love, whence factions sometimes may arise, but good will never.... All society therefore is either for gain or for glory.... We must therefore resolve that the original of all great and lasting societies consisted not in the mutual good will men had towards each other, but in the mutual fear they had of each other...."

Note 8

Ce passage de l'état de nature à l'état civil produit dans l'homme un changement très remarquable, en substituant dans sa conduite la justice à l'instinct, et donnant à ses actions la moralité qui leur manquait auparavant.

Note 9

Quoiqu'il se prive dans cet état de plusieurs avantages qu'il tient de la nature, il en regagne de si grands....que, si les abus de cette nouvelle condition ne le dégradaient souvent au-dessus de celle dont il est l'en arracha pour jamais.....

Note 10

See Hume's *Of the Original Contract* (Pages 454-455 of Vol. 1 of the *Essays*): "All moral duties may be divided into two kinds. The first are those, to which men are impelled by natural instinct.... independent of all ideas of obligation, and of all views, either to public or private utility. Of this nature are, love of children, gratitude to benefactors, pity to the unfortunate.... The second kind of moral duties are such as are not supported by any original instinct of nature, but are performed entirely from a sense of obligation, when we consider the necessities of human society."

It seems to me that Hume's own friendly and sociable
nature really clashed violently with what he thought his observations of human society were. Here we have a man who is aware of relationships among men as a "coming together" because he feels them, but judges society by the "artifici-

ality" of relationships among men as they have come to be for him through the application of the conceptual man-in-general. One might say that Hume feels the interpenetration of spaces and times of persons, though he is unaware of it, and observes spaces and times which cannot interpenetrate.

**Note 11**

Mais qu'est-ce donc enfin qu'une loi?....quand tout le peuple statue sur tout le peuple, il ne considère que lui-même....Alors la matière sur laquelle on statue est géné-

rale comme la volonté qui statue. C'est cet acte que j'appelle une loi.....Sur cette idée, on voit à l'instant qu'il ne faut plus demander à qui il appartient de faire des lois, puisqu'elles sont des actes de la volonté générale...."
cisely such a static reality; the legislation of Rousseau's General Will would be that. This legislation would not aim at creating values, which spring from our personalities, but at creating order among warring men.

Compare also Prof. Versfeld's Law and the Idea of the Contemporary.

Note 15

.....ce que l'homme perd par le contrat social, c'est la liberté naturelle.....ce qu'il gagne, c'est la liberté civile....

Note 16

A considerer humainement les choses faute de sanction naturelle, les lois de justice sont vaines parmi les hommes; elles ne font que le bien du méchant et le mal du juste, quand celui-ci les observe avec tout le monde sans que personne les observe avec lui.

Note 17

Rousseau's judgment in Book 1, Chapter 8 of the Social Contract, that the state makes of a man "instead of a stupid, unimaginative animal," rather "an intelligent being and a man," seems to contradict the conclusion that Rousseau does not look upon men as "political animals" as does Aristotle, but I think the contradiction is only apparent. These words emphasize that men need the state because of their insufficiencies which, Rousseau thinks, are removed by the state. The state is an accomplished fact which must be justified, and Rousseau's purpose was to justify it and establish a blueprint for a model society. This he thought he had done in the Social Contract. He thought that the General Will could be taught what was good for it and that since every man's will was really inherent and implicit in the General Will, all men could be taught virtue, and in this sense be made "intelligent beings and men." Compare the Greek notion that virtue could be taught. The passage seems to me to go with Rousseau's notion of the necessity of a Lawgiver who must teach, and of himself as a great lawgiver.

Compare also Green's Jean-Jacques Rousseau: A Critical Study of his Life and Writings, Chapter 7, Page 286: "Is it psychologically credible that man, just emerged from the state of nature, would have possessed the intelligence to realise the advantages of Rousseau's social contract? My own view is that Jean-Jacques, brooding over his vision of
man's terrible plight in this life or death crisis, felt that the 'very remarkable change' might well have been effected by a sudden expansion of human intelligence such as does in fact occur in the case of individuals whose existence is suddenly threatened." Instead of acting with brute might to defend himself, man must now think in what way he can protect himself and his possessions with laws. But one must ask: Is this true morality? Thinking about self-preservation is not the same as free choice and historic morality.

Note 18

Chacun de nous met en commun sa personne et toute sa puissance sous la suprême direction de la volonté générale...

Note 19

Il y a souvent bien de la différence entre la volonté de tous et la volonté générale; celle-ci ne regarde qu'à l'intérêt commun; l'autre regarde à l'intérêt privé, et n'est qu'une somme de volontés particulières: mais ôtez de ces mêmes volontés les plus et les moins qui s'entredétruisent, reste pour somme des différences la volonté générale.

Note 20

Il faut lui faire voir les objets tels qu'ils sont, quelquefois tels qu'ils doivent lui paraître.....la garantir des séductions des volontés particulières, rapprocher à ses yeux les lieux et les temps, balancer l'attrait des avantages présents et sensibles par le danger des maux éloignés et cachés.

Note 21

Ce qui rend pénible l'ouvrage de la législation est moins ce qu'il faut établir que ce qu'il faut détruire....

Note 22

Rousseau is at one with Hume. Compare Collingwood's The Idea of History, Part 2, Section 9, Page 78: "They(Hume and Voltaire) only began to be interested in history at the point where it began to be the history of a modern spirit akin to their own, a scientific spirit. In economic terms this meant the spirit of modern industry and commerce. In
political terms it meant the spirit of enlightened despotism. They had no conception of institutions as created by the spirit of a people in its historical development; they conceived them as inventions, artifices devised by ingenious thinkers, and imposed by them on the mass of the people. Their idea of religion as due to priestcraft was merely an application of the same principle...."

Compare also Gentile's The Transcending of Time in History (Page 91 of Philosophy and History): "Reality is spirit and spirit never is but is always coming to be, not something given, but free activity. That is what distinguishes it from nature, and, such being its essence, spirit which is identical with reality, is history, or the process of self-realization. The truth of this is clearly seen wherever we have to study an actual creation of spirit, such as a theory, a work of art, a revolution, a reform, an institution, a law. Such a creation, as soon as we try to understand it, appears as a process, as something evolved."

Rousseau's laws are therefore a flight from time and history.

Note 23

Compare Green's opinion that the Lawgiver is an "enigmatic personality." In his Jean-Jacques Rousseau: A Critical Study of his Life and Writings, Chapter 7, Pages 291 to 293 he says: "...from Rousseau's description of the almost god-like qualifications which the Lawgiver must possess, it is hard to see how he could fail to shape the general will of the legislative assembly, since his function is to persuade them to follow what he, with his divinatory powers, knows to be the real interests of the community....Nor is it clear why Jean-Jacques assumes that the Lawgiver is addressing a body that has no 'esprit social,' that is to say, no notion of common interest when surely that is implicit in the original act which produced the social contract." One might point out to Green that the General Will has to be taken out of time which corrupts it.

Note 24

...il faudrait une intelligence qui...dans le progrès des temps se ménageant une gloire éloignée, peut travailler dans un siècle et jouir dans un autre....doit se sentir en état de changer pour ainsi dire la nature humaine, de transformer chaque individu, qui par lui-même est un tout parfait et solitaire, en partie d'un plus grand tout dont cet individu reçoive en quelque sorte sa vie et son être...
Note 25

Compare Stewart's The Moral and Political Philosophy of David Hume, Chapter 5, Page 107: "The family, friendships and humanity are relationships based on the feelings human beings have for others; but society and state are relationships among men which result from their common desire to acquire external goods."

Note 26

In reviewing Stewart's The Moral and Political Philosophy of David Hume, The Times Literary Supplement writes: "The beginning of society for Hume is scarcity. In primitive conditions there is not enough to go round, so men have to work together to overcome scarcity. And in order to pass from precarious possessions to rightful ownership they create political institutions. (Is this not a social contract?) This is the origin of what Hume calls 'justice' --- there must be a rule of law to ensure the keeping of contracts. The state, thus understood, is artificial, while the family is natural, and its existence calls for the exercise of what Hume calls 'artificial virtues.'"

CHAPTER 6

Justice and Morality in Derived Space and Time

Note 1

Compare Orr's David Hume and his Influence on Philosophy and Theology, Page 183: "It is the case accordingly, that in the utilitarian school which succeeded Hume, the egoistic genesis of even benevolent sentiments is frankly recognized and the motive of self-interest is invariably fallen back on as the ground of obligation." In a footnote Orr quotes Bentham's frank admission: "I am a selfish man, as selfish as any man can be. But in me, somehow or other, so it happens, selfishness has taken the shape of benevolence." Not all the utilitarian philosophers were as honest as this, Orr points out.

Note 2

Trouver une forme d'association qui défende et protège de toute la force commune la personne et les biens de chaque associé.....
Good and evil then, are agreeable and disagreeable sensation. They awaken desire and aversion and they alone can set the will in motion. It seems to me that such a view makes men little better than moths who are sent to their destruction in a flame by the chemistry of their bodies which they cannot alter or resist.

In a review of David Hume: A Symposium The Times Literary Supplement writes: "He (Hume) had a moral theory of his own ... This was a special kind of hedonism. But it was not an egoistic hedonism."

Compare Bertrand Russell's History of Western Philosophy, Chapter 18, Page 701: "Cultivated people in eighteenth-century France greatly admired what they called la sensibilité which meant a proneness to emotion, and more particularly to the emotion of sympathy. To be thoroughly satisfactory, the emotion must be direct and violent and quite uninformed by thought. The man of sensibility would be moved to tears by the sight of a single destitute peasant family, but would be cold to well-thought-out schemes for ameliorating the lot of the peasants as a class. The poor were supposed to possess more virtue than the rich; the sage was thought of as a man who retired from the corruption of courts to enjoy the peaceful pleasures of an unambitious rural existence.... The poor, in the imagination of those who cultivated sensibilité, always had a few paternal acres, and lived on the produce of their own labour without the need of external commerce. (Compare Rousseau's notion of the noble savage). True, they were always losing the acres in pathetic circumstances, because the aged father could no longer work, the lovely daughter was going into decline, and the wicked mortgagee or the wicked lord was ready to pounce either on the acres or on the daughter's virtue....

Compare Prof. Versfeld's Rousseau's Moral and Religious Views and their Consequences: "The virtue of Rousseau, which he never ceased to commend, is a voluptuous enjoyment of his own ego, and cannot be understood apart from his dogma
of the natural goodness of man. This dogma affirms that one's temperament is its own justification. The sense of sin arises from the objective checks upon the impulses of one's own ego. Remove the checks and one experiences a glorious sense of elation. . . . Rousseau's explosive effect upon history arises from the genius with which he generalizes his personal malaise in the face of responsibility into a general theory of democracy."

Note 7

The Times Literary Supplement says in a review of Stewart's *The Moral and Political Philosophy of David Hume*: "Hume's moral philosophy is connected with his social psychology. A central notion is what he calls 'sympathy.' Morality, for Hume, was not rooted in rational principles but in human feelings. To this extent he was on the side of Rousseau against Kant." This is how I would sum up Stewart's view, and I can agree with it, but it must be borne in mind that Hume distinguishes between a "natural" and an "artificial" morality, and that his "artificial" morality is very clearly utilitarian.

Note 8

Compare Sabatier's *Outline of a Philosophy of Religion*, Chapter 1, Page 28: "I now understand why 'natural religion' is not a religion. It deprives man of prayer; it leaves God and man at a distance from each other. No intimate commerce, no interior dialogue, no exchange between them, no action of God,..."

One notes that there are really no grounds on which anyone should accept Rousseau's natural religion. There is no authoritative document such as the Bible and no witnesses who can testify to the soundness of the religion. One must depend solely on feeling.

CHAPTER 7

The Control of Men as Masses of Matter

Note 1

Comment une multitude aveugle, qui souvent ne sait ce qu'elle veut, parce qu'elle sait rarement ce qui lui est bon, exécuterait-elle d'elle-même une entreprise aussi grande,
aussi difficile qu'un système de législation? De lui-même, le peuple veut toujours le bien, mais de lui-même il ne le voit pas toujours. La volonté générale est toujours droite, mais le jugement qui la guide n'est pas toujours éclairé.... Les particulières voient le bien qu'ils rejettent; le public veut le bien qu'il ne voit pas. Tous ont également besoin de guides. Il faut obliger les uns à conformer leurs volontés à leur raison; il faut apprendre à l'autre à connaître ce qu'il veut.

Note 2

Any doubt one might have as to whether Rousseau meant the words which he uses to be interpreted as they stand, must surely be dispelled by the consideration that he had time enough to find others if he did not. It is known that he turned the Social Contract over in his mind for some time before he published it, and it is also known that he did omit at least one sentence in the original draft from the final published version. I do not think that we are entitled to interpret Rousseau's words in any other way but as they stand.

Compare Prof. Versfeld's Rousseau's Moral and Religious Views and their Consequences: "Will belongs to us as persons. In so far as our real will is the general will, we cease to be persons. Rousseau's Confessions go together with the Social Contract in a manner in which Augustine's Confessions go with the City of God. Just as Augustine's is the story of the discovery of personality and of the will from which he draws the public consequences in the City of God, so Rousseau confesses to the loss of will, from which he concludes to our immolation in an abstract sovereignty.... It is.... an a'chronic suspension of personality."

Note 3

Afin donc que ce pact social ne soit pas un vain formulaire il renferme tacitement cet engagement, qui seul peut donner de la force aux autres, que quiconque refusera d'obéir à la volonté générale, y sera contraint par tout le corps: ce qui ne signifie autre chose sinon qu'on le forcera à être libre....

Note 4

The question of the freedom of the will did not arise in Greek philosophy, for the will was thought to follow reason. Man was a part of nature, and in human affairs the Greeks
sought laws as they sought them in nature, so that the historicity of man was not a problem. And since the will was thought to follow reason, virtue could be taught. So Socrates, for instance, thought that if only a man could be taught what was right, he would follow the right road. It seems to be a small step from this to Rousseau's notion that the General Will must be taught to bring its wishes and desires to accord with reason, and that, since a man's real will was really implicit in the General Will, he could be "forced into freedom." But assumption of a man's will in the General Will actually renders him will-less, and this seems to me to overthrow Rousseau's contention.

Note 5

...jamais État ne fut fondé que la religion ne lui servit de base....Or il importe bien à l'État que chaque citoyen ait une religion....Il y a donc une profession de foi purement civile dont il appartient au souverain de fixer les articles, non pas précisément comme dogmes de religion, mais comme sentiments de sociabilité sans lesquels il est impossible d'être bon citoyen ni sujet fidèle....Les dogmes de la religion civil doivent être simples, en petit nombre, énoncés avec précision, sans explications ni commentaires.

L'existence de la Divinité puissante, intelligente, bienfaîsante, prévoyante et pourvoyante, la vie à venir, le bonheur des justes, le châtiment des méchants, la sainteté du contrat social et des lois....

Note 6

Ceux qui distinguent l'intolérance civile et l'intolérance théologique se trompent, à mon avis. Ces deux intolerances sont inséparables. Il est impossible de vivre en paix avec des gens qu'on croit damnés; les aimer serait haïr Dieu qui les punit: il faut absolument qu'on les ramène ou qu'on les tourmente. Partout où l'intolérance théologique est admise, il est impossible qu'elle n'ait pas quelque effet civil; et sitôt qu'elle en a, le souverain n'est plus souverain, même au temporel: Dès lors les prêtres sont les vrais maîtres, les rois ne sont que leurs officiers.

Note 7

Il y a une troisième sorte de religion plus bizarre, qui donnant aux hommes deux législations, deux chefs, deux patries, les soumet à des devoirs contradictoires, et les
empêche de pouvoir être à la fois dévots et citoyens. Telle est la religion des Lamas, telle est celle des Japonais, tel est le christianisme romain. Il en résulte une sorte de droit mixte et insociable qui n'a point de nom. (La troisième) est si évidemment mauvaise, que c'est perdre le temp de s'amuser à le démontrer. Tout ce qui rompt l'unité sociale ne vaut rien; toutes les institutions qui mettent l'homme en contradiction avec lui-même ne valent rien.

Note 8

Compare Maritain's On the Philosophy of History, Chapter 3, Page 87: "There was a sacral age, the age of mediaeval Christendom, mainly characterized, on the one hand, by the fact that the unity of faith was a prerequisite for political unity, and that the basic frame of reference was the unity of the social body, religio-temporal in nature, which was the Respublicana Christiana; and, on the other hand, by the fact that the dominant dynamic idea was the idea of fortitude at the service of justice. The modern age, on the contrary, is not a sacral but a secular age. The order of temporal society has gained complete differentiation, and full autonomy in its own sphere, which is something normal in itself required by the Gospel's distinction between God's and Caesar's domains. But the normal process was accompanied — and spoiled — by a most aggressive and stupid process of insulation from and finally rejection of, God and Gospel in the spheres of social and political life. The fruit of this we contemplate today in the theocratic atheism of the Communist State."

Note 9

Or il importe bien à l'État que chaque citoyen ait une religion qui lui fasse aimer ses devoirs. Il y a donc une profession de foi purement civile dont il appartient au souverain de fixer les articles sans lesquels il est impossible d'être bon citoyen ni sujet fidèle. Sans pouvoir obliger personne à les croire, il peut bannir de l'État quiconque ne les croit pas; il peut le bannir, non comme impie, mais comme insociable, comme incapable d'aimer sincèrement les lois, la justice. Que si quelqu'un après avoir reconnu publiquement ces mêmes dogmes, se conduit comme ne les croyant pas, qu'il soit puni de mort; il a commis le plus grand des crimes, il a menti devant les lois.
Note 10

.....autant que leurs dogmes n'ont rien de contraire aux devoirs du citoyen. Mais quiconque ose dire: Hors de l'Eglise point de salut, doit être chassé de l'État, à moins que l'État ne soit l'Eglise, et que le prince ne soit le pontife.

Note 11

.....en se qu'elle réunit le culte divin et l'amour des lois, et que, faisant de la patrie l'objet de l'adoration des citoyens, elle leur apprend que servir l'État, c'est en servir le dieu tutélaire. C'est une espèce de théocratie, dans laquelle on ne doit point avoir d'autre pontife que le prince, ni d'autres prêtres que les magistrats. Alors mourir pour son pays, c'est aller au martyre; violer les lois, c'est impie; et soumettre un coupable à l'exécration publique, c'est le dévouer aux courroux des dieux.....

Note 12

Compare Orr's David Hume and his Influence on Philosophy and Religion, Chapter 10, Page 197: "It was essential to Hume's scheme (for a good state) that the church should be under the control of the magistrates." Orr then quotes the passage from Hume also quoted in this study, and comments: "Thus Hume's boasted liberality turns round into the sheerest tyranny."

Note 13

It seems to me that one might ask whether the General Will of a particular state would not, in its infallibility, decide that the people of another state are not free and should be "forced into freedom." Not long after Rousseau's death, Napoleon came on the European scene and placed a brother on the throne of almost every country in Western Europe. One is reminded also of the large number of "liberations" of one nation by another in our own century, and of threatened "liberations." See also Note 14 below.

Note 14

Compare Talmond's The Origins of Totalitarian Democracy, Part 1, Chapter 1, Page 19: "A mighty fiat conjures up the social entity (in Rousseau's thought) whatever its name, the state, the social contract, the sovereign or the general will. The entity is autonomous, without, as it were, ante-
cedents or an external point of reference. It is self-sufficient. It is the source and maker of all moral and social values....Man has no other standards than those laid down by the social contract. He receives his personality and all his ideas from it. The state takes the place of the absolute point of reference."

I cannot, of course, agree that man receives his personality from the social contract, for reasons given throughout this thesis.

Note 15

On convient que tout ce que chacun aliène, par le pacte social, de sa puissance, de ses biens, de sa liberté, c'est seulement la partie de tout cela dont l'usage importe à la communauté; mais il faut convenir aussi que le souverain seul est juge de cette importance.

Note 16

Compare Green's Jean-Jacques Rousseau: A Critical Study of his Life and Writings, Chapter 7, Page 290: "They (the citizens) give up only that part which is necessary to the state for its own conservation. Anything else is retained by the individual citizens, though here, of course, the state is the sole judge."

Note 17

Talmond says in his Conclusions (The Origins of Totalitarian Democracy, Page 249): "Totalitarian democracy, far from being a phenomenon of recent growth, and outside Western tradition, has its roots in the common stock of eighteenth-century ideas. It branched out as a separate and identifiable trend in the course of the French Revolution and has had an unbroken continuity ever since....It was the eighteenth-century idea of the natural order (or general will) as an attainable, indeed inevitable and all-solving, end that engendered an attitude of mind unknown hitherto in the sphere of politics, namely the sense of a continuous advance.....accompanied by an acute awareness of a structural and incurable crisis in existing society.....Totalitarian democracy early evolved into a pattern of coercion and centralization.....It envisaged man per se, stripped of all those attributes which are not comprised in his common humanity (also of his private space and time, therefore, making him an abstraction).....It was impossible to expect all men.....to merge their personalities immediately in a
common type of humanity....(This) conception of popular sovereignty asserted itself as soon as it began to be seen that the will of the majority would not necessarily be the same as the general will. So the seemingly ultra-democratic ideal of unlimited popular sovereignty soon evolved into a pattern of coercion. In order to create the conditions for the expression of the general will the elements distorting the expression had to be eliminated, or at least denied effective influence."

Note 18

Compare Talmond's *The Origins of Totalitarian Democracy*, Part 1, Chapter 1, Page 18: "Helvetius, laying all the emphasis on utilitarianism, of which he was, in his *De l'Esprit* (1758), the first teacher, and Holbach, writing in the seventies, and preaching materialist determinism, both postulated a kind of cosmic pragmatism, of which the social order was only a replica. The structure of the world is such that if society were properly balanced, all that is true would also be socially useful, and all that is useful would also be virtuous. None therefore would be vicious except fools, and none unhappy but the ignorant and wicked, in other words, those who presume to kick against the natural order of things."

Note 19

Compare Talmond's *The Origins of Totalitarian Democracy*, Part 1, Chapter 1, Pages 18 to 19: "Condorcet writing at the height of the Revolution in 1793.....summed up in a most moving manner the achievement of his age by claiming that it had come into the possession of a universal instrument equally applicable to all fields of human endeavour. The same instrument was capable of discovering those general principles which form the necessary and immutable laws of justice, of probing men's motives, of 'ascertaining the truth of natural philosophy, of testing the effects of history and of formulating laws of taste.' Once this instrument had been applied to morals and politics, a degree of certainty was given to those sciences little inferior to that which obtained in the natural sciences. This latest effort, Condorcet claimed, had placed an everlasting barrier between the human race and the 'old mistakes of its infancy that will forever preserve us from a relapse into former ignorance.' The analogy with the claims of dialectical materialism in the next century is evident."

Note 20.....
Note 20

Compare Talmond's *The Origins of Totalitarian Democracy*, Page 251: ".....the idea of free popular self-expression was made to give place to the idea that the general will was embodied in a few leaders who conducted the war with the help of highly organized bands of the faithful. The Committee of Public Safety governing in a revolutionary manner with the help of the Jacobin Clubs and the Babouvist Secret Directory....."

Note 21

Compare Talmond's *The Origins of Totalitarian Democracy*, Part 3, Chapter 4, Page 211. Talmond here writes on the rôle of Francois-Noël Babeuf in the French Revolution, and he says: "That there was no contradiction between the idea of a party of the vanguard and the idea of the general will, and that the general will was not the spontaneously expressed will of individuals but something that ought to be will-ed, and that must be imposed if necessary --- Babeuf claimed to have learnt from no less a person than Robespierre, who --- Babeuf quotes him with approval --- taught that 'true lawgivers ought not to co-ordinate their laws to the corrupt morality of the people for whom they are destined, but they ought to be able to restore the morality of the people by their laws, first to base these on justice and virtue, and then to know how to surmount every difficulty in order to impose them upon men.' (Compare Rousseau's Lawgiver, the corruptibility of the General Will and 'forcing into freedom'.).....The masses must be brought in.....But it was not for them to determine policies, to assert their will.....The leaders, and not the masses, were to make the wheels turn."

Note 22

Compare Talmond's *The Origins of Totalitarian Democracy*, Page 250. Talmond here points out that when the emphasis is placed on the destruction of inequalities as they were in the French Revolution (and is in Marxism), it means also a bringing down of the privileged to the level of common humanity and "on sweeping away all intermediate centres of power and allegiance, whether social classes, regional communities, professional groups or corporations....The power of the State, unchecked by any intermediate agencies, became unlimited.....This exclusive relationship between man and the State (in the French Revolution) implied conformity (compare 'forcing into freedom'). It was opposed to both diversity which goes with a multiplicity of social groups,
and the diversity resulting from human spontaneity and empiricism. It is a vision of a society of equal men re-educated by the State in accordance with an exclusive and universal pattern. Communist Babouvism already saw the essence of freedom in ownership of everything by the State and the use of public force to ensure a rigidly equal distribution of the national income, and spiritual conformity."

We see here how men are simplified by stripping them of all the attributes which differentiate men from one another, also --- and this is what concerns us in this study --- of their private spaces and times to make them masses controlled in the space and time of the physics of Galileo.

Note 23

Compare Prof. Versfeld's *Education for Africa*: "Now there is a connection between being uprooted from one's proper time and being uprooted from one's proper place. Modern philosophers and psychiatrists are engaged in some fascinating researches in this field. Descartes' reification, thingification of human beings resulted first in a sense of dislocation from time. He is singularly without historic sensibility. He rejects tradition as the mistress of errors and wishes to make a clean break with what I may call cultural time by his doubt. We are to think in timeless geometrical abstractions which will enable us to control matter in motion. This is a way of thinking very helpful to the manufacture of muskets, and cannon, and ships and trains, which are all ways of dislocating things and shifting them about in space. It is a way of thinking which enabled the European to dis-locate himself from Europe and spread himself and his goods all over the world. Dislocation in time was accompanied by dislocation in space, and the trouble was that the goods spread abroad were so largely things, and that the men who spread them were getting into the habit of regarding themselves and others as things, whom they had little compunction in using and dislocating."

It was Herbert Spencer who, in the nineteenth century, became the philosopher of industrialism and technology. His philosophy is the culminating expression of the mechanical point of view. He was, in fact, an engineer turned philosopher, and as such endowed industrialism and technology with the attributes of a religion.

Note 24

Compare Prof. Versfeld's *Education for Africa*: "You cannot
set out to dominate nature without trying to dominate your fellow men, and assuming to rule over the image of God in a manner which parodies the privilege of God. As C.S. Lewis showed so well in his pamphlet, *The Abolition of Man*, every power gained over nature is a power gained by some men over other men. For instance, we invent flying machines, and that puts our movements under the control of the owners of the flying machines. We learn to apply ballistics, which means that the population of a whole town can fall under the control of a few men behind machine guns.....the final issue of dominative thought (as it) was achieved in the 19th century.....Man's imperium over time is now asserted to be complete."

**Note 25**

A Royal Commission in Britain in 1842 prepared a report (with sketches) on half-naked women dragging loaded tubs of coal by means of chains passed around the waist and between the legs, and children carrying big sacks of coal to the surface up spiral stairways.

**Note 26**

Because industrialists have found that better working conditions make for greater production. Dr. L.A. White in his *Science of Culture* (Chapter 6, Page 128) gives a similar reason for the abolition of slavery. "Slavery," he says, "as an institution will exist and endure only when the master can derive profit and advantage by exploiting the slave ....The efficiency of production is of course determined by the degree of technological development......when culture --- particularly the technological culture --- had reached a certain point where it could no longer be operated efficiently by human chattel, then the institution of slavery became extinct. Slavery died out, not because someone discovered the essential dignity of man, or because of a rising spirit of Christianity or Democracy, but because, as Lewis H. Morgan put it long ago, a freeman is a better 'property-making machine' than a slave."

**Note 27**

That the modern worker is still very much subject to Galileian space and time as a controlled being is shown by the rule of "clocking in" and "clocking out" every day. Another symbol is the "assembly line" with its repetition work, each task on it taking a precise interval of time to com-
plete and being necessary before the next stage can be done. Coupled with it is a survey of work potential of men in industry which is, significantly enough, called time and motion study, while labour is measured in man-hours.

Note 28

Compare Prof. Versfeld's *Education for Africa*: "Now Western philosophy has been for some three centuries imperialistic in a very pervasive manner. When I say imperialistic I mean something very definite. I mean that it has been concerned with domination and with the techniques of domination. It has been concerned with a will to power over nature and over history. It has sought to rule over space and time. The Baconian spirit has received no better formulation than Descartes' statement that the function of philosophy is to make us masters and possessors of nature. When Descartes made metaphysics the handmaid of physics --- thus reversing the traditional relationship --- he was subordinating everything else to the problem of the movement of things in space, and elevating the changing above the non-changing. Even Western theory of knowledge......has been shot on this last. It expresses our will to exert an imperium or dominium over nature.

Note 29

Compare Leighton's *Field of Philosophy*, Chapter 37, Pages 599 to 602: "The tremendous development of large-scale machine production has......lined up, in battle array, the groups or organized 'capital' on the one side and organized 'labour' on the other, with the non-combatants between to suffer most of the damage from their intermittent warfare."

Note 30

One could, perhaps, ask whether the modern idea that men should have more leisure time is not simply an "unconscious" realization that men have to be allowed to live in their natural private spaces and times whenever it is possible to spare them from industry."

Note 31

We have heard much in this century of the impact of Western civilization on the African. What we have to do with here is the impact of Galileian space and time, the space and time of technics and control, on the subjective cultural
space and time of the African tribes which, like the space and time of the Old Testament, is not nearly the same as that of which it has to suffer the impact. This seems to be Prof. Versfeld's contention in his Education for Africa.

Compare also Whitehead's Science and the Modern World, Chapter 1, Page 4: "Another contrast which singles out science from among the European movements of the sixteenth and seventeenth centuries is its universality. Modern science was born in Europe, but its home is the whole world. In the last two centuries there has been a long and confused impact of Western modes upon the civilization of Asia." We can now add: "and of Africa."

Compare also the introduction by F.S.C. Northrop to Heisenberg's Physics and Philosophy.

**Note 32**

Unless we give this interpretation to these words, it is not clear to me why Rousseau maintains that the General Will should be taught this. The words would seem to be "out of the blue" unless Rousseau associated Galileian space and time with order and control. Perhaps he realized the disorder caused in his own life by his hostility to space and time, to what we have called real space and time.
In spite of certain antithetical undercurrents in its thought, such as Nominalism and Realism (see Note 8 of Chapter 1), the system of life and thought of the Middle Ages was Christian and monolithic. Science, religion and philosophy were united in a way of thinking and living which had given stability and solidarity to human lives for a thousand years after the fall of the Western Roman Empire in A.D. 476; Christianity had, in fact, had that influence for more than a century before that year, for it would not have been able to capture the imperial court had it not before the beginning of the fourth century A.D. already captured Rome herself. Compare in this context Leff's Medieval Thought, Chapter 1, Pages 25 to 26: "Only the Church retained a central organization and universal character, (that is, when the Western Roman Empire crumbled). Modelled on the lines of imperial administration, with its dioceses and provinces corresponding to Roman divisions, it was able to maintain its cohesion when the Empire crumbled. It was therefore the main bastion of order and administration, able to take charge of cities and regions. This ability, together with its unique spiritual authority, was to make the Church the most influential power in preserving the past and refashioning the future."

From this monolithic Christian system we pass at the
end of the Middle Ages to a state of affairs in Europe which brought about the overthrow of much that had shaped human life, especially through the disturbance of human relationships as contemplated and lived during all those centuries which followed the surrender of Rome to Christianity. Europe became heterogeneous with the creation of many national states, and the daily affairs of men became more and more separated from those of the Church. Henceforth human relationships were to be contemplated in an atmosphere of hostility to Christianity in which the monolithic mediaeval system had been replaced by a diversity of thought in which every human mental and spiritual activity went its own way in isolation from the rest.

This latter loss of control of an unfragmented personality over the human passion for knowledge (the cupido scientiendi), the feeling (cupido sentendiendi) and the passion for power and domination (cupido dominandi) has a special significance in this study. We shall have to do, throughout it, with the destruction of personality, and the problems which Hume and Rousseau examine are, in fact, the creations of this dissolution in man himself and the consequent dualisms in his society.

APPENDIX 2

Burtt gives the following description of the thought of
the Middle Ages in his *The Metaphysical Foundations of Modern Physical Science*, Introduction, Pages 4, 5 and 6:

For the Middle Ages man was in every sense the centre of the universe. The whole of nature was believed to be teleologically subordinate to him and his eternal destiny. Towards this conviction the two great movements which had become united in the medieval synthesis, Greek philosophy and Judeo-Christian theology, had irresistibly led. The prevailing world view of the period was marked by a deep and persistent assurance that man, with his hopes and ideals, was the all-important, even controlling fact in the universe.

This view underlay medieval physics. The entire world of nature was held not only to exist for man's sake, but to be likewise immediately present and fully intelligible to his mind. Hence the categories in terms of which it was interpreted were not those of time, space, energy and the like; but substance, essence, matter, form, quality and quantity --- categories developed in the attempt to throw into scientific form the facts and relations observed in man's unaided sense-experience of the world and the main uses which he made it serve. Man was believed to be active in this acquisition of knowledge --- nature passive.....And, of course, that which was real about objects was that which could be immediately perceived about them by the senses. Things that appeared different, were different substances such as ice,
Similarly on the teleological side; an explanation in terms of the relation of things to human purpose was accounted just as real as and often more important than an explanation in terms of efficient causality which expressed their relation to each other. Rain fell because it nourished man's crops as truly as because it was expelled from the clouds. Analogies from purposive activities were freely used. Quantitative differences were derived from teleological distinctions. Water in water was believed to have no weight inasmuch as it was already in its proper place. But we need not multiply instances; these will sufficiently illustrate the many respects in which medieval science testified to its presupposition that man was the determinative factor in the world. The whole universe was a small, finite place, and it was man's place. He occupied the centre; his good was the controlling end of the natural creation. The medieval thinker never forgot that his philosophy was a religious philosophy with a firm persuasion of man's immortal destiny. The Unmoved Mover of Aristotle and the Personal Father of the Christian had become one.

**APPENDIX 3**

J.A. Leighton writes as follows in his *The Field of Philosophy*, Chapter 13, Page 157, on the philosophy that accompanied the scientific development of the seventeenth and eighteenth (and also the nineteenth) century:
The significant new thing in the background of modern philosophy --- the novel standpoint in thought that shapes the point of view of much of modern thought, is the development of a mechanical view of the world. It is the conception of nature as a vast mechanism, infinite both in extent and the complexity of its details. At the same time it is a mechanism whose fundamental principles of operation are known. Nature is viewed as a self-running mechanism. The medieval philosopher viewed nature animistically and teleologically. In the physics and cosmology of scholastic philosophy, as in those of Plato and Aristotle, things and events in nature are conceived and explained in terms drawn from human purpose and will. Brute matter is subservient to purpose, to good. In modern physics and cosmology all changes are explained in terms of the push and pull of blindly operating mass particles moving in space. Natural occurrences are the mathematical and inevitable resultants of the previous configuration of mass particles and their motions. Whatever happens now is the inescapable consequence of a blind push from the past. The future is not a real factor in determining the character of the present; the latter is the inevitable echo of the past.

**APPENDIX 4**

It seems to me that when primitive man contemplates time as
a result of his observation of recurring natural phenomena, there is some attempt, unconsciously perhaps, to connect these phenomena (and therefore time) with human life, though the extent to which the event was connected with the person was, in the past, never achieved as completely as in the case of the Biblical Hebrew.

See in this context Du Toit's Die Tyd as Antropologiese Kategorie by Kierkegaard, Page 21. Du Toit says that in phenomena which exhibit periodicity primitive man saw a suspension of succession rather than a reversal, and continues: "Die herhaling van die rituele siklus van die kalenderjaar is identies met die oorspronklike kosmogenie. Veral Mircea Aliade het bekleemtoon dat hierdie primitiewe tydsbelewing, waarin eintlik niks nuuts kan gebeur nie, maar oergebeure eindeloos herhaal word, die opheffing van tyd en geskiedenis in die rituele gelyktydigheid met die 'a-tydelike' oertyd bestaan. Tereg bring van der Leeuw egter na vore dat dié opheffing van tydelike suksesnie nie net die oorspronklikheid van menslike handeling in die oertyd verlé nie. Dit beteken eweneens dat die 'natuurlike' prosesse, die seisoenswisselinge ens., nie maar vanself verloop nie, maar afhanklik is van die voltrekking van die nodige rites deur die mens............. (My underlining)

"Die primitiewe tydsbelewing oriënteer sig in die eersplek as die gehalte, die intensiteit van die gebeure.
Nie in die kringloop van die son en die maan, maar in die wisseling van lig en donker, die fases van die maan, word die tyd allereers geopenbaar...."

Now in Plato's contemplation of time the celestial bodies play a prominent part, but in a quite different way. We shall find that the part they play in Plato's thought, aided by Greek geometry, may be looked upon as a step in the direction of that complete separation of space and time from the human person which we find after Galileo. This will, I think, become clear if this appendix is read together with Appendix 6.

APPENDIX 5

Even the language of the Hebrew, says Boman in his Hebrew Thought Compared with Greek (Chapter 1, Page 27), is striking as the language of a "time" people in contrast to Greek as the language of a "space" people. "If Israelite thinking is to be characterized," he writes, "it is obvious first to call it dynamic, vigorous, passionate and sometimes quite explosive in kind; correspondingly Greek thinking is static, peaceful, moderate and harmonious in kind....The antithesis cannot....be simply stated as 'dynamic-static' but preferably it should be designated dynamic-harmonic or resting.

"....Hebrew....betrays in many respects the idiosyncracy of the Israelite psyche. The verbs especially, whose
basic meaning always expresses a movement or an activity, reveal the dynamic variety of the Hebrew thinking. When a verb is to express a position like sitting or lying, it is done by a verb which can also designate a movement."

Boman sees the contrast between the Hebrew language and the Greek also between Hebrew and our Western languages, and writes (Page 28) that "our distinction between past, present and future, like the Greek conception of time in general as well as our own, is much more a matter of space than of time." In Greek and Western thought, he says, we have, instead of time rhythms, time lines; the present is the point on the line on which we stand, the future is found at some point on the line in front of us while behind us lies the past. First we have the perfect, then farther back the imperfect and farther yet the pluperfect. Boman then continues (Chapter 3, Page 125): "The Greek language also has corresponding verb-forms which can be delineated in quite similar manner on a straight time-line; therefore the popular time conception of the Greeks is as rectilinear as our own."

Now in his Biblical Words for Time Barr examines the "building of a structure from the lexical stock of the biblical languages, and the assumption that the shape of this structure reflects or sets forth the outlines of biblical
thinking about a subject. The subject in this case is time. I hope to show that this procedure is, in this case at any rate, an entirely faulty one." Barr then proceeds to criticize several writers on the subject, and concludes (Page 153): "...it has been shown that the use of lexical structures in the investigation of time has been extremely faulty. While this faultiness may in part be traced to the overlooking of certain evidence, I submit that the method itself is faulty, and that the overlooking of the evidence necessarily followed from the adoption of the method...."

Before coming to this conclusion Barr says that "...it has been suggested, and not from some extra-biblical position but on the basis of the biblical material itself, that there may not in fact be sufficient material in the Bible on which a purely biblical view of time may be built."

I draw the attention to the words purely biblical since it seems to me that there is evidence for a Hebrew view of time in contrast to a Greek view if we go beyond etymology and add other evidence to that of the Bible. We do not now consider the question of language. I had the benefit of a conversation with Prof. F.C. Fensham, of Stellenbosch, and he supports Barr in his criticism of Boman's use of language to arrive at an idea of Hebrew and Greek time conceptions; but he thinks, he says, that there would be a difference between the two time conceptions. It seems to me that on
the basis of what we accept the Old Testament to be, a progressive revelation, as well as on the basis of Hebrew and Greek historiography, it cannot be denied that the Hebrew had a time conception and historic sensitivity which the Greek did not have. Bultmann contrasts these two historiographies in Chapter 2 of his *History and Eschatology* as "completely different." The Greek searches for laws of nature; the Hebrew looks for "divine education" in the acts of God "in the direction of the goal."

This difference in historiography throws doubt on another of Boman's statements, that is that the Greek time conception was "as rectilinear as our own." The Greek historiography seems to go with periodicity and eternal recurrence, and Bultmann, to illustrate this, quotes Chrysippus as saying: "Socrates and Plato will exist again and every man with his friends and his fellow citizens; he will suffer the same and do the same. Every city, every village and field will grow again. And this restoration will not happen once, but the same will return without limit or end."

Compare also Cornford's *Plato's Cosmology*, Page 103: "Plato's view of Time as inseparable from periodic motion is no novelty, but a tradition running throughout the whole of Greek thought, which always associated Time with circular movement.... And, as Aristotle says, there is a cycle of all things that have a natural movement and come into being
and pass away." However, there are some elements in Plato's view on time that seem to be associated with a rectilinearity, the rudiments, so to speak, of Galileian time. These elements are the tendencies towards measurement of time which we find in Plato's thought. (See Appendix 6). Beyond this Boman's contention does not appear to find much support.

Whether this difference between the Hebrew and Greek time conceptions always existed or appeared only later, say about 1200 B.C. to 1000 B.C., need not concern us, though there seems to be evidence that that is the case. (Is the judgment of Solomon that there is nothing new under the sun, a remnant of a cyclic time conception?)

There is also the consideration of the arts of the two peoples mentioned in Note 28 to Chapter 2 of this thesis. In this context I am supported by Spengler who looks upon the classical Greek as a paragon of ahistoricity, though a master of form in sharply bounded space. With this art of the classical Greek one must couple Greek geometry which seems to me to be very strong testimony in favour of the spatial "orientation" of the classical Greek. (See Notes 37 and 38 to Chapter 2 of this study). Compare in this context Cornford's *Plato's Cosmology*, Page 103: "Time is more abstract, unsubstantial, phantom-like than Space. What fills Space is body that we can see and handle; what fills Time
APPENDIX 6

In her *Time* Miss Cleugh says that the time of science is really cyclic because it is a repetition of identical parts. No doubt she adopts this view because Galileian time is measured by means of reciprocating motions of material objects; but this time, I think, must be looked upon as a line divided in its motion forward by similar operations. One must remember that the space and time of science are both frames of reference outside things. Miss Cleugh quotes a passage from Weyl's *Space, Time and Matter* in which the latter holds that physics really postulates repetition and that this is related to the possibility of constructing instruments for measurement: "If an isolated physical system reverts to exactly the same state as that in which it was at some earlier instant, the same succession of states will be repeated in time, and the whole series will constitute a cycle. This is a clock." "Hence," says Miss Cleugh, "physical time is doubly an abstraction: not only in that it abstracts from the different judgments of duration of individuals, but also in that it abstracts from the irrevocability and irreversibility of time." I can agree with Miss Cleugh on the first type of abstraction (as I have already done in the last paragraph of Section V of Chapter 2 of..."
this thesis) but I cannot agree with her on the second. I draw attention to Weyl's words the same succession of states will be repeated in time. It seems to me that Weyl here definitely looks upon things as outside the time of science. Is Miss Cleugh not identifying the events that "tick off" time, with the time of physics itself? It is not time that Weyl sees repeated, but the events in time.

We must ask: Could the calculus treat a cyclic time? The answer seems to be that it could not. Furthermore, has Miss Cleugh not forgotten the Second Law of Thermo-dynamics which tells us which way the arrow of time points in its irreversibility? This whole question of the Second Law of Thermo-dynamics and entropy seems to me to indicate that the time of physics is linear and is outside things. For instance, radio-active decay is a quite irreversible process and by no known means can it be reversed, while the process of the swing of a pendulum is in part reversed. The same time can therefore be applied to both radio-activity and the pendulum if that time is outside them. Compare Barter's Relativity and Reality, Page 2: "Time is (similarly) measured by material changes......but we conceive of time as an independent passing, while these changes only mark its passing in the way material objects measure distance in space... ...we do not regard a change in those measurements, such as by a change in the speed of a clock or a change in the
length of material, as being a change in time or space, but only in these imperfect means of measuring them." The newest discovery (1965) of the decay of the neutral K-meson into two π-mesons supports the view that the time of physics is outside things and is not a continued repetition. This discovery was not what physicists expected, that is that physical processes are symmetrical with regard to time. Sciama writes in K-mesons, Time Reversal and Cosmology:
"The most natural interpretation of such a breakdown is indeed the obvious one....that there is, as it were, an arrow of time built into the basic laws of nature." But of this discovery Miss Cleugh could, of course, not have known when she wrote her book.

I think we can safely say that as soon as we begin to measure time we no longer have a cyclic time, but a linear time outside the things of the tangible world, measured off by cyclic motions of these things. Space and time then become frames of reference against which moving things are projected. This brings us to Plato. It seems to me that in Plato's thought we have the rudiments of a linear, measured time emerging out of the Greek conception of a cyclic time. (See Appendix 8 for the principles of time measurement). It is true that in the Timaeus Plato couples time with circular motion, namely that of the celestial bodies. He says: "Time came into being together with the Heaven, in order
that, as they were brought into being together, so they may be dissolved together, if ever their dissolution should come to pass; and it is made after the pattern of the ever-enduring nature, in order that it may be as like that pattern as possible; for the pattern is a thing that has being for all eternity, whereas the Heaven has been and is and shall be perpetually throughout all time."

So far we clearly have ever-enduring cycles; but Plato then speaks of the parts of time, days and nights, and I think one can look upon these parts as lying in a straight time line "marked off" by the circular motions of the celestial bodies. "In virtue then," says Plato in the Timaeus, "of this plan and intent of the god for the birth of Time, in order that Time might be brought into being, Sun and Moon and five stars --- 'wanderers,' as they are called --- were made to define and preserve the numbers of Time." If we number things, do we not place them one after another? (See Appendix 8). Compare also Cornford's Plato's Cosmology, Page 102: "The 'indivisible' being of Plato's intelligible world demands a duration that 'abides (rests) in unity.'" (Here we have a hostility to change, but then comes the necessity to measure time. Cornford goes on to say: "Time is essentially divided into three 'forms,' past, present and future; and it moves according to number, being measured by a plurality of recurrent 'parts,' the periods called
day, month, year. Nothing that we can call Time can exist without these units of measurement; and these again cannot exist without the regular revolutions of the heavenly bodies, the motions of the celestial clock. Time, accordingly, is said to 'come into being together with the Heaven,' in the sense that neither can exist without the other."

**APPENDIX 7**

We might refer to the words of Minkowski that space and time separately are abstractions or shadows, and consider the space-time continuum of the "new physics," asking if the space-time of this "new physics" is not, in fact, a step in the direction of bringing space and time nearer to their pre-Galileian Hebrew and Christian status. Space and time are not independent of each other, but have a joint operation in physical events and vary jointly. Time has to be added to the three dimensions of space in the exact determination of physical events. The "here-ness" of a thing is inseparable from its "now-ness." This becomes clear when one considers the concept of an interval in Einstein's special theory of relativity. Sir Arthur Eddington writes in his *Space, Time and Gravitation*, Chapter 2, Page 34: "Measurement of length and duration is a comparison with partitions of space and time drawn by the observer concerned with the help of apparatus which shares his motion. Na-
ture is not concerned with these partitions. Each observer bases his separation of space and time on his own track through the world." But in four-dimensional space-time there is a certain generalized partition (or extension) between two events of which the distance in space and the separation in time are particular components. This is called the interval between two events and is the same for all observers, however they resolve it into space and time separately. We see again how physics aims at the elimination of the individual.

Another notion which seems to be important in the consideration of the joining of space and time is that space is curved in the vicinity of matter and that mass is created by increasing velocity, but such a consideration would fall outside the scope of this study. It is, however, interesting to read how, according to Fletcher (Geometrodynamics: the Geometry of Space-Time) geometrodynamics sees a single space-time continuum. The Hebrew and mediaeval Christian view was that God created space and time. The work of Galileo separated them into two separate frames of reference. From this separation must follow that God created in space and time. Now it seems to me significant that geometrodynamics does not look upon space-time as an "arena!" Space-time, says Fletcher, "encompasses everything," and it seeks to explain all physical phenomena as aspects of
the geometry of a curved space-time, in other words, in terms of the curvature mentioned above. One is tempted to see in this all-embracing nature of the space-time of geometrodynamics (as opposed to the "arena" notion) at least a step in the direction of the created space-time of the Hebrew and the creativity of time in Alexander's thought.

But the step taken by the "new physics" in combining space and time is only one. Much more would be necessary. This subject is treated by Prof. Whiteman in his *Foundation- Problems of Space and Time* in which it becomes clear that from Einstein to what we have called real space and time is still a long way. For instance, after treating the transformation from one set of space co-ordinates to another (Chapter 13) Prof. Whiteman says: "Precisely conceived and elegant though this mathematical formulation undoubtedly is, it partly obscures the state of affairs.....what the observer deals with directly is in fact neither a co-ordinate system nor a map but a continually changing sensory presentation in his 'real' personal space-time.....The truth as established by the multitudinous confirmations of the Special Theory of Relativity, is that no communal map can be constructed so as to show by simple displacement on it, what the perspective of a given observer would be, except in the very limited case when space-time is flat and the observers all at rest in some chosen map (i.e. 'inertial frame'). To
indicate what the presentations to observers would be, whatever motions they may have, we need a triple infinity of maps... no space-time perspective is actual for an observer till his 'subjective' standpoint is brought into relation with the object-field." (See also Appendix 8).

It seems to me that it was the common factor of light that brought space and time together in Hebrew thought. Jammer writes (Concepts of Space, Chapter 2, Page 38): "The first thing to fill this space (which God created) is light, the all-pervading, all-preserving medium of three dimensions whose importance is not confined to its physical function as a transmitter of heat, power and other influences; it is also metaphysically the way to God."

APPENDIX 8

In the preface to his Foundational Problems of Space and Time Prof. Whiteman says: "The study of space and time used to mean physical measurement, mathematical reasoning, or philosophy. Today it would include, also, certain provinces of psychology, psychical research and mysticism, these having now become recognized fields of experimental investigation and systematic knowledge.

"...it is no longer possible to discuss the actualities of space and time merely from the standpoint of a mathematician or a physicist."
"In this book I have recognized the need to reconstruct the study of space and time from the very foundations."

What is relevant to our purpose is that Prof. Whiteman confirms that the space and time of our foot-rules and metre-sticks and the time of our clocks are abstractions, and recognizes, to use a quotation which he himself takes from Polanyi's *Personal Knowledge*, "the vision of a reality beyond the impressions of the senses....."

Our senses have given us the space of rules and rods and the time of clocks, which are the space and time of elementary physics. When we measure, we assume "that what we mean by perception of physical objects is sufficiently clear and does not require analysis," and that "once standards of length and time have been fixed with the help of measuring apparatus and an agreed procedure for 'correction' in accordance with certain theories, no further analysis of measurement is needed --- only analysis of the results of measurement. This unwarranted assumption.....is responsible for many unsolved difficulties in the subject as well as for the prevalence of materialistic views of the operation of nature.

"Closely associated with this is the assumption that all exact knowledge of space and time is expressed in laws concerning such measurement of physical objects or conditions."
Prof. Whiteman then points out that "we cannot explain the universal concepts of space and time in terms of measurements which presuppose them.

"Measurement, in the usual narrow sense of the word, cannot therefore be the ultimate means of knowledge of truth or reality in the physical world," even though it is invaluable in helping us to think precisely. Prof. Whiteman then goes on to show that abstractions of space and time flow from the custom "among philosophers to restrict the term 'perception' to physical perception, assuming that an absolute or at least a very workable distinction can be made (and is in fact made instinctively or by habit, as it were) between what is physical and what is not," together with the "usual criterion (is) that if there is a technique for attaching a measure to a construct.....then.....the construct is to be regarded as having an element of 'physical reality.'" "Obviously, then, the perceptual presentation is 'physical,' so measurability becomes also a criterion of 'physicality.'"

What happens now in the case of space and time?

Prof. Whiteman writes in Chapter 13: "Now if it is accepted that the physical measures and mathematical techniques do provide evidence of an objectivity common to all observers, and that this approach agrees (when redundancies are abstracted) with the approach by spatial identification
and supraperspectival analysis, then this latter approach must likewise be accepted as providing evidence, direct in this case, of an objectivity common to all observers who are able to observe its manifestations. Thus we conclude that the real spatial identification and relations discerned by one observer are essentially the same as those discerned by another observer. There may of course be differences due to blending with imaginative impressions of spatial identification. But just as we are entitled to say that the existing three in the observation of three apples by one person is 'the same' as the existing three in the observation by another person, the objects being on general grounds identified as 'the same,' so we are entitled to say that the real spatial identification of an object by one person is 'the same' as the simultaneous real spatial identification of the object by another person (for on what grounds should we say it was different?). Likewise, therefore, we are entitled to say that the local Euclidean space 'carried' by one person is the same as the local Euclidean space 'carried' by another, provided, of course, that both are real."

Prof. Whiteman intimates that we should "think of the local Euclidean spaces 'carried' by different observers as being individually distinguishable but cohering conceptually (on account of their essential sameness) so that, after sub-


jective differences are abstracted or transcended, a common substructural world is found to exist for all. Such coherence then provides the 'subject-object middle ground.' Or we can simply think of each individual as participating in the common substructural world, which merges in his subjective space and time when physical actualization occurs for him."

The same argument obviously applies also to time.

It appears then, that the space of our rods and sticks and the time of our clocks are obtained by considering the common substructure only, and that this is the result (at least partly) of limiting perception to what belongs to the physical universe. This appears to be Prof. Whiteman's contention when he says in Chapter 4: "...it will be misleading to restrict the term perception to what belongs to the physical universe, thus implying (what is not true) that the circumstances commonly used to rule out 'illusions' would also rule out psychical and mystical experience. I shall therefore always add the epithet 'physical' to the term perception if the reference is to the physical universe."

In Chapter 13 Prof. Whiteman says: "...we point to the fact that no space-time perspective is actual for an observer till his 'subjective' standpoint is brought into relation with the object field. This principle is not mere-
ly to the effect that colours and other 'secondary' qualities come into being only when an observation is made. It asserts also that if we set up in our thought a one-level 'container' of space and time, and if we place in it objects with the primary qualities only and then imagine the secondary somehow made perceivable by us when we make an observation, then we have formed an entirely false view of the workings of nature. Except approximately, in the local and macroscopic sphere, there is no such container, and there is no such clear-cut distinction between primary and secondary qualities.....

'We must next set ourselves to answer the question, 'What exactly is manifested on any given occasion?'

'The Principle of Total Encounter asserts that an 'object' is recognized as a totality and that we can then proceed to discover perceptual details, each of which then becomes a central actuality as we bring it to the forefront of our attention; that the more obvious of these details will be found to be constituents of a primary perspective for the occasion in question; and also that we can transcend the limitations of the primary perspective by supraperspectival intuitions, which present other perspectives 'in potentiality' and thus serve to make each three-dimensional object intelligible as such.'

The above should suffice to enable us to obtain some
notion of how the space and time of Galileian physics are "derived" from real space and time, and that this derived space and time are essentially a space and time outside the human person and in which we cannot regard a thing in its "concrete totality" since they are not "merged" in the subjective space and time of a person, and exclude "total encounter."

APPENDIX 9

On the question of personal identity Bergson writes as follows in his Introduction to Metaphysics, Pages 9 to 10:

"... if I search in the depth of my being that which is most uniformly, most constantly and most enduringly myself, I find an altogether different thing (from the motley crowd of perceptions). There is beneath these sharply cut crystals and this frozen surface, a continuous flux which is not comparable to any flux I have ever seen. There is a succession of states each of which announces that which follows and contains that which precedes it. They can, properly speaking, only be said to form multiple states when I have already passed them and turn back to observe their track. Whilst I was experiencing them they were so solidly organized, so profoundly animated with a common life, that I could not have said where any of them finished or where another commenced. In reality no one of them begins or ends, but all extend into each other."
Compare the above also with Price's Hume's Theory of the External World, Chapter 1, Page 5: "...it may be doubted whether his theory of the self (Hume's) is consistent either with his theory of Inductive Inference or with his theory of the external world. For 'the imagination' which plays no prominent part in the two last, seems uncommonly like the permanent self which he has rejected; or at least it seems to be permanent in a sense in which a series of impressions and images is not. Indeed, there is the same difficulty within the section on Personal Identity itself (Book 1, Part 4, Section 6). His account of the identity of continuants in general is not easily reconciled with the identity of the self in particular. A continuant, he says, is a series of numerically and qualitatively diverse particulars along which the imagination makes a smooth transition. The identity of a continuant is therefore a 'fictitious' or, as others might say, a 'constructed' identity. But if the imagination is to make this smooth transition from item to item, must it not itself have an identity which is not fictitious or constructed?"

Hilda Oakeley remarks in her History and the Self, Chapter 9, Page 230, that "no biography could be written of the self as Hume discovers him, observing rather the absence of such an entity from the bundle of perceptions, feelings, etc., certainly no such autobiography as he himself pro-
duced. " No doubt Husserl would agree with Miss Oakeley. Husserl's notion that consciousness is "intentional" seems to me to be the very antithesis of Hume's that we are no more than our perceptions.

**APPENDIX 10**

With regard to making God an "outsider" in the affairs of men, Kant's philosophy seems to have an outcome which does not differ greatly from that of Rousseau's thought. Compare Maritain's *Moral Philosophy*, Chapter 6, Page 96:

"The operation which he (Kant) carried out with singular systematic power (thus) consisted in the construction of a purely philosophical ethics, an ethics of Pure Reason, which would be at the same time an ultimate completion of --- and substitute for --- the traditional ethics inspired by the Christian Faith. In other words, after having secularized them, he transferred the features of revealed ethics and of Christian morality --- as they had come to be understood through the vicissitudes of a secular human experience --- into a purely philosophically moral theory, where reason, sovereign organizer and legislator of human life, concerned itself with religious belief....only in order itself to determine the legitimacy of that belief and the conditions of its existence and the proper bearing of its content...."

On Page 104 he continues: "Briefly, in Kantian ethics respect for the law or reverence for the law has taken the
place of the love of God above all things, which is the foundation of traditional Christian ethics.... Reverence for the law has taken the place of the love for God, just as the unlimited goodness of the will, existing within the moral agent, has taken the place of the infinite goodness of the absolute ultimate end, which exists outside him and above him...."

Further, on Page 116: "The Kantian revolution thus leads to an a-cosmic-idealist ethics, constructed in complete independence of any observation of the situation of man in the world and in the universe....."

Will Durant (The Story of Philosophy, Chapter 6) traces the path that led from Rousseau to Kant in the making of God an "outsider" in morality, and it leads from the Good from God to the Good from "the Norm" which Kant places in man. This path is also traced by Maritain (Page 103): ".... the dignity of the person is such that, in the words of Rousseau, it can only obey itself. This perfect autonomy first of all excludes God as legislator from the proper and constitutive domain of morality, since in dividing good from evil the eternal reason and will of God as Legislator...... would impose upon us from without the law of Another."

**APPENDIX 11**

Stewart also recognizes the existence of a "linear" history in Hume's thought next to the "cyclic" history. On Page 289
of his *The Moral and Political Philosophy* of David Hume he writes:

"The declared purpose of the *Treatise* is anti-historical. In the first book Hume's main task is to account for the knowledge we have about the 'natural world,' and this he seeks to do by contending that our beliefs arise from repeated instances of natural causation.... in the first and second books he is seeking to improve the moral sciences by introducing into them the method employed successfully in the physical sciences." He continues on Page 291: "By attempting to introduce the experimental method into the moral sciences, Hume implies that whatever changes take place in the moral (or historical)sphere are negligible." But Stewart finds Hume already shifting in that same *Treatise* to a "linear" view, giving in "Of Morals" not simply a logical account of moral standards, but also a chronological account. Stewart, however, also recognizes that in his *Of the Rise and Progress of Arts and Sciences* and *The Natural History of Religion* Hume expounds very clearly a "cyclic" view of history in contrast to the "linear" view in his *Political Discourses*, the "linear" view which Stewart now finds in the *Treatise*.

Now Stewart explains these conflicting views by saying (Page 297): "Perhaps we may say without too much exaggeration that, like most of us, Hume had conflicting ideas.
On the one hand, he believed in nature, a repetitious, self-contained causal continuum and, on the other, he believed in historical change, a process of genuine innovation."

However, if we remember what progress meant to the Enlightenment, there is, I think, no real dualism in Hume's thought. The idea of progress could be "put into effect" if the cycles of history could be broken, and in those works in which Hume seems to propound a "linear" view of history, he really breaks these cycles in his imagination so to speak. Stewart could perhaps have been satisfied by merely pointing this out, for he seems to agree with me. He says (Page 292): "What we have here, we must notice, is a 'speculative history,' not a factual history of civilization; in it, the logical steps in man's moral advance, as conceived by Hume, are treated as chronological steps." He says also: "His aim in 'Of Morals' was to show that the virtues, especially the civil virtues, could spring from human nature and man's circumstances, and this development could be shown most easily by providing a fictitious historical account."

But Stewart also says (Pages 296 to 297): "But we have seen, too, in 'Of Morals,' the Political Discourses, and the History of England, he also treats change as linear progression. This view, of course, is not necessarily contrary to the other: the linear process could be subsumed as the upswing of a circle. Still, the thought persists that
Hume's study of the past had led him to presuppose that a unique, vast change in men's morals and science had taken place, and that this belief, not the weak logical thought of inclusive cycles, was the foundation of his historical writing."

I can agree with this paragraph if Stewart means by the words that Hume's study of the past had led him to presuppose that a unique, vast change... had taken place, that Hume supposed that the Enlightenment had at last broken the cycles of the events of the human scene, and that he had a hand in it, and if Stewart means that Hume wrote his history from the point of view of wanting to teach a linearity for human progress. Hume's views on the events of history before him are too explicitly cyclic for any other conclusion. Stewart himself quotes from the *History of England* (Volume 3) and says: "The potentialities of the human mind remain the same (according to Hume) but changes in morale, brought on by changes in political arrangements and by the maturation of the arts and sciences themselves, cause both rises and subsequent declines in the attainments of nations and cultures. Here we have almost a cyclical theory of history."

The first sentence of the passage quoted by Stewart is worth repecting here: "But there is a point of depression, as well as of exaltation, from which human affairs naturally
return in a contrary direction, and beyond which they seldom pass either in their advancement or decline."

I cannot agree with Greig that Hume did not believe in progress. Greig writes (David Hume, Chapter 20, Page 269): "He could see no valid reason to suppose that the human race was steadily moving from worse to better in a straight and happy course for the millennium. Why should he? A belief in progress...is not required for the historian." I agree with the first part of this passage, for Hume had a cyclic view of history, but for Hume's didactic historiography a belief in the possibility of progress, if not in past progress, was necessary. Hume thought that progress would come only through the breaking of the cycles of the events on the human scene.

APPENDIX 12
Hume's writings abound with passages in which he stresses the necessity of government because men are unable to keep the peace, and expounds the reasons for the existence of government as if he accepts the notion of a social contract. Indeed, in his Of the Original Contract (Page 450 of Volume 1 of the Essays) he says that the consent of the people for the existence of a government "is surely the best and most sacred way" of justifying it, but he says also that he cannot see much consent in the governments of his day. He says clearly that the social contract cannot be looked upon as
384.

historical, and that in his opinion government originated in the establishment of authority by a "strong man" (or a clever one), an authority which came gradually to be accepted because "it is impossible for the human race to subsist, at least in any comfortable or secure state, without the protection of government." (Page 444).

But once people accept this authority we have a contract, and Hume accordingly uses the notion of a social contract to show that government must rest on consent. For instance, in *An Enquiry Concerning the Principles of Morals* (Section 4, *Of Political Society*, Page 197 of Volume 2 of the *Essays*) he writes: "What need of positive law where natural justice is, of itself, a sufficient restraint? Why create magistrates where there never arises any disorder or iniquity? Why abridge our native freedom when, in every instance, the utmost exertion of it is found innocent and beneficial? It is evident that, if government were totally useless, it never could have place, and that the SOLE foundation of the duty of ALLEGIANCE is the advantage, which it procures to society, by preserving peace and order among mankind."

We find something similar in his *Of the Origin of Government* (Volume 1 of the *Essays*, Page 114): "All men are sensible of the necessity of justice to maintain peace and order; and all men are sensible of the necessity of peace
and order for the maintenance of society....it is impossible to keep men, faithfully and unerringly, in the paths of justice....Men must, therefore, endeavour to palliate what they cannot cure. They must institute some persons....whose peculiar office it is to point out the degrees of equity, to punish transgressors, to correct fraude and violence.... The persons, who first attain this distinction by the consent, tacit or express, of the people, must be endowed with superior personal qualities...."

It is clear then, that Hume "drifts" into using a social contract device. We notice, moreover, that, as in Rousseau's Social Contract, Hume does not solve the dualism of government-governed, and that his state also rests on force, for the governed must be forced to order. Lastly, we discern in the words must be endowed with superior personal qualities, something of the Lawgiver in Rousseau's political thought.
The Bibliography is divided into the following groups of works, and in every group the works are arranged in the alphabetical order of the names of the authors:

**Group A**: Works by Hume and Rousseau. Some of Rousseau's works were studied in the original French, others as translations into English. The English translations were bound in one volume which was always available.

**Group B**: Works (not including essays and articles) which do not deal directly with Hume and Rousseau, but were consulted in connection with space and time, the human person, history, etc. Many of the works in this group do refer to Hume and Rousseau, but since they do not deal directly with these two philosophers, they are listed in this group. Some of these works, originally not written in English, were read in the languages in which they were originally written, others as translations into English.

**Group C**: Works on Hume and Rousseau and their philosophical and other writings.

**Group D**: Essays, articles and lectures.

**Group E**: Works (including articles) which were read for a "background" or comparative study, or treated some particular topic relevant to this study. In some cases only certain chapters were relevant.

**Group F**: Unpublished works.

**Group A**

*Works by Hume*: A Treatise of Human Nature
(Longman's, 1898. Two volumes edited by T.H. Green and T.H. Grose)

Autobiography
(Hunt and Clarke, London, 1826)

History of England
(Cadell and Davies, and other publishers, London, 1818. New edition)

All the other works from which quotations appear in this
study, appear in the two volumes of Hume's *Essays* (edited by T.H. Green and T.H. Grose and published by Longman's, 1898)

**Works by Rousseau:**
- *Confessions* (Librairie Générale Française, Paris, 1963)
- *Émile*
- *La Nouvelle Héloïse*
- *Correspondance*

*) These three works were read in the *Oeuvres de Rousseau* published by Firmin-Didot et Cie., Paris, 1876.
- *Discourse on the Origin of Inequality**
- *Discourse on Political Economy**
- *Discourse on the Moral Effects of the Arts and Sciences**

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1) An Afrikaans version of this work, published by the
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