The Naturalistic Period

The Naturalistic period marks a stage in European history in which the human individual assumes a growing importance, to the point of a comparative freedom of thought and action. This is traceable to the more and more stable position that man attains to in a social and political way.

In the Scholastic period there were many events which comprised the social experience which indicated a growing sense of importance of the human individual. This feeling of the value of the human individual may be traced to a developing sense of prominence of the surroundings. The absolute solidity of the Church with the completion of its power gave man a more secure place in the world although at once his individuality made for a long standing protest against the restriction upon it. The categories with which the experiences are evaluated show the completeness and rigidity which indicate great confidence in the thinker and his interaction with reality.

The Nationalistic period indicates a greater degree of confidence in the individual's experience by the individual. The general social experience which brings about such a change is the organization of the various nations into stable autonomous groups in which the individuals appear comparatively free. The experiences of the individuals seem to take on a greater and greater value and reality as the experience of these individuals is categorized from the standpoint of human actions and reactions. There is a growing trend in this period to revolt
from all sorts of superimposed authority and to become free.

The Nationalistic period is characterized by such formal attitudes toward experience as to indicate a complete modification or even rejection of the more or less static philosophy of the past period. Philosophy takes on a more spiritualistic aspect. The viewpoints indicate an etiology which involves the mental consciousness of human individuals, as a fundamental principle, rather than objective nature.

The experience period develops an extreme reliance upon experience as the basis of reality. Experience is, however, construed as objective happenings which are subject to absolute and universal laws. The change to an emphasis of concrete experience as the basis of reality is clearly made out in spite of the insistence of thinkers upon metaphysical principles as essential to reality. Every phase of experience, political, moral and scientific, illustrates the magnified importance of individuals.

The evaluations of reality are stated in much clearer terms of investigation and experimentation than in any previous modern period. The philosophical attitudes are much strengthened in such a stage of development by the emphasis upon the scientific modes of alternating experience. There is found in this support of science a means of overcoming the authoritative prescriptions as to the nature of reality. Authority is placed in the report of actual happenings rather than in the official dogmas of the ancient writings which some extra scientific authority imposes upon thinkers.
The Scholastic Period.

The thirteenth century is one of the most fruitful and distinguished of all centuries. It represents an era of rare accomplishment and is brimful of promise. There is a plausible view current among historians that were it not for the destructive wars of the next century, the Renaissance could be said to begin from the thirteenth century. The development of civilization in this period was remarkable for many characteristics. In the first place we have a growing strength of organizations of the social life. There is a strengthening of the bonds that hold men together. The cities made great progress in this period; the organization of artisans makes for a greater appreciation of the consciousness of self. The growth of the individual and his value would know no restricting bounds were it not that the conflict between the Church and the State brought out the importance of one or the other. The individual would, of course, have to take a subsiding position in competition with such great powers.

In the wake of the Crusades there came a growing appreciation of national existence, with a parallel solidification of the nations. Away from their own homes the men of the different nations forgot their ordinary factors of separation and realized the fact of belonging to the same group, using a similar language and having more or less the same attitudes. The common purpose actuating all the individuals gave a growing sense of oneness which made Christians stand over against Saracen. This was the condition that gave the Church its power. The centralization of the power of the Church received a great impetus from the Crusades. The Church grew in power and control and was ambitions.
to be master over both spiritual and material realms. Innocent the
Third proclaimed the presence of two powers, the Pontifical and the
Royal and insisted that the former was first in importance. This gave
the Church the privilege of interfering with political affairs. In the
thirteenth century Boniface VIII proclaimed the complete submission of
the Royal to the Pontifical power. He meant to insist upon nothing
less than a complete absorption of one by the other. In fact, the
Church did attain to an extraordinary power in the thirteenth century.
As evidence of this may be considered the facts of the condemnation
and deposition of Frederick the Second, the release of the Aragonese
from their oath to King Filius and the transference of Neapolitan
kingdom from Manfred to Charles of Anjou. 1

The results of the completer organization of the social con-
ditions made the individuals more certain of themselves. The individ-
uals become in general in closer contact with their experiences.
They become more confident in their own powers. This gave an impetus
to investigations of various kinds. The rise of the important lang-
guages and their use by writers was evidence of a greater feeling of
at-homeness on the part of the individuals. Man turned more and
more away from the absolute dependence upon the other world and began
to make use of his own powers.

The domination of the Christian world by the Church placed
great limitations upon individual development. The individual was
made to rely upon the authority of the Church. The study of Aristotle
was at first utterly condemned because the Church at first failed to
realise the support it could obtain from his writings. When the spirit
of completeness and finality, which is contained in Aristotle, finally

1Dewey - History of the Middle Ages, p. 507.
made its entry into the understanding of the churchmen Aristotle became the final and absolute authority. The full development of the individual and his powers was not possible until after the Church had lost its power. When the Church declined it did not take with it all the comfort that man finds necessary for the development of his individuality. In fact, now individuality had become so highly developed that the strict authority of the Church chafed men's souls, and they wished to rid themselves of such a fetter as it forged for them.

In the trail of the Crusades came an experience of the individual and his powers such as was not true since the days when Athens was supreme. There was a flourishing condition of the industries. Those who took the journeys to the East, brought back with them the arts which they established in Europe. From Damascus were brought textiles, from Tyre glass which was made into mirrors. Windmills, flax, silks, and many useful plants for cultivation were introduced into Europe. Cotton fabrics became known in this period, and linen paper was becoming used for various purposes. The contact with the Arabians resulted in the introduction of many manuscripts into learned circles of the European civilization. There was derived also from the Arabians and Jews many kinds of scientific information. While the Christians in Europe had lost practically all learning and all culture the Mohammedans and Jews were developing a brilliant civilization in the East. The Crusades made it possible for this culture to be transplanted in Europe.

The thirteenth century stands in the history of human experience as a period in which there was a bold reassertion of the individual. Man aimed to give expression in the fullest sense to his being. This expression naturally enough took on a group form since we have already suggested that the Church as the central element in the social structure
made itself supreme in all things. Disregarding, however, the surpres-
son of the individual in strict obedience to the Church there is much to
give evidence of a strong personality developing. The triumph of
Reason in this period gives evidence of the first assertions of a new
personality. In this period we have the beginnings of national litera-
tures, there are sung in this period the chivalry and the piety of
the men whose actions merited chronicling. Godfrey of Villehordonian
writes a history of the Fourth Crusade; this brings into prominence
something more than things of the other world. The Sire de Joinville,
friend to St. Louis, gives an account of the Seventh Crusade, which
shows a modern interest in things and an individual interest in such ev-
ents. The thirteenth century is the century of the Romance of the Rose
and of that list of singers who gave expression to the experiences of
the time, among whom may be mentioned Eschenbach, Gottfried von
Strassburg, and Hottmann von der Aue. In the Gothic cathedrals which were
developed in their utmost bauty and magnificence in this period we find
a concrete expression of the longings and the needs of the people of the
time. The expression of an attitude means in every case a formulation
in some sense of an evaluation of experience and an appreciation of this
attitude.

The more definite expression of the attitude of the Scholastic
period toward experience is reflected in the philosophical contribu-
tions of the period. The Scholastic philosophy in its full bloom as
we find it in the thirteenth century indicates the confidence in the
intellectual equipment of the philosophers. And yet the philosophical
doctrines show a leaning upon authority and a completeness of dis-
cussion which suggest an unmistakable limitation of the bounds of

1Memoires
experience. In many ways we may look upon the general condition in Europe at this time as similar to those of Athens in the last days of its supremacy. There is a completeness of power and an adequateness of experience that gives a finished touch to the attitudes of the thinkers of the time. We may seek in this fact some causes for the acceptance of Aristotle in this century and for his profound influence over all thought and conduct. The fact of philosophising and having specific and insistent attitudes toward experience means the assertion of the individual as the possessor or at least as a factor in experience. In the thirteenth century this assertion of the individual is made to fall into a scheme which involves the whole group, or society.

The thirteenth century represents the synthesis of the middle ages. There is a coordination of the whole experience of the centuries to which we refer by that name. Something seems to be resulting from the constant and numerous attempts of the various states and some into being. The Church which from the very year of the dismemberment of the Roman Empire aimed to succeed it, appears to have accomplished its purpose. This condition finds reflection in the Summas, the most important of which are making their appearance in this period. All knowledge and all conduct can be described and prescribed in a comprehensive system. The proper exercise of Reason brings about the accomplishment of this purpose.

The philosophers of the thirteenth century accepted the attitude of Aristotle with great eagerness. There was much in Aristotle to express the general temper of this period. The deductive science of Aristotle met the needs of a time in which the experiences of an individual were not allowed to prevail against certain prescribed forms.
The accepted attitude in this time is that the individual experience is an instance conformable more or less to a given type. The predominant attitude in this period is a realistic one very similar to that of the Greek period. The novelty of the attitude is incidental to the development of the Christian ideas and ideals which have been supplying the fulness of men's minds throughout the modern era.

As an example of the established attitude in the Scholastic period we may take the viewpoints of Albert and Thomas. Overlooking the differences between these two thinkers we find that their determination of experience admirably reflects the actual conditions prevailing at the time. With respect to the problem of universals both are realists believing that the general is the primary and important factor. Albert argues that were not the universal the real, one could not predicate anything of a real object. And were not the universal existent in reality, it could not be known.\(^1\) The universal exists as form in three classes, that is, there are three types of existence in general. The form exists before the individual in the mind of God, a second form is in the individual as the one that pervades the many. A third exists in the minds of human thinkers. For Albert the cause of the differentiation between objects depends upon the material in so far as it carries the possibility of a certain form. The variation of objects may not be accounted for upon the basis of various materials but only upon the basis of the varying forms inhering in the material. The multiplicity of individuals thus may be accounted for by the partition of the material. St. Thomas believes that the universal is in reality immanent in the particular, and is abstracted therefrom by reason and made autonomous in consciousness. The deviation from Aristotle of Albert and Thomas is evident. These views bring out the greater im-

\(^1\) Pelagius, "Quinti," D.J., D.S. 1905, p. 291
portance of the universal but make an enviable place for the individual. The universal in itself is an eternal luminous ray shining out of the supreme intelligence. As the most pure form God is the highest universal and whatever is not of his essence is created by him. This view sums up the completest attitude of the Scholastic period.

The final subordination of the individual and his experience to a superior being is brought out by St. Thomas in his attitude toward the state. The state is inferior to the Church since it makes possible the attainment of only subordinate goods. The Church as the representative of the kingdom of God is a far superior institution. There is great store laid by the safety and salvation of the soul. This is more important than any of the temporal goods that may be got through the agency of the temporal organization. In the writings of Aquinas there are decidedly unmistakable evidences to indicate the greater value that is placed upon the experiences of the everyday world than was true in the early Scholastic or Christian period. The temporal world has not yet reached a value in any way comparable with that of the spiritual world. The individual experiences must not yet be considered as absolutely to be relied upon. There is something above ordinary experience which is reality. There is a relationship between them but there is no question that the experiences of the ordinary world are merely the preparations for the participation in the events of the kingdom of God.

The attitude of the time as expressed in Aquinas as to the relative importance of human experience and the beyond, is seen in the functions attributed to the reason. The reason taught Aquinas is wholly competent to come into possession of all knowledge in its domain. There is a perfect confidence placed in reason. St. Thomas believed the world
of ordinary experience was built upon and governed by unalterable laws. The complete or adequate knowledge of anything involves a knowledge of its cause. Reason is entirely competent to discover the cause of things. In so far St. Thomas grants reason a very decided influence in the investigation of truth. There is a limit, however, to the truth which man can attain. God from whom all truth is derived, grants to the human reason only one kind of truth. The higher kind of truth is not given to man by means of his experience and reason, but it is revealed to him. Reason would not suffice to obtain divine truth. Divine truth can neither be demonstrated nor comprehended by human reason. They are obtained only by faith. St. Thomas means to indicate that there is not necessarily a contradiction between these two means of acquiring truth. Faith and reason should always be considered as supplementing each other. Philosophy and theology are not opposed sciences; they are rather two sciences giving different views of the same truths. ¹ From our viewpoint we may interpret this as revealing the attitude of St. Thomas which indicates the values and the limitations which are placed upon the experiences of the human individual. A certain autonomy and power is ascribed to them but in the final analysis they are restricted. In this period there does not exist as yet the absolutely free and untrammeled development of the human personality. There are many evidences of a developing germ which will some day come to that condition of growth, but at this time it is still a germ. The dominant attitude is still that of the universal church. The world is still overshadowed by the hopes and fears centered about the heavenly kingdom. The individual is important in that he is or may be an acceptable candidate for salvation, but salvation is necessary

and may not be avoided.

Salvation in most cases is made to consist of some form of unity with God. Throughout the Christian era thinkers have sought to bring man into relation with God. In the earlier periods it was accomplished by making the individual an emanation from God who finally returns to God. In the Scholastic period we find the mystical union with God taking on another form. With Bonaventura, for example, the individual seeking the highest form of salvation attains it by contemplative knowledge. This knowledge is different from the knowledge of reason. The main point is that through some power of man he can reach the final fusion with the eternal living God. Stress is not laid upon the inherent oneness of God and man, but upon the fact that salvation or unity with God comes through the capacities and the values of the individual. In Bonaventura the individual has advanced over the victories as in them he has advanced over the previous mystics.

The growing value of the individual and the increasing interest in his experience is illustrated by the beginning to make its presence felt in this period. The monks show an inclination to make individual investigations into the causes of natural phenomena. The obvious limitations of this investigation is apparent. At the bottom of the insistence that to learn one must inquire of nature lies the assumption that reality is of things occult. The investigators of this period were not as must be only erroniously expected, free inquirers into the ongoing of experience, but alchemists and astrologers. Bacon is to be credited with the unqualified emphasis on experiments but this meant for him in the final analysis dealing with mysterious powers and secret insights. It would be a serious error to think of Bacon as a modern scientist, he was far from being that. He must be looked upon as a representative of a period
in which man was awakening to the consciousness of his own philosophy and the significance of that as an element in the evaluation of experience. Albert and Aquinas were also men of science as the term is applicable in this period and the difference between them and Bacon is only a difference which one finds between different individuals in the same century. In all of these we find such an appreciation and evaluation of experience as will give man some recognized place in the totality of this experience. The adoption of this attitude to the degree it was possible in this period is an achievement not in any way to be underestimated. To adopt a more critical and substantial attitude in this age is an impossibility. For the student of the period to expect a more critical attitude is to expect a distortion of the ordinary trend of human development. The point to be insisted upon is that there was a development and that at this particular stage the attitude toward experience brought out the value of the individual as was indicated above. An important point to consider is that this period as all the others is not to be considered as a static division of human development of a homogeneous kind. This formula is a falsification of the way human experience goes on. Any period should rather be conceived of as a stage of human growth presenting certain definite characteristics which may be accounted for with respect to certain conditions. Even in the latter part of the thirteenth century the viewpoints are changing. There are hence many protests against the definite authority which came to its culmination in this century. As an example we find William of Occam insisting upon a greater autonomy of the individual, Occam combats the realistic viewpoint which had become quite strongly intrenched in the thinking of the period. Occam believes that knowledge is attained by the individual of things directly without the mediation of some intermediate species. For Occam the universals are
merely terms or signs for things; the things themselves are directly
cognized by the individual with the mental process which he called
intuition. The categories express our thought but not necessarily
anything real and the objects of these categories are rational and
therefore contentless. The experience of the individual becomes of more
importance than, since he can know reality directly. This raises the
value and increases the importance of the individual. In Occam we find
a symptom of the great opposition to the authority of the Church which
has its inception at his time. William in fact aligned himself on the
side of the state and declared that as far as temporal matters go, the
state is supreme in its authority. He was in league with Philip the Fair
and Lewis of Bavaria in their attacks upon the papacy.

Occam represents the beginnings of the transition to the more
definite modern period. This philosophy represents on the abstract
side the summing up of the struggle of the individual to attain to self-
consciousness. It is the struggle which the theologian described as the
way to salvation. It is the effort expended to create oneself in the
great flow of experience, it is an attempt to find a place in the world
which will give identity and stability to the individual man. The at-
tainment of selfhood in the dominant attitude of this period can come
only when the individual passes through the various stages of purifica-
tion and elevates himself to assume a place in the heavenly kingdom as
Dante poetically expresses it. The growing importance of the individual
and the fact that salvation is for the individual, is brought out by
the fact that in Dante the lowest place in Hell is reserved for the
traitor of both the realms of heaven and earth. Judas and Brutus and
Cassius, the one the betrayer of the founder of the Church, the others
the founder of the Empire, are apportioned the greatest misery.\footnote{Grundklae der Philosophie d. P. 1896, s.433. (Erdmann)}

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ia guilty in destroying the resting place of the individual. Without a home the individual is nothing and he who does aught to destroy this home is guilty of crimes enormous.
The Nationalistic Period.

The same conditions of human experience which made for a strict centralization and authoritative control of the social situation under the leadership of the Church unmade that circumstance. We find then that in the fourteenth century the Church suffers a series of reverses which result in its ultimate dissolution. From this time on the power of the Church is restricted more and more and the temporal power falls into the hands of the several nations which develop and grow in power and continue their expanding tradition until the present day. A great change came over the papacy in a very brief time. Boniface VIII was absolute master of both spiritual and temporal power and marched through Rome with the two swords preceding him. Benedict the twelfth replied to the ambassadors of the excommunicate Emperor, Louis of Bavaria that if he absolved him the king of France would depose him. The waning power of the Church may be also seen in the control of the Roman people in the election of Urban the sixth as pope.¹

The three centuries after the thirteenth are marked with numerous insurrections and fundamental criticisms of the Church. The growth of the secular powers gave men courage to protest against wrongs sustained from the Church. The efforts of the Church to compete with the secular powers for supremacy robbed it of its other-worldly character. Many of the greatest overt material losses came to the Church because it was a factor in the various numerous struggles of the developing states with each other. There had come into Europe the spirit of selfhood, of per-

¹Duruy - History of Middle Ages.
sonal power and independence. An all embracing unity of a spiritual or a temporal sort was impossible. The inevitable result, then, must have been the unsettled condition which prevailed. Strong individuals contesting for power made the most of the history of these centuries. The growing nations were still developing in the forms of plastic national boundaries which were attached and unattached as the personal following of an individual prince. As a result of this condition there was brought about a growing sense of the importance of the individual; the experiences were evaluated from the standpoint of the individual rather than from the standpoint of a superimposed authority. This period was an awakening of man to an appreciation of his worth and existence. It was a period of self-expression as contrasted with the immediately preceding period of self-suppression. In the Nationalistic period there was a gradual transformation of the attitude toward experience. A positive assertion of the individual was expressed in various ways, in invention, in learning, in arts, and in the expansion of commerce and industry to the point of voyages of discovery.

So far as the conditions of the Church are concerned there appear in this period such important events as the great Schism which took place from 1576 on, and the beginnings of the Reformation. As early as 1377 Wycliffe advocated measures which would have deprived the hierarchy of the Church of all power. Wycliffe wanted to forbid all temporal possession to the clergy and to make their spiritual power dependent upon their good behavior. Wycliffe went so far as to criticize the dogmas of the Church, denying transubstantiation, necessity of confirmation and baptism and the value of a religious ceremony in marriage. The English rationality of Wycliffe must be looked to for the encouraging element in Wycliffe's career since the freedom of the individual was even at this
time a more certain quantity in England than on the continent. There it was carried out in opposition to the secular power as well, and the insurrections as those of Wat Tyler, for example, may be traced to this source. At a somewhat later period there came the revolt of Huss and Jerome, both of whom went to the stake in 1415. The Reformation proper brings out the new conditions which contrast sharply with the power of the Church and its undisputed sway in the thirteenth century. The whole era of Protestantism which begins at this time, is an expression of the liberation of the individual and his attainment of a great degree of confidence in his own powers and experience.

The political conditions indicate the increased importance of the individual. Greater freedom of action and thought were obtained by petition or force and in general the strained and oppressive conditions were relieved as the centuries go on. The usurpation of Henry IV in England is justified by the plea that it is for the public weal. In England the organization of parliament was being perfected as the centuries of the period rolled on. Affairs in Italy were indicative of a spirit of individualism which dominated the political situation and made peace and harmony qualities intensely sought for in the social order. The freedom of the cities such as Florence, Venice, Genoa and Pisa indicate the general tendency of the time to obtain and to maintain autonomy. Within these cities the struggles taking place are further symptoms of the same general conditions. In France the same struggle for the liberties which were held necessary was indulged, but as was not the case in England the monarch became strong and equality was the greater result rather than the more definite liberty. In this period we find the beginnings of a philosophy of law; this is an effort
to establish with more or less precision what are the basis and the foundations of the right of individuals and states. There are found at work in this period such writers as Machiavelli, Thomas More, Jean Bodin and others.

Symptomatic of the increasing importance of the individual experiences are the various inventions and improvements in commerce and industry. This period marks the development of gun powder and the printing press, two inventions which served to bring about the most radical changes in the civilization of the world. The development of gun powder made the feudal knight an unnecessary quantity in warfare and thus raised the value of the foot soldier. The result of this was that the king could dispense with the nobles and thus strengthen the central power. 1 The development of printing made possible the wide distribution of books in the sixteenth century. Twenty-four thousand copies of one of Erasmus' books were struck off by one printing press in one year when previously a good workman could produce but two in the same time. 2

The most characteristic expression of the modern attitudes toward experience is summed up in the origin and growth of humanism, known as humanism. Humanism which began with Petrarch stood for a tendency which above all pointed to a growing self-appreciation on the part of the modern man. This was expressed in the genuine delight men took in their own experiences; they began to take pleasure in life itself. In a genuine way this was a return to the pagan ideals of the joy of living, and a turning away from the asceticism developed during the

1 Schevill - History of Modern Europe, 1898, p. 2.
2 Hayes - Political and Social History of Modern Europe, p. 160.
Christian period. Humanism in the technical sense meant a return to and
a delight in the literature of antiquity. The Latin and Greek authors
were eagerly sought for and zealously studied. In the authors of the
past they found a refreshing spring which gave issue to the living
waters of human life. The writings of the ancients gave the humanists
a satisfying occupation. There was no longer prevalent the ideal of
suppression of all human qualities. Humanism gave expression to the
delight of the experiences of this world, and seemed to oppose the
ideals of the Christians which aimed to despise the present life. Up
to the sixteenth century the humanistic movement flourished and advanced
to all European countries of culture, and had among its leading spirits
such men as Erasmus, More, Colet and many others.

The development of art in this period adds considerable testimony
to the expansion of the self-feelings in this period. There is every
indication that man has become fairly well established in his surround-
ings and sought to express his individuality and experience. At this
time art still represents more a group expression, but the subjects be-
came individualistic as the period develops. The main theme is that
of religion, the expression centering about the Church and its offer of
grace and salvation. The commemoration of the deeds and worths of the
social leaders is also made the subject of considerable art productions.
In the earlier part of the period the free cities of Italy shone bril-
lantly with the masters of sculpture and painting. Liberti, Donatello,
della Robbia and Michelangelo gave expression to the new powers that
men felt. In painting da Vinci and Titian graced the older period while
Rubens and Van Dyck indicate the spread of this new attitude in the latter
part of the present period. The development of art shows a progressive
movement away from a mere copying of the ancients, a tendency with which
modern painting began. The work of the later period shows an interest in and an effort to delineate an individual subject. The production of paintings of persons, of individuals, begins to characterize the art of the later Renaissance. The interest in human figures rather than landscapes also indicates the general tendency that we are describing. In philosophical circles the new conditions brought out a general revolt against Aristotle and his doctrines. Aristotle came to be considered as the center of the Scholastic philosophy which was being more and more opposed. The philosophers hoped to find in Plato a better expression of the current viewpoint and in Florence a zealous study of Plato was undertaken. The Florentine academy was not a purely Platonistic institution; the men who revived the study of Plato did not know Plato as he really was but knew him rather in his Platonic dress and even as in the case of the Platonic Theology of Picino, Plato was seen through Proclus' eyes. Perhaps the pure Platonic doctrines would have been no more acceptable to the philosophers of the Humanistic period than that of Aristotle. These men sought for a doctrine which would make men free and equal members of a single unity. Another Florentine who was allied to the Platonic group, Pico de' Mirandolo, a devoted student of the Hebrew mystical writings, the Cabbola, attempted to find a synthesis between these writings and the revived Plato.

The Humanists made especially bitter attacks upon the logic of Aristotle. Violent attacks were centered upon the syllogism. They declared that it was incapable of adding anything new to knowledge. Valla in particular, took it upon himself to attack the Aristotelian logic which he seemed thoroughly familiar with. The most characteristic mark of the period is indicated in this type of attack upon the logic of Aristotle: The period was one of novelty of advancement. The
logic of Aristotle must have appeared rather to them. Vives and Hisolus make very specific attacks upon the Aristotelian logic. Vives declares that the Aristotelian emphasis on universal conceptions meant the medieval conception of science. Hisolius insists that only individual things with their qualities constitute reality. In Valla we find a thinker who in the highest sense expresses the longings of the period for a fuller and richer life. It is in this spirit that Valla proclaims pleasure to be the true and only good. There are beginning to appear marked changes in the values which are named as determinations of experience. The individual experiences are attaining higher and higher values in the formal determinations of the philosophers.

The temper of the Nationalistic period is shown also in the sceptical attitudes that are taken toward experience. The sceptics of the Renaissance mean to insist upon the necessity for studying nature and the departure from a dependence upon the word of authority. Their world is not yet brought into the focus of science and they are thus without faith in the powers of human knowledge. The attitude of the sceptics is one of freedom and high valuation of the individual. The determinations of the world is yet despairs of as the tradition of science is awaiting establishment. Sanchez is more the sceptic on this account for he is a physician and more interested in nature. The pupil and friend of Montagne, Chano, finds knowledge sufficient for the study of the inner life which is the basis for morals. Knowledge with respect to the ethical conduct, need not be doubted.

1 Windelband-Tufts - History of Philosophy, p. 360.

2 Wilhelm - Geschichte der Philosophie, 2 B., S.15; (1907.)
The latter part of the Nationalistic period shows man attaining to an increased independence while the earlier part of the period finds him merely resisting the authority of the Scholastic tradition. Although in the earlier period there were attempts to replace it with attitudes of their own it was not until the latter part of the period that the evaluations of experience are quite free and independent. The confidence that men of the sixteenth century put into their own ability and power was not paralleled in history since man placed himself over a general nature. Not only was there here a contempt of the past but an insuperable reliance upon the experiences of the present. The awakened human consciousness had tried out its wings and finding them satisfactory, was attempting to soar higher and higher into the immensity of human thought. There is now fermenting a situation which will lead soon into the very heart of nature, and there all the scientific values of the past will be reevaluated. The objections to the philosophical edifice will result in a development of a new method and a new stimulus to investigation. The self-confidence displayed in themselves by the men of this period is illustrated by the letter with which Bruno announced himself to the Vice Chancellor of Oxford: "Doctor of a more perfect history.

As a characteristic of the new philosophy we may consider the naturalistic attitude with which the world is viewed. The category of cause was assuming a greater prominence than was previously the case. This is an advance even if the final cause is God as Boehme thought. For Bruno God is too the formal, efficient and final cause, but this does not detract from the fact that the determination of the world was taking on a naturalistic basis. Experience is depended upon to yield

answers to the problems of man, and the problems are questions not to be found recorded and answered in the books of the ancients. Telesio argues that the reason cannot yield up truth but that it can come only from the senses. When the senses are relied upon to give knowledge there is certainly a progress in the mode of evaluating experience.

This is an attitude which must lead directly to investigation and dissatisfaction with pure deduction. Telesio aimed to replace the form and matter of Aristotle by force and matter. The force which quivered upon matter was either the principle of hot or cold. Telesio felt dissatisfied with an explanation of nature based on some doctrine of the ultimate results. He meant to give an explanation in terms of the immediate workings of nature.

The work of Copernicus seemed to bring about a complete reversal of the old order of things in the world. In effect he altered the entire course of human thought with respect to the workings of nature. To give so absolutely different an evaluation to the world's phenomena argues for an independent attitude toward the experiences which a study of nature yields. In the previous century Nicholas of Cusa felt free enough to believe in the relativity of all ideas. In many respects he may be considered to be the precursor of the scientific movement of the Renaissance. The spirit of the new age manifests itself in him in an unmistakable way. There is seen in Copernicus a definite reliance upon the results yielded by experience. The scientist felt free to give a serious valuation to the discoveries that his efforts yield. The inquirers are rather free in spite of the ultimate submission to a higher authority. In the case of such men as Copernicus the submission is owing to the continuation of a tradition in the times, as an individual the emphasis is upon freedom of research. He who will investigate must
possess a free mind, was a motto that well represented the individuality tendencies of the Renaissance. The work of Copernicus indicates the closeness to nature and faith in its simplicity which argues for a striking confidence in man's ability to question it and comprehend it. The attitude taken toward the world is stated in terms of experience. In a sense man is a measure of reality. The fact was not so clear to the men of this period. They could not yet use the category of experience in this, they still spoke of nature and their relation to it.

In Bruno there comes together many of the motives which find their particular manifestations in the several attitudes of Copernicus, Taleseio and Cusanus. Bruno believes firmly in the reality of nature and believes firmly in the life, that is, in nature. Nature for Bruno was a single living pulsating thing containing within it everything. Bruno carried out the Copernican system and made the great world—all contain countless worlds, each of which revolves about a central sun. In this then, we find the acutest expression of individualism that the age produced. In his matureer thought Bruno places a system of monads or individual beings at the center of reality. These monads are all interrelated and form a whole, but the measure of perfection is the character of individuality. The unification of all the monads is the most perfect monad and this is God, a single substance which moves in all things. We must observe in Bruno an emphasis upon the external world, upon nature, that is, upon the underlying unity of the total experiences.

The aspect of the Renaissance which stressed the individual by emphasising the inner consciousness finds expression in a number of philosophers. Bruno and Companella are connected with this doctrine in some form or other. Companella refers to Augustine in indicating that ultimately all truth and all knowledge must be derived from one's own inner consciousness. All knowledge of the world is rooted in man's
knowledge of himself. The objects of nature are known only in so far as they influence and change the knowing individual. To know oneself one need not undergo change. Knowledge of self would be immediate and always but for the fact that the necessity of knowing external things makes this self-knowledge pass into a state of subduation.

The nationalistic period represents a revolution not only in astronomy but in every department of thought. The Copernican revolution is only a symptom of the change in attitude which has taken place in Europe. The significant fact is that men's attitudes are becoming recognized if only in an implicit way as their own. The attitudes toward experience are taking human shape. The movement away from God is slow but as an absolutely dominant influence the divine being loses its force. The Neo-Platonism of this period rather naturalizes God instead of making reality all center in the divine and the beyond.
The Experience Period

The results of Humanism considered as a return to the literature and language of the past was the increasing importance of the individual. The importance of the individual gave a higher value to his experiences. From the Humanistic period on there developed more and more complete elements of the world in terms of experience. At first the categorization of the world takes place with only an implied indication of the importance of experience. This attitude develops and becomes self-conscious and there is finally the realization that reality is to be found only in the experience of human individuals. The history of modern philosophy is a record of the developing realization that the human mind must needs realize that it cannot transcend its own experience. In the early stages this development meant that while experience was in some form or other taken to be the only source of reality, there was not a good conception developed of what experience is. This fact resulted in an age long search for reality that was empty of fruitful results. The beginning of the faith in human experience was developed, however, in the Naturalistic period. In the period following this implicit faith in the experiences of individuals resulted in the marvellous advances in science and the arts that characterize the seventeenth century.

At the basis of the new spirit of science which was inaugurated in the seventeenth century by Galileo, is the implication that the realities of the world are subject to investigation and discovery by the individual efforts of individual men. It is this faith in the idea that reality may be given in terms of human experience which lies at the foundation of the experimental method in science. There is faith that in-
vestigation will yield genuine facts and their laws and that these facts and laws may be verified by the experiment of the individuals. From this period on there is a fundamental attitude developed in the history of thought to the effect that only in experience can reality be found. There is a complete turning away from the dogmatism of Scholastic philosophy than was ever the case before. Even when the world is finally determined in terms of God and the other categories of the Scholastic period it is a determination that is presumably based upon the results of thought and experience. The characteristic change in attitude is that there is more or less criticism at the foundation of any particular determination of experience. Considering our hypothesis that philosophy in all periods is the critical determination and evaluation of experience, we must say of the present period that the attitudization function is becoming self-conscious. We will find then in this period discussions of the problem of knowledge and descriptions of the power and capacities of the human understanding.

The extreme value that is placed upon human experience is indicated in the avidity with which men took to the study of natural phenomena. This period is one of extreme activity and of exceptional results in natural science. In fact all kinds of phenomena was being subjected to the rigid observation and interpretation of scientists. The seventeenth century is an age of discovery in science, it marks the period of foundation of science as it has come to us in its development. The science of this period boasts of such names as Kepler, Galileo, Huygens, Newton, Harvey, and scores of others which have made illustrious the various sciences.

The fundamental characteristic of the experience period is the emphasis of experience in a way which shows a progressive consciousness of experience. There comes to be developed various methods of observing
and interpreting phenomena. There is great activity in the investigation of the human understanding and the methods of scientific research. The need for new methods and means of interpreting data becomes of primary importance in this period. The striking individualism and self-confidence of the thinkers with respect to the formulation of method is expressed by Bacon: "Meanwhile what I have often said I must here emphatically repeat: that if all the wits of all the ages had met or shall meet......in philosophy and the sciences! The thought of the period is extensively occupied with the organization and determination of attitudes on the experience basis. So far as a general orientation of the individual is concerned man has come to the stage in which no absolutely homeless is possible. The acceptance of experience as a basis of reality precludes forever the possibility of absolutely divorcing man from reality. The problem now is how to coordinate and interpret the facts of reality. In some sense the philosophic problems from now on will be the investigation of the nature of experience. As was suggested this carries back to the problem as to the nature of the human understanding. The social and political conditions in Europe from this time on are such as to make a safe and solid place for the individual. Civilization in Europe has reached a stage of solidity and permanence such as to keep forever man from being a homeless wanderer upon the face of the earth. What man's attitude will be toward his experiences will depend upon more specific conditions than was the case in the middle ages. In the age of experience the attitudes will depend upon the conditions of the particular nation for specific formulation. The nations having the greatest freedom and stability will be the homes of the thinkers of the time. From this time on philosophy in Europe will represent

attitudes much more dependent upon national experience than was the case since the Greek period. In accordance with our viewpoint we find this is true of all activities and expression of attitudes. The home of Art for example, finds itself to be the Netherlands after the Italian period wanes. After the Nationalistic period Philosophy shifts to other parts of Europe.

The development of philosophy in the Experience period takes place in France, the Netherlands, England and later Germany just as the political and social history of Europe shifts to these countries. In the next period Germany takes her place among the important nations contributing to the intellectual history of Europe.

The fact is of greater importance as the national life develops with the evolution of states. With the development of stability among the various states we will find the attitudes expressed are more personal than in the earlier periods when the whole group attitude is expressed. In the later periods also the social experiences became more closely related in the philosophical expression than the political. The experiences become more internal with reference to a particular group. The experiences are the results of the interrelations of individuals rather than the interrelation of a group with other groups such as the middle ages have shown us. With the development of philosophy the viewpoints and attitudes expressed are more spontaneously the reflections of the individual though the subtle influence of current acts and current thought is never lacking.

The experience period shows a time in which are developed the stable political conditions through the stages of absolutism. The nations are more and more becoming autonomies and divorced from the original authority of the political church. The experience period
is full of the wars for the establishment of independent Protestant kingdoms. In the seventeenth century the wars are still waged by Catholic kingdoms against Protestant kingdoms. Philip the Second strives to extirpate the Protestantism in England in the final years of the sixteenth century. An important point to be noted is that while the name of religion still is the all powerful influence in political affairs in Europe, it is at the same time a strictly national matter. The religious and state affairs are indissolubly interrelated and as the period advances the state aspect of the situation becomes of greater and greater emphasis. The nations were beginning the struggles for the right to expand and develop for themselves. They felt the need for and sought the material improvement and cultivation of their lands and peoples in ways that spoke eloquently the independence of the human spirit from the fetters of extraneous authority. The religious wars of this period mark the attempts of individuals to live their lives according to their own ideas. They are the best expressions of the growing individuality of the period. Both Catholics and Protestants insisted upon the prevalence of their ideas to the point of intolerance. With the Peace of Westphalia the era of toleration sets in and so far as religion goes the various peoples learn to tolerate each other. Religion is after this used as a pretext to settle dynastic quarrels. It is through these dynastic quarrels that the map of Europe assumes its final form.¹

From the seventeenth century on the political history is one of absolutism. Definite powers are achieved by the various nations. The nations take turns upon the stage of history as governors and dictators

¹Schevill - History of Modern Europe, p.159-160.
of the destinies of peoples. The expansion and development of the various human activities follow the boundaries laid down by the national ascendanties. In one period the Dutch are in the ascendancy, the arts and sciences, commerce and industry flourish there, and then some other nation excels in all the activities of the time. The development of philosophy will follow this social and political development, and the categories with which experience is determined will be changed and modified according to the new conditions.

The categories used in the various periods of philosophy show a modification and development which depend upon the general experience of the period. This is admirably illustrated by the experienced period. In the philosophy of this period which has a decidedly naturalistic strain and tendency, God is replaced in part by the category of substance. The category of substance is made to serve the function which in the previous periods were served by the category of God. This new form is more in conformity with the tendency of the time. The attitude brought out by the modification in the category is symptomatic of a greater degree of control exercised by man over God, and in general it brings out the closer relationship that existed between man and God in this period. The attitudes imply the expanding individuality of the men of this period. The immediate changes which God is presumed to bring about in the world were referred to the operation of natural law. The natural forces in the world were brought to the degree of determination as natural causes. The final causes of the Aristotelian and Scholastic sciences were replaced by natural causes. There natural causes were finally determined as the uniformities in nature discovered by the individual experiences of the scientific investigation. The world of phenomena was reduced to a series of orderly happenings dictated by the mechanical laws which governed the universe. The place of God in
in this system became a problem and was no longer the primary and fundamental assumption of all attitudes toward experience.

The new experiences of the period brought about new ways of determining and evaluating these experiences. The settled conditions of a nation bring about greater expression of attitudes toward the conditions and these expressions will answer to the new conditions. The gradual modification in the way of evaluating experience is due to the modification in experience. The fact that God gradually comes to be transformed into substance indicates a new mode of interpreting experience. The period now under discussion is a period of the increased stability of individual nations, men find themselves well oriented in the groups in which they are placed. The world seems to take on a firmness and a solidity. In this period then we find the world determined as a definite working of fundamental laws. The method of these determinations in this period become that of mathematics instead of dialectic. In this change of method we find an expression of the greater emphasis that is placed upon the process of experience. In the dialectical method deductions are made from a series of premises which in the final analysis are accepted upon authority. The method of mathematics is an advance on this in so far as the original premises are presumed to be derived from some element in experience. The mathematical statement is presumed to yield a law which expresses the particular occurrences. In the new solidification and permanency of nations may be found the causes or at least occasions for the new systematic determination of the world. The great philosophical systems of this period are brought about by the systematizing of human experience in the form of common aims and common actions of unit nations. The variations in these systems are due in a definite way to the particular turns that the national experiences bring about.
Not only are the categories of philosophy and the special sciences modified and varied to meet the needs of the new experiences but new categories come into use to give evaluation to the phenomena of experience. In the seventeenth century the categories which made the most emphatic showing were those of nature and of law. There is a characterization of law as natural; religion even was characterized as natural as against revelation. All phenomena were reduced to law, the reign of law became the dominant characteristic of the period. The category of law was the supreme value applied to the elements and conditions of experience. The categorization of the world in terms of substance, cause, motion, and law bring out the increased importance which this century gives to the experiences of the individual. When the individual finds himself fairly ensnared in his surroundings he may begin to make definite determination of those surroundings. The social and political conditions of Europe at this period were ripe for a strong confidence in one's own experience. The world is interpreted then in terms of experience and not in terms of a supermundane existence derived by a subjective search of the individual consciousness.

The nations contributing to the development of philosophy in the seventeenth century were France, England and the Netherlands. In these countries some degree of solidity was attained by the people. In these countries the adjustment of the individuals to the social group was fairly well established. The time was ripe for some expression of the attitudes of the thinkers toward experience. The period now under discussion is one in which the freedom of the individual has become so far a fact as to permit a definite attitude toward experience. The fact that the individuals were safely bestowed within the group was the occasion for a naturalistic determinate philosophy which was developed.
To take Hobbes, Descartes and Spinoza as examples of thinkers of each of these nations we find each reflects the spirit of the time with a mechanical viewpoint concerning nature. In each of these philosophers we find the gradual re-determination of experience with values different from those of the Scholastic philosophy. The new attitude toward experience is plainly visible in each of these philosophers. In Hobbes we find a system based upon the fundamental category of motion. For Hobbes the determination of experience may begin with the category of motion. Descartes taught that the clearest ideas were those of extension, divisibility and mobility. In adding thought to these fundamental categories we see how Descartes is attempting to reconcile the new spirit of science and nature with the older Christian tradition. The fact of the Cartesian dual world is an eloquent witness to the attempt to overcome the older subjective determination of experience by the newer values of rigid mechanical science. With Spinoza there is also built up an objective mechanical system with the fundamental categories of substance attribute and mode.

English philosophy had its modern beginnings under the favorable influences of the Tudor rulers. The growing independence of the English is favorably indicated by the freedom attained from the fetters of the Roman Church. Under these monarchs England assumed a sense of strength and unity of the kingdom which made for a development of liberty and power among the people. By the time of Elizabeth's reign England was beginning to stand as the protector of Protestantism; the Episcopal and Presbyterian churches were firmly established. The machinations of Philip and his Armada brought about a spirited unification of national sentiment and doomed the Catholicism of England.¹

The Elizabethan period in English history marks a period of brilliant expansion and national progress. Commerce and industry began to flourish in a remarkable way. Life became more meaningful and more worth while. The plane of life in England was raised considerably. The arts and the sciences flourished and the Elizabethan period may be considered as one of the world's great cultural epochs. The Elizabethan period glories in such artists as Marlowe, Johnson, Spenser and Shakespeare. In science this period made some remarkable advances, the work of Næper in mathematics and Havey in medicine while published after the death of the "Good Queen" are still products of the Elizabethan period. In general the period was one of confidence in the human individual and in his powers. This is the period in England's history when the human spirit used its wings. On the philosophical side the period is represented by Bacon and his attempt to renovate the sciences. Bacon believed himself to be an absolute innovator in science, he thought he could perfect a plan to bring about entirely new conditions in science. The inductive method of Bacon does indicate the new tendency of the times. There was the effort to study zealously the book of nature, to go out into the world and discover what was there. The method of Bacon was to bring about general formulations of experience from a study of the particular facts of experience. The philosophy of Bacon indicates the great reliance that was placed by the men of this period in the individual experiences. The philosophy of Bacon admirably illustrates the transition from the Scholastic to Modern philosophy. Bacon carried over from the Scholastic thought the concept of forms as the underlying elements of experience. The method of science was to seek out in nature specific facts which would lead to the discovery of the forms which are the inner essence of all experience. The method of Bacon was not a genuine inductive method in that there was not left room for a law which
would be an abstract formulation of the various phenomena. In Bacon's method the law of phenomena is not arrived at by an experimental determination of particular phenomena. Bacon illustrates the direction of development of modern science. There is no essential departure from the scientific method of Aristotle, in fact one might look upon Bacon's science as a renovation of Aristotle's scientific method. It might be said that Bacon scraped away the Scholastic variation from the Aristotelian science. The greatest difference between Bacon and Aristotle is that the former stressed the type from the beginning of all investigation while Bacon stressed the mode of reaching it. The universal or type for Bacon was just as little a product of an experimental procedure as it was for Aristotle. Bacon's importance lies much more in his intention than in his production. He was certain that the values given experience were not true values, he felt the need for a complete reinterpretation of the world of experience. Bacon, however, was not himself capable of appreciating the fact that in order to properly evaluate experience one must understand that it is experience that must be evaluated. It was for this reason that Bacon sought his forms and it was for this reason that Bacon deprecates the categories used in logic and Physics and uses worse ones himself. By *Quotem-sphorians* _XV and XVI* from Novum Organum*. While indulging in this wholesale condemnation of the categories used by others Bacon speaks of "appetites and "desires" of things, of appetites which "aim at a private good" and "appetites which aim at a more public good," of "bodies delighting in nature of spirits when he means force.* Bacon's philosophy indicates a

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2 Seth - English Philosophy and Schools of Philosophy, 1912, p. 47.
promise of a definite philosophical tradition, but which has not yet been fully established. Bacon is not a systematic philosopher, there is no orderly formulation of materials in his writings. This point is emphasized in his saying that he takes all knowledge for his province. He stands at the very entrance to the modern period and it is impossible that there should be yet a scientific field with definitely marked boundaries. Bacon presages a definite type of philosophy just as the political conditions of his time are the formative period of the English nation.

The period of the seventeenth century may be taken to be the stage in human development in which the attempt was made to bring about some harmonious relationship between the national world, the world existing independently of the individuals and the individuals. There had gone the general realization that the world is somehow intimately connected with human experience. This fact is brought out in the Cartesian cogito ergo sum. The fact of thought carries at once an assurance of existence. Thought is the second of two characteristics, the other being extension, which are essential components of external things. This early and immature attempt to bring together man and the universe on a naturalistic basis admirably brings out the struggle of the thinker of the period to overcome the attitude of the past. God is still needed to support the relationship brought out, but he is brought in only when he is needed and he is not needed at every point. Hobbes brings out this general attitude in that for him man is a body among others which are subject to the eternal laws of motion. The connection between man and the universe for Hobbes is provided for by an absolute mechanism. Everything which exists must be corporeal or it is not. God is excluded from this system as the only thing which is not body and thus is
not an object for philosophy.

With Spinoza the relationships of man and nature is brought out by an identity which brings the two together. The relation is that of a whole and part of a large mechanism. Man is a particular complex composed of various modes of a single substance, all of which is reality. The general characteristic of all these attitudes is that each is dominated by the prevalent nature of mechanism. The entire thought of this period is dominated by a mechanical conception. This conception of a world which is purely mechanical and governed by absolute natural laws ruled every science and every department of thought. The conception of mechanism grew out of the efforts of man to account for his experiences upon an materialistic basis. The one goal that the ambitions of the time dictated was that of getting away from control and domination of external authority. In nature it was brought about that God became translated into natural law. In philosophy God became conceived of as substance. This period saw the birth of Deism which represents the mechanical attitude brought into Theology. When God could not be brought in as a part of the process he stood outside and gave directions to the giant mechanism of a universe. In the social and political world there is found the attitudes of the mechanical sort manifested as the struggle for absolutism. The specific means of overcoming the authority of home and supplanting the feudal system in Europe was by the rise of an absolute monarch who would give the nation a unity and an autonomy. When this condition is once achieved the struggles for individual liberties are begun and the stress that is at first laid in men's minds upon the government as nation is later put upon the people as the constituents of society. When men are finally united in a group which has attained autonomy the fact of inclusion or exclusion from this group is no longer the predominant factor in the determination of thought attributed to Herbert (1582-1646).
Thought becomes involved in the free development of one's powers and processes. The corresponding types of thought to these situations range from the recognition of reality as a product or correlate of experience to the consideration of the nature and ultimate value of experience.

As was suggested previously there are developed in this period several modifications of this mechanical conception. The philosophy of Descartes, Hobbes and Spinoza differ in their formulation of this mechanical conception. In examining a little closer the specific environments in which these philosophical systems are formulated, some suggestions for the differences come out. Hobbes' philosophy is derived from a soil in which the absolutistic struggle is having full sway. The war between the people and the monarch was a matter which took a large place in the experience of Hobbes and his time. The fact of this conflict made a deep impression in England for there the government had become quite stable under the Tudors and in the time of Hobbes the struggle for individual liberty and freedom was becoming acute. In Descartes we find an imperfect formulation of the mechanical philosophy. Descartes shows the cleft that seems to divide him in his efforts to bring about a complete mechanical statement. Descartes is an individual who was in constant successive contact with several traditions. As a Frenchman Descartes would at this time be more closely connected with the older Scholastic tradition than either Hobbes or Spinoza. The insistence upon a mechanical philosophy of nature is traceable to a contact with an environment which was common to the other philosophers we consider with Descartes. Descartes did not then deny entire freedom of will as did Hobbes and Spinoza. The attitude of Descartes to God is also a different one than is the case with the other two thinkers.
In the time of Descartes France was not yet the absolute monarchy which it became under Louis XIV. In this period the Netherlands were great factors in the civilization of Europe. There the Protestant nation was a strong and flourishing unity. The prevailing attitude was that of a strict unity of all the people in the single unified nation. The mechanical viewpoint could find very fertile ground in the Netherlands. With Spinoza as was not the case with Descartes it was possible to make a complete harmonization between the inner and outer worlds. Experience was more completely subject to interpretation and it was given its values accordingly.

The period now being discussed was one in which the old categories with which experience was evaluated had to be revised and they took on a new meaning. The present period is in a way a transition period. It presages the coming of a time when the categories with which the experience will be determined, will be recognized as having been derived from experience. In the present there is a great emphasis upon the determination of the world with categories that very clearly derive their origin from experience, but as yet the connection between the categories and experience is not very explicit. The harmony that is being brought about between the world of nature and the inner factors of experience is not made clear to the thinker. It is for this reason that the strictly mechanical viewpoints hold sway among the thinkers of the period. This stressing of the mechanical conception shows itself in the determination of man as well as of nature. We thus find Hobbes, Descartes and Spinoza all attempting to formulate rigid laws for the emotions of man.