The Concept Of Change In The Philosophy Of Saint Thomas Aquinas

William Molloy
Carroll College

Follow this and additional works at: https://scholars.carroll.edu/philosophy_theses

Part of the Catholic Studies Commons, Philosophy Commons, and the Religious Thought, Theology and Philosophy of Religion Commons

Recommended Citation

This Thesis is brought to you for free and open access by the Philosophy at Carroll Scholars. It has been accepted for inclusion in Philosophy Undergraduate Theses by an authorized administrator of Carroll Scholars. For more information, please contact tkratz@carroll.edu.
THE CONCEPT OF CHANGE IN THE PHILOSOPHY OF
SAINT THOMAS AQUINAS

by

William Carroll Molloy

A dissertation
Submitted to the Department of Philosophy
of Carroll College in Partial Fulfillment
of the requirements for the Degree of
Bachelor of Arts

Helena, Montana

1940
# TABLE OF CONTENTS

I  THE PHENOMENON OF CHANGE (INTRODUCTORY)  2

II  ACTUALITY AND POTENTIALITY  8

III  THE BASIC MEANING OF CHANGE  13

IV  THE SUBSTANTIAL SUBSTRATE OF CHANGE  26

V  THE CAUSES OF CHANGE  32

VI  ERRORS REGARDING CHANGE  41

VII  SUMMARY (BY WAY OF CONCLUSION)  48

BIBLIOGRAPHY  50
I. THE PHENOMENA OF CHANGE

The mention of the word "change" brings many ideas to mind. We may think of the change we receive in a store after having bought something or of the fact that we change our clothes. Since change can have a variety of meanings let us, as an initial step of our thesis, view "change" in the ways in which it is commonly experienced by men.

No more common experience of change occurs in the life of man than the process of growth. With the exception of Adam and Eve all men have experienced it and will experience it as long as men will be born. Four definite periods display this process of change in the life of a man, namely, babyhood, childhood, youth and maturity. Let us examine each in turn, noting while doing so, the expression of change.

The babe comes into the world utterly helpless. Soft, flabby muscles prevent him from lifting any weight beyond that of a rattle. He must be handled with the utmost care lest his delicate body be injured. He depends on his mother for his food and he requires several hour's sleep both day and night.

A few years pass and he advances from babyhood to youth with several changes having taken place. He can now throw a ball or pull a wagon. He can run without the anxious hand of a mother to

---

brace him. He is now able to feed himself and is satisfied with a good night's sleep with a possible short nap in the afternoon.

And yet he can become more matured by advancing to young manhood. Muscular and bone development take place. He eats a very hearty meal and is glad when the time comes for him to put in eight hours of healthy sleep. He can now do many chores around the house by chopping wood, cleaning the sidewalk or raking the autumn leaves.

Finally, he becomes a man fully grown with sufficient muscular and bone development to enable him to labor for the wife and children he must support. The days are gone when he was a star athlete in his youth, but he may still take active interest in a baseball game or tug-of-war. He now has the opportunity of watching his own children go through the same stages of growth, the same changes, as he did.

But all through these years another part of that man has developed. Let us return to his babyhood days. Has his intellect not changed? We know that we have little memory of the time between our birth and the age of about five or six. We had not yet begun to think, to form and analyze ideas. We did things because we saw others do them.

At the age of six or earlier our intellectual abilities had changed. We could then know about things just from having them told to us. For the first time we saw words and learned that they stood for things which we had known about already. To use a simple analogy, just as a person can use a telephone without understanding everything about the telephone, so a child can use words without knowing everything about the words, their spelling,
the way of writing them and the like.

Let us skip over some years now to our adult life and note the intellectual changes which have taken place. The number of words we knew back in the first grade have increased a thousand fold. Instead of having to restrict ourselves to one book we can read several books of different types. Of course the fact that we are doctors, or lawyers, or men with but high school education leaves room for variations. At any rate the fact remains that our knowledge, even our power to know, has greatly changed.

The phenomenon of intellectual change is also seen in its relationship to the human race. The tradition, history, monuments\(^2\) evidence this. All through the ages man has been continually laying up a store of knowledge, so that men have more opportunities for intellectual development than did the primitive man of long ago. The stone carved with a few words has grown to millions of books in every country, written in many languages and about sundry things:- Psychology, Philosophy, Astronomy, Mathematics, Music and Art.

In noting the fact that man now has more opportunities for intellectual development than he had long ago, we must not become so confused as to think that he will someday be perfect. Men will always be men, other Adams, with the same imperfections. He will always be able to err, to make mistakes in his thinking. Moreover he will always be able to find new streams of thought to explore.

Were we to accept the idea that man is constantly "progressing" toward an intellectual perfection we would have to accept the idea that whatever any philosophers told us would be true. Kant's philosophy, being later in time, would have to be more perfect, more true than that of St. Thomas Aquinas. Our modern philosopher of France, Jacques Maritain, tells us, "The Philosopher is not a tailor who must follow the changing styles."(3) He must cleave to those things which conform with reality. However, man can change intellectually. He can improve his knowledge from the vast store of knowledge bequeathed to him under the providence of Almighty God. He does not remain the imaginative child but he becomes the intelligent man. In surveying the phenomena of change thus far, we have viewed man primarily as an individual. Now let us view change as it applies to man in his relations to other men.

In other words, let us review the phenomena of social change. We will do this by considering the family and the state.

Note the change which resulted when Christ raised marriage to the dignity of a sacrament. To show this, let us compare the ancient patriarchal family with the family after Christ raised marriage to its high position.

At the head of the patriarchal family was the father who ruled it like the tyrant over his country. He exercised complete control over his wife and children. He could make the children live as slaves or he could even put them to death. The wife was completely at the mercy of her husband, having to perform whatever duty he assigned to her. Her husband considered her merely as

(3) cf. Jacques Maritain by Gerald B. Phelan p. 33
his instrument for having children. Moreover, he could kill
his wife either if he caught her in adultery or he could kill
her for a capital offense.

The condition of marriage itself was not much better.
Divorce was frequent since marriages were forced on the contracting
parties. Moreover, they were obtained for the most trivial
reasons. Abortion and infanticide were frequently resorted to
by parents who did not wish the responsibilities of parenthood.

When Christ elevated marriage to the dignity of a sacrament,
He eliminated these evils and thereby changed family life. For
instance, by making marriage a monogamous union, He not only
emphasized the purpose of marriage as the begetting of children,
but He also made marriage a means of supernatural holiness.

He restored the unity and indissolubility of marriage by making
the wife subject to the husband and the husband subject to the
wife. Consequently the evil of divorce was greatly removed,
thus making greater possibility for parents to love and raise
their children properly. The wife became not a slave but a
companion to the man who, under the old system, had been her
master. Thus we see that there is social change as typified
in the family. \(^{(4)}\)

We may realize the patent fact of change by surveying the
history of any one nation over a period of years. Our own
United States is a good example. In colonial days our few
colonies struggled under the weak rule of the governors and
assemblies directed by the King of England. Now we have our

\(^{(4)}\) Readings On The Family, edited by Edgar Schmeidler O. S. B.,
readings 4 & 5 pp. 35 - 85.
own democratic government, our own president, who is much more than a figurehead, a senate, a congress besides the governors and legislators of each individual state. Our American government has certainly changed.

Changes, however, are not witnessed in man alone, as was discussed heretofore. They are also evident in bodily being. Experiments in the chemistry laboratory and local motion testify in behalf of this fact.

Were there no such thing as change in bodies, the young chemist would be foolishly wasting his time in the chemistry laboratory mixing various chemical elements. For example we see a student burning wood and we ask him why he is doing so. He answers that he is getting carbon. Now unless he realized that the wood changes in the process of burning, he would see no sense in burning it to get carbon.

The importance to chemistry is seen in a quotation from a chemistry manual. "Many changes result in the formation of substances which are at once recognized to be different from the original materials...The science of chemistry has for its object the accurate investigation of all such changes..."(5)

The work carried out in our modern industrial chemistry laboratories bear witness to the fact that chemistry is a proof of change. From many natural materials such as coal, wood, oil, seed, nuts and water have come paint, cellophane, windows such as are used on the modern automobile, fountain pens, dynamite, commodities rubber, perfume and several other necessities. Add to these

the majority of the products in a drug store and you have some idea of the reality as well as of the importance of change. (6)

We have now only to view a second type of change in bodily beings and we will have reviewed our phenomena of change. This type of change is local motion. Though the mountain or the lake seem to appear the same every day they have undergone "local change." The waters of the lake have moved; the mountain crusts have settled one bit more. The busy street corner bears many examples of local change. The policeman waving his arms, or turning from north to east, or running to quell some disturbance is constantly changing. The automobiles testify to the fact of change. The people hastening from one side of the street to the other typify local change.

Indeed the phenomenon of change is so present that it has enjoyed the attention of thinkers throughout the history of proof of the phenomena of change from the writings of men who have investigated such changes. Among these are Parmenides and Heraclitus (sixth century B. C.), Aristotle, who gave the doctrines of matter and form, and of the causes which are basic to the proper understanding of change, (7) and Henri Bergson. We will have occasion to discuss the philosophies of most of these men in a later section of our thesis. (8)

So much for the fact of change. Let us analyze the concept.

(6) From an educational movie of the Dupont Chemistry Plant.
(7) cf. Infra ch. IV & V pp. 26-40
(8) cf. Infra ch VI pp. 41-47
II - ACTUALITY AND POTENTIALITY

In our preliminary survey just treated we spoke of many men concerned with the fact of change, but none of them have given us as complete an explanation as the great sage, Saint Thomas. In order that we may fully realize this, let us examine his philosophy and find out just how he explained the patent fact of change.

St. Thomas tells us that change is the transition from actuality to potentiality. (1) The definition as it stands means nothing to us unless we comprehend the meanings of actuality and potentiality. Our first expose', therefore, rests in an explanation of the Thomistic idea of actuality and potentiality.

On treating of actuality and potentiality we will follow this simple outline: (1) the definitions of actuality and potentiality, (2) their nature as relative to change, (3) types of actuality and potentiality involved in change, (4) definite relationships between the two necessary for proper understanding of change.

In defining potentiality St. Thomas says, ".. Potentia dicitur principium motus et mutationis in alio in quantum est aliud. Est enim quoddam principium motus vel mutationis in eo quod mutatur, ipsa scilicet materia : vel aliquod principium formale, ad quod consequitur motus..." (2) Potency is a principle capable of receiving or conferring a perfection.

The counterpart of potentiality is actuality. St Thomas defines it as follows. " Actus est, quando res est, nec tamen ita

---

(1) S.T. I, Q. 2, a. 3, c.
(2) Comm. Met., Bk. 5, lect. 14, 955. (This is, of course, St. Thomas' interpretation of Aristotle.)
est sicut quando est in potentia." (3) Actuality is a principle completing or developing any potency.

Let us exemplify these concepts. Consider a large block of marble about to be made into a statue. It is potentially a statue. Actually it is a block of marble. In order to be developed into a statue it must be given shape together with all the features that go to make up a statue. When it has received all these features it will no longer be a block of marble, but actually it will be a statue. Its potentiality to be a statue will have been actualized.

Now actuality and potentiality do not refer to a being always in the same manner for there are types of actuality and potentiality. Let us briefly consider each of these.

The common types of actuality include first and second actuality, actuality of essence and of existence, and pure and mixed actuality. (4) Act of property and act of accident may also be included. (5)

First act is that which does not presuppose another in the order to which itself belongs, while second act does presuppose such an actuality. For example, the soul is the "first act of man's essence," while the essence itself is the "second act".

Actuality of essence is that by which a "being" is constituted or perfected as a specific kind of a thing. The act of existence is that by which a being is constituted as a specific kind of a thing which is here. Mixed actuality is that which contains admixtures of potentiality, e.g. the child is actually a child

---

(3) Comm. Met., Bk. 9, lect. 5, 1825.
(5) cf. The Domani of Being by C. N. Bittle pp 58-59.
but potentially a man. Pure Act is one having no admixture of potentiality at all and this alone is God.

Actuality of property is that which flows from the essence of the being necessarily, though it is not essential to the essence.

Man must of necessity talk, but he would still be a man if he could not talk. Act of accident, on the other hand, is that determination which does not flow of necessity from the essence of a being, e.g. the redness of an apple is not necessary to the apple, since it could be green and still be an apple.

The types of potentiality include subjective and objective, active or passive, natural, supernatural, and obediential potentiality. Objective potency refers to beings which do not exist but which can come into existence. It is most often spoken of and understood as possibility. Subjective potency, however, is the capability of a thing already existing to become something other than it is now.

Subjective potency includes active and passive, natural, supernatural and obediential potencies. Active potency is the power of a being to act, to do something, as the power to walk. Passive potency is the capacity of a being for receiving something, as the power of marble to be formed into a statue.

Natural potency is the capacity which belongs to a creature when it is constituted properly in its full natural capacities, such as the capacity for digesting food. Supernatural potency is one which does not properly belong to the creature when fully constituted in its essential nature but which is especially

bestowed upon it by God, e.g. the power for men to receive grace. Obediential potency is that form of supernatural potency which belongs to bodily realities other than man, bestowing on them the power to do something beyond their natural capacities, e.g. the power bestowed upon the rod of Moses to turn into a serpent.

Once we have seen the meaning of actuality and potentiality and their types, one more consideration remains. We must see some necessary relationships which exist between them and which are very useful for the proper comprehension of change. The more important of these relationships with necessary explanation are as follows: (7)

(1) Nothing can be brought from potentiality to act except be a being which is in act. For a potentiality is imperfect while actuality is perfect. Therefore a being in act having the perfection, must confer it on the being which does not have the perfection.

(2) Everything which moves is moved by another. (8) This principle is looked upon by philosophers as the principle of change. Whatever is moved is taken from the state of potency to actuality. But as we have a potential being cannot actualize itself, but must be actualized by a being in act. It follows then that a potential being, to be moved, must be moved by another being which is in act.

(3) Nothing is at the same time both actual and potential with reference to the same thing. This would be the same as saying that a being which is determined, is at the same time not determined. This, being a contradiction is impossible.

(8) ST. T. I, q 2, a 3, c.
(4) With reference to creatures, potentiality is prior to actuality. A creature has many potentialities to be actualized. Consequently potentialities are prior to the actualities following them. Absolutely speaking, actuality is prior to potentiality since an actual being must exist to make potentialities actual. This axiom will be further brought to light when we discuss "cause in relation to change."(9)

(5) "Act can only be limited on condition of being in a subjective potency."(10) Lest actuality be confused with the perfection in God, it is as well to note this axiom. Actuality is perfection, but it is not the perfection which is in God. It is limited by the subjective potency in creatures, or their capacity to become something other than they are now. No matter how many of these potentialities are actualized others still remain to be actualized as long as the creature is in existence. The baby actualized to a child still has the potentialities of being a young man, a full grown man, an old man.

These are the most important axioms of act and potency. Others of less importance follow from these necessarily. If we remember those listed above we will be ready to understand how change is a transition from potentiality to actuality.

This, in brief, is the explanation of potentiality and actuality. We have seen that one is of necessity the counterpart of the other, potentiality being an aptitude for determination, while actuality is the realization of that aptitude.

---

(9) cf. Infra, ch V
With these ideas in mind let us now consider the idea of change itself and see wherein these principles apply.

III - THE MEANING OF CHANGE

Change is the transition from potentiality to actuality. First, change is a transition; that is, a movement or passage from one state to another, the states being act and potency. Potency moves toward the act so that when the change is finally realized, the being is no longer in the state of potentiality but has been "changed" in act. It is an actual perfected being.

The action by which the act is realized is motion or change. For a thing to be changed it must of necessity leave the state of potency and become actual. The following quotation brings out the point: (1)

"Obviously, when a thing is merely in potency to something it has not begun to change; when it is actually something, it has ceased to change... so that in order that it may be in motion it must be neither wholly actual, nor wholly potential, but in some intermediate state."

Change, therefore, is a process of motion by which a being in a potential state ceases to be in that state and becomes actual. Change can therefore be defined as a transit from one state to another (2) from the state of potency to the state of act.

Once the motion or change is completed there are still further potentialities in a being for change. We shall see this point after we have discussed the types of change and the particular types of being subject to them. (3)

The concept of change is not fully realized by considering it as motion, for we must see just how the motion is accomplished.

(2) cf. Glenn's Ontology p. 86
(3) cf. Infra pp. 15-17 & 19 f.
In other words we must see what is required for the transition of a being from potency to actuality. There are four such requirements:

(1) There must be a thing to be changed, i.e. a positive point at which the change must start. The philosophical term applied to this requirement is "terminus a quo" or the term from which the change starts. This is a necessary requirement for change, for it is self-evident that for change to work something must be there to be changed. There must be an actual being with potentiality for some new actuality.

(2) There must be a thing resulting, or a positive goal. The philosophical term applied to this requirement is "terminus ad quem" or term to which the change moves. This requirement too is self-evident since something must result after the change takes place. In other words the change must end as an actual being with some newly acquired act.

(3) There must be an actual movement, otherwise there would be no difference in the being after the process takes place.

(4) There must be an agent or motor force which affects the change. This is realized in the axiom, "Whatever is moved is moved by another." (4)

A fifth requisite might be listed, though it is not required since it is contained in the first two requisites, i.e., a substantial support for the change, the basis on which every change is accomplished. (5)

---

(4) cf. supra Ch II p. 11; infra Ch V p. 33
Our explanation of change does not end with a mere definition of and explanation of the concept. We must also consider "change" in its types. These resolve themselves into two groups, namely, substantial change and accidental change.

Substantial change is that change which is proper to bodily being. It consists in the transition or movement of a bodily being from one substantial state to another. It involves the disappearance of an old substance and the appearance of a new substance. Such phenomena as death, burning of wood so that ashes result, the change of an egg into a chicken, the change of hydrogen and oxygen into water are examples of substantial change.

Two processes are involved in substantial change, namely, generation and corruption. Corruption is the process by which the first substance loses its existence, while generation is the process by which the new substance comes into existence. Note that these are both aspects of the same substantial change not two distinct changes.

Substantial change is of importance because it is the means of the creator to preserve creatures on the earth after the first creation. Through this process parents produce offspring from eggs; trees and vegetation result from seed of some kind; materials such as medicines, tools, and foods so necessary to the life of man are made from natural products.

We cannot deny this fact of substantial change because of the

(6) cf. Phillips, op. cit., Vol I p 128
(7) cf. Bittle, op. cit., p 85; Phillips Vol I, p. 128
(8) Glenn's Ontology p. 67
universality of the reasons for its existence. In the first place, the single fact that animals after death are definitely distinct from a living animal is splendid proof for substantial change. An imagination of the way we feel when we view the remains of a dear friend at a wake will explain sufficiently that this reason is true.

In the second place, the fact that the chemist can change elements so that a new substance results is evidence of substantial change. A third argument is found in the fact that things possessing only one nature cannot be made up of a number of natures. Hence, it is necessary that the food be changed into blood and body fats or there would be the nature of food and of body in the one nature.

We can also go to the metaphysical realm and find that bodies are capable of substantial change. The first of these argues that all bodies are capable of multiplication or division because of the fact that they are extended bodies. If we consider individuals within a species, we realize that there must be something to differentiate them from the rest of the species. The reason for these arguments is found in the doctrine of matter and form.

The second of the types of change is accidental change, which includes three types, namely, quantitative or augmentative change, qualitative change or alteration, and local change.

(9) cf. Phillips, op. cit., Vol I pp. 43-44
(10) cf. supra. Ch I, p. 6
(11) cf. Contra Gentiles II, c. 65, Lib. 3. and Phillips, op. cit., Vol I p 45
(12) cf. Phillips op. cit., Vol I Ch III pp. 36-53; infra Ch IV
The are called accidental because they do not cause a new substance to come into existence but modify the old substance in some one of its aspects. It fulfills, in other words, certain potentialities in the same substance.

Quantitative or augmentative change is that accidental change in a substance which makes it smaller or larger, or increases or diminishes the number or amount of its elements or parts. The growth of the boy to a man, or of a small bush to a large tree are quantitative accidental changes.

Qualitative change or alteration is the accidental change which changes the quality or mode of a being. The change of water from hot to cold, of wine from sweet to sour, or the change from ignorance to knowledge, from vice to virtue are types of qualitative change. Note that this change is not limited to bodily states but includes the emotional, the mental and the spiritual states as well.

The third type of accidental change, local change, is the most common of all changes. Local change is the movement from one place to another. Every body from a rolling stone to the bird on flight, from the tiny ant to the mighty elephant depict this type of change in their movement. The busy street corner in the uptown district represents local change in diverse types of being; the streetcar, the traffic cop, the people, the automobiles. Referring to it in the terms of act and potency, we can say that local movement is the potentiality of a being to be actually in a place other than it is now.

There are two other important aspects of a being which are often confused as types of change, namely, creation and
annihilation. (14) These are not changes because they lack very necessary requirements for change. Creation, as we shall see, is not change because the "terminus a quo" is lacking. Likewise annihilation is not change because the "terminus ad quem" is lacking.

For a change to be properly carried out there must be a substance to be changed either substantially or accidentally. Creation is "the total production of a thing from nothingness, it being produced neither from itself nor from any presupposed subject." (15) Since the production started from nothing, the "terminus a quo" was nothing, or simply did not exist. With it missing in the process of creation, we can say that creation is not change. "Creation does not begin with anything, and so it does not change either of the thing which comes to be by its means, nor yet of any other thing." (16)

In the same manner, annihilation, were the Creator to permit it, would not be change for the reason that the "terminus ad quem" would be lacking. "Annihilation means the complete reduction of a reality to nothingness." (17) Hence the "terminus ad quem" would be nothingness and a change would not take place.

In considering the real types of change, however, we have been content to merely relate them to "being" in general. This is not proper, however, because some things do not change and some do. Hence we have to consider those types of being which do or do not

(14) cf. Bittle op. cit., p. 84; Phillips Vol II, pp. 331-339; Glenn's Ontology p. 92; Ontology by P. Coffey -Ch II pp.61-62
(15) Phillips, op. cit., Vol II p. 331; cf. Glenn's Cosmology P.197
(16) Phillips, op. cit. Vol II p. 332
(17) Glenn's Ontology p. 92
change. These fall into three groups: those things which do not change, those things which change only accidentally, and those things which change both accidentally and substantially.

We have already seen that a being capable of change must be an actual being compounded of potentiality and actuality. Consequently, when we consider a being who does not change, i.e., in any manner (18), whether substantially or accidentally, we must look for one who is complete actuality with no potentiality whatever. In other words, we must look for a pure actuality or pure act.

We find the answer in the words of Aquinas:

"... God is altogether immutable. First, because it was shown above that there is some first being whom we call God; and that this first being must be pure act, without the admixture of any potentiality, for the reason that, absolutely, potentiality is posterior to act. Now everything which is in any way changed, is in some way in potentiality. Hence it is evident that it is impossible for God to be in any way changeable." (19)

We can also show the immutability of God from the fact that He is infinite. Infinity is absolute perfection, so for this reason God contains no potentiality and cannot change.

"When we say that God is infinite we mean that He is unlimited in every kind of perfection, or that every conceivable perfection belongs to Him in the highest conceivable way." (20)

Besides God there is something else which does not change. It is not being, but is so close to being that to discuss it will not be out of place here. That to which we refer is "essence".

An essence is that which makes a thing to be what it is.

(18) We say in any manner since there are spiritual beings which, as we shall see, (infra p. 21 f.) do not change substantially, but are subject to accidental change.

(19) S. T. I, q 9, a 1, c.

(20) "God" by P. J. Toner, Catholic Encyclopedia Vol VI, p. 612
Now a thing, according to the principle of contradiction cannot both be and not be at the same time. Therefore an essence cannot change, for if anything were to be added to it or subtracted from it, it would no longer be that essence but some other essence.\(^{(21)}\)

For example, if rationality were subtracted from animality in the essence, man, that essence would no longer remain. The essence animal would be there in its place. Similarly, if I were to add rationality to the animality of a brute, the essence of the brute would be replaced by the essence of man.

This immutability of essence is absolutely necessary. Were essences to change there would be no order or consistency in the universe. Moreover, we could know nothing with certitude, since our knowledge, being of the essences of things, would also change.

Besides, those things which are absolutely necessary, more precisely besides God, there are some beings which change only accidentally. These are the beings of the spiritual realm other than God, namely—angels and human souls. Philosophy does not prove the existence of say that there are angels, but the fact that change does apply to them remains; so we describe it here.

The problem of change in angels is not an easy one. As a matter of fact, it involved a great deal of dispute among the scholastics of the thirteenth century.\(^{(22)}\) Some philosophers, especially St. Thomas, maintained that angels were necessary incorporeal creatures between God and man. Others, because of the fact of change, would not consider them wholly immaterial since they thought that the only existing principle of change, was to be found in matter, in this case meaning any potency combined with

---

\(^{(21)}\) Bittle, op. cit., pp. 120-121; Catholic Encyclopedia Vol V, Essence, p. 544.

\(^{(22)}\) cf. The Philosophy of St. Bonaventure by Etienne Gilson, p. 247.
an act to constitute a bodily being, and hence not necessarily meaning a body. (23) As we have said, St. Thomas held to the doctrine of incorporeality in angels, stating that they are pure forms. (24)

Now a pure form is a single being which is uncomposed. Consequently nothing can be added to it or the simplicity would be destroyed. To take anything away from it would necessarily involve its annihilation. Therefore, since these are the processes involved in change it would seem that angels do not change at all. St Thomas shows us that angels do change, but only through the accidental change of local movement. He does not view this movement in angels of the same kind as that of bodily beings because of the difference in the manner in which a body and an angel are contained in place.

"A body is said to be in a (25) place in such a way that it is applied to such place according the the contact of dimension quantity; but there is no such quantity in the angels, for theirs is a virtual one. Consequently an angel is said to be in a corporeal place by application of the angelic power in any manner whatever in place."

The body has to move over a definite distance between two places, which is known as the middle. An angel, although it virtually has this power can be in place by mere knowing the place, which is the power of spiritual beings.

We can summarize the doctrine of local movement in angels from a few words of St. Thomas.

(23) cf. The Philosophy of St. Thomas by Gilson pp. 172-173
(24) cf. S. T. I, q 50, a 2, c.
(25) S. T. I, q 52, a 1, c.
"... There is nothing to hinder us from assigning a
divisible place to an angel according to virtual
contact; just as a divisible place is assigned to
the body by contact of magnitude. Hence, as a
body successively, and not all at once, quits the
place in which it was before, and thence arises
continuity in its local movement; so likewise an
angel can successively quit the place in which he was
before and so his movement will be continuous. And
he can all at once quit the whole place and in the
same instant apply himself to the whole of another
place, and thus his movement will not be continuous."(26)

Continuing the thought in a later article Saint Thomas
says:

"If the angel be moved from one place to another, then
when he is in the term "whither" he is no longer in motion
but is changed."(27)

In considering change in the spiritual world we have seen
that angels, the first of the spirits next to the creator,
change locally. There is still another spirit higher than bodily
being and lower than the angels, the human soul. Like the angels
it does not change substantially but only accidentally. This
accidental change can be shown both in the soul's relation to the
body while united to it and after its separation from the body,
but before we consider these let us see why the soul does not
change substantially.

What we have said about angels, namely, that they are simple
substances and can't change, also refers to the soul. Although
a soul is made for union with the body it can, being an immortal
substance, exist apart from the body. We must consider it as
such when we view it as unextended, having no parts and hence
incapable of corruption, i. e. change, in any way.

Saint Thomas tells us in relation to the unchangeableness
of the soul and with reference to angels as well:

"In every being that is corrupted there must be potentiality to non-being. Wherefore if there be a thing wherein there is not potentiality to non-being, such a thing is not corruptible. Now there is no potentiality to non-being in an intellectual substance... Neither in corruptible substances is there potentiality to non-being in the complete substance except by reason of the matter. But there is no matter in the intellectual substances, for they are complete simple substances."

(28)

Therefore, we can sum up as regards the soul and more completely as regards angels, that they are intellectual substances, having the power of knowing things in their essential nature. Consequently they do not change in se.

However, the soul does change accidentally, both, as we have said, in its union with the body and in its separation from the body. The soul, being the substantial form of the body, changes locally since it exists in the place the body, or man, happens to be. When he changes place the soul also changes place. The soul also changes with reference to the intellect. It does so when separated from the body, but more especially when joined with the body. Everytime the intellect forms a new idea there is change in the soul since the idea was not there before.

To deny this fact of change in the intellect would be to fall into Innatism which maintains that ideas are born in us.

"Innatism is opposed to the testimony of consciousness. For we distinguish a threefold moment in human knowledge: a moment of potentiality, when we have not yet formed a certain idea but can do so; a second moment when we actually acquire the knowledge; a third moment or state in which we keep it."

(29)

(28) G. G. Bk. 2, Ch. LV.
In addition to local and qualitative change in the soul, there is another change which arises in the soul because of its connection with the body, namely, sin. Sin changes the soul by putting a stain on it which it did not have before and by which it loses its comeliness. The stain does not remain but leaves the soul as soon as the grace of God enters the soul. We can also realize the fact that sin changes the soul through the effects of original sin on the soul, namely, that it darkened our understanding, weakened our will, and left in us a strong inclination to evil. All other stains follow from original sin.

The soul not only changes when united to the body, but it receives many changes when separated from the body. In the first place, the soul will no longer be limited to the place in which the body exists. Depending on its moral state when it leaves the body, it will be in a state of eternal happiness or of eternal sin. It will change its state of society being admitted into the society of the angels - whether good or bad. Souls supernaturalized by the final effects of grace will have the beautific vision of God - will know Him intuitively and in Him, creatures.

Needless to say, no natural knowledge will be lost.

Up to this point we have seen that God does not change at all, that angels change by local movement, that the soul changes

(30) A few facts will suffice for this point especially since the topic is concerned chiefly with Theology and to go into any one phase of it would require considerable discussion.

(31) S. T. 1\& 2ae, q 86, a 1 - 2, c.

both in its union with the body and in its separation from the body. As yet we have seen no being which changes substantially, but only those which change accidentally. We have noted that these beings do not change substantially because they are simple and uncomposed. Therefore, we must look for beings that are composed. We find them everywhere around us, every bodily being is composed.

Why composition of a being is necessary for substantial change has not as yet been explained, but that is the point which we will establish in the following chapter "The Substantial Support of Change." Our immediate point to establish here is that bodily beings alone undergo substantial change as well as accidental change. Observation alone establishes this point for us, as we saw in the introduction "The Phenomena" of change. So knowing that things around us do change accidentally and substantially let us leave the discussion of change and inquire into the meaning of the substrate of change.

Let us briefly summarize our chapter. Change is the transition from an actuality to potentiality. It is manifested in substantial, qualitative, quantitative, and local changes, but it does not include creation or annihilation. It is not a property or mark of God since He is the Pure Act, the Absolute Perfection. It applies to angels and souls accidentally and to bodies both accidentally and substantially. Why change applies to bodies not only accidentally but also substantially will be, as we have mentioned, the purpose of our next chapter, "The Substantial Substrate of Change!"
IV - THE SUBSTANTIAL SUBSTRATE OF CHANGE

Change, as we remarked in our preceding section, pertains to angels and the soul only accidentally. They are pure spirits with simple make-up and hence to change them substantially would be to annihilate them and this would not be change in the proper sense of the term. On the other hand, change pertains to bodily beings both substantially and accidentally. In other words, a body can be completely changed without suffering annihilation, i.e., something will remain after the change has taken place. How this can be accomplished will be shown in the present chapter through the explanation of the substrate of change, that which supports the change and remains unchanged in the process. (1)

The substrate is the support of accidental as well as of substantial change. In accidental change, the substrate is the body or spiritual substance which is affected by the change. Angels themselves are the support of their local change. The soul is the support of the change from the state of ignorance to knowledge. Water is the support of its change from hot to cold. In these changes the body or being affected has remained unchanged in nature throughout the process and hence is the support of the change.

The substrate of substantial change is not so easy to see since the being is itself changed. Yet obviously there must be "something" belonging to the body which can support the change and itself remain unchanged. The solution is found in the doctrine of hylomorphism, i.e. of the matter and form, which was given to us by the great Aristotle and further analyzed and applied by St. Thomas and others. It is that teaching which

(1) cf. Glenn's Ontology, p. 88; supra Chapter III p. 14
explains to us the duality in bodily beings. The former, matter, is that part of the bodily being which concerns us chiefly since it is the support of change in bodily beings. Hence to explain it both in relation to its co-principle, form, and in its relation to change will be our present task. (2) In doing so we can correlate the teachings of the great doctor Thomas with those of Aristotle since his teachings are in the main identical with those of Aristotle.

Prime matter, (3) or first matter, is the substrate which is common to all bodily being. Philosophically defined, it is pure potentiality, that is, the principle of a body "which does not contain any act as part of itself, and which has not the nature of act in any real order." Since it does not contain any act it is purely indeterminate. (4)

It must be noted, however, that prime matter is not the matter which is grasped by the senses. Matter in this sense is called secondary matter. Prime matter, on the other hand, is matter as it is common to all bodies, making them to be bodies. It is something of the mind and not with the direct aid of imagination or of sensation.

"Whatever may be asserted with regard to primordial matter must necessarily be the result of pure and abstract reasoning upon the concrete data furnished by the senses." (5)

(4) Phillips, op. cit., vol. i p. 47
Thomism tells us that matter has no existence of itself. It necessarily follows since primary matter is by itself potential and indeterminate, having no actual existence until it is joined with some actualizing principle. There is an actualizing determining principle which "gives" matter existence, namely, substantial forms. Fully defined, substantial form is that determining principle which when joined with prime matter constitutes a being which is one in essence and complete. (6)

Our explanation of "form" is not complete until we point out that it is not the same as "form" of a vase, or of a statue. Form in this latter sense is secondary or accidental form which determines a substance in an accidental manner as quantified, as qualified, and the like. (7) Also we must note that substantial form is something which cannot be imagined, being known only through the intellect by means of the sense data furnished. (8) We must look on it rather as that which makes a body to be a body and which distinguishes that body from all other bodies, or the principle of individuation.

Now prime matter and substantial form are two principles which, because of their very nature, must go together. Without prime matter, substantial form would have nothing in which to exist and with substantial form, prime matter could never be determined or actualized. St Thomas tells us that prime matter is never stripped of form, that of itself it can never exist. (9)

---

(7) cf. Catholic Encyclopedia, Form by F. Aveling, Vol VI p. 137
(9) Principia Naturae; Cath., Encyc. Vol X, p. 54.
Moreover it is only through the "informing" of matter that we can know it.

To sum up: The substrate of change is prime matter. We have shown that it must be united with substantial form. The question arises, "Why and how are these two principles the determining factors for substantial change in bodily beings?"

Let us recall the salient points revealed as an example of substantial change and see just what respective parts matter and form must play. Consider the change in wood after it has burned. It is now very different from what it was. We now call it ashes instead of wood since it has nothing about it which would make us call it wood. Now if we consider both the wood and ashes as bodies, we see that each has "something" which the other has; each is matter. Therefore, there was matter in the wood before it was changed, while it was changing, and after it was changed. But we notice that something must have departed from the matter which made it different from what it was, something which causes us to call it ashes instead of wood. The something which goes is the substantial form of wood, and it is replaced by the substantial form of ashes. (10)

A good summary of the whole process is contained in the following quotation:

"A body, which is undergoing a substantial change, has its capacity for preserving its original nature gradually weakened until finally, it as it were, topples over into the arms of a new form, which comes to it, not from without but from within, as a result of its material properties having been gradually altered." (11)

(10) cf. Glenn's History of Philosophy, pp. 91-92; Bittle, op. cit., p. 95 & 329; Glenn's Ontology pp. 90-91.
The question may be raised as to where the old form goes when the new form is united with the prime matter. The answer is that they simply vanish from the world of reality. In fact it is necessary for them to disappear, otherwise the change could not have been undergone in the body. This is true in the case of the forms of all bodies with the exception of the form of the human body, the human soul. It does not vanish from the world of realities since it is immortal and for further existence as a detached spirit. Moreover it will not be forever separated from its prime matter for it will again be united to the body on the last day.

Further points essential to our analysis are the following: First, we must note that the point at which the substantial change takes place requires only an instant. In the case of the burning of the wood at some point in the gradual breaking down of the wood an immeasurable instant passed and the matter was no longer wood but ashes. Second, it is necessary for the substantial form to pass away from the prime matter in any process of substantial change. If it did not the unity of the body would be destroyed. St. Thomas definitely states this point in the following words:

"In the first place, an animal would not be absolutely one, in which there are several souls. For nothing is absolutely one except by one form, by which a thing has existence, because a thing has from the same source both existence and unity, and therefore things which are denominated by various forms are not absolutely one..."

---

(13) cf. Glenn's Ontology p. 91.

* The soul is a full fledged, though "incomplete" Substance.
Third, we must not think that it is the form alone which changes or the matter alone which changes. Substantial change affects the whole thing which is changed, namely, the composite of matter and form. (15)

Finally we must note that the consideration of the substrate of substantial change has revealed to us a threefold necessity for substantial change: (16) (1) the "terminus a quo" or the prime matter before the change occurred, (2) the "terminus ad quem" or the prime matter after it had received its new form, and (3) the prime matter itself, or the substrate of change.

To sum up: We see that bodies, composites of prime matter and substantial forms, can undergo substantial change. We see that the prime matter remains throughout the change but acquires a new substantial form. It is these two principles which permit the body to undergo the substantial change without suffering annihilation.

However, prime matter and substantial form do not and cannot of themselves complete a substantial change. An additional factor is necessary, that which moves or causes the old form to leave the prime matter and introduces the new form. This leads logically to our next chapter, "Cause and Change."

(15)  ; Coffey's Ontology p. 63.
(16) Cf. supra, Ch III p. 14
V - CAUSE AND CHANGE

From the purely logical standpoint we see that there are three theoretically possible agents which can cause change, i.e. bring about the transition from potentiality to actuality: (1) The potency can give actuality to itself. But this is impossible for the potency does not have the actuality in question and cannot give itself what it does not have. (2) The actuality could come from nothing. Nothing, however, possesses nothing and this can give nothing to the potential being. (3) It can receive it from some actual being. (1) There is nothing to prevent this from being the case. In fact it is expressed in the very concept of change as movement, (2) namely, that a thing which is moved must move from the state of potency to the state of actuality. As we have seen in the first possibility, potentiality cannot move itself since it does not possess the actuality necessary. Therefore, the agent of the change must be found in some actual being. That the agent is an actual being is found in the following words:

"As we have agreed that nothing can pass from potency to act except by some actual being, the actuation by an actual being is required to bring about the change, or the actualization of the potency in question. Such an actual being is a cause, the changing thing being dependent on it for actualization and actual existence." (3)

Note that the quotation states that a cause is the actual being which must bring about the fulfillment of the potentiality. This can be seen by viewing what kind of a process change is and also by viewing its relationship to cause. In our consideration

(1) S. T. I, q 2, a. 3., c., Bittle, op. cit., pp. 99-100
(2) cf. supra Ch III p. 13
of change, particularly of substantial change, we saw that it is
the process, after creation, of "producing" the creatures of the
bodily universe. (4) Likewise it is the process by which some new
being is "produced" from the potentialities or the prime matter of
the old being, e.g. the ashes from wood, or the corpse from the
living body.

These ideas are contained in the very definition of cause,
namely, a principle by which anything is "produced", that which
gives existence to or contributes towards the existence of any-
thing. (5) Consequently "cause" is the actualizing principle of
the potentialities of matter.

Moreover we read in the writings of Aquinas, "Whatever be-
longs to a thing otherwise than as such belongs to it through
some cause, because that which has no cause is something first
and immediate, wherefore it must needs belong to the thing
essentially and as such." (6)

We have evidence that causes are necessary for change in the
very principle of change, "Quidquid movetur ab alio movetur",
i.e. "Whatever is moved is moved by another." (7) The weight of
the evidence lies in the fact that it is a principle known by the
light of reason.

" The principle of causality (8) is for St. Thomas a first
principle, i.e. directly known by the light of reason as
soon as reason awakens on contact with experience." (9)

(4) cf. supra Ch. III p. 15
(5) Glenn's Ontology, p. 289.
(6) C. G. Bk II, 15
(7) S. T. I, q 2, a. 3, c.; C. G. I, 13
(8) That quoted in note 7 which inherently means "Every effect
presupposes a cause."
(9) Gilson's "Philosophy of St. Thomas" p. 94.
Thus for the reasons already given we see that cause is a very necessary requisite for change. Our problem, however, is not yet complete since we must show just what causes exercise influence on all change.

Of primary importance is God, the First Cause, and the Prime Mover of everything. It is through Him that all beings have their actual existence since He is the Creator. He had accounted for every type of being before change itself existed since creation is not change. Being the First Cause of everything, He is also the First Mover. The great Theologian, Thomas, advises us:

"Whatever is in motion, must be put in motion by another. If that by which it is put in motion be itself put in motion, then this also must needs be put in motion by another and that by another again. But this cannot go on to infinity because then there would be no first mover, and, consequently, no other mover... Therefore, it is necessary to arrive at a first mover put in motion by no other; and this everyone understands to be God."(10)

It will be well to note in passing that God, and other causes as well, can effect change, only insofar as it is possible for a being to change.

"God's power extends to things that are possible in themselves; and such are the things that do not involve a contradiction. Therefore, it is evident that God is called Almighty because He can do all things that are possible in themselves."(11)

Besides God, there are four other causes which account for change. They, however, can account only for that change which takes place in bodies, while God accounts for all change. These are the material, formal, efficient and final causes.

The doctrine of the four causes was originated by Aristotle whom St. Thomas calls "philosophus", the philosopher. Up to the

---

(10) S. T. I, q.2, a. 3, c.
(11) De Potentia, Bk I, q.1, a. 7, 5.
time of Aristotle philosophers had endeavored to find the cause for change in the physical world. The early Ionians (620-530 B.C.) spoke generally of cause, while the later Ionians (530-500 B.C.) spoke of material and efficient causes. Later on Socrates introduced the notion of final cause, and Plato introduced the notion of formal causes. These ideas were taken up, synthesized, and developed by Aristotle in the doctrine of the causes. Since it was primarily to account for change that these doctrines of the causes were formulated, a discussion of their relation to change is not out of place here.

A more important reason for considering cause in relation to change lies in the fact that St. Thomas does not leave Aristotle's doctrine of the causes go untouched, but he extended the doctrines of the Greek philosopher. He not only extends the doctrine of the causes, but vouches for their necessity. The formal cause is necessary to account for the being in act, while the material cause is necessary to account for the being to be reduced to act. The efficient cause is the agent which must reduce the matter from potency into act, while intention which the agent must have for reducing the matter from potency into act is the final cause.

St. Thomas definitely tells us that there are four causes, for he says, "There are four kinds of causes, viz. final, formal, efficient, material to which a material disposition also is to be reduced though it is not a cause simply but relatively." (15)

---

(15) S. T. III, q. 27, a. 3., c.
In order to properly view the relationship of this doctrine of the causes and change, a two-fold treatment is necessary; first, to explain briefly the basic meanings of the causes, and second, to view, by way of example, their specific activity in a change.

In the preceding section dealing with matter, the substrate of change, and form, its determining principle we saw the meanings of material and formal cause. Consequently, it will suffice for the present treatise to review the main points of the doctrine of matter and form.

Prime matter is the incomplete substance which is common to all bodies. Of itself it is purely potential and indeterminate, being a mere capacity for receiving form. Form, therefore, is the determining principle which unites with prime matter to constitute a being which is one and complete.

When change occurs in bodies, it is due to the departing of the old form and the uniting of a new form with the prime matter, the form being substantial or accidental depending upon the type of change that is taking place. The old substantial form must depart. Otherwise, the unity of the body would be destroyed.

In the process of change, then, we are concerned with two dominant principles, matter and form, which cause the change to come about, since they account for the existence and nature of the being both before and after the change has taken place. They are intrinsic causes of the change because they themselves are affected by the change. They are contained with the change itself and are not external to the change, contributing not only to the effect of the change but also constituting a complete substance after the

---

(16) cf. supra Ch IV pp. 26-31
(17) cf. ibid. note 16
change is completed.

The third type of cause, as postulated by Aristotle and accepted by Aquinas, is the efficient cause. It is that cause by which something is produced and which refers to not one but several types. (19) Of these we must carefully distinguish between the primary and secondary efficient causes and between the principle and the instrumental causes.

In an earlier point of the discussion we saw that God is the First Cause. (20) In particular He is the First Efficient Cause, wholly independent of other things both as to His power and as to the exercise of His powers. The secondary efficient causes are creatures who depend on the First Cause for their existence and consequently for their power of causality. (21)

Our second distinction is between the principal efficient cause and the instrumental cause, a distinction which we must have in mind when considering the work of the efficient cause in bringing about a change. They are briefly, yet clearly defined in the following statement: "When two causes so combine to produce an effect that one of them uses the other, the former is called the principal and the latter the instrumental cause." (22)

The principal cause produces the effect by its own power, while the instrumental cause produces its effect not by virtue of its own power but by virtue of the power of the principal efficient cause as well. For example, the pen does have the power to make words but only when being used by the person moving the pen. The axe can cut, but only when someone is swinging the axe.

(20) supra p. 34
(22) cf. Coffey's Ontology, pp. 373-374 f.
The fourth type of cause is the final cause, which is the end or purpose of the efficient cause for acting\(^{(23)}\) or it is the end for the sake of which something is done. It is often called the "cause of causes",\(^{(24)}\) because, being an apprehended good, it draws the agent to the action. Relative to this St. Thomas tells us that "just as the efficient cause influences by acting, so the final cause influences by being yearned for and desired."\(^{(25)}\)

The four causes are not, as seemingly explained, isolated causes, for all work together to produce an effect, namely, a substantial or an accidental change. We have seen that cause is necessary for change; we have reviewed the types of cause which can effect change. Let us do this by way of example.

Consider Tom, the boy scout, who is about to send smoke signals to his fellow members in the camp a mile away. First he made a fire with pieces of wood. In the course of the action the wood lost its former appearance, and became a small pile of ashes.

What caused the wood to change to ashes? In the first place Tom, the efficient cause put the wood in the fire. Tom, however, had a purpose for putting the wood in the fire, namely, to make smoke for smoke signals. This was the final cause of the wood changing to ashes. Now the wood did not of itself burn but the fire burned it. Likewise the fire did not by chance come to the wood, but Tom put the wood in the fire. Here we see the work of the principal and instrumental efficient causes. Tom, the principal cause, burned the wood through the instrumentality of the fire.

Yet there was still something else which caused the wood to

---

\(^{(24)}\) cf. Glenn's Ontology, p. 323
\(^{(25)}\) De Veritate, q. 22, a. 2.
change to ashes, namely, the material and formal causes. The material cause, under the actuation of the efficient cause, gave rise to the new substantial form of ashes which it possessed virtually and potentially. The new substantial form did unite with the matter, causing the new substance, ashes, to be formed from the potentialities of the wood. The work of the efficient, material and formal causes is briefly summed up in these words:

"... The agent which introduces into the changing bodies the dispositions favorable to the coming of the new substantial forms does not produce or effect these forms, but merely gives the matter that actuation which is necessary for the transformation of its capacity for them into actual possession of them." (26)

This then is the work of the efficient, material, formal and final causes in producing a substantial change. We must note, however, in passing that it is the work of the first efficient cause, God, Who determined substantial change to be the means of creatures for preserving other creatures on the earth after creation. (27)

The four causes also effect accidental change as well as substantial change. The artist in forming a statue from a block of marble does not change the marble substantially but only accidentally. This is so because the substance of the marble remains throughout the change. The marble is the material cause of the statue while the shape and features into which the marble is cut is the formal cause. The sculptor is the principal efficient cause, and the chisel and hammer which he uses are the instrumental causes. The purpose he had in making the statue,

(27) Glenn's Ontology, p.67.
for example, to honor some president, is the final cause of the statue. (28)

Cause, therefore, is very necessary to the process of change. Expressed in its four types, efficient, final, material and formal causes, it explains three of the requirements for any change, namely, the "terminus a quo", the "terminus ad quem" and the agent of the change. (29) The first two mentioned are concerned chiefly with the material and formal causes which cause the substance to be a complete existing substance both before and after a change. The agent of the change is the efficient cause who in turn accounts for the final cause which is his reason or purpose for causing a change. Thus we conclude our discussion of the relationship between cause and change.

We have presented the doctrine of change as it is given to us by St. Thomas Aquinas. Through our discussion of substantial and accidental changes and of those affected by them we have shown that this doctrine is in agreement with fact. Through the doctrines of Act and Potency, of matter and form, and of cause we have shown that this doctrine is, moreover, an entirely reasonable explanation. Any doctrines which do not agree with it then are not in agreement with fact and are unreasonable. Such doctrines will be errors of change.

(29) ibid.
VI - ERRORS OF CHANGE

Throughout the history of Philosophy there have been doctrines which have contradicted St. Thomas' doctrine of change. Some have done so indirectly by contradicting some one of the doctrines necessary for a complete understanding of change. Others have directly contradicted the doctrine of St. Thomas.

Predominant among the first group are the monists, pantheists, atomists and dynamists who err about the make-up of bodily being. The monists and pantheists maintain that all the world is made out of the same "stuff." Monism, on the one hand, is materialistic, maintaining that the world is matter alone. On the other hand it is idealistic, maintaining that the world is just a manifestation. Pantheism, a form of monism, maintains that the sole existing matter is God. (1)

Four prominent philosophers of the eighteenth and nineteenth centuries fell into the error of monism, namely, Fichte, Shelling and Hegel of Germany, and Bergson of France. The philosophies of the latter two are particularly errors of change; so we shall discuss them as direct errors. The philosophies of the former two can be briefly summarized here as being indirect errors of change.

Johann Gottlieb Fichte (1762-1814) declared that nothing exists except the "Absolute Ego." It is not a real being, but an activity which results in realization. The Ego is the infinite and boundless Self while the world and all things in it are the not-Self. The world of bodies has no real existence. It is merely a projection of the actively intelligent Ego.

(1) cf. Glenn's Cosmology pp. 127-129
Friedrich Wilhelm Von Schelling (1775-1854) maintained that Fichte's doctrine was self contradictory. Above the Ego and non-Ego, he said, is the Absolute Ego which is identified with the Ego and non-Ego. This Absolute Ego is the pure potential God "Who from eternity projects himself (thesis), posits himself as nature (antithesis), and resumes himself as spirit (synthesis)."(2) Man, a perfect union of nature and spirit, is the visible expression of the Absolute. Man's body is merely an obstacle which he must overcome in order to be merged with the Absolute.

Atomism, as we have said, also denies change indirectly. It maintains that all matter is homogeneous "which means that there is no difference between clod and plant, between plant and animal, between brute and man." It would reduce all change to accidental change. In other words, it would deny substantial change.

Dynamism, like atomism, errs with regard to the constitution of bodily being and also indirectly denies the Thomistic concept of change. It maintains that bodies are made up of a series of non-quantified elements which are points of forces which attract each other but act upon each other across a void or vacuum.(3)

A fifth error indirectly denies the true doctrine of change because it contradicts the doctrine of efficient causality. Occasionalists maintain that "creatures are not efficient causes."(4) There is only one type of causality from their point of view, namely, divine causality. Creatures are mere occasions for the exercise of the divine causality. Occasionalism is wrong since it conflicts

(2) Glenn's History of Philosophy pp. 339-341
(3) cf. Glenn's Cosmology, pp. 132-144
with the infinite power of God in assuming that God, as Prime
Mover, cannot give to a creature the power of efficiently effect-
ing another. (5) Moreover, it contradicts the teaching of St.
Thomas. God can and must give activity to created agents by
which they can produce effects since, activity being a perfection,
the active power of a creature actualized, only the First Cause can
give it to creatures.

Much more could be stated with regard to these erroneous doct-
rines. We mention them here only to show that there are doctrines
which by erring with regard to other doctrines, will also deny the
Thomistic explanation of change.

There are four men particularly, however, who through their
doctrines entirely deny change as outlined in the present work.
They are Parmenides (b. 514 B. C.), Heraclitus (b. 530 B. C.),
Georg Wilhelm Friedrich Hegel (1770–1831) and Henri Bergson (1859–).

Parmenides and Heraclitus lived when philosophy was still in
its infancy. The three great Greeks, Socrates, Plato, and Aristotle,
had not yet made their contributions to philosophy. Furthermore,
a philosophy guided by revelation was as yet unborn. Consequently
these men and their contemporaries were practically left to form-
ulate their own ideas about the universe. Their philosophy re-
solved itself into an objective system concerned with a study of
nature and of the origin of the world. Little thought was given
to mind or spirit, but the greatest attention was given to material
elements, earth, air, fire, and water, which were looked upon as
the chief originating forces of the universe. (6) With these ideas
in mind let us briefly examine the philosophy of these two men.

Parmenides, a member of the Eleatic school of early Greek philosophy, which takes its name from Elea, the Greek city where Parmenides lived and taught denies that there is such a thing as change. This idea arose from his confused experience of constantly changing reality about him.

"Since everything about us is constantly changing, it seemed to him that no knowledge of it (change) was possible... If there is to be knowledge at all, there must be some unchanging reality underlying this surface of the world."(7)

To get away from this confusion about change, he denied without scruple the very data of his senses by saying that reality does not change.(8) He explains this unchangeableness of being by making it the only reality and by stating that being could not be produced from being since it would be before it began to be.(9)

Parmenides is wrong for two reasons. In the first place, he denies the reality of passive potency, the capacity for receiving act.(10) In the second place, his explanation of changing reality is contrary to the reasonable explanation of St. Thomas. Consequently it is unreasonable and we cannot accept it.

The second Greek philosopher of this early period, Heraclitus, likewise was confused about change. He went to the opposite extreme of Parmenides and maintained that everything changes, that nothing is permanent.(11)

"He sees that all the world around us is perpetually changing; but instead of rejecting this appearance of change as illusory (as Parmenides did) and asserting that reality must be other, he accepts it as the basic reality."(12)

(8) ibid.
(9) Turner, op. cit., p. 48
(10) Phillips, op. cit., Vol. II p. 182
(11) Turner, op. cit., p. 54
Heraclitus explained this "idea" of change by his idea of a divine, all-controlling fire. Fire, he says, is the first principle of all things, by which all things in the world are produced. This is done according to a twofold movement: a movement of condensation whereby fire becomes water and earth, and a movement of rarification or kindling whereby earth goes back to water and water to fire. Through these two movements one world is reduced to fire and another is produced from fire in an endless process of perpetual becoming.\(^{(13)}\)

This teaching is a denial of all actuality since nothing remains the same but everything is constantly changing.\(^{(14)}\) It does not leave room for an explanation of the types of change since it explains everything as constantly changing in the same way. Moreover, the explanation does not attend sufficiently to the material cause,\(^{(15)}\) which remains both before, throughout, and after substantial change.

Much more could be said in criticism of Heraclitus, and for that matter of Parmenides, but it is not necessary since the errors are completely refuted and corrected in the preceding sections explaining the concept of St. Thomas as regards change.

A modern philosopher of change, Georg Wilhelm Friedrich Hegel (1770-1831) presented a system of philosophy which maintains that the one existent thing is the Idea.\(^{(16)}\) In other words he is an Idealistic Monist and could be criticised as such. However, we present him here as directly denying the Thomistic concept of change since he postulated a "Changing God" whom he called the "Absolute."

\(^{(13)}\) Turner, op. cit., pp. 54-55; Glenn's History of Philosophy p. 55
\(^{(15)}\) History of Philosophy by L. F. Miller p. 11.
The "Absolute" is essentially active and in a state of becoming. Rather than being manifested in material and spatial phenomena it becomes nature and spirit in its process of development. The universe, man included, represents this process of the Absolute. In his philosophy of nature, Hegel describes the Idea (the Absolute) as going through three different stages in its process of externalization, namely, mechanics, physics and organics. The synthesis of the Absolute into one is explained in his philosophy of spirit. After having externalized and developed from pure idea and after having become self-conscious, infinite selves, the spirit tends to further perfect itself by bringing all reality into one.

"The whole... is merely the essential nature reaching its completeness through the process of its own development. Of the Absolute it must be said that it is essentially a result, that only at the end is it what it is in very truth; and just in that consists its nature, which is to be actual, subject or self-becoming, self-development."(18)

St. Thomas tells us that there is one God, Who is Pure Act, and cannot change. Moreover, there are creatures who do change and then into other creatures.(19) They do not develop into part of an Absolute as Hegel would have us think.

A philosopher of our own day, Henri Bergson also misinterpreted the phenomena of change. Like the ancient Heraclitus he expresses his philosophy of change in the dictum, "Everything Changes" (20) His method of explanation differs from that of Heraclitus. Instead of interpreting change as a modification of physical elements, he chooses to establish his belief by a psychological and biological approach. His theory, therefore, is one of mechanistic evolution.

(17) Turner, op. cit., p. 573.
(19) cf. supra Ch. III. pp.
He upholds this continual state of evolution by his doctrine of the "elan vital," an impulse which impels the evolutionary process to advance to higher levels. He supports his biological theory of change with an explanation, so to speak, of the changing states of consciousness. These, he maintains, change even while they are present to us. Even our experience of ourselves is constantly changing. Moreover, we ourselves do not exist as changing beings - we are change. In fact the universe itself is nothing but change.

In criticism of this evolutionary theory of change, we offer what has been said in refutation of Heraclitus. We also offer the concept of Aquinas as presented in preceding sections. We can emphasize one point, however, which we mentioned when dealing with the types of being which do not change, namely, that metaphysical essences do not change. Bergson's doctrine and the doctrine of Heraclitus as well deny this point since, if everything changes, as they maintain, metaphysical essences must also change.

In a criticism of Bergson, from the point of view of St. Thomas we read:

"A thing may change as to its integral or accidental parts, but not as to its essential parts. If its essential parts change, then the thing itself ceases to be, and something else begins to be. For instance a pig is always a pig. When it is young it is small and thin. After twelve months of good feeding it becomes large and fat... In spite of all the feeding it remains a pig. The essence has remained the same."(21)

We may also mention that Bergson had a mistaken notion of the causes. He maintains that the cause of any phenomenon are those phenomena which immediately precede and accompany it. They are

(21) Bergson, An Exposition and Criticism by T. J. Gerrard p. 14 f.
merely antecedent and have no power or influence over the phenomena which we call their effect. Thus the philosophy of Bergson. (22)

Neither he nor any others mentioned in this section have been able to explain satisfactorily the patent fact of change. St. Thomas alone has been able to give to men a complete and adequate explanation of flux and all it includes.

CONCLUSION

In conclusion let us summarize: Change is an evidenced phenomenon. It is a truism indeed that all things change, all things but the First Cause and abstract metaphysical essences.

Change is viewed as transition from actuality to potentiality, the former being an aptitude for determination, the latter being the realization of that determination. Some realities can be determined only accidentally, some both substantially and accidentally. We refer of course to the material order and the spiritual order. Needless to say the First Cause of all things is Pure Actuality in whom there is no change or alteration.

To further explain the substantial changes we invoke the Aristotelian doctrine of matter and form, the former being the determinable principle; the latter being the determining principle. When change occurs the form departs while the prime matter remains and receives a new substantial form. Matter, then, is the enduring substrate of substantial change.

Changes are related, needless to say, to causes. The material, formal, efficient, and final causes are each definitely related to change. The material cause is the matter which is changed.

(22) Phillips, op. cit., p. 268.
The formal cause is that which constitutes the body in its new essence, distinguishes it from the type of body it was before. The efficient cause is the agent who produces or brings about the change. The final cause is the agent's reason or purpose for bringing about the change. To explain these doctrines we invoke the terminus quo and the terminus ad quem, important requirements of change. Thus the Thomistic analysis.

Reason demands adherence to this explanation of a universal fact. The errors of any philosophy, monistic or otherwise, contradict thought, reality and experience. The same condemnation applies to any philosophy of flux.
BOOKS:

Aquinas, St. Thomas: Commentaria Metaphysicam Aristotelis; Taurini, Marii E. Marietti Libraria, 1935.

Aquinas, St. Thomas: Summa Theologica, Revised edition; Summa Contra Gentiles, 1923; Quaestiones Disputatae De Potentia Dei, 1932; translations of the English Dominicans; Burns, Oates & Washbourne Ltd., London.


Coffey, Peter Ph. D.: Ontology; Peter Smith, New York, 1938.

Gerrard, Thomas J.: Bergson, An Exposition and Criticism From the Point of View of St. Thomas Aquinas; B. Herder Book Co., St. Louis, Mo., 1913.


Glenn, Paul J.: Cosmology, 1939; Criteriology, 1937; History of Philosophy, 1938; Ontology, 1937; B. Herder Book Co., St Louis Mo.


Phelan, Gerald B: Jacques Maritain; Sheed & Ward, New York, 1937.


Vonier, Dom Anscar, O. S. B.: The Human Soul; B. Herder Book Co., St. Louis, Mo. 1925.

ENCYCLOPEDIAS:
