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CONTINGENCY

AND

THE MODERN SCOLASTICS

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PROPOSITIONES

Forma et materia sunt sibi invicem causae.

Omne nomen cum defectu est.

Finis est nobilior illis quae sunt ad finem.

Ha quae aliquando fuerunt vel erunt, licet de praesenti non sint, Deus cognoscit præsentialiter in sua eternitate per scientiam visionis; quae vero neque sunt, neque fuerunt, neque erunt cognoscit per scientiam simplicis intelligentiae.

Quae sunt eadem uni tertio sunt eadem inter se.
## CONTENTS

**FOREWORD**

**CHAPTER I**  
**LOGICAL POSSIBILITY**

1. Potency and possibility .......................... 1
2. The logically possible is defined according to a non-repugnance of terms .. 9
3. The logically possible embraces both necessary and contingent being..... 17

**CHAPTER II**  
**PHYSICAL POSSIBILITY AND THE DIVISIONS OF CONTINGENCY**

1. The possible "per potentiam in aliter" .. 22
2. The threefold genus of contingency ...... 25
3. Physical possibility and intrinsic contingency .................. 34

**CHAPTER III**  
**ABSOLUTE AND CONDITIONAL NECESSITY**

1. The two kinds of necessity defined and explained .................. 42
2. Necessity and the Modern Scholastics .... 53
3. The "hypothetical necessity of the laws of nature" .................. 77
### CHANCE AND FORTUNE

1. Accidental Causality in common and the definition of fortune.................. 113
2. The difference between chance and fortune........................................... 123
3. Chance is a cause and not an effect................................................... 129
4. Chance is an intrinsic cause; fortune is an extrinsic cause...................... 146
5. The reason for the accidental effect is the insufficient determination of the cause; but such a contingent cause fails only when there is some impediment......................................................... 168
6. Conclusion - The intellect can conceive as one what is not one in nature................................. 179

**BIBLIOGRAPHY**

195
FOREWORD

It is certainly true that in recent times an intense interest in Scholastic philosophy has revived and continues to gain momentum, to a certain extent even in secular circles where at least an indifference to such a movement might be generally expected. In a climate of careful study and of renewed emphasis on the value of adhering to authentic philosophical principles, once familiar truths are diligently explored with new respect and with an increasing recognition of their fruitfulness in any time.

The New Age of Scholasticism, if it is not too soon or gratuitous to give it this name, has been marked by the earnest efforts of serious thinkers to re-establish a sound learning and intellectual tradition in accordance with the doctrine and method of St. Thomas Aquinas. In view of this worthy intention to profit from the wisdom of the past, and the great intellectual good that can be accomplished by a faithful interpretation of the doctrine of St. Thomas and its application to modern philosophical questions, it is somewhat unfortunate and surprising if not remarkable that
on the important question of contingency there should exist a deep opposition between many modern Thomist philosophers and St. Thomas himself.

In a large number of recent and current scholastic manuals and books on philosophy, particularly on the Philosophy of Nature, one encounters a doctrine that reveals a completely deterministic interpretation of natural causality and the order of physical effects in the universe. In these writings it is quite generally taught that everything that takes place in the world of nature is completely determined in advance by the interaction of natural causes and properties; no future event is really uncertain in itself but is infallibly or necessarily pre-determined in the entire history of world factors and environment. To a divine intellect which would know all these world-components and influences, every future occurrence would appear inevitable and absolutely necessary.

1. J. Maritain, Reflections on Necessity and Contingency, in Essays in Thomism (New York, Sheed and Ward, Brennan, 1942) p.27: "When a certain bee visits a certain rose at a certain instant of time, we say that the event is contingent. Still, neither the rose nor the bee is a free agent; everything which befalls them is determined by the meeting or the interaction of properties of the nature of each and of the actions occasioned by the environment. As a result, to a divine intellect which would know absolutely all the ingredients of which the world is made, all the factors involved in the world and the entire history of all the successions of causes which have been evolved in the world since its beginning, the visit of that bee to that rose at that particular instant would appear as an infallibly or necessarily determined event."
This view, which is contrary to the most fundamental principles of the Philosophy of Nature, although it is representative of many modern scholastics, is not new to philosophy or to Scholasticism; the same opinion was held by certain ancient Greek philosophers. And even after Aristotle's refutation and resolution of this position and the profound words of St. Thomas on this subject in his commentaries on Aristotle, in the Summa and elsewhere, one finds the same thing taught by Suarez, who held that an effect which is contingent with respect to a proximate cause is necessary when compared to the total order and series of causes in the universe, if no free agent intervenes. Thomistic writers teach further, as a logical consequence, that the sole condition required for the prediction of any future event in nature, even the effects of chance, is a sufficient knowledge of the physical universe. It is admitted that this knowledge happens to be inaccessible to man, but the unavoidable ignorance does not alter the strict necessity that governs the future as well as the past and the present; if man could have a thorough grasp of the causes

2. Disputationes metaphysicae, disp.XIX, sect, par 5: "...Effectus qui est contingens respectu causae proximae naturaliter operantis, si comparetur ad totum ordinem seriem causarum universi, et in his causis nulla intercedat libere agens, saltum ut applicans alias causas vel removens impedimenta, non habet contingentiam sed necessitatem."
at work in the world, and if his knowledge could embrace completely the initial state of things in creation, the future down to the last minute occurrence in nature could be unerringly predicted.

The only effects that are admitted to be really indeterminate and unpredictable in themselves are those that proceed from the freedom of the will. Even on this point there is confusion between the event that is unforeseeable because it is free and the incident that cannot be predicted because it is accidental, or fortuitous. Actually, the former kind of effect is contingent on the free extrinsic causality of the will, while the latter is undetermined and contingent because of the intrinsic limitation of the agent. This distinction is completely missed by those modern thomists who speak only of the first kind of contingency, which is not contingency in the strict sense but completely compatible with an absolute necessity, as will be shown.

Although accidental happenings, whether they be in nature or human activity, are not the only ones that can claim an intrinsic lack of necessity; every natural effect being contingent to the extent that it proceeds from a defective cause and can thus fail to come about, purely casual or fortuitous events are still the most contingent and least determined of the things that come to pass.
Indeed, they are not determined at all in any created cause or series of causes. But claiming as they do, the existence of a perfect determination in nature, modern scholastic writers are quite logically forced to deny the reality of chance, as well as the contingency of those effects that are intended by nature. For if natural activity is completely determined, chance and contingency have no chance, but are impossible - "In his enim quae in minori parte accidunt, dicitur esse fortunas et casus. Si autem non provenirent aliquis ut in minori parte, omnis ex necessitate acciderent: nam ea quae sunt contingenter ut in pluribus, in hoc solo a necessariis different, quod possunt in minori parte deficere." (3)

The negation of chance and, implicitly, of fortune, by denying the principle of indetermination underlying both, namely the limitation and imperfect actuality of created causes, would in fact lessen the wisdom of divine providence. This appears to be the most serious consequence of the modern scholastic teaching even if it is not the most evident, for the infinite wisdom of the Creator is more marvelously unveiled in the apparently absurd and in the accidental events that come to pass according to His design, than it is in the

3. St. Thomas, Contra Gentes, III, c. 74
4. ibid.; "Esset autem contra rationem providentiae divinae si omnia ex necessitate contingenter, ut ostensum est. Igitur et contra rationem providentiae divinae esset si nihil foret fortuitum et casuale in rebus."
regular, "rational" occurrences for which men can give immediately some reason within the world. God puzzles the wisdom of this world in one way by being the per se immediate cause of things that appear foolish to human wisdom since no created cause can be assigned for their coming to be. But in recalling that only God can be the determinate and per se cause of that which is in itself contingent, attention is drawn to God's infinite perfection and providence, for the purely contingent event cannot be referred to any created cause acting per se; it has its reason only in the divine intellect and will. Moreover, if the knowledge of the future that a divine intellect would have is to be based on "all the ingredients of which the world is made, all the factors involved in the world and the entire history of all the successions of causes which have been evolved in the world since its beginning," this not only implies that all these factors and causes are absolutely necessary (for otherwise the future would not be determined and hence, not knowable with certitude), but it also implies an imperfection and passivity in divine knowing if God's knowledge is thus made to depend on the things themselves, past and present, in order to know the future.

But God does not know the future things as well as those which are past and present simply because He sees them in his eternal science; He knows them in as much as He is their cause by His science and will, and sees them in His eternity as the measure of His causality. It is not only free decisions that God knows only in Himself, but any future contingent event. Note too that if the series of causes and factors is not absolutely necessary, the science that God has of the future is imperfect and only conjectural if it must depend on these causes and factors. - "...Quicumque cognoscit effectum contingentem in causa sua tantum, non habet de eo nisi conjecturalem cognitionem."  

Perhaps an overbearing desire for clarity in all things even where no clarity could be found, has led many modern Thomists to seek a complete rationality in the operations of nature. This same inordinate desire for clarity — it may even be that there is an unwillingness to admit that this clarity is hard to obtain, for if this were the case it might explain the superficial understanding of such really difficult things as natural causality, which these scholastic writers seem to exhibit: — could also explain why some modern

6. St. Thomas, La, Q.14, a.3, c

7. Would it be appropriate to quote here St. Thomas' words in the Ethics? — "...Ad hominem disciplinatum, idest bene instructum, pertinet, ut tantum certitudinis quaerat in unaquaque materia, quantum natura ei petitur. Non enim potest esse tanta certitudo in materia variabili et contingenti, sicut in materia necessaria, semper eodem modo se habente. Et ideo auditor bene disciplinatus, non debet majorem certitudinem requirere, nee minori esse contentus, quam sit conveniens rei de qua agitur." (I, lect.III, n.36)
scholastics have been moved to substitute metaphysics for
the whole of philosophy; to the utter impossibility of
achieving distinct knowledge of any kind, least of all about
being as being, which is the subject of the very last natu-
ral science to be acquired by man.

The deterministic outlook on the universe, which modern
scholastic writers maintain, simply cannot be reconciled
with the teaching of Aristotle and St. Thomas, who insist on
the intrinsic lack of necessity in future contingent events
whether they are considered in relation to proximate causes
alone or with reference to the whole of nature. The reason
is definitive: Natural causes, acting for an end, achieve
their effects only in the majority of cases and not always;
they do not cause with an absolute necessity because of the
contingency or lack of determination in the form itself, which
is not sufficiently actual or determined to individuate it-
self, and because of the indetermination of matter, which is
never completely dominated by the finite agent or exhausted
by the natural form.

The attempt to set aside the contingency and indetermi-
nation of form and matter respectively, by introducing some
absolutely necessary constellation or series of causes by
which natural activity would be perfectly determined and
necessitated is really a denial of the reality of individual
nature in the sense of "principium motus et quietis in eo in
quo est, primo et per se et non secundum accidentem"; for where there is perfect necessity and determination there is no purely natural form or matter. This is equivalent to obtaining a necessary cause by the addition of contingent ones. St. Thomas has clearly rejected this view which is plainly that of many modern Thomists, as it is hoped will be shown in sufficient detail.

There are at least three reasons for undertaking a critical study of the modern scholastic teaching on contingency: The first of these is to show that this teaching would destroy the principles and science of nature by suppressing its very subject qua composed of matter, form and privation; the second is to make it clear that although it is presented by Thomists, it is not the doctrine of St. Thomas; the third reason for the study is to show that this false doctrine of contingency implicitly denies an absolute universality of divine causality and the incommensurable wisdom of divine providence.

It is not to be inferred that modern Thomists knowingly subscribe to these logical consequences of their teaching, or even that all of them hold the same general view. Our aim is to show that the position of many modern scholastics either leads to these conclusions or states them in another form; that their doctrine is not always based on the teaching of St. Thomas, which, on this score, is derived directly from Aristotle,
and that on the whole it has nothing in common with it.

A few remarks must be made about the order of the chapters to follow. Chapters I and II together serve as a general introduction. In Chapter I, logical possibility is discussed as that which is common to necessary and contingent being, in order to bring out the foundation of extrinsic contingency in the liberty of contradiction possessed by free agents, and especially in the divine omnipotence, as a free, active, extrinsic cause in relation to which all creatures are contingent. The meanings of the terms to be used throughout are explained in this chapter.

Chapter II begins with a study of the physical possibility that is founded on an active potency, in terms of which extrinsic contingency is defined. A general division of contingency follows and the chapter concludes with a preliminary examination of the possibility and contingency that is rooted in an intrinsic, passive principle, in opposition to that which depends on a positively indeterminate active principle, previously discussed in the same chapter.

In Chapter III, the first direct reference is made to modern texts. In the first part of this chapter two kinds of necessity are defined and explained in the light of St. Thomas's teaching. In the second part of the chapter the teaching of modern scholastics on necessity is examined in relation to the doctrine of St. Thomas. The last part of this chapter deals
with the particular question of the "hypothetical necessity of the laws of nature". The discussion does not presuppose the meanings attached to this expression as it is used in the experimental sciences but deals with its interpretation in a philosophical context as presented in many modern scholastic manuals.

The aim of Chapter IV is to discuss briefly the kind of contingency proper to nature from the viewpoint of positive and negative indetermination and finiteness.

With Chapter IV as a preamble, Chapter V constitutes a critique of the modern scholastic position from the standpoint of what accidental causality is. Since casual and fortuitous events are the most evident forms of contingency, it is here that the errors of the modern teaching on this question are most clearly seen.

The last part of the final chapter is also the conclusion to the whole work. It deals with the impossibility of having a created per se cause for the purely accidental effect, and the ordination of casual and fortuitous events by a superior cause acting per se. It is hoped that the summary character of this section will be evident from the content.

Generally speaking, in addition to undertaking an analysis of the modern scholastic teaching, an attempt has been made to give the true doctrine of Aristotle and St. Thomas on contingency - certainly not in any exhaustive
manner. Despite the fact that the presentation is imperfect and far from profound, if, in order to avoid error and arrive at truth, the importance of being faithful to the letter of St. Thomas has been in some small measure made more evident, then the work has not been in vain. Quite the contrary, for today this spirit of docility to an intellectual master, in order to advance in knowledge and wisdom, is one of the most difficult things upon which to obtain agreement.
CHAPTER I

LOGICAL POSSIBILITY

1. Potency and possibility

Before we can give an explanation of logical possibility it will be necessary to discuss the various modes of potency, for as St. Thomas says in his commentary on the Metaphysics of Aristotle, "...Cum potentia tot modis dicatur, possibile etiam et potens pluribus modis dicatur." The order of learning will be observed if we first divide potency into its modes and define each of these in turn.

There are four kinds of real potencies. The first is a principle of movement or change in another in as much as it is other. This kind of potency is active and resides in the agent or mover as such. Thus, when something moves another or changes it in some way, the power that is in the agent in virtue of its form is a principle of the movement or change. A carpenter, for example, has the power to make a table, and fire has the power to burn wood.

1. St. Thomas, In V Metaphysicorum, lect. XIV (ed. Cathala), n. 961
2. ibid., n. 955: "...Primus est, quod potentia dicitur principium motus vel mutationis in alio inquantum est alius."
The second kind of potency is a principle of change or movement from another in as much as it is other. This potency is passive and is in the thing that is moved according as it is made. The capacity of wood to be burned or to be shaped in a certain way by the carpenter, is a passive principle of change in the wood.

Sometimes both the active and the passive potency are found in the same subject. In the case of a doctor who cures himself, for instance, the art of medicine which he possesses as a doctor is the active principle of his curing himself. It is only accidental, however, that the condition of illness, which is the passive principle of the change, is found in the same person. It is for this reason that the phrase in as much as it is other is included in the definition of each kind of potency. In the example just given the capacity to be cured is not in the man as a doctor but rather as someone who is ill.

3. St. Thomas, In V Metaphys., lect. XIV, n. 956: "...Alio modo dicitur potestas principium motus vel mutationis et altero inquantum est aliiud. Et haec est potentia passiva...

4. St. Thomas, In X Physicorum, lect. I, n. 5: "Contingit enim aliquando quod aliquis medicus est sibi ipsi causa sanitatis; et sic principium sua sanationis est in eo, sed per accidentem...Non enim secundum quod sanatur habet medicinam, sed secundum quod est medicus; accidit autem eundem esse medicum et sanari..."

5. St. Thomas, In II Metaphys., lect. I, n. 1776: "...Possibile est quod principium activum simul sit in ipso mobili vel passo, sicut cum aliquid movet seipsum; non tamen secundum idem est movens et motum, agens et patient. At ideo dicitur quod principium quod dicitur potentia activa, est principium transmutationis in alio inquantum est aliiud; quis esti contingat principium activum esse in eodem cum passo, non tamen secundum quod est idem, sed secundum quod est aliiud."
Similarly, the art of medicine, the active principle of the change, is not in the man as someone ill but in so far as he is a doctor. In other words the doctor cures himself as a doctor but is cured as a person who is ill. If the doctor were not, as a doctor, other than himself, as a sick person, only those who are ill could be doctors, and only doctors could be ill.

A third kind of potency is a principle of acting with ease and efficiency or undergoing a change without opposition. This kind of potency can be either active or passive; an example of the first would be the ability to play a musical instrument well and with ease; the property possessed by soft wood to burn easily would be an example of the passive potency defined here. If either of these potencies is absent in a subject, the opposite effect results; for example, someone who does not have musical talent may play an instrument but only with some difficulty, and the wood that is not soft is harder to burn than the other. This potency, then, makes an active potency more active and a passive potency more passive.

There is, finally, a fourth kind of potency that is any form or disposition by which a thing is incorruptible, or more

6. St. Thomas, *In V Metaphys.,* lect. XIV, n.959: "Dicit quod alia potestas dicitur, quae est principium faciendi aliquid non quocumque modo, sed bene...Et (similiter)...Dicitur enim aliquid posse pati illud quod bene potest pati."
or less immobile. An example of this is any durability that a thing has; we might cite the incorruptibility of the intellect or the stability of a certain government or even the permanent qualities of certain materials if these qualities are desirable. This principle is assimilated to the degree of actuality that a thing has, for it is in relation to act that a thing is perfect. When something is defective it is rather because of some impotency or lack of actuality. This should be pointed out here in order to keep this kind of potency distinct from the preceding one, which is sometimes active, sometimes passive. A man who is always in good health would be said to possess this fourth kind of potency or power, while one who is habitually ill would not have it in terms of physical condition.

In addition to the four kinds of potencies that have been already mentioned, there are two others that are called potencies only in an improper sense, that is, metaphorically. They are given the name of potency because they are in a way similar to true principles. Thus, in geometry a line is said to be a square in potency, and in arithmetic three is said to

7. St. Thomas, op. cit., n. 760: "Dicit quod etiam potestates dicuntur omnes habitus sive formas vel dispositiones, quibus aliquas dicuntur vel reduntur omnone impassibilitia, vel immobilia, aut non de facili mobilis in pejus."
be nine in potency because multiplied by itself it equals nine.
Secondly, in regard to the non-repugnance of terms in a proposition, we can speak of a certain potency because the terms have the capacity to be composed if what they signify is not contradictory. One of the terms, however, is not the principle of the other, nor are they together the principle of their composition. Nevertheless, the subject "man," for example, has the capacity to be joined to the predicate "animal," and vice versa; if not, the proposition, "man is an animal," would be false. Here, although it is the domain of ens verum, there is a similarity to true principles and true potencies; the capacity of terms to be composed is similar to and based upon, the capacity of the things signified to be composed in physical reality.

8. St. Thomas, In IX Metaphys., lect.1, n.1774: "In quibusdam enim dicitur potentia non propter aliquod principium habitum, sed propter similitudinem quadratum, sicut in geometria. Dicitur enim potentia aliquius lineae esse quadratum ejus; et dicitur quod linea potest in suum quadratum. Et similis modo potest dici in numeris, quod ternarius potest in novenarius quod est quadratum ejus, ex quod ex ductu ejus in seipsum facit novenarium. Ter enim tris novem faciunt."

9. St. Thomas, ibid., lect.1, n.1775: "Similiter in logica dicitur aliquus esse possibilis et impossibilis, non propter aliquam potentiam, sed ex quod aliquo modo sunt aut non sunt. Possibilis enim dicitur, quorum opposita contingit esse vera. Impossibilis vero, quorum opposita non contingit esse vera. Et haec diversitas est propter habitudinem praedicati ad subjectum, quod quandoque est repugnans subjecto, sicut in impossibilibus; quandoque vero non, sicut in possibilibus."
Besides the four modes of real potency, then, all of which are principles of real being, there are these two latter potencies, one mathematical the other logical, which are named potencies equivocally, according to a certain similarity.

The real potencies establish the foundation of real possibility; those that are potencies in an equivocal way enable us to speak of a logical possibility and a mathematical possibility. In order to orient our discussion and maintain the same order of presentation, we shall first treat briefly the possibility that is related to a real potency, examining each mode in turn. Then we shall take up in detail the question of logical possibility.

Note that the brief discussion of real or physical possibility that is to follow is undertaken first because physical possibility is better known to us. The extensive treatment of this kind of possibility, however, will be the subject of the second chapter. The reason for this twofold order is that, on the one hand, as mentioned, physical possibility is better known to us than logical possibility; it should, therefore, be studied first, at least briefly. On the other hand, the logical possible is a kind of genus, embracing both necessary and contingent being; from this point of view it may be studied first. Now since this dissertation does not deal primarily with potency and possibility, but rather with necessity and contingency, and chiefly the latter, the second order
is the more appropriate and the one required for our purposes. This means simply that the order that must be observed in this chapter is different from the order of the entire essay. The principle that we must proceed from what is more known to us is then not violated.

The multiplicity of the modes of real potency is analogical and all the modes are reduced to the first as to a principle. Potency is said, first of all, of the active potency, and the term is applied to the other modes by way of analogy. According to the first mode of potency things are said to be possible per potentiam in ultero, since the possibility attributed to them is not from an intrinsic principle but from the potency or power of causality in another. Thus, a thing is called possible according as it is or can be subjected to the causality of another. For example, it is possible that a lawbreaker be more or less severely punished in terms of the power and authority of the judge.

10. St. Thomas, In IX Metaphys., lect.1, n.1776: "His ergo modis praeternissis, considerandum est de potentialiis quae reducantur ad unam speciem, quisquale tatem aea est principium quoddam, et omnes potentiae sic distat reducuntur ad aliquod principium ex quo omnes aliae dicuntur. Et hoc est principium activum...Et inde patet quod habeat multiplicitas non est secundum equivalentiam, sed secundum analogiam."

11. St. Thomas, In, Q.9, a.2, c: "Sicendum est anim quod mutabile potest aliquid dici dupllicer: uno modo, per potentiam quae in ipso est; alio modo, per potentiam quae in ultero est."; In IX Metaphys., lect.1, n.1782: "Potentiae vero activa est in agente, ut color in calefactivo, et ars sedificativa in sedificante."
A second kind of possibility is derived from the second mode of potency, which is an intrinsic principle. In relation to this potency a thing is called possible per potentiam in se passivam. To burn wood, for example, is possible because there is a passive principle in the wood that enables it to receive the action of an active cause, fire.

A third kind of possibility corresponds to the fourth mode of potency, which is that principle in a thing that renders it immobile or not easily corruptible. The intellect, for instance, cannot be corrupted since it is not joined to an organ. This potency or power is due, not to the matter, but to the form. It is not possible to burn metals, generally speaking, since they have the capacity to resist active causes that corrupt other materials.

The fourth mode of real possibility corresponds to the third mode of potency, and is derived from the principle that enables a thing to act efficiently or to undergo a change easily. An example of the latter is the possibility of burning very combustible materials, such as soft or dry wood; of the former, the high degree of efficiency possessed by an intense flame.

These four kinds of possibility are denominated real in as much as they follow from some real potency. With these preliminary notions in mind we can now proceed to the principal subject of this chapter.

2. The Logically Possible is defined according to a non-repugnance of terms, and abstracts from real existence.

The logically possible, which is not derived from a real potency, is a possible that is defined according to a non-repugnance of terms. Such possibility prescinds from any real potency or principle of actual existence. It should be noted here that being is said not only of that which exists in nature, but also of the composition of terms in a proposition; being is thus divided in one way into ens reale and ens verum. According to the second member of the division, the truth of a given proposition is its being, while the falsity of another proposition is the same thing as non-being. Possibility and impossibility, then, are spoken of not only with reference to potency or impotence on the part of some thing, but also with reference to the truth or falsity of a proposition.

Respondeo. Dicendum, quod, secundum Philosophum (in V Metaph., text. 17), possibile et impossibile dicuntur tripliciter. Uno modo secundum aliquam potentiam activam vel passivam; sicut dicitur homini possibile ambulare secundum potentiam gessivam, volare vero impossibile. Alio modo non secundum
aliquam potentiam, sed secundum se ipsum, siue dicimus possibile quod non est impossible esse, et impossible dicimus quod necessas est non esse.

Tertio modo dicitur possibile secundum potentiam mathematicam quae est in geometricis, propt e dicitur linea potentia commensurabili, quia quadratum eius est commensurabile. Hoc autem possibili praetermissis, circa alia duos consideramus.

Sciendum est ergo quod impossible quod dicitur secundum nullam potentiam, sed secundum se ipsum, dicitur ratione discoherrentia terminorum... (13)

According as various kinds of possibility refer to some real potency, they fall within the realm of real being which is divided into necessary and contingent things. _et verum_, however, is real only in the sense that creatures which are possible logically or absolutely, all have an essence capable of existing whether they will ever exist or not.

The logically possible abstracts from the real existence of things; consequently, things which will actually exist at some future time or which already exist, as well as those which have purely possible existence and will never exist, are possible absolutely in as much as none of them is contradictory.

_Dicitur autem aliquid possibile vel impossible absolute, ex habitudine terminorum, possibile quidem, quia praedicatum non repugnat subjecto, ut Socratem sedere; impossible vero absolute, quia praedicatum repugnat subjecto, ut nominem esse asinum, (14)_.


This possibility does not include in its concept determination to being or to non-being, and since it is not derived from a real potency as from a principle, it is said to be (15) secundum esse ipsum. Logical possibility, then, is common and absolute. It is applied not only to actual and potential creatures but also to God Himself. It should be understood, not in opposition to the necessary but rather to the impossible. Thus, when we speak of the possibility of composing terms in a proposition we are not necessarily discussing anything that is to placed in reality: We may refer to the being of a proposition and to the being of an animal; the difference is that in the first case the word "being" is used in the sense employed when we say, "negation is the opposite of affirmation," or, "blindness is in the eye"; in the latter case, when referring to the "being" of an animal, the term is used according to its first imposition or signification, in which it means something existent. The logical possible refers to the kind of being which is identified with the non-repugnance of terms. Hence, it is not a question of real or physical possibility since it is not a question of real being.

But is there not a sense in which the logically possible is also really or physically possible, in as much as God can.

15. St. Thomas, op. cit., ad 4: "Dicendum quod possibile absolutum non dicitur neque secundum causas superiores, neque secundum causas inferiores, sed secundum seipsum."
make whatever is not contradictory? Is it not precisely in this way that St. Thomas treats the question of divine omni-
(16) potence? How can the logical possible be distinguished from the physical possible per potentiam in altero, if the active potency be taken to mean nothing other than God's power to create? And if God is logically possible, as He must be, will we not be obliged to say that He is the object of His own active power?

As has been explained, a thing is said to be possible in relation to some potency that can produce it. Thus, many things are within man's power. But we cannot say that God is omnipotent because He can produce whatever is possible in relation to His power, for such an argument is plainly circular. This is nothing other than saying that God is omnipotent because He is able to do whatever He is able to do. It must be said rather that God is omnipotent in as much as He is able to do whatever is possible, absolutely. Here it is a question of the possible that is not referred to a potency but is defined logically, from the non-contradiction of the terms proposed. Thus, whatever is not contradictory falls within

16. Ia, q.25, a.3, a
17. ibid., corpus: "Relinquitur quod Deus dicitur omnipotens, quia potest omnia possibilium absolute, quod est alter modus disendi possibile. Dicitur autem aliquod possibile vel impossible absolute, ex habitudine terminorum; possibile quidem, quia praedicatum non repugnatur subjecto, ... impossible vero absolute, quia praedicatum repugnatur subjecto, ..."
the infinite power of the Creator. How exactly does this resolve the difficulty?

St. Thomas explains that since the object of an active potency is *ens factum*, no active potency can have for an object that which is contrary to being as such. Now whatever removes the very notion of being is contrary to it, as *non-ens* removes *ens*. Thus we cannot say that it is in God's power to make one and the same thing to be and not to be at the same time and in the same way. Hence, to assert that God can be the object of His own power is false, for this would be to remove by contradiction God as uncaused. That God be the object of His own power, therefore, is impossible, since the notion of caused being implies dependence on another, on a cause. For the same reason God cannot make a being equal to Himself.

In his commentary on the question of the divine omnipotence, Cajetan says that we must understand all possible things, all beings, everything not implying contradiction, to

13. St. Thomas, *Contra Gentes*, II, c.25: "Quis potestis activas objectum at effectum est *ens factum*, nulla autem potestis operationem habet ubi deficit ratio sui objecti, sicut visus non videt deficienti visibili in actu: oportet quod Deus dicatur non posse quicquid est contra rationem entis inquantum est *ens*, vel *facti* entis inquantum est *factum*. Quae autem sint huiusmodi, inquirendum est."

19. ibid.; "Ex hoc autem patet quod Deus non potest facere Deum. Nam de ratione entis facti est quod esse sum ex alia causa dependeat. Quod est contra rationem eius quod dicitur Deus, ut ex superioribus patet. Hade etiam ratione, non potest Deus facere aliquid aequale sibi."
be the object of divine power only in so far as such things can be conceived as effectively causable. In other words, anything that is possible absolutely, is also possible with reference to the active potency of God, provided that it can be an effect. But God is not caused or causable, moved or movable; therefore, He cannot be the object of any potency, even His own, since God cannot be an effect. Absolute possibility is predicable of God but not the possibility that is derived from a real potency. What then is the root of this possibility which embraces everything that is not contradictory, being prior in a certain sense, to the divine omnipotence itself?

John of St. Thomas, in his own penetrating commentary, explains that logical possibility is a possibility that is presupposed to the divine omnipotence considered as it is an executive power distinct from the other attributes; it is a possibility consequent upon the divine omnipotence taken radically, which is nothing other than the divine

20. In, 4.25, 2.3, commentary of Cajetan, n.5: "Sine predictam assignationem objecti divinae potentiae, dubium occurrat. Quid si omne possibile absolute, omneque ens ad non implicis contradictionem, sub omnipotenti clauditur, Deus iose continentur sub sua omnipotentia: quoniam Deus esse de numero horum est, quod patet. Ad hoc, et similis, dicendum est, quod cum sermo praesens sit de omnipotenti factiva, omnis omne possibile, omne ens, omne non implicans contradictionem, semper subintelligitur causabile effective."
essence itself as participatable or imitable by creatures.

Because God forms these possibles as divine ideas, congruous and not repugnant, thus are they rendered possible absolutely. Nothing can be understood to be determinately and distinctly possible antecedent to the divine ideas in the mind of God.

Through the interior formation of ideas in the divine mind, prior to any transient action, subjects and predicates are disposed as non-repugnant or repugnant, according to the ways in which the divine essence can or could be imitated.

The number of such possibles is infinite, since the divine perfection is infinite and thus infinitely imitable by creatures. As John of St. Thomas says, God forms these ideas of

21. John of St. Thomas, Curs. theol., T.III, p.579b: "Secundum mentem D. Thomae possibilitas absoluta seu logica, ratione cujus aliquid est objectum proprium omnipotentiae, consistit in habitudine terminorum qua praedicatum non repugnat subjecto. Et haec habitudo terminorum praesupponitur ad omnipotentiam, ut est vis executiva et attributum distinctum ab aliis: sed consequitur ad ipsum omnipotentiam radicalem, quae est ipsum esse seu essentia divina ut participabilia et imitatebilia est a creaturis."

22. Ibid., p.582a: "Est autem idea divina summa et prima regula totius veritatis creatae. Ergo per hoc res redduntur absolute possibles: quia id quod exagit Deus et format, ut imitabile a se, est quod unicuique rei congruus et conveniens est, nec sibi repugnans; ergo est possibile, quia illud est possibile rei quod non est repugnans illi. Antecedentem autem ad ideas divinas, nihil intelligitur ut determinate et distincte formabile, nec rebus distributa sua praedicata quae eis sint debita vel convenientia..."
(23) Possible, artificiosus et intelligibiliter et non naturaliter.

Considered as prior to this artistic formation, such things are only radically formable and possible but not distinctly so, in as much as the perfection of all being is radically contained in the infinite being of God. It is in terms of this regulation from the divine intelligence, then, that anything can have predicates that are compatible and not repugnant.

These considerations about logical possibility will enable us to group necessary and contingent under one heading, and, in regard to created beings, will help us to see how they are all possible in a real or physical way, in reference to the active potency of God. We shall see further that absolute possibility and divine omnipotence are the foundation for the extrinsic contingency of all creatures, and that this kind of possibility or contingency must be carefully distinguished from that which is rooted in an intrinsic, passive potency.

One more point about logical possibility will establish a place of departure that is common to the various topics to follow.

23. Curs. theol., 1. III, p. 582a
24. Ibid.: "Antecedenter vero ad artem et intellectum divinum, solum radicaliter intelliguntur formabiles et possibility, quatenus aliquid in infinito esse Dei omnis ratio entis et perfectio radicaliter intelligitur esse contents: ad ejus enim essentiae participationem res sunt factibles."
3. The Logically Possible embraces both Necessary and Contingent being.

Because the logically possible abstracts from any determination of real being it can be predicated equally of necessary and contingent things. Thus, St. Thomas demonstrates that things which exist necessarily, being uniquely determined to existence, must also be possible; the possible in question is not the one opposed to the necessary but the one opposed to the impossible.

Possibile enim quoddam est quod ad necessarium sequitur. Nam quod necesse est esse, possibile est esse; quod enim non possibile est esse, impossibile est esse; et quod impossibile est esse, necessae est non esse; igitur quod necessae est esse, necessae est non esse. Nec autem est impossibile. Ergo impossibile est quod aliquid necessae sit esse, et tamen non sit possibile illud esse. Ergo possibile esse sequitur ad necessae esse. (26)

We can consider this same possible as a genus with respect to its inferiors. If we consider the logically possible in this way, it is identified with what is called commonly contingent. The term *almum* is applied to this contingent because it does not descend to a special mode of contingency or possibility, but remains above its inferiors.


26. *Contra Gentes*, III, c.86
as a certain potential whole. The commonly contingent is nothing other than the absolutely possible. It is the mode of the contingent that is convertible with the logically possible considered in its community. St. Albert defines this contingent formally, ut superrius, in relation to its inferiors of which the necessary is one. Thus, he makes a distinction between the commonly contingent and the mode of the contingent that follows upon the necessary.

(27) Now if the logically possible follows upon the necessary, why is it said that the commonly contingent identified with this possible does not in like manner follow upon the necessary? St. Albert replies that it is because this contingent is considered precisely as common and, as he says, "multa accidunt sive convenient ei ratione communitatis talis, quae non convenient specialibus modis contingents." Though convertible with the logically possible it stands above its


28. *ibid.*: Alius autem contingens modus est, quod dicitur contingere id quod est necessarium: quis sequitur si aliquid necessae est esse, quod idem contingit esse."
inferiors and is narrower in meaning. There is another mode of the contingent that is identified with the logically possible in as much as the latter descends to its inferiors, the necessary and the possible opposed to the necessary. This mode of the contingent is nothing other than one that follows upon the necessary; it is a special mode distinct from the commonly contingent. We may say that if we understand the logically possible in the manner that it has been defined, according to a non-repugnance of terms, then it includes both of these modes of the contingent.

St. Thomas identifies the commonly contingent with the possible that follows upon the necessary because he does not define this contingent formally ut superius. St. Albert, however, in defining the commonly contingent, considers it not only in opposition to the impossible, but also formally as a genus. It is only in the restricted sense of a genus taken formally, that the commonly contingent does not follow upon the necessary. St. Thomas simply considers the logically possible in all its amplitude, hence, there is no difficulty, for it may be considered in either way. The important thing to note is that the logical possible does have the character of a genus, in the restricted sense of the commonly contingent that abstracts from the determination of the necessary. In other words, the commonly contingent ut superius, is contingent only not to be; that is, not necessary not to be. Hence, anything that does not imply contradiction is contingent
in this way. But since this contingent is contingent only not to be, it does not follow upon the necessary, which is contingent only to be. It can be applied equally to the possible that is opposed to the necessary, in as much as this possible (which will be discussed fully in the next chapter) is also not necessary not to be; that is, not impossible.

It is important that we keep in mind the nature of logical possibility and its quasi-generic character. We shall see that there is another kind of possibility, that is not derived from a non-repugnance of terms, but rather from a real potency, and that this kind of possibility is also compatible with necessity, if the necessity is caused. We have already touched briefly upon this point in distinguishing the absolute or logical possibility of God from the absolute possibility of creatures, which are also physically possible in relation to the active potency of God. There is another kind of possibility that is opposed to necessity of every kind. This possibility is derived from an intrinsic, passive potency; what this intrinsic principle is and what it implies, we shall

29. For a brief but lucid explanation of the views of St. Thomas and St. Albert concerning the logically possible and the commonly contingent see - M. Dionne, In I Priorum Divi Alberti, (Quebec, 1950) p.20

30. Ls.q.2, a.2, commentary of Cajetan, a.6: "Quae differentia est inter necessarium et possibile ut differentiae entis realis et...veri. Inquantum enim differentiae entis veri, suntur logicae, et consistunt in solo habitudine terminorum, ut patet."
see in the succeeding chapters. We shall attempt to show that the failure of most modern theologians to recognize its importance has led to a completely deterministic view of nature, which undermines the science of nature by opposing its most fundamental principles, principles held alike by St. Thomas and Aristotle.

Having seen the quasi-generic nature of logical possibility, and how it provides us with a common point of departure, as well as a basic understanding of the terms that must be used in a discussion of necessity and contingency, we can now pass on to a more particular question.
CHAPTER II

PHYSICAL POSSIBILITY
and
THE DIVISIONS OF CONTINGENCY

1. The Possible "Per Potentiam in Altero."

The first mode of potency is defined as: Principium (1) motus et mutationis in alio inquantum est aliud. According as a thing is the object of an active potency it can be called possible. This kind of possibility is the first thing to be discussed in this chapter.

In this regard it should be noted that every thing can be called possible with respect to the divine omnipotence. This possibility, although it refers to a real, active potency, is not opposed to every kind of necessity, even absolute, but only to that kind which has no cause; it is opposed, then, only to the absolute necessity of God, who is not the object of any potency, as explained previously. Thus, in as much as every finite thing depends on God's will for existence, every one is possible extrinsically.

In this way, separated substances are possible and yet necessary, for they do not have any intrinsic principle that can bring about their non-existence; they are pure forms and determined uniquely to being. Although absolutely necessary,

such creatures are nevertheless not necessary in every way

Porit enim S. Thomas hic, et in II Q.10, et in Qu. De Pot., c.5, a.3, et ubique, angelos et corpora coelestia entia necessarium realis, possibilis
tamen logico et per potentiam in alio; et solus
Deum omnimodo necessarium. (2)

It should be understood that this does not exclude
absolute necessity from some creatures. A thing can be
absolutely necessary without being the cause of its necessity.
In this sense, angels are simpliciter necessary, but are not
the cause of this necessity, just as they are not the cause
of their being. With reference to this it should be noted
that it is more proper and formal to define a thing from in-
trinsic principles, and predicate something of it on the basis
of this definition than it is to exclude such a predicate
according to something extraneous.

Everything besides God, then, is possible per potentiam

in altero. For whatever has a cause is in potency in relation
to that cause, and is called possible with reference to it.
Now whenever we speak of a possibility or contingency that is
referred to an active cause, we are no longer considering a

2. Ls, q.9, a.2, commentary of Cajetan, n.6.
3. See - Ls, q.44, a.2, commentary of Cajetan, n.11
4. St. Thomas, Ls, q.9, a.2: "Scilicet est eniis quod
mutabile potest dici dupliciter: uno modo, per potentiam quae
in ipso est; allo modo per potentiam quae in altero est.";
comm. of Cajetan, n.2: "Probatur ergo primo, quod omnis crea-
tura est mutabilis per potentiam in altero sic. Omnis crea-
tura est mutabilis de nihil in aliquid, et rumus ex aliquid
in nihil: ergo. - Antecedens patet. Consequentiae probatur:
quia ex simplici voluntate Dei pendet creatio et conservatio."
possible that is defined logically, from the simple conjunction of subject and predicate; the logically possible, as we have noted, stands above being and non-being, not having of itself a positive ordination to either. The possible now in question, however, is one that is referred to a real potency. It applies to everything that has a cause. It should be remarked that, although this kind of possibility is convertible with the contingency that a thing has in terms of an active, extrinsic cause, the two can nevertheless be formally distinguished. In other words, the possible per potentiam in alter is materially the same as the contingent defined by an active, extrinsic cause, but is formally different. That which is possible according to an active potency is also contingent in as much as it depends on this potency and proceeds from it as an effect. St. Albert points out that there is no difference between these two in regard to some future existence, as if the contingent were that which will or will not exist, and the possible that which is not contradictory. To distinguish them in this way would be to

5. St. Albert, In II Perihermeneias Aristotelis. (ed. Vives) tract. 2, c. 4: "Ad intelligiendam ergo eorum quae dicta sunt attende, quod siquid dicat Avicenna, ens possibile dividit ens cum eo quod est ens necessae, et cum ens necessae sit quod nullo est in potentia, eit ens necessae quod nullo habet causam; quia ens quod habet causam quocumque modo, est in potentia comparatum ad causam illam secundum quod est in ea. Et per oppositum ens possibile est quod habet causam, et possibile est secundum quod comparatur ad illam causam, et secundum quod per esse dependet ab illa: et sic omnia causae possibilis sunt; et hoc modo ens necessae non est ens possibilis, nee e conversa."
confuse the absolutely possible with that which is rooted in a real potency. Both possibility and contingency refer to the future of that which is said to be possible or contingent. Simply speaking, the possible is related to a potency which is either active or passive, and so it differs according to the various kinds of potencies; the contingent, however, is referred to some cause, and thus is distinguished according to the type of cause from which it proceeds.

Adhuc autem contingens esse convertitur cum possibile esse: et non est verum quod quidam dicit, quod contingens differat a possibile in hoc, quod contingens dicat extensionem temporis in futurum, et possibile non dicat illud: possibile enim ante actum sequitur extenditur in futurum. Sed in hoc different possibile et contingens: quis possibile simpliciter dicit potentiam vel agentem vel materialem, et variatur secundum potentiam talis varietatem. Contingens autem respicit causam quae non est per se causa: et ideo distinguitur secundum causam distinctionem. (6)

Keeping in mind the fact that the possible refers to some potency and the contingent to some cause, we may now consider the divisions of contingency according to the various ways an effect can proceed from its cause.

2. The Threefold Genus of Contingency.

In the Perihermeneias, St. Thomas gives a lengthy explanation of Aristotle's teaching on contingency. The

6. St. Albert, In II Periherm., tract. 2, c. 4
Occasion is the question of the truth or falsity of singular propositions about the future when the matter is contingent, and whether such propositions are determinately true or false. The problem is posed in the following manner:

If every affirmation or negation in singular and future propositions is true or false, then one who affirms or denies something about the future must speak truly or falsely. From this it follows that everything is necessarily in existence or necessarily not in existence. Therefore, if all affirmation or negation is determinately true or false in singular propositions about the future, it is necessary that everything be determined to exist or not to exist. One must conclude, then, that everything comes about by necessity. This, however, would exclude the threefold genus of contingency in things. It is impossible, therefore, that every proposition about the future be true determinately or false determinately.

Quaedam enim contingunt ut in paucioribus, quae accidunt a casu vel fortuna. Quaedam vero se habent ad utrumlibet, quia scilicet non magis se habent ad unam partem, quam ad aliam, et ipsis procedunt ex electione. Quaedam vero eventuunt ut in pluribus; sicut hominem canoscere in senectute, quod causatur ex natura. Si autem omnis ex necessitate eveniret, nihil horum contingentiam esset. Et ideo dicit nihil est quantum ad ipsam permanentiam eorum quae permaneat contingenter; neque fit quantum ad productionem eorum quae contingenter causatur; nec casu quantum ad ea quae sunt in minori parte, sive in paucioribus; nec utrumlibet quantum ad ea quae se habent sequiliter ad utrumque, scilicet esse vel non esse, et ad neutrum horum sunt determinata: quod significat cum subdit, nec erit, nec non erit. (7)

7. St. Thomas, In I Perihermenias, lect. XIII, n. 9
The contingency ad utramlibet in the above division refers to an agent who acts from election; not necessarily then, but with freedom of choice. The things that are brought about by such a cause are not necessary as effects, precisely because the agent was free to have done or to have produced something else or not to have acted at all. In other words, a thing which one makes or does but is free not to make, or do is contingent extrinsically, in as much as it depends for existence on an active, positively indeterminate cause. For example, before Caesar crosses the Rubicon, he is free not to cross it, and neither his crossing nor his not crossing implies any contradiction. Such an event is extrinsically contingent, according to its dependence on an extrinsic, free cause.

The liberty of contradiction exemplified above is the foundation of extrinsic contingency. Just as every creature is possible per potentiam activam Dei, so too, everyone is contingent extrinsically in so far as each depends on the free, extrinsic, creative causality of God, and in so far as the non-existence of none of them is contradictory. (The non-existence of separated substances would be absolutely impossible, even to the power of God, if their non-existence implied a contradiction.)

Some creatures participate in the divine liberty and in so far as such causes are free, the effects that proceed from them in their freedom, according to the participated
perfection that such causes have, are also extrinsically contingent, just as these creatures are themselves extrinsically contingent in relation to the divine liberty. Potencies that cause effects in this way are active and rational, and things that can have a future existence in causes of this kind are indeterminate according to the positive indetermination of these active causes. Effects of this kind are said to be \textit{contingens ad utrumlibet}; in order to exist actually they must exercise the role of an appetible object, which causes the will to be more inclined to the production of this effect than to the contrary opposed to it. Before considering the other members of the division of contingent things, it will be helpful to quote another text from St. Thomas where


9. \textit{St. Thomas, In VI \textit{Metaphys.,} lect. II, n.1183:} "Contingens enim ad utrumlibet, non potest esse causa alicuius inquantem hujusmodi. Secundum enim quod est ad utrumlibet, habet dispositionem materiam, quae est in potentia ad duas oppositas: nihil enim ait secundum quod est in potentia. Unde oportet quod causas, quae est ad utrumlibet, ut voluntas, ad hoc quod aget, inclinetur magis ad unam partem, per hoc quod movetur ad appetibiliti, et sine sit causa ut in pluribus."
he divides future effects according to the ways in which they can be contained in their causes:

In causis autem sunt aliqua futura tripliciter. Uno modo secundum potentiam tantum, quia scilicet sequaliter possunt esse vel non esse; quae dicuntur contingentiae ad utrumlibet. Guadam vero sunt in causis suis non solum secundum potentiam, sed secundum rationem causae activae, quae non possunt impediri a suo effectu; et haec dicuntur ex necessitate contingens. Guadam vero sunt in causis suis et secundum potentiam et secundum causam activam, quae potest tamen impediri a suo effectu; et etsi dicuntur contingens ut in pluribus. (10)

This division is somewhat different from the one given in the Perihermeneias. There St. Thomas does not mention the necessary contingent, while here it is the second member of the division. Moreover, the contingens ut in paucioribus, which is by chance or fortune, is not explicitly named in the above text. It is implicit, however, in the last part of the division, for the impeding of the cause which is not perfectly determined to its effects, results in the exceptional event. (A consideration of the last part of this division will introduce us to the second kind of contingency.) The second kind of contingency mentioned above, is the same thing as necessity, and will be treated in the following chapter. It might be well to remark here that this is not contingency in any strict sense, but is what we have already called the commonly contingent and is identified with the logically possible. The necessary contingent, in other words, is that which is contained in its

10. Q.D. de Malo, q.16, a.7, c
cause necessarily, and proceeds from it with necessity. As
St. Thomas remarks, "...Hac dicuntur ex necessitate contingere."
The second kind of contingency is the result of a cause
that is so determined to certain effects that they are for the
most part brought about successfully, although their coming-to-
be may be impeded. Such effects are said to be contingens ut
in pluribus, since the causes ordered to their production are
more determined to their esse than to their non-esse. Never-
theless, such causes may sometimes fail to produce their
intended effects because of a concurrence of causes, one of
which is not controlled by the other, or because of a defect
in the cause itself, or finally, because of the indisposition
of the matter acted upon. Natural things, for example, are
those which come about for the most part and in the same way,
and yet sometimes there is a failure, as in the birth of a
monster. Things which proceed from causes of this kind are
defectible in regard to their coming-to-be, just as the causes
themselves are defective in being and in causing. Indeed when
something is called contingent in the strict sense opposed to
necessity, it is precisely this defectibility that is signi-

II. St. Thomas, In VI Metaphys., lect. III, n. 1210: "Si
igitur ea quae hic sunt contingentes, reducantur in causas
particulares tantum, inveniuntur multa fieri per accidenta,
tum propter concursum quarum causarum, quarum una sub aliae
non continetur, sicut om præter intentionem occurrunt mini
latrones... Tum etiam propter defectum agentis, cui accidit
debilitas, ut non possit pervenire ad finem intentum... Tum
etiam propter indispositionem materiae, quae non recipit
formam intentionis agentis, sed alterius modi sicut accidit
in monstruosia partibus animalium."
In the Metaphysics St. Thomas explains how what is contingent \textit{ut in pluribus} gives rise to the third kind of contingency: that which belongs to the accidental and rare occurrence:

\begin{quote}
...Quia non omnia ex necessitate et semper existunt et flunt, ((sed plurima sunt secundum magis,)) idest ut in pluribus, ideo necessae est esse quod est secundum accidenta, quod neque est semper neque secundum magis, ut hoc quod dico, albus est musicus. Quin tamen aliquando fit, licet non semper nec ut in pluribus, sequitur quod fit per accidenta. Si enim non fieret aliquando id quod est ut in paucioribus, tunc id quod est in pluribus nunquam deficeret, sed esset semper et ex necessitate, et icta omnia essent sempiterna et necessaria; quod est falsum. Et, quia defectus eius quod est ut in pluribus, est propter materiam, quae non subditur perfecte virtutibus agenti ut in pluribus, ideo materia est causa accidentis aliter (( quam ut in pluribus,)) aciclet accidentis ut in paucioribus: Causa inquam non necessaria, sed contingens. \(13\)
\end{quote}

The \textit{contingens ut in paucioribus}, then, is the third member of the threefold genus of contingency. It results from the defective nature of the cause determined to its effects \textit{ut in pluribus}. The root of the actual failure of such a cause is an intrinsic, passive potency. This

12. St. Thomas, \textit{In}, 2.36, a.3, c.: "Est autem unaquodque contingens ex parte materiae, quia contingens est quod potest esse et non esse; potentia autem pertinet ad materiam. Necessitas autem consequitur rationem formae, quia ea quae consequuntur ad formam, ex necessitate insunt. Materias autem est individuationis principium..."

13. \textit{In VI Metaphys.}, lect.11, n.1136
potency is nothing other than matter, which is not perfectly subject to the active potency of the agent. Of the three kinds of contingency, it is the latter that is most properly opposed to necessity, since its very existence depends on the defectibility of the cause.

Before examining more closely the contingency of that which proceeds from a defective cause, it will serve our purpose to reconsider the kind of contingency that is defined in terms of an active rational potency. As already stated, this contingency is extrinsic and is reducible to the liberty of contradiction in free agents. This means that a rational cause is free to act or not to act, to bring about a certain effect or not to bring it about. The effects that causes of this kind bring about are contingent in an extrinsic way, for the existence of the effect depends upon the free determination of an extrinsic cause. It should again be noted that this kind of contingency is not opposed to necessity. It does, however, imply an admixture of potency, for every creature is contingent extrinsically in so far as the existence of each is caused by God. Potency, then, is the root of this contingency and possibility from another point of view, in as much as nothing which is caused can be pure act. Cajetan explains that the degree of contingency in a thing is proportionate to its potentiality. Since the contingent in its first sense is opposed to the necessary, those beings, other than God, which do not have in themselves any potentiality incompatible with their
continued existence, are called necessary *simpliciter*, but contingent *secundum quid*, which is a contingency ab *extrinsecus*. Material creatures, however, are more potential than they are actual, for the matter which is one principle of their essence always exceeds the determination of the form, since the potentiality of the former is never exhausted.

Contingens enim cum sit quod potest esse et non esse, necessarium autem quod impossibile est aliter esse habere, consequens est quod contingens et necessitas entium, reales non logico differentiis, diversas habeant radices: *ita quod contingents ex potentia, necessitates vero ex actu orientur*. Cujus etiam signum sit quod in his inferioribus, in quibus plurimum est de potentia, maxime viget contingens; in rebus vero superioribus, maximo actus naturam participantibus, aut omnino non est, aut secundum quid est contingens; simpliciter enim entia illa necessaria sunt, et tantum habet contingentiem, quantum potentiae cuiusdam admixturem patiuntur. Unde actus purus omnino liber est a contingentiem omnino. (14)

In other words, the extrinsic contingency that created things are subject to in so far as they depend upon the free causality of God, is a contingency *secundum quid*, just as the effects of any free cause can be called contingent in a certain respect in so far as they depend on the liberty of that cause. This kind of contingency does not exclude necessity, as we shall see more fully in the next chapter; angels, for example, are extrinsically contingent but absolutely necessary.

The kind of contingency that is opposed to necessity is rooted in an intrinsic, passive potency. This is contingency

14. *Ia*, q.86, a.3, commentary of Cajetan, n.7
in the strict sense, and will now be explained more fully, leaving the complete discussion of it, however, to be undertaken in the final chapter of this essay. For it is only after the general doctrine on contingency has been exposed that proper attention can be given to the more determinate aspects of the question. By proceeding in this manner we hope to avoid the error of modern theologians who teach a complete determinism in regard to nature. This is a teaching which results apparently, at least in part, from a judgment that it is not necessary to begin with what is more general and better known, and progress to what is more determined and less known to us. This, nevertheless, is the order imposed in the study of natural things, and although other than natural considerations have already found a place in this work, and will appear again when the subject requires it, they are included only to the extent that the contingency proper to nature and time thus may be made more manifest.

3. Physical Possibility and Intrinsic Contingency.

The contingency of natural things that is due to an intrinsic, indeterminate potency is convertible with the physical possibility of matter. This is a possibility and contingency per potentiam in re passivam. As we have seen, when a cause is natural, determined for the most part to its effects, these effects are said to be contingens ut in pluribus because a natural agent is more inclined to the
being of its effects than to their non-being. But all natural things come to be through a movement, and because that movement is variable, the becoming of these things is not absolutely assured. A natural cause can be impeded, either by the interference of some agent, or by the accidental meeting of several active causes, by the weakness of the cause, or finally, by the inequality of the matter acted upon.

Nor can it be argued, as some writers propose, that when a cause is sufficient to produce an effect, the effect will necessarily follow. A cause may be adequate, considered in itself, to give existence to an effect, and yet when the causality is actually exercised, the effect may fail to come about. A cause that is sufficient in actu primo is not always successful in actu secundo, when it must overcome all the attendant circumstances of the "here and now" in order to accomplish its purpose. A sufficient cause should not be confused with a necessary one.

Et forte in hoc deceptus est Avicenna, quia non distinxit inter sufficientiam causae quae attenditur penes actum primum, seu formam quae est principium agendi; et sufficientiam circumstantiarum actualis causalitatis respectu huius, nunc, hic, quae attenduntur penes diversa occurrentia. Certum est enim quod causam sufficientem hoc secundo modo, sequitur necessario effectus: non autem primo. Et tamen de primo

15. For the several reasons why a cause may fail see the lengthy exposition of St. Thomas in, Contra Gentes, III, c.36, which we shall again have occasion to consult in greater detail.
est sermo, cum de causis loquimur. Et ideo
exceptio Aristotelis vera est: ipsa quod quae-
dem sunt causae per se et sufficientes, quae
necessario inferunt suos effectus non simpliciter,
sed cum limitatione, scilicet ut in pluribus; ac
per hoc, non inferunt absolute suos effectus. Et
haec est una radix contingentiae, ut in I Periherm.
dicitur. (16)

Since natural causes are finite and do not dominate
perfectly the order of effects in nature, they do not always
succeed. Their causality can be impeded by the intervention
of a free agent, but also, what is more important, they can
be impeded by the passive indetermination of matter. Since
matter is an intrinsic, passive potency that can receive
many forms, and is not necessarily determined to the one it
has or the one the agent seeks to impose on it, it sometimes
escapes the causality of the efficient cause. When this
happens an accidental effect results. It is the physical
possibility of matter in privation that is responsible for
this, for the natural agent is not sufficiently determined to
completely offset this possibility ad esse et non esse.

Dicitur adhuc possibile secundum potentiam ma-
teriale ad esse quae inquem, potentia est cum
privacione sicut possibile fieri vel generari
vel possibile esse: et hoc, (quae cum priva-
tione est) est ad esse et non esse: et sequi-
tur quod possibile est esse et possibile est
non esse; et hoc possibile secundum modum
opponitur ei quod est necessa esse. (17)

16. Cajetan, La, Q. 115, a. 6, n. 5
17. St. Albert, In II Periherm., tract. 2, c. 6
The lack of necessity of a thing because of its material principle is what permits the arrival of events that are completely unforeseeable. As St. Albert explains, the cause and first root of this intrinsic contingency is matter in privation. It should be noted, however, that without this very indetermination, nature would be impossible. For in order to have natural causes and effects, there must be a determination which is not perfect but ut in pluribus. In other words, there must be forms not entirely determined ad unum, but which acquire existence in a subject through a movement from potency to act. (18)

The intrinsic contingency of things is thus resolved into the physical possibility of matter and the imperfect determination of natural causes. As St. Thomas explains, the impressions of causes are received in their effects according to the manner or mode of being of the subject. If the subject is in a state of flux and is inconstant in being, the causal impressions of the agent, even if it is a question of a superior natural cause, are accordingly modified and sometimes impeded. The reason for the occasional failure of even superior causes is the matter which is in potency to many forms, and also the very contrariety of the forms which in a certain way seek to...

18. See chapter III, part 3
replace each other. The form of heat for example, is opposed to the form of cold, and will tend to remove the latter unless a material condition impedes it. Irrational active potencies are not in themselves subordinated to one another, but must be regulated by a superior cause that dominates them. This regulation is absolute only from the point of view of divine causality and not from the point of view of any superior natural cause, as will be shown fully when the position of the modern scholastics is studied in detail.

It should be added, moreover, that a necessary effect does not follow from a remote necessary cause unless the middle and proximate causes are necessary. The defective nature of any active cause in the series renders the ultimate effect contingent, just as in syllogisms from a necessary major premise and contingent minor, a necessary conclusion does not follow.

Some writers say that even though an effect may be contingent with respect to its proximate cause, it is necessary if the totality of causes and their respective order is taken

19. St. Thomas, Contra Gentes, III, c.36: "Impressiones enim causarum universalium recipiuntur in effectibus secundum recipientium modum. Hae autem inferiores sunt fluxibilia et non semper eodem modo se habentia: propter materialiam, quae est in potentia ad plures formas; et propter contrarietates formarum et virtutum."

20. Ibid.: "A causa remota non sequitur effectus de necessitate nisi etiam sit causa media necessaria: sicut et in syllogismis ex maiori de necessa et minori de contingenti non sequitur conclusio de necessa."
into consideration. From many contingent causes, however, a necessary effect cannot come to be, for just as any one of these can fail, so can they all taken together.

It should be remembered here that the contingency that a thing has from the fact that its cause is defective is not a contingency secundum quid, but is derived rather from an intrinsic principle. Such an effect is prevented from being necessary, because of this potential principle's twofold possibility ad esse et non esse, in regard to the effect contained potentially in it. The future existence of an effect that is not necessary depends not only on the order of active causes disposed to produce it, but also on the subjugation of matter by these causes, a subjugation that is not always achieved.

Note, then, that an agent causing naturally presupposes and requires matter in order to exercise its causality. Hence, we may say that natural agents do not cause with a necessity that is absolute because of the nature of those things to which their causality is extended, and also because of the limitation

of the causes themselves.

To summarize briefly the important points of this chapter, in order to have the distinction between extrinsic and intrinsic contingency clearly in mind, we may recall that the different senses of the contingent are derived from the different ways an effect can proceed from its cause. When the cause is a rational potency, the effect is said to be contingent extrinsically in so far as it depends on the free, self-determination of an extrinsic cause. When the cause is an active irrational potency, such as the digestive or generative power in an animal, the effect is said to be contingent ut in pluribus, according to the natural determination of the cause. But in as much as every created active cause suffers from a certain degree of passive indetermination, rooted in potency as opposed to act, the effects of these causes are intrinsically contingent in terms of the intrinsic imperfection and limitation of the causes. It should be noted at the same time that besides the irrational, active potencies, there is an irrational potency that is not in itself determined at all, not even imperfectly, as is the case for natural agents, but which is pure indetermination. This passive potency, matter, which is an intrinsic

22. St. Thomas, *Contra Gentes*, III, c.86: "Corpora caelestia sunt agentia naturaliter, quae requirunt materiam in quem agent... Materias autem in quas agent corpora caelestia, sunt corpora inferiora: quae, cum sint corruptibilia secundum suam naturam, aliquid defequerent possunt ab esse, ita ab operari; et sic eorum natura hoc habet ut non ex necessitate producant effectus."
principle, is responsible for an intrinsic contingency belonging to natural effects; and this is true if it is added that the form and active potency is not entirely determined, for if the active potency could not be impeded, the matter could not be an obstacle. But then the active potency would not be natural, as we shall see in the next chapter.

Thus, in so far as the natural agent is more determined to its effects than not, the effects of a natural agent are contingent ut in pluribus, according to the extent that the matter is overcome. But in so far as the cause can fail, both because of its own imperfection, and because of the indetermination of matter, a rare or accidental event can take place. This is nothing other than the contingent ut in paucioribus.

Now if one abstracts from the extrinsic contingency of effects brought about freely by rational potencies, there still remains the contingency that is due to the passive potency and the limited, finite agent. This is why it is false to say, as many modern scholastics do, that everything comes about necessarily in material nature, or if we abstract from the intervention of free agents.

In the next chapter, a direct approach to this opinion and similar ones far from the teaching of St. Thomas, will begin. The point of departure for the second part of our study, which is to deal explicitly with the position of modern scholastics, will be a discussion of two kinds of necessity - one absolute, the other conditional.
CHAPTER III

ABSOLUTE AND CONDITIONAL NECESSITY

1. The Two Kinds of Necessity Defined and Explained.

Before investigating the modern scholastic teaching on necessity, an attempt should be made to explain the teaching of Aristotle and St. Thomas. This is important, since the intention in this chapter is to show that between these two positions, there is more than one basic difference. The divergence is all the more serious in view of the fact that many modern writers believe that they are giving the doctrine of St. Thomas, which they hold to be true. We too, hold that the teaching of St. Thomas, based as it is upon the teaching of Aristotle, is the true doctrine, and that the principles enunciated by the Philosopher and the Angelic Doctor are most firmly established. Unfortunately, however, the interpretation of this doctrine advanced by many present day writers, as well as their frequent departure from it altogether, is not as accurate or well founded as one would wish. The question of necessity in nature is fundamentally important. We hope to show that here too, the deterministic view of the universe, sometimes unknowingly held by scholastic writers, is plainly evident, and that this view is contrary to the most basic principles of the philosophy of nature.
Let us begin by distinguishing between absolute and conditional, or hypothetical, necessity. When this has been done, we shall consider the modern scholastic position, and finally, the reference these authors make to "the hypothetical necessity of the laws of nature."

As St. Thomas explains, whatever is determined in its very nature to existence, and uniquely to this, is absolutely necessary. Thus, what cannot be other than it is, is necessary simply and without qualification. Hence, we say that God is absolutely necessary, for by His very nature He is determined to existence; it is impossible that He be other than what He is. Some authors, failing to distinguish caused being from necessary being, restrict absolute necessity to God alone. (In this connection we shall see the importance of grasping the difference between extrinsic and intrinsic con

1. Contra Gentes II, c.30; In I Periharm., lect.XIV, n.3: "...Et idquod melius ista distincterunt secundum naturam rerum, ut scilicet dicatur illud necessarium, quod in sua nature determinatum est solum ad esse; impossibile autem quod est determinatum solum ad non esse; possibile autem..."; see also De Potentia, Q.V, a.3, ad 8; ibid., a.3, corpus: "Dupliciter ergo potest contingere quod in natura alicuius rei non sit possibilitas ad non esse. Uno modo per hoc quod res ills sit formas tantum subsistens in esse suo, sicut substantiae incorporeae, quae sunt penitus immateriales. Si enim forma ex hoc quod inest materiæ, est principium essendi in rebus materialibus, nec res materialis potest non esse nisi per separationem formæ; ubi ipsa forma in esse suo subsistit nullo modo poterit non esse; sicut nec esse potest a se ipso separari."
gency, for a thing can be absolutely necessary and still be contingent, extrinsically.) It is plain from the words of St. Thomas, however, that absolute necessity is to be found also among creatures:

Licet autem omnis ex Dei voluntate dependens sit in primae causa, quae in operando necessitate non habet nisi ex sui propositione, non tamen propter hoc absoluta necessitas a rebus excluditur, ut sit necessarium nos fateri omnia contingenti esse: quod posset aliqui videri, ex hoc quod a causa sua non de necessitate absolute fluxerunt: cum soleat in rebus esse contingens effectus qui ex causa sua non de necessitate procedit. Sunt enim quaedam in rebus creatis quae simpliciter et absolute necessae est esse. Iales enim res simpliciter et absolute necessae est esse in quibus non est possibilis ad non esse. Quaedam autem res sic sunt a Deo in esse productae ut in earum natura sit potentia ad non esse. Quod quidem contingit ex hoc quod materia in ejus est in potentia ad aliam formam. Illae igitur res in quibus vel non est materia, vel, si est, non est possibilis ad aliam formam, non habent potentiam ad non esse. Eas igitur absolute et simpliciter necessae est esse. (3)

Absolute necessity, then, must not be denied to all creatures, for there are some that are determined uniquely to existence, not having within themselves any potency to non-existence. Such are the separated substances, who have no intrinsic principle in any way alien to their existence. They are pure forms, not having any matter in potency to another form, as do material substances. Thus, we should not be led to the belief

3. St. Thomas, Contra Gentes, II, c.30
that there can be no absolute necessity in creatures from the knowledge that God acts freely, without absolute necessity. What might cause such a belief is the consideration that all created beings proceed from the First Cause with complete dependence and contingency. God does not give existence to creatures by an absolute necessity for He is eternally and perfectly free. Nevertheless, among created things, all of which are contingent extrinsically in so far as they all depend upon the divine free will, there are some whose nature is such that it is impossible for them to be corruptible. These are the angels, who lack a principle of corruptibility.

But the impossibility of corruption among the separated substances is not the only impossibility to be found in created things, nor is their unique determination to esse, the only absolute necessity. It is also impossible that a triangle have four angles, or that man be an irrational animal; and it is absolutely necessary that, because of its matter, an animal be corruptible; because of its form, sensitive; and because of its essence, an animated, sensate sub-

4. St. Thomas, Contra Gentes, II, c.55: "In Omni quod corruptitur, oportet quod sit potens ad non esse. Si quid igitur est in quo non est potens ad non esse, hoc non potest esse corruptibile. In substantiis autem intellectuali non est potens ad non esse. Manifestum est enim ex dictis quod substantia completa est proprium susceptivum ipsius esse. Proprium autem susceptivum aliquius actus sua comparatur ut potentia ad actum illum quod nullo modo est in potentia ad oppositum; sicut ignis sua comparatur ad calorem ut potentia ad actum quod nullo modo est in potentia ad frigus. Unde nec in ipsis substantiis corruptibilibus est potentia ad non esse in ipsa substantia completa nisi ratione materiae. In substantiis autem intellectualibus non est materia, sed ipsae sunt substantiae complete similes. igitur in eis non est potentia ad non esse. Sunt igitur incorruptibles."
It is also absolutely necessary that Socrates run when he runs; for the time that he is running it is impossible that he not be running. It is in view of what is manifest in these examples that St. Thomas says, "Contingens a necessario differt secundum quod unamquaque in sua causa est...Secundum id vero quod utrumque eorum in se est, non differt quantum ad esse," supra quod fundatur verum." Hence, contingency always refers to the future, because a thing cannot not be when it is. It is in reference to the future and not to the present that Aristotle, speaking of contingent events, makes this observation:

If it be true to say of X that it 'will be', it must at some time be true to say of it that 'it is'; whereas, though it be true to say of X now that 'it is about to occur,' it is quite possible for it not to come-to-be - thus a man might not walk, though he is now 'about to' walk. (7)

5. St. Thomas, In V Metaphys., lect.VI, n.833; "Differt aetem necessarium absolute ab aliis necessariis: quia necessitas absolute competit reli secundum id quod est intimum et proximum ei; sive sit forma, sive materia, sive ipsa rel essentia; sicut dicimus animal necessae esse corruptibile, quae hoc consequitur eius materiam inquantum ex contrariis componitur. Dicimus etiam animal necessario esse sensible, quae consequitur eius formam: et animal necessario esse substantiam animatem sensibilem, quae est eius essentia"; see also Contra Gentes,II, c.30

6. Contra Gentes, I, c.67; - see also, commentary of Sylvester Ferrar, nn.2,6; St. Albert, In II Periherm., tract.2, c.6: "Dicitur etiam de aliquo, quod possibile est cum fieri vel esse antequam sit: et dicitur de aliquo, quod possibile est esse esse quando est, et ante actum plus habet de potestate et potentia. Quando autem est in actu..."

Absolutes necessity and duration, therefore, are intimately associated. It is always in relation to the future that some things lack this kind of necessity. Hence, those beings whose duration is simple and not temporally successive, are absolutely necessary. How then, can we say that it is absolutely necessary that Socrates run when he runs? Is he not measured by time, and does he not have a future? It is precisely in so far as the necessity attributed to Socrates' running is based on the present and not on the future, that it is absolute. As Aristotle points out, "It is quite possible for it not to come to be — thus a man might not walk, though he is now about to walk." But to say that a man is about to walk is not to say that he is walking. While he is walking it is impossible that he be standing still; but he may stand still in the next moment, and this is contingent since it refers to a future event not contained necessarily in its cause; Socrates is "ad utrumlibet" in regard to walking or not walking, i.e., free to do either.

Let us recall, then, that separated substances do not have a future, properly speaking, since they are immutable in their substantial being. Since the angel has no material principle in his essence he is not subject to the changes we observe in the cosmic world, where things come into existence and pass

out of existence, and do not possess an absolute necessity except for the moment that they cannot be other than what they are, as in the example of Socrates. Angels, therefore, are not contingent intrinsically, since they lack matter, the principle of future corruption for the material substance. To these creatures, pure forms, existing above cosmic time and movement, are applied the words of the Psalmist, "Statuit in aeternum et in saeculum saeculi."

The creatures of the material universe, however, are corruptible substantially because of their matter which is in potency to another form. These substances are subject to substantial change and are not absolutely necessary, but contingent intrinsically; the next moment may bring the loss of the form that makes the material substance to be what it is. Their existence is precarious and unstable since their form is contingent and their matter is in potency. But if temporal creatures are not absolutely necessary in themselves, they can still be called necessary hypothetically. In order to make this clear we must now take up the second kind of necessity, which is not absolute but which is still opposed to contingency in the very strict sense.

Conditional necessity is a necessity derived from the end. If the end is to be realized, then such and such means are

9. Psalm, 148, 6
necessary. This necessity of the means is a hypothetical necessity, that is, the means are necessary on the condition of some end to be attained; the end itself is the hypothesis. Thus, in view of the end, the steel of a saw is hypothetically necessary; or again, on the supposition that health is to be obtained, walking may be necessary as a means to it.

Alio vero modo est ex fine necessitas secundum quod est posterior in esse. Et haec est necessitas non absoluta, sed conditionata: sicut dicimus necessse fore ut serra sit ferre si debet habere serrae opus. (10)

Hypothetical necessity is a necessity attributed to some condition or conditions, required for some end posterior in existence, which is an effect of the things denominated hypothetically necessary, or which at least, cannot come about without these conditions or means. St. Thomas explains clearly the difference between this necessity and absolute necessity, in the Physics. Since the distinction is often overlooked by modern writers, it would be well to consider carefully St.

10. St. Thomas, Contra Gentes, II, c. 30
11. St. Thomas, In V Metaphys., lect. VI, n. 327: "Primus est, secundum quod dicitur aliquid necessarium, sine quo non potest aliquid vivere aut esse; quod licet non sit principalis causa rei, est tamen quaedam concusa. Sicut respirare est necessarium animali respiranti, quia sine respiracione vivere non potest. Ipsa enim respiratio, et si non sit causa vitae, est tamen concusa, inquantum cooperatur ad contemperamentum caloris, sine quo non est vita. Et simili est de cibo, sine quo animal vivere non potest...igitur hujusmodi dicitur necessaria, quia sine eis impossible est esse."
Thomas's words on this question:

Querit ergo primo utrum in rebus naturalibus sit necessarium simpliciter, idest absolute, aut necessarium ex conditione, aliove ex suppositione. Ad eundem evidenter solendum est, quod necessitas quae dependet ex causa priorebus, est necessitas absolute: consequitur enim ad hoc quod est animal, esse compositionem contrairem. Similiter etiam quod habet necessitatem ex causa formalis, est necessarium absolute; sicut hominum esse rationalem, aut triangulum habere tres angulos equalis duobus rectis, quod reducitur in definitionem trianguli. Et similiter quod habet necessitatem ex causa efficienti, est necessarium absolute; sicut necessarium est esse alternationem noctis et diei propter motum solis. Quod autem habet necessitatem ex conditione, vel suppositione; ut puta si dicatur, necessae est hoc esse si hoc debet fieri: et huiusmodi necessitas est ex fine, et ex forma inquantum est finis generationis. (12)

Hypothetical necessity is found not only in creatures, but also in God. It is certainly true that God does not will creatures by a natural necessity; the existence of creature is willed freely, from all eternity. Absolutely speaking, God could have not willed what He has willed in fact, for the perfect actuality of God is the root of a perfect liberty.

12. In II Phys., lect. XV, n.2
13. St. Thomas, Contra Gentes, II, c.30: "Si autem dicitur quod ea quae sunt ex nihilo, quantum est de se, in nihilum tendant; et sic omnibus creaturis inest potentia ad non esse; manifestum est hoc non sequi. Dicuntur enim res creatas e modo in nihilum tendere quod sunt ex nihilo. Quod quidem non est nisi secundum potentiam agentis. Sic igitur et rebus creatis non inest potentia ad non esse; sed Creatori inest potentia ut eis det esse vel eis desinat esse influere; sum non ex necessitate naturae agat ad rerum productionem, sed ex voluntate, ut ostensum est."
in regard to effects, just as man has a limited and partici-
pated liberty in regard to his own effects. But on the
supposition that God has willed creatures to exist, it is
impossible that He not will them. It is also necessary,
hypothetically, that since God has willed certain creatures,
He will what is required by their nature. And since the divine
will is immutable, it is hypothetically necessary that God will
whatever He has willed and that He continue to will it.

Omne aeternum est necessarium. Deum autem velle
aliquid causatum esse est aeternum: sicut enim
esse sum, ita et velle aeternitate mensuratur.
Erat ergo necessarium. Sed non absolute considera-
tum: quia voluntas Dei non habet necessarium
habituidinem ad hoc volitum. Ergo est necessarium
ex suppositione.

Praeterea. Quicquid Deus potuit, potest:
virtus enim eius non minuitur, sicut nec eius
essentia. Sed non potest nunc non velle quod
ponitur voluisse: quia non potest mutari sua
voluntas. Ergo nunquam potuit non velle quicquid
voluit. Est ergo necessarium ex supposi-
tione cum voluisse quicquid voluit, sicut et
velle: neutrum autem necessarium absolute, sed
possibile modo praedicto.

Amplius. Quicumque vult aliquid, necessario
vult ea quae necessario requiruntur ad illud, nisi
sit ex parte eius defectus, vel propter ignorantiam,
vel quia a recta electione eius quod est ad finem
intentum abducatur per aliquam passionem. Quae de

14. St. Thomas, In II Sententiarum, dist.25, q.1, a.4:
"Libertas a necessaria coactione nobilissim inventur in Deo
quam in angelo, et in uno angelo quam in alio, et in angelo
quam in homine;"- see also Contra Gentes, III, cc.89-92
Deo dicem non possunt. Si igitur Deus, volendo se, vult aliquid aliud a se, necessarium est eum vellet sene
illud quod se voluitum ab eo ex necessitate requiritur:
sic ut necessarium est Deum vellet animam rationalem
esse, supposito quod velit hominem esse. (15)

Absolute necessity, then, is a necessity intrinsic to a
thing that cannot be other than it is. It is a necessity that
is derived from prior causes, such that if the cause be given,
it is impossible that the effect not follow. Hypothetical
necessity, however, is a necessity derived from a cause that
is extrinsic to the thing and posterior in existence, namely,
the end; if such and such an end is to be achieved, then
certain other things are necessary. Thus, if man is to exist,
a rational soul is necessary; if a house is to be built,
materials are required; if God wills this, it is impossible
that He not will it, i.e., hypothetically necessary that He
will it. This latter necessity, although not opposed to every
kind of contingency, is still opposed to contingency in the
strict sense, for to the extent that a thing is hypothetically
necessary, it is not possible for it not to be. Thus, it is
impossible that Socrates not have existed, on the hypothesis
that God has willed him to exist; it is impossible that the
saw be made of wax if it is going to cut; it is impossible
that the rational soul be contingent in the sense of "quod
potest esse et non esse," once it has been given that man

15. St. Thomas, *Contra Gentes* I, c.63
is to exist.


Let us turn now to the question of necessity as it is
treated in the majority of scholastic manuals. The first
thing to be noted is that, contrary to the explicit teaching
(16)
of St. Thomas, these writers deny the absolute necessity of
any creature. The explanation generally given is that no
creature has the sufficient reason for its existence within
itself:

Now, when the completely sufficient reason for a
thing does not exist in the thing itself but exists
at least in part in something else, we have an
example of what is called a contingent being. A
contingent being is, therefore, one that has not the
full explanation of its existence in itself. For
its explanation we must look to some other being.
Existence does not belong to its essence, but is
something that accrues to, is adventitious to, or
is added to, the essence. It would be possible for
such an essence to be non-existent. If, therefore,
it is actually found existing, this fact of its
existence must be accounted for by something other
than itself. (17)

If we compare - for even when it intuits the first
principles of reason the mind actively compares -
these two notions, contingent being and caused being,
that is, being that has the ground of its existence
in another, we see that the specific subject of that
which has the ground of its existence in another is
precisely contingent being. (18)

16. Contra Gentez II, c.30; quoted above, p.43
17. John F. McCormick, S.J. Scholastic Metaphysics (Loyola,
Chicago, 1931), p.46
18. J. Maritain, A Preface to Metaphysics, (Sheed and Ward,
N.Y., 1939), p.138
Considered in the order of actual existence, the contingent is that being whose essence, as such, does not include existence and which, therefore, does not, as such, demand existence, but is indifferent to be or not to be. (19)

One final quotation will suffice to show more explicitly that there seems to be no doubt in the minds of these authors that absolute necessity is predicable, only of God, all creatures being simpliciter contingent:

Unde, ens necessarium est illud, quod ipsa existit, ut non possit non existere; ens contingens est illud, quod ipsa existit, ut possit non existere... illud est absolute necessarium, quod existit ex intrinsicis determinatione et exigentia suae essentiae (Deus)... Necessitas existendi non nisi ente infinito competere potest. (20)

The error of identifying being which does not have the sufficient reason of its existence in itself, with contingent being, is nothing other than the failure to distinguish what is necessary per se from what is necessary per alium. (We shall see that this error has been responsible in part, for the contradictory conclusion of the same authors that everything in nature is governed by a complete determinism; i.e., comes about with necessity.) Because a thing does not have a sufficient reason for its existence within itself does not make it a contingent being, but a caused being; a thing that is

caused can be absolutely necessary, its necessity too, being caused by another. At the same time it should be observed that the fact that a thing is caused by another does mean that it is contingent in one sense of the word. Thus, all creatures, whether they are necessary in themselves or not, are contingent in so far as they could have not existed; all are products of the divine omnipotence and contingent extrinsically, in as much as they all depend on God's power for existence. Note, however, that this is a contingency that is predicated of creatures, not from any intrinsic principle, but from a power extrinsic to them; a creature that is contingent extrinsically in this way, can at the same time be necessary, intrinsically. This is true of the separated substances, who are contingent only in relation to the divine creative and conservative power, and not in themselves, since they have no potency to non-being, as has been shown.

In regard to the position of the modern scholastics on this point, it should be said that a thing is more properly defined from what is intrinsic to it; and since there is no intrinsic principle making a separated substance contingent, such a being is absolutely necessary, being determined uniquely to existence.

21. St. Thomas, De Pot., 6.5, c.3: "Explicitur ergo potest contingere quod in natura alicuius rei non sit possibilitas ad non esse. Uno modo per hoc quod res illa sit forma tantum subsistens in esse suo, siquit substantiae incorporeae, quae sunt penitus immateriales."
Nowhere does St. Thomas restrict absolute necessity to God, making all creatures contingent simpliciter; extrinsic contingency is a contingency secundum quid, which has already been explained. Why, then, do many scholastic writers prefer to ignore the fact that there is no repugnance between a caused being and an absolutely necessary one, unless they do not know that this is the case, not distinguishing between what is per se and what is per simile? It does not follow that if a being is absolutely necessary, it is the cause of its necessity, nor does it follow that it is necessary in every way.

Ad divinam perfectionem pertinet quod rebus creatis suam similitudinem indiderit, nisi quantum ad ille quae repugnant si quae est esse creatum: agentia enim perfecti est producere sibi simile quantum possibile esse. Esse autem necessae simpliciter non repugnat ad rationem esse creati: nihil enim prohibit aliquod esse necessae quod tamen esse necessitatis causam habet, siqut conclusiones demonstratium. Nihil igitur prohibet quosdam res sic esse productas a Deo ut tamen ess esse sit necessae simpliciter. Immo hoc divinæ perfectioni attestatur. (22)

In reply to those who deny the absolute necessity of creatures on the grounds that God has the power to annihilate them, St. Thomas has said:

Si autem dicitur quod ea quae sunt ex nihilo, quantum est de se, in nihilum tendunt; et sic omnibus creaturis inest potestas ad non esse: -

22. St. Thomas, Contra Gentes II, c. 30
manifestum est hoc non sequi. Disuntur enim res
creates eo modo in nihilum tendere quo sunt ex
nihilo. Quod quidem non est nisi secundum poten-
tiam agentis. Sic igitur et rebus creatis non
inest potentia ad non esse: sed Creatori inest
potentia ut eis dat esse vel eis desinat esse
influere; cum non ex necessitate naturae agat ad
rerum productionem, sed ex voluntate, ut ostensum
est. (23)

Thus, all creatures are contingent extrinsically, on the
divine will; some are also contingent intrinsically, because
of their matter, while others are absolutely necessary, being
altogether immaterial, or not having a matter in potency to

(24)

another form. (The latter would be the celestial bodies,
which were believed by the ancients to be incorruptible, the
potency of the matter being exhausted by the perfection of
the form. This is the state of man in his glorified body
which is incorruptible.)

The second point to be discussed is the concept of
hypothetical necessity found in the majority of scholastic
manuals. The writers of these manuals speak of the hypothe-
tical necessity of future events, as a necessity attached to
certain conditions; a given future event is hypothetically
necessary if all the conditions required for its existence

23. Contra Gentes, II, c.30

24. Ibid.: "Quaedam autem res sic sunt a Deo in esse
productae ut in earum natura sit potentia ad non esse. Quod
quidem contingit ex hoc quod materia in eis est in potentia
ad aliam formam. Illae igitur res in quibus vel non est ma-
teria, vel, si est, non est possibilis ad aliam formam, non
habent potentiam ad non esse. Eas igitur absolute et simpli-
citer necesse est esse."
are fulfilled. Since these conditions need not be present the effect is necessary only conditionally, or hypothetically, and not absolutely. The following excerpts taken from the writings of various modern scholastics explain their teaching quite clearly:

Absolute necessarium est, quod independenter a quaecumque condicione contingenti necessarium est, veluti veritatis mathematica. Hypothetice vero necessarium est, quod dependenter a condicione contingenti necessarium est. (25)

In the second place it will be found that the principle is rigidly universal and necessary only if it is expressed as a hypothetical proposition, e.g.: If the same necessary cause acts in the same circumstances, it will produce the same effect. (26)

Nécessité hypothétique, au sens ancien du mot, — Aristote et Saint Thomas entendent par là une nécessité entravée, bridée, conditionnelle, c'est-à-dire dont la réalisation peut être arrêtée par la défaillance de ces conditions préalables. Elle dépend, non pas seulement, comme la nécessité simple, de ce qui existe (ex causis priribus), et qui lui fournirait un point d'attache indéfectible, mais encore de ce qui doit exister (ab eo quod est posterius in esse), et qui peut venir à manquer. Par exemple, d'un noyau de pêche mis en terre sortira un pêcher: cela est nécessaire, c'est la loi, la règle générale, infaillible en elle-même et quant aux éléments qui la constituent; c'est, si l'on veut, ((la thêse)). Mais cette loi ne sortira son effet que si les circonstances s'y prêtent, si le soleil et la pluie favorisent le germe, si la dent des rongeurs ou la bêche du jardinier le respectent. Tout cela, c'est précisément ((l'hypothèse)). (27)

Necessity is either absolute or hypothetical. Absolute necessity depends on no condition. Hypothetical necessity depends on a condition... (28)

Hypothetical necessity is therefore that which is dependent upon some condition which need not be verified. (29)

In these texts we are confronted with a contradiction in terms; for if the conditions required for the existence of some future event are contingent, then the event that depends upon these conditions is also contingent. And if there is a necessary connection between the conditions and the event, when the conditions are fulfilled the event is absolutely necessary in relation to these conditions. If a condition required for the existence of something is not absolutely necessary in itself, apart from its being a necessary condition of something else, then whatever depends upon it is not necessary at all, but contingent. To say that a thing is necessary under certain conditions is nothing other than to say that it is necessary when it is necessary. Being given that a necessary cause is one that always produces its effects and cannot be impeded, -what can be the meaning of the assertion, "If the same necessary cause acts in the same

circumstances, it will produce the same effect"? Is this not evident? How can a necessary cause as such produce any effect other than the one of which it is a necessary cause? Does the author mean that the necessity of the cause depends upon the circumstances being the same? We shall see that this interpretation of necessity is attributed to the ancient Stoic philosophers, and refuted by St. Thomas in the Perihermeneias.

As remarked earlier, hypothetical necessity does not refer to the future at all. Aristotle and St. Thomas are quite clear about this:

Necessitas quae dependet ex causis prioribus est necessitas absoluta, ut patet ex necessario quod dependet ex materia. Similiter etiam quod habet necessitatem ex causa formali, est necessarium absolute. Et similiter quod habet necessitatem ex causa efficiente, est necessarium absolute. Quod autem habet necessitatem ab eo quod est posterius in esse, est necessarium ex conditione, vel suppositione; ut puta si dicatur, necesse est hoc esse si hoc debet fieri; et huiusmodi necessitas est ex fine, et ex forma inquantum est finis generationis. (32)

When St. Thomas says, "Necesse est hoc esse si hoc debet fieri," he is referring to the necessity of the means if the end is to come about, and not to the necessity of the end that depends on these means in the order of execution; it is the

31. See footnote n.26
32. In II Phys., lect.XV, n.2
end that becomes when the means are provided, as is evident in the text. What should be said in regard to the conditions required for the existence of some future thing is not that, this event is hypothetically necessary being given these conditions; but that the conditions are hypothetically necessary being given this end to be attained.

If a future event is related to its proximate principle in such a way that, if this principle be given, the effect will follow necessarily, the only necessity of which it is a question is an absolute necessity. What may be hypothetically necessary is the proximate principle, which in relation to a remote free cause is not absolutely necessary. But nothing prevents that which was not necessary from becoming necessary, once its proximate principle is given:

Sciendum est itaque quod, si rerum creaturum universitas consideretur, prout sunt a primo principio, inveniuntur dependere ex voluntate, non ex necessitate principii, nisi necessitate suppositionis. Si vero comparentur ad principia proxima, inveniuntur necessitates habere absolutam; nihil enim prohibet aliquas principia rerum non ex necessitate produci; quibus tamen positis, de necessitate sequitur talis effectus: sicut morte animalis huius absolutam necessitates habet propter hoc quod iam ex contrariis est compositum, quamvis ipsum ex contrariis componi non puisset necessarium absolute. (33)

If an animal exists, it is absolutely necessary that its death follow at some future time. It is the existence of the animal, and not its death, that is hypothetically necessary.

33. St. Thomas, Contra Gentes II, c.30
In this way, all creatures are hypothetically necessary since God wills their existence, not with an absolute necessity, but freely, ex suppositione. It is in this sense that a thing can be at the same time necessary and contingent; the necessity, however, is hypothetical.

Respondeo. Ex eundo quod contingens est dupliciter possunt considerari. Unammodo, secundum quod contingens sunt. Alia modo, secundum quod in eis aliquid necessitatis inventum nihil amic est aliquid contingens, quin in se aliquid necessarium habeat. Sicut huc essent quod est Socrates cursus, in se quidem contingens est; sed habitudo cursus ad motum est necessaria; necessarium enim est Socrates moveri, si currit. (35)

If Socrates runs, it is absolutely necessary that he move himself; but he freely determines himself to run; therefore, his moving himself is contingent upon his free will and hypothetically necessary in relation to the free decision to run, but absolutely necessary in relation to the running itself. In other words, Socrates does not have to run; therefore it is hypothetically necessary that he move himself. But if he runs, it is absolutely necessary that he be moved. What

34. St. Thomas, Contra Gentes 1, c.33: "Neque veli aliquid alius a se necessitate suppositionis...Omne aeternum est necessarium. Deus autem veli aliquid causatus esse est aeternum; sicut enim esse suum, ita et veli aeternitate mensuratur. Est ergo necessarium. Sed non absoluta consideratum: quia voluntas Dei non habet necessitatem habitudinem si hoc voluitum. Ergo est necessarium ex suppositione...fractum..."

35. St. Thomas, In 4, q.36, a.3, c
Manualists neglect when they speak of hypothetical necessity is the distinction between the order of intention and the order of execution. What should be noted in this regard is that the end is prior in the intention but posterior in existence. Thus, the end to which a free cause determines itself, is hypothetically necessary in relation to the free determination of the agent to seek this end; such a cause was free not to have determined itself to such an end. Once the end is present in the intention of the agent, however, it is impossible that it not be willed, i.e., absolutely necessary in relation to the will determined to it. And if the end is willed, the means necessary to attain this end are willed with an absolute necessity. In other words the means are hypothetically necessary if the end does not have to be willed; i.e., if the end is not absolutely necessary; but they are absolutely necessary in relation to the end determined in the order of intention. In the order of execution, on the other hand, the means are hypothetically necessary, i.e., unless these means are posited the end cannot come about; but if all the means are given the end follows with an absolute necessity.

In relation to the end in the order of intention, the means are absolutely necessary; in relation to the means in the order of execution, the end is absolutely necessary. In neither case is there any reference to the hypothetical necessity of a future event as such. The coming to be of such an
event is either absolutely necessary or contingent, depending on whether its cause is necessary or contingent.

Ad euius evidentiam considerandum est quod cum verum hoc significet ut dicatur aliquid esse quod est, hoc modo est aliquid verum, quod habet esse. Cum autem aliquid est in praesenti habet esse in seipso, et ideo vere potest dici de eo quod est: sed quanmdu aliquid est futurum, nondum est in seipso, est tamen aliqualiter in sua causa: quod quidem contingit tripliciter. Uno modo, ut sic sit in sua causa ut ex necessitate ex eo proveniat; et tunc determinate habet esse in sua causa; unde determinate potest dici de eo quod erit. Alio modo, aliquid est in sua causa, ut quae habet inclinationem ad suum effectum, quae tamen impediri potest; unde et hoc determinatum est in sua causa, sed mutabiliter; et sic de hoc vere dici potest, hoc erit, sed non per omnium certitudinem. Tertio, aliquid est in sua causa pure in potentia, quae atiam non magis est determinata ad unum quam ad alium; unde relinquitur quod nullo modo potest de alique aorum determinate dici quod sit futurum, sed quod sit vel non sit.

It is also in the Perihermenei-s that St. Thomas excludes the distinction that some modern writers make between a necessity de iure and de facto. Necessary de iure, according to these authors, is what must be - what is such that it cannot not be; necessary de facto is, what as a matter of fact will be; thus, necessary, since it will not in fact be prevented from coming to be. This is the view expressed in the following passage taken from an essay by a modern thomist on necessity

36. St. Thomas, In I Periherm., lect.XIII, n.11
...It is indispensable, in the first place, that we distinguish two kinds of necessity: the first de iure, which is a necessity by essence or by right; and the second de facto, which is a necessity in actual fact. And, moreover, we must recognize that the simple contingency of an event is inconsistent with the first type of necessity, but compatible with the second. An event can be determined or necessitated in actual fact by its antecedents and still be contingent from the moment that its antecedents themselves could have been other than what they were...But it may so happen that a necessity by right does not suffice for the placing of the effect...In a case such as this, to this extent that the placing of the effect depends upon a simple necessity of fact with a necessity of right combined with it, the latter is, so to speak, clothed with contingency. (37)

Although the Stoics did not go so far as to say that a thing can be necessitated and still not be necessary, they did speak in a way similar to the author, in so far as they said that the necessary is what cannot be impeded (in fact), while the contingent is what can be impeded. In regard to this St. Thomas remarks:

Stoici vero distinxerunt (possibile et necessarium secundum exteriors prohibentia. Distinxerunt enim necessarium esse illud quod non potest prohibetur a veritate; possibile vero quod potest prohiberi vel non prohiberi. (Haec) autem distinctio videtur esse incompetens... (quia) assignatio est ab exteriori et quasi per accidents: non enim idea ali-

quid est necessarium quia non habet impedimentum, sed quia est necessarium, ideo impedimentum habere non potest. Et ideo alli melius ists distinxerunt secundum naturam rerum, ut scilicet dixerunt illud necessarium, quod in sua natura determinatum est solum ad esse; impossibile autem quod est determinatum solum ad non esse; possibile autem quod ad neutrum est omnino determinatum, sive se habeat magis ad unum quam ad alterum, sive se habeat sequitur ad utrumque, quod dicitur contingens ad utrum-libet. (38)

Before it exists a thing is either necessary, or contingent, it is obvious that, while a thing is, it is impossible for it not to be; otherwise it would be contradictory. If a thing is necessary de jure, being given that this is an absolute necessity - "I now say that necessity by right (de droit) is a necessity which derives from the very essence of a thing or from some essential structure demanding, by its very nature, that a thing be so an so" - how can it be asserted at the same time that "...It may so happen that a necessity by right does not suffice for the placing of the effect"? It is plain that here there is confusion between logical necessity and physical necessity, for the same author has this to say about what he has called a necessity de jure:--

Thus the essence of the sphere requires that all its radii be equal. It is in this sense that St.

38. St. Thomas, In I Periharm., lect.XIV, n.8
39. J. Maritain, op.cit., p.28
40. ibid.
Thomas, following Aristotle, understands, the word "necessary" when he defines it as "that which by its nature is determined solely to being"; in other words, that which in virtue of some essential requirement, cannot not be. (41)

In the example of the sphere it is absolutely necessary that all its radii be equal; the same thing may be applied to man, for by definition he must be a rational animal. It does not follow, however, that man must exist, as was pointed out in reference to the hypothetical necessity of the divine will. But when St. Thomas, following Aristotle, defines a necessary being as one that is, by its nature, determined solely to existence, does Mr. Maritain think that he is defining simply a logical necessity? This definition is given in the Periherm.; here is the complete text:

Et idea alii melius ists distinxerunt secundum naturam rerum, ut scilicet dicatur illud necessarium, quod in sua nature determinatum est solum ad esse. (42)

The logical necessity of a proposition does not necessitate the existence of what is signified by the proposition. This necessity refers only to the mode of composition of the subject and predicate, and does not refer to physical reality. In this way it is an absolutely necessary and eternal truth that two and three should equal five and that man should be an animal.

41. J. Maritain, op. cit., p. 28
42. St. Thomas, In I Periherm., lect.XIV, n.6
In other words, it would be absolutely necessary with a logical necessity, that man be an animal whether he ever existed extra genus notitiae or not; this is because necessary propositions have an eternal existence in the mind of God. Surely it does not follow that, because it is eternally and necessarily true that man is an animal, he must, therefore, eternally and necessarily exist. To make this clear before returning to another difficulty in Mr. Muritain's text, let us recall the distinction made in the first chapter between ens verum and ens reale, and with this in mind, turn to a text in which St. Thomas draws our attention to this distinction in reference to the question of the eternity of universals and universal propositions. In the Is, St. Thomas answers an objection that argues for the eternity of created truth on the grounds that universals are eternal. Here is his reply to the objection:

Dicendum quod aliquid esse semper et ubique, potest intelligi dupliciter. Uno modo, quia habet in se unde se extendat ad omne tempus et ad omne locum, sicut Deo competit esse ubique et semper. Allo modo, quia non habet in se quo determinetur ad aliquam locum vel tempus; sicut materia prima dicitur esse una, non quia habet unam formam, sicut homo est una ab unitate unius formae, sed per remotionem omnium formarum distinguentium. Et per hunc modum, quodlibet universale dicitur esse ubique et semper, inquantum universalis abstrahitur ab his et num. Sed ex quo non sequitur ea esse aeterna, nisi in intellectu, si quia sit aeternus. (43)

43. St. Thomas, Is, Q.16, a.7, ad 2.
One cannot reason from the logical necessity of a proposition to the physical existence of what the proposition signifies. John of St. Thomas, in his commentary on the above passage leaves no doubt about the distinction:

Colligitur quarto, quod haec veritas creat necessaria non dicitur aeterna positive seu durative: quia aeternitas quantum ad durationem supponit existentiam, quae non datur in creaturis secundum se et essentialiter. Sed dicitur aeterna dupliciter: primo negativo, secundo denominativo seu objective.

Primo modo dicitur aeterna, quia non fundatur ejus veritas et conexio in aliqua mutatione temporali, nec dependet ab his et nume ut possit vere intelligi: licet ut possit existere, requirat aliquam actionem agentis, quae necessaria non est...Secundo modo dicitur haec veritas aeterna, quia est objectum judicii aeterni Dei, participando ab illo necessitatem...(44)

In the Contra Gentes St. Thomas poses this question: "Qualiter in Rebus Creatis Esse Potest Necessitas Absoluta". (45)

In this place St. Thomas does not discuss logical possibility or necessity as such; it is a question of real being and not ens verum. Here, and in the Perihermeneias, it is a real, physical necessity that is attributed to those beings that are determined uniquely to existence, and not a logical necessity; if it were logically necessary for something to exist, it could never not exist, since its non-

44. Cursus Theologicus, T.II, p.637b. (Italics our own)
45. II, c.30
existence would be contradictory. It is logically necessary for God alone to exist, for only His non-existence is a contradiction, which does not at all exclude absolute necessity from creatures, as St. Thomas clearly explains. Briefly, man is determined by his very nature to be a rational animal, since this is his nature; but he is not determined by his very nature to exist.

It is plain, however, from Mr. Maritain's words, that, although he gives an example of an absolute logical necessity, - what he actually has in mind is a real necessity. (Let it be remarked that we do not mean that a logical necessity is not a real necessity in the manner of \textit{ens varians}.) At the same time, however, he denies the absolute necessity of what he has called necessary \textit{de iure}, which he has told us is a necessity absolutely requiring the existence of an effect, and says that this same absolute necessity may sometimes be hypothetical:

\begin{quote}
Whenever the sufficient reason for the positing of an effect is the exigency of an essence, whenever such a necessity suffices for the positing of an effect, whether absolutely (as in the case of the properties of the geometrical sphere) or hypothetically (as in the case of the properties of the metal sphere), we will say that the effect itself is \textit{necessary by right}. It is enough for the placing of the effect that there be a certain nature or essential structure of which it is a property. (46)
\end{quote}

46. \textit{op. cit.}, p.23
And still, what is necessary by right, (what cannot not be), what suffices for the placing of the effect, may not suffice for the placing of the effect:

But it may so happen that a necessity by right does not suffice for the placing of the effect. (47)

It is not very fruitful to examine in detail contradictions such as these; but it is important to make it clear that they are not found in the teaching of St. Thomas. One more point before passing on to another question: To say that, "An event can be determined or necessitated in actual fact by its antecedents", is to say that it is absolutely necessary in relation to these. To add that it is still contingent, "...From the moment that its antecedents themselves could have been other than what they were", is nothing other than to attribute to the event a contingency that it had only as long as the antecedents were not posited. You cannot call an event contingent because it was once contingent; neither can you say that an event was necessary because it is now necessary. If the relation between cause and effect is necessary, then the effect follows with an absolute necessity, once the cause has been given. It should be noted too, that even if a cause is sufficient, it does not follow that it is necessary.

47. Reflections on Necessity and Contingency. p.28
Another common belief of modern scholastics is that all things which come to be in nature were infallibly predetermined in the constellation of all the factors of the universe posited at its origin. In the final chapter of this dissertation, this problem will be treated from another point of view; for the moment we are concerned with the relation it has to a discussion of necessity.

According to this view, the individual happenings in the universe are not necessary except by what has been termed, a necessity de facto; they are necessary, however, if the multitude of factors operating to produce them be taken into consideration. In such a characterization the Universal Cause of all nature could be only a spectator, watching the necessary unfolding of a determined pattern once set in motion; or at best, a kind of cooperating cause, using the necessary meetings of individual natures, as an occasion to exercise a benevolent influence. Not that we hold this latter view to be the one explicitly taught by modern scholastics, but rather that their doctrine makes it impossible to hold any other; this is evident in the following:

Si on suppose qu'il n'y pas dans l'univers aucun agent libre (intelligent), il est clair que tel événement survenu ici-bas (par exemple le fait que tel écureuil grimpe sur tel arbre à tel moment sur telle montagne) était infailliblement prédéterminé dans la constellation de tous les facteurs posée à l'origine. Mais il n'y a là qu'une nécessité de fait, aucune nécessité de droit. Non
These remarks are quite foreign to the teaching of Aristotle and St. Thomas. An examination of them will reveal the error that is responsible for such a determinist view of nature. First, let us consider the opinion that an individual event such as, the climbing of such a squirrel in such a tree at such a time on this mountain, is necessary if all the factual circumstances, past and present, that contribute to this event are considered; the meaning here is quite plain: If everything required for the existence of some thing is brought about, then surely that thing will be. But is this not quite evident? In other words, when the cause is sufficient in actu secundo, the effect ensues immediately. But it does not follow that the effect is a necessary one just because it is necessary that it be when it is. For an effect to be necessary

absolutely, and this refers to the future and not to the present, "...Quia in contingenti, secundum id quod in se est, non est esse et non esse, sed solum esse licet in futurum contingens possit non esse", all of the antecedent causes must be necessary. If anyone of them is contingent, the effect is not absolutely assured or predetermined. This is the case for natural causes which, as St. Thomas so often says, achieve their effects only ut in pluribus, not being entirely determined ad unum.

The so-called necessity de facto excludes all reference to the future; if not, it is contradictory, which, as we shall see, is indeed the case. For this necessity is supposed to be based, not only on the sum total of antecedent causes, but also upon the present factors, "positions de fait...concomitantes", involved in a singular event. It is a necessity based on that which has not yet come to be—a necessity that is necessary when it is necessary.

Les causes prochaines engagées dans la production de cette événement pouvaient de soi (même si elles ne le pouvaient pas par rapport à toute la multitude des positions de fait précédentes et concomitantes, supposées elle-mêmes non troubles), être empêchées de le produire...(51)

49. St. Thomas, Contra Gentes I, c.67
50. ibid., III, c.56: "Item. A causa remota non sequitur effectus de necessitate nisi etiam sit causa medius necessaria; sicut et in syllogismis ex maiori de necesset et minori de contingenti non sequitur conclusio de necessa...Ex multis contingentibus non potest fieri unum necessarium: quia, sicut quod libet contingentium per se difficere potest et effectu, ita et omnia simul."
51. J. Maritain, Les Degrés Du Savoir, p.58 (Second Italics ours)
To say that an effect is necessary in this way, and to say at the same time that, considered in itself, it can fail to come about, is a contradiction; for by supposing the existence of all the conditions required for it to take place, its non-existence is made impossible, since the cause successful in actu secondo is one of the conditions of the effect's coming to be. The expression "pouvaient de soi être empêchés de le produire", in such a context, is meaningless. How can the causes "de soi" fail, if one supposes that they are not impeded? In other words - to bring out the unmeaningness of such a statement - how can a cause fail if one supposes that it does not fail?

Contingency, however, refers to the future, and if it is meant that the future event is already predetermined in the multitude of factors presently in existence, or that the present was predetermined in the multitude of factors previously in existence, this position is refuted in the Perihermeneias:

Si enim similiter se habet veritas et falsitas in praesentibus et futuris, sequitur ut quid- quid verum est de praesenti, etiam fuerit verum de futuro, eo modo quo est verum de praesenti. Sed determinate nunc est verum dicere de aliquo singulari quod est album; ergo primo, id est ante- quam illud fieret album, erat verum dicere quoniam hoc erit album...Si autem semper est verum dicere de praesenti quoniam est, vel de futuro quoniam erit, non potest hoc non esse vel non futurum esse... Sequitur ergo ex praevisis quod omnia, quae futura sunt, necessae est fieri. Ex quo sequitur ulterius, quod nihil sit neque ad utramlibet neque a casu, quia illud quod accidit a casu non est ex necessitate,
sed ut in pascoribus; hoc autem relinquit pro inconvenienti; ergo et primum est falso, scilicet quod omne quod est verum esse, verum fuerit determinato dicere esse futurum. (52)

If the author’s meaning is that, although any single contingent cause may fail to produce its effect, all the causes in nature together necessitate this singular occurrence; i.e., "le fait que tel arbre grimpé sur tel arbre a telment sur telle montagne"; this idea too, has been rejected:

Stoici posuerunt fatum in quaedam serie, seu connexiones causarum, suscipientes quod omne quod in hoc mundo accidit habet causam; causa autem positis, necesse est effectum ponit. It si una causa per se non sufficit, multae causae ad hoc suscipientes accidunt rationem unius causae sufficientiam; et etsi concludant quod omnia ex necessitate evanescunt.

Sed hanc rationem solvit Aristoteles in VI Metaphysicae interimens utrasque propositionem assumptam. Dixit enim quod non omne quod fit habet causam, sed solus illud quod est per se. Sed illud quod est per accidens non habet causam; quis prope non est ens, et magis ordinatur ens non ens, ut estem Plato dixit. Unde esse vanum, habet causam, et similiter esse album: sed hoc quod est, album esse vanum, non habet causam; et idem est in omnibus huiusmodi.

Similiter etiam hanc est falsa, quod posita causam stiam sufficienti, necesse est effectum ponit: non enim omnia causa est talle (etiam si sufficiens sit) quod eius effectus impediti non possit: scilicet ignis est sufficiens causa combustionis ignis, sed tamen per effusionem aquae impeditur combustio. (53)

This is a sufficient discussion of the general teaching of the modern scholastics on necessity. We shall now take up a

52. St. Thomas, In I Perihera., lect.XIII, n.10
53. St. Thomas, In I Perihera., lect.XIV, n.19-21 (Italics ours)
more particular question where the deterministic position of modern thomists is again evident; this is not to mention a general lack of precision and departure from the true doctrine which is to be found in these writers, notwithstanding the fact that the majority profess to expose faithfully the teaching of St. Thomas.

The last section of this chapter will be devoted to a brief study of what the laws of nature are, and how they govern natural activity; emphasis will be placed on the natural character of these laws, in opposition to the modern teaching which makes them entirely unnatural and in fact perfectly determined to a future which they would govern infallibly with an a priori necessity.

3. The "Hypothetical Necessity of the Laws of Nature."

Having seen the meaning that is given to hypothetical necessity by modern scholastic writers, we can now pass on to a consideration of how this meaning is applied to the laws of nature. It is necessary first of all to distinguish two senses of the expression, "Laws of Nature": From a philosophical standpoint this can mean either the natures themselves of things, as measured and ruled by the eternal law, or these same natures as measures of natural activity. In the second sense, a law of nature is nothing other than a certain inclination to activity, coming from the nature of the thing in question;
it is derived, by way of this nature, from the eternal law as participated in by the creature. This inclination is not simply the nature of the thing measured by the eternal law, but follows upon the law as received; it is nothing other than the nature itself as a measure of future activity.

It is a law only in a secondary sense, i.e., analogically.

Dicendum quod cum lex sit regula quaedam et mensura, dicitur dupliciter esse in aliquo. Uno modo, siout in mensurante et regulante. Et quia hoc est proprium rationis, ideo per hunc modum lex est in ratione sola. Alio modo, siout in regulato et mensurato. Et sic lex est in omnibus quae inclinantur in aliquid ex aliquis leges, ita quod quaelibet inclinatio proveniens ex aliquis legent, potest dici lex non essentialiter, sed quasi participative. Et hoc modo inclinatio ipsa membrorum ad concupiscendum "lex membrorum" vocatur. (54)

It is the second sense of the expression, "Laws of Nature", with which we are concerned here. This is the sense given to these laws by modern Thomists when they speak of the hypothetical necessity of the nature as measure of its activity.

Now it is impossible that these laws cause the activity of which they are an extrinsic measure, with necessity; the nature would in this case not be nature, and the law identified with this nature, would be contradictory.

54. St. Thomas, In IIae, Q.90, a.1, ad primum.
Es quae sunt necessaria, impossibile est aliter se habere; unde cohibitione non indigent. Sed imponitur homini lex ut cohibatur a malis, ut ex supradiictis patet. Ergo ea quae sunt necessaria, legi non subduntur. (55)

As St. Thomas explains, a law is a certain rule and measure. What is absolutely necessary, however, does not need to be controlled or governed, since it cannot be other than what it is. Thus, in the same article from which the above passage is taken, St. Thomas remarks:

Humanae enim gubernationi subduntur ea quae per homines fieri possunt; quae vero ad naturam hominis pertinent, non subduntur gubernationi humanae, scilicet quod homo habeat animam vel manus aut pedes. (56)

If the individual natures, by their natural inclination, necessitated the activities which proceed from them, they would not be laws at all - "Es quae sunt necessaria, legi non subduntur". Moreover, the natures which are the laws, would not be natures; they could not be intrinsic principles of movement since they would be matters and forms entirely determined ad unum. The matter which, together with the form, constitutes the material composite, would have to be completely actualized, which is contradictory; it would not be a true potential principle in nature, and note that a form perfectly determined ad unum is not a nature nor is it a

56. St. Thomas, op. cit., c.93, a.4, c
57. Ibid.
principle of natural movement:

Dicimus: Nullo modo convenire illis [Scil. Angelis] definitionem naturae traditam. Licet enim habeant naturam, sumpta pro quidditate constituta ex praedicatis, non tamen habent naturam, quae sit in ipsis principiis motus imperfecti et divisibilis, sicut est motus physicus. (53)

It must be recalled here that matter is a real principle in nature, and that it is pure indetermination. It is also from the potency of this subject that all material forms are drawn. Therefore, if future activities and the coming to be of every future event were perfectly predetermined, the future would already exist so far as man's knowledge is concerned, for his knowledge would embrace the future just as the present. The natural form, however, is not contingent simply because it has a co-principle that is pure potency. It is true that to suppress the indetermination of matter makes a true future impossible; nevertheless, it is not sufficient to insist upon the possibilitas materiae in order to explain the contingency of the future. This explanation must be sought in the insufficient determination of the form itself, which is incapable of self-individuation. It is the inability of the form to exist in itself apart from a subject, that requires the existence of matter, in which the natural form must exercise its causality as an intrinsic principle of

movement and rest; so too, the matter depends upon the form, and more so, both in order to have some existence and in order to be a principle. The very reason for the matter is to be found in the form that is too imperfect to exist by itself, and to which the matter is ordered as to a final cause. The material forms are deduced from the potency of matter, have their existence in matter, and do not constitute by themselves a complete substance:

Anima sensibilis cum non sit res subsistens, non est quidditas, sicut nec aliae formas materiales, sed est pars quidditatis, et esse sum est in concretione ad materiam; unde nihil aliud est anima sensibile produci, quam materiam de potentia in actum transmutari.  

Such forms indeed cannot be known distinctly apart from the composites of which they are only one principle:

Formae substantialiae non subsistentes, et accidentiales propriae quae ex illa dimensum ut propriae passiones, si connaturali modo fiant, non

59. St. Thomas, In I Phys., lect.XV, n.10: "...Sciendum est enim quod omne quod appetit aliquid, vel cognoscit ipsum et se ordinat in illud; vel tendit in ipsum ex ordinatione et directione alculius cognoscentia, sicut sagitta tendit in determinatum signum ex directione et ordinacione sagittantis. Nihil est igitur aliud appetitus naturalis quam ordinatio aliorum secundum propriam naturam in suum finem. Non solum autem aliquid ens in acta per virtutem activam ordinatur in suum finem, sed etiam materia secundum quod est in potentia; nam forma est finis materiae."; see also - In II Phys., lect.XV, n.4

60. St. Thomas, De Pot., Q.3, a.2, ad 1
Even the rational soul participates in this obscurity to the extent that it has existence with matter and is related to it. It is only after the resurrection that the composite is incorruptible and perfectly determined to existence.

It would appear that those who seek a knowledge of the laws of nature that is completely definitive and rigorous, in such a way that every singular future event would be included and subject to infallible prediction, simply fail to grasp that matter is pure potency and "...Secundum sae, nec quid, nec quantitas, nec aliud aliquid eorum dicitur, quibus est ens determinatum." (63)

63. Aristotle, Metaphysics, VII, c.III, 1029a20-23 (ed Cathala, versio antiqua)
If the laws of nature are nothing other than the individual natures themselves, a knowledge of them by way of abstraction should not lead us to confuse the universal that exists only in the mind, with the singular natures from which such a universal has been taken. There can be a science of what is contingent, but only on the condition that individual matter is left aside; the individual substances remain contingent in themselves.

Est autem unumquodque contingens ex parte materiae, quia contingens est quod potest esse et non esse; potentia autem pertinet ad materiam. Necessitas autem consequitur rationem formae, quia ea quae consequuntur ad formam, ex necessitate insunt. Materia autem est individuationis principium; ratio autem universalis accepitur secundum abstractionem formae a materia particulari... Unde si attendantur rationes universales sensibilium, omnes scientiae sunt de necessariis. Si autem attendantur ipsae res, sic quaedam scientiae est de necessariis, quaedam vero de contingentibus. (64)

The view of many modern scholastics is quite different from the one St. Thomas presents here. In a treatise on natural contingency, a modern thomist gives an excellent summary of the position held by other contemporary scholastics and offers an accurate explanation of why it is held; he adds the proper reason why it is impossible for the laws of nature to include everything that can happen in nature.

64. St. Thomas, Ia, Q.36, a.3, c
and why man cannot deduce from these laws, the future existence of every singular event:

Ceux qui ont cru possible à une intelligence procédant comme la nôtre, à savoir par abstrac-
tion de la matière, d'établir une formule générale
du monde telle que tout événement singulier
y serait contenu, ceux-là ne savent pas ce que
'est que la matière. Ils se figurent que le
singulier est fait avec de l'universel, et que
celui-ci, entièrement pénétré, l'épuise, alors
que l'universel abstrayant toujours de quelque-
chose, et que toute idée, même la mieux précisée,
n'étant inévitablémement qu'un schéma, il est impos-
sible à jamais, par les moyens de l'homme, de faire
entrer dans des lois tout ce que réalise la nature.
((Nous ne savons le tout de rien)) : il y a là plus
qu'une constatation, il y a un arrêt, parce que le
tout n'est même pas un tout, étant un indéterminé
au regard de tout pouvoir d'agir ou de connaître. (65)

With these general notions in mind, we can now proceed
to the second part of the discussion of the "Hypothetical
Necessity of the Laws of nature", by citing various modern
authors who have written on the subject, and commenting
directly upon these texts.

As shown earlier in this chapter, hypothetical necessity
is, for the majority of modern scholastic writers, a neces-
sity consequent upon the fulfillment of certain conditions.
This is also their meaning when they speak of the hypothetical
necessity of the laws of nature. In other words, the laws of
nature are hypothetically necessary because they depend upon

65. A.D. Sertillanges, La Philosophie de St. Thomas D'Aquin,
Paris, editions Mantaigne, Aubier, 1940, pp.60-61
the realization of various conditions. That this is indeed their position is plain in the following excerpts taken from the writings of several different modern scholastics:

To enquire into the ultimate causes of the universe and the method of its production, if it is not self-sufficient, does not come, strictly speaking, within the scope of natural philosophy, since this considers the material world in itself. At the present time, however, it is more than ever evident that it is subject to change, and has not always been in the state in which we now find it. Its changes, nevertheless, must be held to be regulated by determinate rules; for since the Thomistic theory of bodies recognizes that they have determinate natures, they must also have determinate modes of action. Such modes of action are commonly called the laws of nature. It is clear that such laws have a certain necessity, since they are consequents of the natures of the bodies; but this necessity is said to be 'hypothetical'; i.e., dependent upon the fulfillment of some condition; the condition in this case being that the circumstances remain the same, and that no disturbing influence comes into the system of inanimate nature from without. If this condition be fulfilled, bodies will always act in a certain determinate fashion which follows their nature. (66)

...conditions of contact, temperature, pressure, etc., are necessary for oxygen and hydrogen to combine into water. If a piece of wood be covered with asbestos, fire will not consume it. If the stone be held up in the air, it will not fall down, etc., Thus the necessity of the laws of nature is not absolute, but hypothetical. The conditions must be verified. (67)

The necessity of physical laws is, in view of the teleologist, hypothetical, that is to say, it presupposes a prior condition. (68)

68. Brother Benignus, F.S.C., Nature Knowledge and God, (Bruce, Milwaukee, 1947) p.39
...Therefore, since the natural laws imply this principle of the uniformity of nature, they are not absolutely, but only hypothetically necessary. They state for us what the mode of operation of a necessary cause will be if the requisite conditions for its operation are present. (69)

The second sort of necessity is a consequent necessity: A necessity following upon the verification of some hypothesis. Thus there is a physical necessity in the sequence of natural phenomena, given that a certain number of elements have been created, with definite laws of action, and with definite positions relatively to each other in space. It is not free to such combinations to do otherwise than they do; there is no contingency in the results after the conditions have been posited. (70)

These writers insist on the necessity of future events that are governed by what they call the laws of nature. At the same time, however, they state that the future event resulting from the intrinsic inclination of the nature, may fail to come about if the requisite conditions are not fulfilled. In other words, the same future event is at once necessary and contingent. The inherent contradiction is even more apparent in the following:

Predicated, not of the formula of the law, but of the law itself, or better still, of the relation between the phenomena, contingency signifies the absence of necessity. The question amounts to this: Are material phenomena governed by the strictest kind of determinism, or do they allow for a certain amount of spontaneity? The

69. John F. McCormick, Scholastic Metaphysics, p.257
answer given by scientists is categorical: No one would think of disputing the deterministic character of natural phenomena, at least if one restricts this epithet of non-living matter... In the world of matter, all changes irrespective of their nature, are produced necessarily. Contingency admits of a third and final meaning, signifying the dependence of the law upon certain conditions which are not always or necessarily fulfilled. (71)

The author leaves no doubt about the determinist position that he holds, even though he insists that the future depends upon conditions which may not be fulfilled. He goes so far as to say that the conditions which may not be fulfilled must come about, since they too are predetermined:

Conditions are necessary for the realization of the effect, and without them the objective relation symbolized by the law could never exist. But the characteristics of the effect are predetermined in the cause, and the conditions themselves are subordinated to this predetermination or adaptation of the agent to its effect...In the order of efficient causality, a law of nature has no foundation except the intrinsic determination of the agent, in virtue of which the latter must, necessarily, produce such or such an effect. (72)

In reply to the assertion, "No one would think of disputing the deterministic character of natural phenomena...", and that "in the world of matter, all changes irrespective of their nature, are produced necessarily", it may be remarked that both

71. D. Nys, Cosmology, (Bruce, Milwaukee, 1943) p.131
72. ibid., p.133
Aristotle and St. Thomas not only disputed this position, but also disproved it:

Manifestum est enim etiam in rebus naturalibus esse quaedam, quae non semper actu sunt; ergo in eis contingit esse et non esse: aliquin vel semper essent, vel semper non essent. Id autem quod non est, incipit esse aliquid per hoc quod fit illud; sic ut id quod non est album, incipit esse album per hoc quod fit album. Sic autem non fiat album permanet non ens album. Ergo in quibus contingit esse et non esse, contingit etiam fieri et non fieri. Non ergo talis ex necessitate sunt vel flunt, sed est in eis natura possibilitatis, per quam se habent ad fieri et non fieri, esse et non esse. [73]

If the laws of nature are nothing other than the individual natures, the expression "hypothetical necessity of the laws of nature", can mean one of two things: First, that given the end of nature, individual natures are necessary in order that this end be brought about: Secondly, that the individual natures by their natural inclination, necessitate the end, i.e., bring it about necessarily. But in this latter sense, the expression is a contradiction, for if the end is brought about necessarily, the necessity is absolute and not conditional. "Necessitas quae est ex causis prioribus est absoluta".

The only law that can truly be called hypothetically necessary is the eternal law, which determines every future event to happen necessarily or contingently. But this necessity, although it governs the future, is itself eternal, and hence, can govern the future without necessitating it. Every-

[73. In I Periherm., lect.XIV, n.6]
thing is caused infallibly by God; this, however, does not
destroy natural contingency anymore than it takes away man’s
free will:

Ex hoc autem quod homo videt Socratem sedere,
non tollitur eius contingentia quae respicit
ordinem causae ad effectum; tamen certissime
et infallibiliter videt oculus hominis Socraten
sedere dum sedet, quia unumquodque prout est
in seipso iam determinatum est. Sic igitur
relinquitur, quod Deus certissime et infallibili-
riter cognoscat omnia quae fiunt in tempore;
et tamen ea quae in tempore eveniant non sunt vel
fiunt ex necessitate, sed contingentae. (74)

The end of all nature to which the individual natures
are ordered is brought about necessarily, but this does not
mean that the laws of nature are absolutely necessary. It
is true that there are certain limits imposed by the universal
agent, but within these limits there is the possibility of
a variety that is not predetermined. Although the successive
appearance of plant and animal life is necessary for the
ultimate appearance of man, who contains the perfections of
the lower species, the same thing cannot be said for the
numerous variegated species of plants and animals and the
"blind alleys" down which nature sometimes travels in search
of its ultimate goal. Once given the existence of matter, the
final perfection of the universe, realized in the human soul
and the intrinsic ordering of all the parts of the universe
to the whole is absolutely certain. It is for this end that

74. St. Thomas, op. cit., lect. XIV. n. 21
matter was created; without its attainment such a creation would be contradictory, for matter and movement are not for their own sake. In other words, the laws of nature are truly natural, not being absolutely necessary nor yet purely contingent, but "determinatum ad unum ut in pluribus" per modum naturae.

But to say that nature will bring about its effects necessarily if it is not opposed by any obstacle, is nothing other than to say that if nature is successful, it cannot be unsuccessful. The teaching of the modern scholastics on the "hypothetical necessity of the laws of nature", can be summed up briefly as follows: A future event in nature, since it is governed by natural laws, will come about necessarily if it does not meet with an obstacle, i.e., if this event is not prevented, it will necessarily come about. We may conclude this chapter with St. Thomas's reply to this unreasonable truism:

Sciendum etiam quod quidam definierunt esse necessarium, quod non habet impedimentum; contingens vero alius frequenter, quod potest impediri in paucioribus. Sed hoc irrationabile est. Necessarium enim dicitur, quod in sui natura habet quod non possit non esse: contingens autem ut frequenter, quod possit non esse. Hoc autem quod est habere impedimentum vel non habere, est contingens. Natura enim non parat impedimentum ei quod non potest non esse; quia esset superfluum. (75)

75. In II Phys., lect. VIII, n.4
CHAPTER IV
CONTINGENCY IN NATURE

If we consider the various degrees of actuality in the order of existing essences, there is presented a hierarchy in the grades of being that extends from the pure act of the divine essence to the pure potency of prime matter. Within these limits there is a descending order of perfection and essential determination, beginning with the highest angelic substance and ending in the world of inorganic material. Just as the absolute essential determination of God, whose essence is His existence, is the root of a positive indetermination that is the same thing as the divine liberty, so the separated substances and man, are more or less free according to the degree of essential determination that they have; this positive indetermination is consequent upon the extent to which they participate in the perfect determination of God. Thus, the freedom that these substances enjoy is founded on a substantial perfection.

This positive indetermination of the creature decreases in the measure that the essential admixture of potentiality increases. In this way the higher angels have a superior intelligence and more perfect freedom than the lower.

Among material living things there is also this positive indetermination, which in man is free will, and in the lower
living things, plants and animals, the spontaneity in operation that is the root of an uncertainty in regard to the future. Even in the inorganic world there is a kind of spontaneity, although it does not come from an intrinsic principle since the active principle of operation for an inanimate thing is exterior to it.

Hence, just as every created thing is contingent extrinsically in terms of the positive indetermination or perfect liberty of God, so also those creatures who possess the liberty of acting "ad utrumlibet", have effects that are extrinsically contingent.

But there is another kind of indetermination to be found in every creature in so far as each is removed from the perfect actuality and determination of God. This kind of indetermination does not resemble the perfect liberty of God but rather the pure potency of matter; it is negative and not positive. In the universe of separated substances this second kind of indetermination which, absolutely speaking, is an imperfection, is proportionate to the degree of intimacy of the union between essence and existence. The higher angels are less contingent in this sense than the lower ones because their essence is more one with the act of existing. But in the descendence from the higher to the lower angels there is a greater and greater admixture of potency in their being, although the essence remains determined simply, for there is
no composition of essential parts. This degradation of actuality in the angelic universe is characterized by a need for more and more means of knowing or intelligible species, since the perfection of the intellect is proportionate to the degree of actuality; the more perfect the intellect is, the more objects it can attain distinctly by fewer means, just as the divine intellect attains all things distinctly in one means or species, which is nothing other than the divine essence itself. Since the decreasing actuality of the substance is concurrent with the multiplication of intelligible species necessary for knowledge, and since the succession of species employed as means of knowing is the discrete time of the angelic existence, it follows that as the positive determination of the essence lessens, the angelic duration becomes more complex and farther removed from the perfect presentential unity of God's eternal existence.

Finally, there is a multiplicity in the essence itself, since the form is eventually too imperfect to exist alone. And with the advent of this composition in the substance, there is the material composite and cosmic time, its measure. Again, within the material world, there are more perfect and less perfect substances, as there is descendance from man to the lower animals, then to plants, and finally to the inorganic substances, which are closest to the potentiality of matter, being the least actual of all creatures. As this
lower limit is approached, there is an increasing subjection to the contingency which is rooted in a negative indetermination, and which makes the less perfect substances less stable, less permanent and more obscure owing to their greater materiality. The domination of matter by the substantial form, most perfect in men, whose form is not drawn from the potency of matter, is increasingly overshadowed by the appetite of matter, in potency to an infinity of forms, and less content, as it were, with the more imperfect ones. Thus, the stability of the material substance lessens in proportion to its negative indetermination. At the limit is the pure potency of matter, the absolutely potential principle which is a necessary condition for the existence of natural things, since the natural form is too imperfect and undetermined positively to exist alone.

With these general notions in mind we can begin to investigate more closely the kind of contingency proper to nature and natural things. It should be remarked that the considerations to follow in this chapter will proceed in the manner of an introduction to the final chapter, where the most evident forms of contingency will be discussed at some length, and the teaching of the modern scholastics again studied directly.

The notion of finality is indispensable for an understanding of the kind of contingency proper to nature. It is necessary also if one is to grasp the rationality of matter.
and movement, and understand how the lack of a perfect necessity in singular natural effects, is compatible with the certitude of nature's attaining its ultimate end.

We may begin by noting that neither matter nor movement can have the character of an end. They are both ordered to something else as to a reason for being. Matter, as potency, is ordered to form, as act; and it is through a movement from potency to act that the composite of matter and form comes into existence and fulfills the purpose of some agent. The end which moves the agent to act is the first and most important of the causes, for unless something is to be achieved, the agent will have no reason for acting and the matter which is ordered to the form will have no reason for existing. Note that although the efficient cause is first in the order of

1. St. Thomas, In I Phys., lect.XV, n.10: "Non solum autem aliquid ens in actu per virtutem activam ordinatur in suum finem, sed etiam materias secundum quod est in potentia; nam forma est finis materiae. Nihil igitur est aliud materiae appetere formam, quam eam ordinari ad formam ut potentia ad actum".

And in regard to movement,- De Pot., Q.5, a 5: "Cum enim natura semper in unum tendat determinata, non se habens ad multa, impossibile est quod aliqua natura inclinet ad motum secundum se ipsum, eo quod in qualibet motu differinitas quaedam est, in quantum non codem modo se habet quod movetur; uniformitas vero mobilis est contra motus rationem.

Unde natura nunquam inclinat ad motum propter movere, sed propter aliquid determinatum quod ex motu consequitur... Motus enim, ex ipsa sui ratione, repugnat ne possit ponit finis, eo quod motus est in aliud tendens; unde non habet rationem finis, sed magis eius quod est ad finem." - et passim

2. ibid., n.3: "Non igitur potentia materiae est aliqua proprietas addita super essentiam eius; sed materias secundum suam substantiam est potentia ad esse substantiale."; In II Phys., lect.4, n.8: "Materias...est propter formam."
execution, and the cause of the end's coming to be, it is the end which is first in the order of intention, and as that which attracts the agent, the cause of everything that follows:

In aliis vero causis inventur alia ratio causae, secundum scilicet quod finis vel bonum habet rationem cause. Et hae speciess causae potissima est inter alias causas: est enim causa finalis aliarum causarum causa. Manifastum est enim quod agent agit propter finem; et similiter ostensum est supra in artificiosibus, quod formas ordinat ad usum sicut ad finem, et materias in formas sicut in finem: et pro tanto dicitur finis causa causarum. (3)

The first thing to be considered in regard to finality and contingency is that the definition of nature applies to matter as well as to form, even if it is said more properly of the active principle. Matter should not be conceived as that which can be ordered to form by an efficient cause for the sake of some end, but rather as that which is in itself positively ordered to an end. It is in view of this positive ordination to an end as a good, that St. Thomas refers to the appetite or desire of matter for form. It is important to observe this for it is the positive ordination of matter which in one way assures the attainment of nature's ultimate goal, and in another way makes the process of attaining this goal contingent and not absolutely necessary.

4. In I Phys., lect.XIV, nn.3-11
Matter, although responsible for the contingency of future effects, is necessary in order that the ultimate end of nature be achieved; and when the appetite of matter for form has been as fully as possible realized, the final intrinsic end to which the whole of nature is ordered will be accomplished.

Toward the end of the second book of the Physics, St. Thomas completes the definition of nature as an intrinsic principle of movement and rest in that in which it is primarily, and per se, and not accidentally, by adding that it is the "ratio" or reason of a divine art infused in things by which they are moved to a determined end. We are thus introduced to the implications of matter's being nature as an intrinsic principle of movement directed by an intelligence to some definite end: for without such a positive ordination of matter to some ultimate form, the form alone would be nature, and natural generations would not be natural; the passive principle would not be nature.

In nullo enim allo natura abs arsa videtur differe, nisi qua naturae est principium intrinsecum, et arsa est principium extrinsecum. Si enim arsa facultativa navis esset intrinsecus ligno, factae fuisse navis a natura, sicut modo fit ab arte. Et hoc maxime manifestum est in arte quae est in eo quod movetur, licet per accidentes, sicut de medicis qui medicaturn se ipsum: huic arti enim maxime assimilatur natura. Unde patet quod natura nihil est aliud quam ratio cuiusdam artis, scilicet divinae, indita rebus, qua ipsae res moverentur ad fines determinatum: sicut si artifex factor navis posset lignis tribuere, quod ex se ipsis moverentur ad navis formas inducendam. (5)
The importance of the final cause in nature is thus seen more clearly, for it is in view of the end that individual things are provided with an intrinsic principle by which they move toward the end, an end determined by the divine intelligence.

The question now arises as to what the ultimate end to which matter and the rest of nature are ordered may be. In view of what end, intrinsic to the universe, do things have an intrinsic principle of movement and rest, by which they move and are moved to their final perfection? What is the form that matter seeks as the fulfillment of its reason for being? Finally, what end, requiring the potential principle, matter, and involving as a consequence the undesirable or accidental effects that result from its pure indetermination, nevertheless makes matter and movement something rational and necessary? St. Thomas tells us what the ultimate form and end of matter and movement is in the following passage, where he also explains that this end is not accomplished all at once in the beginning, but through intermediate steps by which nature tends toward a greater and greater unity:

Cum vero, ut dictum est, quaelibet rea mota, inquantum movetur, tendat in divinam similitudinem ut sit in se perfectis; perfectum autem sit unumquodque inquantum fit actu: oportet quod intentione quaelibet in potentis existentis sit ut per motum tendat in actum. Quanto igitur aliquis actus est posterior et magis per...
fectus, tanto principalius in ipsum appetitus materisae furtur. Unde oportet quod in ultimum et perfectissimum actum quem materia consequi potest, tendat appetitus materisae quo appetit formam, sicut in ultimum fines generationis. In actibus autem formarum gradus quidam inveniuntur. Nam materia prima est in potentia primo ad formam elementi. Sub formas vero elementi existens est in potentia ad formam mixti: propter quod elementa sunt materia mixti. Sub formas autem mixti considerata, est in potentia, est in potentia ad animam vegetabilem; nam talis corporis anima actus est. Itemque anima vegetabilia est in potentia ad sensitivam; sensitiva vero ad intellectivam. Quoq processus generationis ostendit: primo enim in generatione est fetus vivens vitae plantae, postmodum vero vita animalis, demum vero vita hominis. Post hanc autem formam non invenitur in generabilibus et corruptibilibus posterior formas et dignior. Ultimus igitur finis generationis totius est anima humana, et in hanc tendit materia sicut in ultima formam. Sunt ergo elementa propter corpora mixta; haec vero propter viventia; in quibus plantae sunt propter animalia; animalia vero propter hominem. Homo igitur est finis totius generationis. (6)

Although the human species is absolutely certain once given the existence of matter which tends toward the human form as an ultimate perfection, it does not follow that all the means of arriving at this final goal are absolutely certain, in the sense of being completely determined beforehand. If they were, matter would no longer be a true potential principle, but would be necessarily and determinately ordered to every form of which it is a subject, and not only to those distinct and irreducible forms which are necessary.

6. Contra Gentes, III, c.22
as preliminary dispositions in matter for the reception of the human form. In other words, there is a truly natural ascendance in the hierarchy of cosmic substances. The indetermination of matter, relatively subject to the end of universal nature, is nevertheless not subject to the end of every particular nature. Although the irreducible degrees of being are certain - the simple existence of inanimate substances, the life of plants, the sense knowledge of animals, and finally, the intellectual life of man, in whom all the other degrees are found eminently and formally - many of the various sub-species and concrete paths actually taken by nature, are not absolutely certain, in the sense of being necessarily determined, for no one of them is determinately necessary for the realization of the human form. Within the imperfect determination of nature there is room for great variety and uncertainty. It should be noted that it is the end of the universe taken as a whole, that is foremost in the intention of nature as an intrinsic principle of operation implanted in things by the divine Artist. In regard to particular ends, it is the species, and not the individual of the species, which is primarily intended, even by particular nature.

7. See Contra Gentes, III, c.24; ibid., IV, c.97: "Nec potest dici quod finis caelestis motus sit; at corpus caeleste reductur secundum ubi de potentia in actum; quia haec potentiis nonquam potest tota in actum reduci...sic et de potentiae materiæ prime respectu formarum. Sic et igitur finis naturæ in generatione non est reducere materiam de potentiae in actum, sed aliquid quod ad hoc consequitur, soluisse perpetuitatis rerum, per quam ad divinam similitudinem accedunt; ita finis motus caelestis..." - see also - Contra Gentes, IV, c.92: "Intentio inferioris naturæ in agendo..."
It is true that the purely accidental event in nature is contingent in the fullest sense of the word, and most opposed to what is necessary; but it must not be thought that the problem of contingency is restricted to a discussion of what is casual, for no natural cause brings its effects about necessarily. Some, however, are more determined and perfect than others and thus the effects of such causes are less contingent, but still not absolutely necessary.

...The expression 'to be possible' is used in two ways. In one it means to happen generally and fall short of necessity, e.g., man's turning grey or growing or decaying, or generally what naturally belongs to a thing (for this has not its necessity unbroken, since man's existence is not continuous for ever, although if a man does exist, it comes about either necessarily or generally). In another sense the expression means the indefinite, which can be both thus and not thus, e.g., an animal's walking or an earthquake's taking place while it is walking, or generally what happens by chance: for none of these inclines by nature in the one way more than in the opposite. (3)

No natural form is entirely determined ad unum. But to the extent that the form of the agent is more perfect, the causality is more efficacious and better able to overcome the indetermination of matter; to this same degree the effect is less contingent. Nevertheless, the indetermination of matter, the permanent subject in all becoming, is constantly a threat, as it were, to the success of the natural agent. And since

8. Aristotle, Prior Analytics, I, c.13, 325b4-13 (transl. by A.J. Jenkinson)
matter is necessary in any natural generation, there is always a degree of uncertainty in the effect. Even though the matter is ordered ultimately to the human form, by a positive ordination to greater actualization, it does not have the same appetite for all the intermediate and secondary forms, or even for totally unnecessary ones which are nevertheless in it potentially. And when actualized by the human soul, to which it is ultimately ordered, the potentiality of this subject is not exhausted, for man too is corruptible in his body. It is impossible for even the human form to be entirely determined ad unum in its natural state alone; if it were so determined, matter would not be required for its existence for it would be self-individuated.

Note that the state of separation is not a natural one, and hence, cannot be the term of a natural movement. Moreover, the form of man is not corruptible, and it is in the immortality and immobility of the human soul that nature achieves its ultimate intrinsic goal. The separation of the soul from the body is not a part of the intention of nature but follows as a consequence from the necessitas maneriae. Thus, matter is not first of all an appetite for a given individual form, but is rather a desire for the good of the whole universe. Nature seeks first the perfection of the species or whole and not a pure multiplication of individuals within a species; at the same time, the lack of determination
in natural causes is compensated for by the multiplication of individuals, precisely in order that the existence of the species may be assured and its perfection realized to the fullest. In this way matter, by being the principle of individuation is that which enables the form to exist; while by remaining in potency to an infinity of other forms it is also that which renders the existence of the form precarious.

As we shall see more fully in the next chapter, it is not sufficient to insist on the indetermination of matter to explain the contingency of a natural effect; nor is it enough to mention the positive ordination of matter to an end in order to explain the natural tendance of all nature to its intrinsic goal. The form is more nature than the matter, and the matter is transcendentally ordered to the form as to what is perfect and actual. Indeed, it is because of the natural forms previously in matter that the necessary disposition for the reception of higher forms is present in the matter, while matter by its permanence retaining these dispositions makes the natural process a continuous one.

In order to give the complete reason for the contingency of a natural effect there must be added to the indetermination of matter an indetermination or lack of determination
in the active principle:

Unde dicendum est quod possibilitas materia
ad utrumque, si committer loquarum, non est
sufficiens ratio contingentiae, nisi etiam
addatur ex parte potentiae activae quod non
sit omnino determinata ad unum; alioquin si
ita determinata ad unum quod impediri non
potest, consequens est quod ex necessitate
reducat in actum potentiam passivam eodem modo. (?)

It is because the form itself is contingent that the
effect is uncertain, not only in regard to existence but
also as to the particular kind of effect it is or is to be.
An effect is not a failure simply because it is not an exact
replica of the cause; if so, the contingent process by which
nature moves inexorably toward higher and higher species,
sometimes through the service of accidental generations,
would be impossible; for the first form introduced would be
in kind the last, and natural causes would be directed to
the fruitless multiplication of the same individuals and not
to the total good and perfection of the universe.

Thus, there can be no absolute necessity in the produc-
tions of nature unless the natural form is perfectly determined,
and unless matter is not pure indetermination. In other words,
the only way to obtain the ideal of modern scholastic deter-
minists is to deny the existence of matter and the natural
form, without which there can be no nature to be determined
or not to be determined.

9. St. Thomas, In I Periherm., lect.XIV, n.9
It will be helpful now to consider briefly how nature as a cause sufficiently determined to bring about its effects most of the time, can be responsible in another way for those things that happen rarely. It should be recalled first that what is brought about for the most part only and not always, is the effect of a cause that can fail. Such a cause is the reason for that which is rare and accidental precisely in so far as it is defective. We will recognize the reason St. Thomas assigns for the actual defectibility of the natural cause:

Quia defectus ejus quod est ut in pluribus, est propter materiam, quae non subditur perfecte virtuti agenti ut in pluribus, ideo materia est causa accidentis aliter (quam ut in pluribus), scilicet accidentis ut in pauloribus: causa inquam non necessaria, sed contingens. (10)

Matter, then, is the first root of the rare occurrence in nature that comes about beyond the agent's intention. But matter too, is nature. How, then, is the accidental event to be considered as beyond the intention of nature if matter, which is nature, is the cause of it?

10. St. Thomas, In VI Metaphys., lect. II, nn.1183-34: "Contingens autem ut in pauloribus est ens per accidens cujus causa quiseritur. Unde relinquitur, quod causa entis per accidentes sit contingens ut in pluribus, quia ejus defectus est ut in pauloribus... ideo dico id quod est in pluribus est causa entis per accidens, quia quod non est semper neque secundus magis, hoc dicitur esse per accidens. Et hoc est defectus ejus quod est in pluribus...."

11. Ibid., n.1186
Before answering this difficulty, an important distinction should be made that is often overlooked when nature is referred to as a cause \textit{ut in pluribus, determinata ad unum}. It must not be thought that because an event is rare and exceptional and apparently, by accident and unintended, that it is therefore by chance and belongs in the category of effects said to occur outside the intention of nature. For if this were the case the best things in nature would be by chance and nature would be the cause only of mediocrity, which is impossible. Or again, we should have to say that nature is not a cause that achieves its effects for the most part, but that it attains the end only rarely. If one considers the large number of seeds supplied for the germination of a single plant, it would appear that the majority are failures from the point of view of what is intended, for each seed has the capacity of becoming a plant. But most of them fall to the ground and are corrupted without the generation of that which comes from the one seed that is successful. How can nature be called a cause \textit{ut in pluribus}?

Another example from an experience that is more or less familiar may indicate the answer: The man who hunts and wishes to make sure of his purpose's being fulfilled, provides himself with a weapon designed to produce the best results. Knowing that the majority of the pellets he fires from his shotgun will miss the target, he expends them for the sake of accom-
plishing his purpose. No one would say that it is not normal enough for most of the shot to go astray; this is completely understood and accepted by the hunter. And it would be incorrect to say that this is purely and simply outside the intention of the man hunting, for he obviously does not wish that all the shot should hit his prey, a duck perhaps. If this did happen, it would be by chance and the hunter's intention defeated, for there would then be nothing left of the bird. Nevertheless, due to the fact that the man is not a perfect marksman he must act within the frame of his own indetermination, and overcome this deficiency which is unavoidable, with the means at his disposal. Nature simply does the same thing.

What is intended by universal nature may well appear to be exceptional in this or that instance, and indeed it is when a given rare occurrence that fulfills the general intention, is compared to the more regular events and happenings that surround it. But if the exceptionally good result is intended by nature, and is that to which nature is principally directed, how, for example, can the majority of men be called natural, if superior nature intends the perfection of the species that is found only in the wise? The answer is that the majority of human generations are natural and successful because the majority of men are normal; it is altogether natural that a particular agent should produce an effect similar to itself.
Thus, effects may not be referred to superior nature alone, or to particular nature alone, in order that they be called natural, for nature is a proximate cause as well as a universal cause. Note the threefold genus of natural effects as exemplified in the generation of a wise man, an average man, and a monster; it is only the latter which is unnatural because it does not answer to the intention of universal or of particular nature.

It is universal nature's intention that is principal, and what is beyond the intention of the proximate cause as such, sometimes falls within the intention of a superior agent. Hence, although exceptional in terms of observable regularities, the generation of a member of a higher species corresponds to the intention of the more universal agent, just as the generation of that which is good for the whole species, such as the more perfect individual, also corresponds to this intention.

Ad aliud igitur tendit intentio particularis agentis, et universalis: nam particularis agentis tendit ad bonum partis absolute, et facit sam quanto meliorem potest; universale autem agent tendit ad bonum totius. Unde aliquis defectus est praeter intentionem particularis agentis, qui est secundum intentionem agentis universalis. (13)

Although matter is sometimes responsible for effects that escape the end of nature altogether, it is because of matter

12. This refers of course to corporeal dispositions such as a fine sense of touch. We do not mean that wise men as such are generated by nature.

13. St. Thomas, Contra Gentes, III, c.94
as well as form that natural effects are made possible.
Every natural generation presupposes a subject. That this subject be pure potency is necessary for otherwise there would be an infinity of subjects and forms in every generation, and generation would thus become impossible. The essential indetermination of the subject which is necessary for movement to a form, is at the same time the root of effects which are unforeseeable and unintended. This is not only because matter is indetermination, but more properly because the natural form requires matter in order to exist and act, owing to the form's own insufficent determination in the substantial order. These natural forms are always exceeded by a degree of indetermination which is inseparable from nature and natural causes. It is matter as an indetermination exceeding the determination of the form which is the cause of the unintended effect, then, and not matter in so far as it has a positive ordination to the ultimate perfection of the universe. We shall see, however, that even this insubordination is in a way marvelously designed by the First Cause to contribute to the good of the whole.

An analogy can be made between the indetermination of the intellect in the order of knowing and matter, which will perhaps bring out more clearly the place of this potential principle in the order of nature: In the constitution of man's knowing faculties there is a multiplicity which is required by the imperfection of the human intellect. Thus,
man is provided with external and internal senses in order that the object may become more proportioned to the complete immateriality of the intellect. The angelic intellect, on the other hand, needs no additional faculties to attain its object; the set of the angel's intellect is prior to the things he knows, for possessing infused species or means of knowing, the angel does not depend on things in order to know them, as man must do because of the potentiality of the human intellect. But for the human intellect the faculties of imagination, memory etc., and the senses of sight, touch, hearing etc., are not only not encumbrances and superfluities as they would be for the angel if he could have them, but are necessary for the acquisition of human knowledge. Without these sense powers joined to organs, man could not know at all. The composite essence which is man requires a multitude of means to know equal to the objects known, and also a multitude of faculties to attain these objects. Here is mirrored the indetermination of matter which enables the individuals in a species to be multiplied so that the perfection which cannot be realized in one because of the inferiority of the form, may be accomplished in the many. Again this is not an imperfection in this order but an essential condition or cause required for the existence of the natural composite; without this potential principle such a grade of perfection would be impossible. At this point a few additional remarks about this potential principle will
complete our present discussion and permit us to take up in detail the most evident forms of contingency.

Matter is said to be in potency to opposites. In reference to the *possibilitas materis*, then, it should be noted that the actual existence of what is potentially contained in matter is no more assured than its non-existence, so far as matter is considered in potency to each individual form. The two possibilities, existence and non-existence, are simultaneous in the passive potency. To illustrate this twofold possibility St. Thomas cites the example of the new cloak which can be cut or not, neither being necessary but equally possible. There is nothing to prevent the garment's being cut, nor is there anything that requires it to be cut. Either of these opposites may be realized to the exclusion of the other; for if the cloak be cut it is impossible that it not be cut; but if it wears out first it is impossible that it be cut. *Materia est in potentia ad utrumque oppositorum* (14). Not everything, therefore, comes about with necessity, but there are things which can be or not be, and before they are their existence is something undetermined. This is contingency in the strict sense, and it is because of this twofold possibility in matter that the accidental event cannot be considered necessary.

Matter is never completely exhausted as a potency to form, and there always remains in matter the double possibility of existence and non-existence, for effects to which

the natural agent is not entirely determined or not determined at all. The reduction to act of the natural effect thus is not necessary, but contingent, and this contingency is most evident in the cases of casual or fortuitous events. Chance and Fortune, the accidental causes of these effects, will now be studied, and the discussion of contingency and the modern scholastics completed, with a more complete exposition of the teaching of these writers in an area where their departure from the true doctrine of Aristotle and St. Thomas is plainly manifest.
CHAPTER V

CHANGE AND FORTUNE

1. Accidental Causality in Common
   and the Definition of Fortune.

Intrinsic contingency is spoken of most properly in
regard to effects that do not have a per se cause. The
margin of passive indetermination found in every finite
cause is the proper reason why that which is beyond the
intention of such an agent sometimes comes about; this is
ture whether the agent be a free, intelligent cause or
nature. A finite cause mixed with potency is not perfectly
determined in existence or in causing.

Created causes, then, are subject to a passive indeter-
mination when they operate. This passive indetermination
sometimes results in effects that were not intended by the
cause. It is the accidental cause of what is unintended
and unforeseeable that we must now investigate, for this
is contingency in the strictest sense of the word.

In Book II of his general introduction to the Phil-
osophy of Nature, Aristotle investigates the causes of the
science. He first defines nature, and then proceeds to a
discussion of the four causes, the material, efficient,
formal and final, since it pertains to the philosopher of nature to demonstrate from all of these. In addition, since many things in nature seem to happen by chance it will be important to consider what chance is, and whether it can be a cause of knowledge about natural things.

With reference to accidental causality, in order to begin with what is more familiar, Aristotle first takes up the question of fortuitous happenings. This is because fortune is easier to approach since we ourselves have experience of being the kind of cause fortune is. That is, we are aware that we operate for an end and that sometimes things come about without our intending them when we are really acting for the sake of something else. Hence, a consideration of fortune will make us more familiar with what is common to both fortune and chance, and will help us to grasp the difference between these two species of accidental cause.

As St. Thomas explains in his commentary, there were certain ancient philosophers who denied that anything came about by chance. One of the reasons they gave was that

1. In II Phys., lect. VII, n.2: "Dicit ergo primo quod quidam dubitaverunt an fortuna et causae essent: et negaverunt esse duabus rationibus. Quorum prima est, quia omnia ista quae dicuntur fieri a casu vel fortuna, inveniuntur habere aliquam causam determinatam, aliam a fortuna. Et ponit huiusmodi exemplum: si enim aliquis veniens ad forum, inveniat aliquam hominem quem volebat invenire, de quo tamen non opinabatur ante quod esset eum inventurus, dicimus quod inventio illius hominis sit a fortuna; sed huius inventionis causa est voluntas emendi, propter quam ivit ad forum, ubi erat ille quem invenit."
for the chance event there always seems to be a determined cause of what happens. Even though these ancient thinkers held such a view they still said that some things happen by chance. Thus it is at least necessary to investigate what chance and fortune are, for it appears that things in nature such as animals and plants have a determined cause, and yet occasionally there occurs something extraordinary, which does not seem to have any determined reason; and we say that such things happen by chance.

In what way fortune and chance are reduced to a per se cause remains to be seen after these two kinds of accidental causes have been distinguished, for they are not reduced to the same kind of cause, although they are in the same genus, and the differences between them must be noted first. As has been mentioned, the first kind of accidental cause to be discussed is fortune, because it is better known to us than chance.

Since fortune, then, is said to be a cause, and since a cause is known when we know the kind of things of which it is a cause, it is necessary in the first place to observe that effects are of three kinds: First, there are things that always take place; secondly, there are those which do not always come to be but frequently; thirdly, there are things that do not always come to be, nor for the most part, but seldom or rarely. An occurrence of the
latter kind is said to happen by accident.

Even in the case of a rational potency that is indifferent it is true to say that its effects fall within the threefold division just given. This is because the rational potency, in order to be a cause in act, must be determined to one or the other of two opposite possibilities. Hence, nothing follows from the motive power alone, considered as it is in potency to opposites, unless this indifference be removed by the determination furnished by the appetite in act.

In order to arrive at a definition of fortune, let us begin with a consideration that is indispensable to the notion of accidental causality; the failure to recognize the importance of it has led to much of the present confusion about chance, and the unwarranted identification of chance in the true sense with chance as it is spoken of in reference to mathematical laws of probability. What must be noted is that finality or action for an end, is required, both for the existence of fortune and for the definition of it. It should be observed that what occurs by necessity, or

comes about frequently, is the effect either of nature or will, and in both of these there is purposeful activity. Both nature and will operate for an end. Thus, the various parts of the animal, the eye, the ear, the nose etc., are not for nothing, but are intended to fulfill some purpose. And in the activity of agents who act with knowledge and freely determine themselves, there is even more clearly an end in view when they perform some action. Now when something that was not intended comes about in the action of voluntary agents, but is such that it could have been intended, and when this happens seldom, we say that it has happened by fortune. An example will help to make this clear: A grave-digger while engaged in his work happens upon a buried treasure. He is fortunate to have discovered the treasure, for without intending such a boon it befalls him nonetheless. But if he had known that there was a treasure in that place he would have dug there in order to find it. Thus, what has come about by fortune is the kind of thing that could have been a reason for digging in the ground, although in this case it was not the reason.

At this point the difference between an accidental cause on the part of the cause, and on the part of the effect, should be noted. If a man who is a doctor builds a house,

he does not build the house insofar as he is a doctor, for
the art of medicine, in virtue of which he is called a
doctor, is not directed to the construction of houses. It
is the ability to build that enables this man, who is also
a doctor, to build a house. Hence, the house is built per
se by a builder, and the man qua builder, is the per se
cause of the building. At the same time, however, this
man is also a doctor; it is accidental that he be at once
a builder and a doctor, not in the sense that he has not
chosen to be a doctor and also to be a builder, but in the
sense that these two talents are not together in the man
by any per se unity. The two arts together cannot be the
end of one operation by which the man would become both a
builder and a doctor. We say, therefore, that the doctor
is the per accidens cause of the house since it happens to
the builder who is the per se cause to be at the same time
(14)
a doctor.

In another way a cause is accidental on the part of
the effect. If a man builds a house and later on in that

(4) St. Thomas, In II Phys., lect. VIII, n.8: "Sed con-
siderandum est quod causa per accidens dicitur duplicita;
uno modo ex parte cause; alio modo ex parte effectus. Ex
parte quidem causae, quando illud quod dicitur causa per ac-
cidens, coniungitur causa per se; sicut si album vel musicum
dicatur causa domus, quia accidentaliter coniungitur sedifi-
catoris. Ex parte autem effectus, quando accipitur aliquid
quod accidentaliter coniungitur effectui; ut si dicamus quod
sedificator est causa discordiae, quia ex domo facta accedit
discordia. Et hoc modo dicitur fortuna esse causa per accidens,
ex eo quod effectui aliquid coniungitur per accidens; utpote
si fossaerae sepulcri adiungatur per accidens inventio thesauri."
house dissension arises, the builder is said to be an accidental cause of the dispute. This is because the builder intended only to build a house and not to cause a dispute, which has nevertheless occurred. (The dispute is something other than that which was intended per se and it happens rarely as an effect of building.)

In the preceding example there is one cause, the builder, who is at once a per se cause and a cause per accidens, in relation to two different effects. The formal multiplicity is on the part of the effect, for the only cause in question is the builder qua builder. Hence, the builder qua builder is the per se cause of the house and the per accidens, or accidental cause of the argument that ensues because he built a house. A cause is called accidental, then, on the part of the effect when something is conjoined accidentally to the intended per se effect, whether this intended effect actually comes about or not.

It is according as the cause is accidental on the part of the effect that we speak of fortune and that we call the rare and unintended events of which it is the cause, fortuitous. Fortune, then, is an accidental cause of what is accidentally joined to the intended effect. In the example of the grave-digger the intended end is the grave; but in making the grave the workman is also a cause of something unintended, namely, the finding of the treasure. Thus, whatever
is found in the effect outside of the intention of the agent, is per accidens, if it be rare, and chance (in the generic sense) is the cause of it. It must be added that what is outside the intention of the agent is something rare, for if it happens most of the time or always when such an operation is performed, it cannot be attributed to chance. If every time a man goes to a certain place, he gets mud on his shoes - even though he would avoid this if possible - we cannot say that it happens by chance, for it must fall under the same intention that leads one to such a place, since it invariably accompanies this.

To grasp the notion of accidental causality, a further difference between causes of this kind and causes per se must be considered. This difference is that the per se cause is finite and determinate; it is per se insofar as it is directed to a particular effect which follows the exigency of the agent's form, or happens by the agent's intention.

5. St. Thomas, op. cit., nn. 8-9: "Et hoc dico si id quod est praeeter intentionem us in paulioribus consequatur; quod enim vel semper vel ut frequenter coniungitur effectui, cadit sub eadem intentione. Sit utum est caele diuere quod aliquid intendent aliquid, et non velit illud quod ut frequenter vel semper adiungitur."

6. St. Thomas, ibid., n.9: "...aliquis frequenter aut semper adefacit sibi pedes, quando vadit ad locus lutosum, et hoc licet non intendent, tamen hoc non dicitur esse fortuna."
The cause that is per accidens, however, is infinite and indeterminate; the per se reasons that can lead to an accidental effect are indefinite and without number. The man who finds a treasure may do so while digging for any one of many per se reasons - to make a grave, to plant carrots, to hide a treasure, etc. In addition to this plurality on the part of the cause (in the sense that the possible ends are without number), there is also indetermination on the part of the effect; not in the sense that effects without number can simultaneously occur, but insofar as the accidental effects that can result are not determined. While digging in his garden, a man may find a treasure, be struck by lightning, sprain his ankle, etc.; what characterizes accidental causality is this indetermination.

From these considerations it can be said that fortune is an accidental cause in those things that come about according to intention, because of an end, and which happen seldom. Fortune belongs to agents who act with knowledge of the end as such. But the more prudent or provident a man is, the less is he subject to fortune, for by taking more things into account he is more perfectly the master
of his effects.

In a sense it is true to say that fortune is not the cause of anything. If a man goes to a city and unintentionally meets someone who owes him money, the trip to the city is an accidental cause of collecting a debt. He might go to the city for many reasons; to buy something, to get away from pursuers, to attend a festival etc., and any of these could be the accidental cause of his meeting a man who owed him money. There is no essential unity between the reason the man had for going to that place and the meeting that occurred with his debtor. Thus fortune is not the cause of anything, in the sense that it is not the cause of anything that is per se one. Since being and one are convertible, it follows that the effect of fortune is closer to non-being than it is to being. Fortune, then, is something obscure and unknown since the infinite possible combinations on the part of the effect cannot be known. If a man could know all the things that might happen to him when

7. St. Thomas, In II Phys., lect.VIII, n.10: "... Concludit ex praemissis definitionem fortunae. Et dicit manifestum esse ex praemissis quod fortuna est causa per accidentem in his quae fluint secundum propositionem propter finem in minori parte. Et ex hoc patet quod fortuna et intellectus sunt circa idem; quia his tantum convenit agere a fortuna, quae habent intellectum; propositionem enim vel voluntas non est sine intellectu. Et licet ea tantum agent a fortuna, quae habent intellectum, tamen quanto ali- quid magis subiacet intellectui, tanto minus subiacet fortunae."
acting for any possible reason, he would not be subject to fortune at all. We shall see that a knowledge of this kind requires the cause to be absolutely universal, and that it is precisely because God is the universal cause of being as such that he cannot be an accidental cause in any way.

It is important to grasp the indeterminate character of accidental causality, in order to understand that what is by chance or fortune is, as such, completely unforeseeable. Many modern writers, ignoring this, attribute the chance effect to a series of converging causes that are determined, which are not causes of the accidental effect qua accidental, but rather already effects of chance. In this way they say that it is only by accident that we cannot foretell the coming into existence of what is by chance; for if we knew all the causes involved we would know with certitude that the chance event is in fact necessary. Beginning with part 3, this opinion and similar ones shall be treated in detail.

2. The difference between Chance and Fortune.

The following are common to chance and fortune:

1. They are accidental causes.
2. They are found in things that do not happen necessarily, i.e., always or frequently.
3. They are discovered only where there is action for an end.

The first thing to note in distinguishing between chance and fortune is that chance is the wider term: "Omne quod est
a fortuna est a casu, sed non convertitur"; fortune is found only in voluntary activity. Chance is found, not only among agents who act by deliberation, but also in the operations of nature. Here the term is used generically; but the same term, chance, is used to mean one species of accidental causality, and in this case it does not include fortune, but signifies rather the cause of things that come about by accident in the operations of nature. Two examples given in the Physics will help to make this difference plain: If a horse leaves a place of danger to seek food and not to flee from the danger, it is said to have come away from what was dangerous by chance, since it did not leave that place for the sake of obtaining safety, but because of the food in the other location; secondly, if a three-legged stool falls in such a way that it can be used for a seat, it has fallen in that position by chance, since there was no cause making it fall that way.

9. ibid., n.7: "Dicit ergo primo quod casus non solum est in hominibus, qui voluntarie agunt, sed etiam in aliis animalibus, et etiam in rebus inanimatis. Et ponit exemplum de aliis animalibus, sicut dicitur quod equus casu venit, quando salutem adeptus est veniens, licet non venerit causae salutis. Aliud exemplum ponit in rebus inanimatis: dicimus enim quod tripoda cecidit casu, quia sic stat per casum ut sit apta ad sedendum, licet non ista de causa ceciderit, ut staret apta ad sedendum.
Both of these occurrences are caused by chance and not by fortune, since they did not occur by the purposeful activity of some agent acting with knowledge and intending an end. Hence, among those things that happen by chance, i.e., those things that come about because of something, yet do not come to be for the sake of what happens, but come to be rather for the sake of something extrinsic, only those that happen to agents having deliberate intention are said to happen by fortune.

Chance is similar to what is in vein. Something is said to be in vein when it does not accomplish the purpose for which it was intended. If one were to walk to improve the health of the body, and this did not follow, the walking would have been in vein. Hence, just as there is vein action only if something that is intended does not come about, so also chance can only be spoken of with reference to things that are done for some purpose. The sign of this is that the name in Greek for what is vein is similar to chance, i.e., "Automaton", which means "absolutely for no-

10. St. Thomas, op. cit., n. 8: "Concludit ex praemissis quod in iis quae simpliciter fiunt propter aliquid, quando non fiunt causa eius quod accidit, sed fiunt causa aliquid extrinseci, tunc dicimus quod fiunt a casu. Sed a fortuna dicimus illae fieri tantum de numeroorum quae fiunt a casu, quascumque accidunt in habentibus propositum."
thing".

But there is purposeful activity in nature as well as among deliberate agents. Thus, chance, as the genus embracing both species of accidental causality, is found where there is action for an end, whether this be voluntary action for an end, as the trip to a distant city undertaken by one who goes there deliberately, or the purposeful activity of nature, e.g., providing the animals with certain bodily parts to carry on their natural functions.

Although what is vain and what is by chance are both found in things that are because of some purpose, they differ in that something is called vain because what was intended does not follow; but a thing is said to be by chance when something besides what was intended comes about. Accordingly, they are sometimes found together and sometimes one is found without the other. If what was intended does not happen but something else does, the cause is chance and also operates in vain; if what was intended comes about as

11. St. Thomas, op. cit., n.9: "Quamvis autem casus et vanum convenient in hoc quod utrumque est in his quae sunt propter aliquid, differunt tamen, quia vanum dicitur ex hoc quod non consequitur illud quod intendebatur; casus autem dicitur ex hoc quod consequitur aliquid aliud quod non intendebatur. Unde quandoque est vanum et casus simul, puta cum non accidit illud quod intendebatur, sed accidit aliquid aliud: quandoque autem est casus sed non vanum, cum accidit et illud quod intendebatur et aliud: quandoque autem est vanum et non casus, quando non accidit illud quod intendebatur neque aliquid aliud."
well as something that was unintended, then there is only chance; finally, if neither what was intended nor anything else comes about, the cause is vain, but there is no chance.

The greatest difference between chance and fortune is that chance is found in things that come about by nature but fortune is not. Consequently, when chance is spoken of as a species, it is distinguished from fortune, as nature is distinguished from intellect and will. For example, when someone is born with six fingers this is by chance, but not by fortune, since it happens in an operation of nature which is for some purpose, namely, that the parts of the body be normal. But this is not by deliberation because nature does not deliberate about the end. Further, what is by nature is from an intrinsic cause, for nature is an intrinsic principle of motion and rest. What comes about as a result of deliberate intention, on the other hand, is due to an extrinsic cause, for reason and will are extrinsic principles of what they bring about. Therefore, the cause of what is by chance is intrinsic; but the cause of what is by fortune is extrinsic:

Ostendit in quibus maxime casus differet a fortuna. Et dicit quod maxime different in illis quae fiunt a natura; quis ibi habet locum causas, sed non fortunas. Cum enim aliquid fit extra naturam in operationibus naturarum, puta cum nascitur sextus digitus, tunc non dicitus quod fiat a fortuna, sed magis ab eo quod est per se frustra, ideant
a casa. Et sic possimus accipere aliam
differentiam inter casum et fortunam,
quod eorum quae sunt a casa, causa est
intrinseca, sicut eorum quae sunt a na-
tura; eorum vero quae sunt a fortuna,
causa est extrinseca, sicut eorum quae
sunt a proposito. (12)

It can now be seen to what genus of causality chance
and fortune are reduced. Since nature and intellect are
both principles from whence there is movement, chance and
fortune are both reduced to the genus of moving cause, for
they are causes of what comes about by nature and by inten-
tion, respectively, without being per se causes. Hence just
as what is per accidens is posterior to what is per se, so
chance and fortune are causes posterior to nature and intellect.
It is a natural agent operating for a determined end, and at
the same time producing something rare and unintended, that is

13. St. Thomas, Q. q. sit., nn. 11-12: "...Ostendit ad quod
genus causae casus et fortuna reductur; ...dicit ergo primo
quod tam casus quam fortuna reducantur ad genus causae moventis;
quia casus et fortuna vel est causa eorum quae sunt a natura,
vell eorum quae sunt ab intelligentia ut ex dictis patet; unde
cum natura et intelligentia sint causa ut unde est principium
motus, etiam fortuna et casus ad idem genus reductur. Sed
tamen, quia casus et fortuna sunt causae per accidens, eorum
multitudo est indeterminata, ut supra dictum est...Et dicit
quod quia casus et fortuna sunt causae per accidens eorum
quorum intellectus et natura sunt causae per se; causa autem
per accidens non est prior as quae est per se, sicut nihil
per accidens est prius eo quod est per se; sequitur quod casus
et fortuna sint causae posteriores quam intellectus et natura."
called chance, insofar as it happens to a natural agent to be an accidental cause; it is a deliberate agent operating for a determined end and at the same time bringing about something rare and unintended that is called fortune; in fortune, then, as it is distinguished from chance, the cause is a free agent, while in chance the cause is nature. Chance, in the specific sense as opposed to fortune, is an accidental cause in those things that come about according to nature, because of an end, and which happen seldom. With these notions and distinctions in mind, the teaching of the modern scholastics on accidental causality may now be considered. An attempt will be made to show that the position of these authors is not that of Aristotle and St. Thomas but is, in fact, a categorical denial of chance as a true cause of what is accidental and unforeseeable in nature. Indeed, these authors would have a per se created cause of what is casual, and would hold a position fundamentally opposed to the teaching of Aristotle and St. Thomas; namely, that everything that happens in nature, even the casual event, happens necessarily.

3. Chance is a Cause, and not an Effect.

Aristotle and St. Thomas consistently state that chance is an indeterminate and infinite cause, while nature is a determinate and finite cause. "Cause per se est finita et
determinata; cause autem per accidens est infinita et indeterminata, eo quod infinita uni possunt accidere."

It is important to recall that chance is a cause and not an effect. If chance were an effect it would be necessary to inquire the cause of it and the cause of this cause and so on to infinity. Thus, care must be exercised when one speaks of reducing chance and chance events to a per se cause. Confusion here has led to serious error. It is true that every per accidens cause is reduced to some cause that is per se, but this axiom must be interpreted correctly. It can be interpreted to mean that every accidental cause is reduced to a proximate and particular per se cause, from which the cause per accidens is derived as an effect, and as originating from the cause that is per se. This interpretation is false for there are many effects per accidens that do not have a per se cause, as to be white and musical at the same time. This is not derived from some per se cause since it does not constitute an unum per se. What is not

14. In II Phys., lect. 8, n. 3; see also - lect. 9, no. 2-4
15. John of St. Thomas, Curs. Phil., T.II, p. 510: "Dicitur autem fortuna causa per accidens reductive, sicut id, quod est per accidens tale, reductur ad id, quod est per se Dicitur autem causa, et non effectus, quia id, quod est effectus, est fortuitum seu ex fortuna proveniens, non fortuna ipsa. Si enia fortuna esset effectus, et non causa, restabit inquirendum, s qua causa proveniret, et cum non sit a causa per se, debet esse per accidens."
one per se does not have a per se cause. The proper interpretation is that every effect or cause per accidens is reduced to a cause per se, in as much as what is per se is presupposed to what is per accidens. Thus, the accidental effect is joined to a per se effect, and the accidental cause to a per se cause. In this sense, the finding of a treasure while digging in the garden is joined to what is per se, namely, the digging that is done for some definite purpose other than the finding of treasure, and is reduced to that which was per se intended - for if nothing were intended and no action taken, nothing could happen by accident, since nothing would happen at all.

Perhaps the failure to distinguish the casual event, which is determined, from its cause, chance, which is altogether indeterminate, is what has led some to deny the existence of chance, a position which was, as Aristotle

16. St. Thomas, Ia, Q.115, a.6, c.: "Et ideo, secundo, oportet dicere quod omne quod est per se, habet causam, quod autem est per accidens, non habet causam, quis non est vere, ens, cum non sit vere unum."; see the commentary of Cajetan, nn.10-14.

17. The accidental effect is reduced to the per se end, as that which accidentally and rarely accompanies the latter.
tells us, also held by some ancients. This is reflected
in the following interpretation of chance given by a modern
writer:

Casus est effectus, qui ex aliqua causa
determinata explicabilis non est, eo quod
extra ambitum huius causa positus est. Hic
effectus contingit per accidens, i.e., propter
alias causas accedentes, quae non considerantur.
Ita dicitur casus, si cui domum redeunti obvisum
fit amicus; et casus, seu fortuna dicitur, si
quis terram fodiens ad arborem plantandum, in-
venit thesaurum. Domum reditio, sicut etiam
actio fodiendi, ad hos effectus non sunt ordi-
natae. Casus igitur non dicitur, nisi quatenus
ad causam partialem tantum, non vero ad causam
totalem respicitur. Causa concursio cum
amico non tantum est domum reditio unius, sed
etiam via alterius. Et causa inventionis thes-
auri non tantum est actio fodiendi, sed etiam
opus illius, qui thesaurus in hoc loco abscondit.
Casus igitur revers in rerum natura non existit,
sed tantum in mente eius, qui causam partialem
tantum considerat. (19)

ergo primo, quod quidam dubiteverunt an fortuna et casus
essent; et negaverunt esse duabus rationibus. Quaerum
prima est, quia omnia ista quae discuntur fieri a casu vel
fortuna, inventuntur habere aliquam causam determinatam,
alia a fortuna. Et ponit huiusmodi exemplum: si enim
aliquis veniens ad forum, inventit aliquem hominem quem
volebat invenire, de quo tamem non opinabatur quod esset
cum inventurus, dicimus quod inventio illius hominis a
fortuna; sed huius inventio causa est voluntas emendii,
propter quam ivit ad forum, ubi erat illi quem invenit.
Et similiter est in omnibus aliis quae discuntur esse a
fortuna; quia habent aliquam aliam causam praeter for-
tunam. Et sic fortuna non videtur esse causa alicuius,
et per consequens nec aliquid esse; quia non ponimus
fortunam nisi inquantum aliqua ponimus esse a fortuna."

(Fribourg, 1937), p.179, n.773
Oddly enough, with reference to Fr. Gredt's remarks, it is precisely the intellect that can grasp as one what cannot be one in nature per se. Thus, the master, because he causes with knowledge, can send two servants to the same place so that they will meet, although the meeting still remains simply a fortuitous encounter for the two servants. Indeed, universally speaking, casual and fortuitous events can be the per se effects only of One Who causes with infinite knowledge and by means of it. Since God's science is the cause of things, and since He is the cause of being as such, He is altogether above chance and fortune. The conclusion in the text quoted above completely reverses this order. It is said that chance is spoken of only with reference to the partial cause of what is by chance,

20. St. Thomas, In, Q.116, a.1, c.: "Et ideo dicendum est quod ea quae hic per accidentem aguntur, sive in rebus naturalibus sive humanis, reducuntur in aliquam causam praecordiantem, quae est providentia divina. Quis nihil prohibet id quod est per accidentem, accipi ut unum ab aliquo intellectu... Et sic nihil prohibet ea quae hic per accidentem aguntur, ut fortuita vel casualia, reduci in aliquam causam ordinantem, quae per intentionem agat, et praecipue intellectum divinum."; see also - In I Periherm., lect.XIV, nr.20-22; In VI Metaphys., lect.III, n.1216, St. Thomas says: "Relinquitur igitur quod omnia, quae hic fiunt, prout ad primam causam divinam referuntur, inveniuntur ordinata et non per accidentum existere; licet per comparisonem ad alia causae per accidens esse inventi tur."; In the same place, n.1220, St. Thomas gives the reason why only God can be the per se cause of what is, in itself, accidental: "Sicut autem dictum est, ens inquantum ens est, habet causam ipsum Deum: unde sicut divinæ providentiae subìditur ipsum ens, ita etiam omnia accidentia entis inquantum est ens, inter quae sunt necessarium et contingens."
and not if one considers the total cause. (This is rather equivocal, for by total cause might be meant divine providence added to the proximate cause. But even if this were the meaning, the assertion would still be false, since divine providence alone is the per se cause of the casual, and chance, the cause of the casual event as such, cannot be understood to contribute in any way to the cause per se of what is accidental, for this cause per se is nothing other than God Himself. It is clear, however, from the context, that this is not the author’s intention.)

According to Fr. Gredt’s interpretation, what is indeterminate becomes determinate if we include more of the reasons for what is accidental. He says quite plainly what reasons he has in mind: "Et causa inventionis thesauri non tantum est actio sodiendi, sed etiam opus illius qui thesaurum in hoc loco abscondit...et...Causa concursionis cum amico non tantum est domum redivicum unius, sed etiam via alterius." But the reason for the cause of the casual effect’s being fortuitous or rather indeterminate, is not that we do not know the total of causes that go to produce such an accidental event. For indeed, there is no such total because the infinite is beyond any number, and chance is "Causa per accidentem, infinita et indeterminata." (It should be noted, further, that our knowledge is not the cause of things. Fr. Gredt seems to
imply that it is.) In the first place, these multiple causes coming together are already effects of chance and have only an accidental unity, "Et propter hoc, id quod ex tali concursu sequitur, non reducitur in aliquam causam praexistentem, ex quae ex necessitate sequatur." The action that was done for the sake of planting a tree and which resulted in the finding of a treasure, could have been performed for many other reasons and still have resulted in the finding of a treasure. There is no necessary connection at all between planting a tree and finding buried treasure. That is why it is a fortunate occurrence. Otherwise it would be impossible to plant a tree without finding a treasure, and such an event could not then be by chance in any sense.

The distinction between the accidental cause and its effect, that is, between chance and what is casual or by

21. St. Thomas, 

lact. XIV, n. 10: "Hoc igitur quidem attendentes posuerunt quod potestia quae est in ipsa rebus naturalibus, sortilium necessitatem ex aliquo causa determinate ad unum quam dixerunt fatum. Quorum Stoici posuerunt fatum in quoddam serie, seu connexione causarum, supponentes quod omne quod in hoc mundo incidit habet causam; causa autem posita, necesse est effectum poni. Et si una causa per se non sufficit, multae causae ad hoc concurrentes accipiant rationem unius caussae sufficientis; et ita concludebant quod omnia ex necessitate eventunt. Sed hanc rationem solvit Aristotelis in VI Metaphysicæ interimse utramque propositionum assumptarum. Dicit enim quod non quod fit habet causam, sed sollem illud quod est per se. Sed illud quod est per accidens non habet causam; quia proprie non est ens, sed magis ordinatur cum non ente, ut etiam Plato dixit."
chance, must be carefully observed, for between these two there is all the difference of the undetermined and the determined. The effect of chance is something determined and as such, not contingent but necessary.

Nec distinguam debet inter contingentiam, et indifferentiam seu indeterminationem, ut aliqui faciunt: quae contingens dicitur aliquid ex causa indifferenti ad utrumlibet in actu primo, et antequam de facto producit; ergo antequam effectus producatur, ex eadem parte, ex qua habet contingentiam, habet indeterminationem, scilicet ex causa: extra causas autem nondum aliquid habet, vel si aliquid habet determinatum, ibi amittat contingentiam ubi habet determinationem. (22)

The failure to distinguish clearly chance from its effects has led many to a rigorously deterministic view of nature. Consider the following example of "chance" given in "The Philosophy of Nature", by Andrew G. Van Melsen:

The ignition of the gas mixture in the combustion chamber of an engine is not a chance effect, but the result of the structure of the engine. The spark is produced by a series of causes which differ from the series of causes that take care of

22. John of St. Thomas, Cursus Theologicus, T.II, p.420a; ibid., p.412a: "Veritas contingens sub statu futuritionis est sub statu indeterminationis et indifferentiae ut sit vel non sit...quia res contingens quamdiu non est producta, nec in ea ipsa sed in sua causa, non potest fundare nisi futuritionem contingentem et impedibilem: siquidem si illa futuritio non esset contingens neque impedibilis ex propria natura, res illa esset necessaria et non contingens: neque enim contingens rei consistit nisi in ordine ad futurum, quia quod jam est praesens vel praeteritum, extra contingentiam est in eo in quo jam est; solum autem est contingens in eo quod deest, et quod futurum restat. Si ergo res contingens fundat de se futuritionem contingentem et impedibilem, ergo indeterminatum; et ets quamdiu est in statu futuritionis, est in statu indeterminationis."
the supply of gas. Both series of causes, however, are regulated by the structure of the engine. This structure can be considered as the formal cause, for it combines the two series of events in such a way that the spark ignites the gas mixture at the right time. Compare this situation with the casual ignition of a gas mixture by a casual spark, as sometimes happens in a plane or automobile accident. Note that in such an accident both the presence of gas mixture and that of the spark are causes; two different series of causes are responsible for the presence of the gas and the spark at a particular moment and at a particular place, but there is no cause which regulated the meeting of both series. The meeting was by pure chance.

The term "chance" does not indicate that there is no determinism involved. For a spark of necessity starts an explosion of a gas mixture. The term "chance" simply expresses the absence of a cause regulating the presence of the spark in the gas mixture. (23)

Mr. Van Melsen goes on to say that "the meaning of the term 'probability' is closely related to that of chance", and that, "there are cases in which we can calculate almost exactly the probability of something that happens by chance". (24)

Now there is a semblance of truth in these remarks, but unfortunately, they lead us far from a true understanding of chance as "cause per accidens, infinita et indeterminata." As to the assertion that chance and probability are akin to each other, it would be well to recall that quite a different view of chance is taken by Aristotle and St. Thomas; "Moreover, because it was said above that per acci-

24. Ibid., pp. 224-225.
dens causes are infinite and again that fortune is a per
accidens cause, he concludes from the premises that there
are infinite causes of that which is by fortune. Also,
because the infinite, as infinite, is unknown fortune is not (25)
evident to man."

The use of the term "casual" to refer to the explosion
that sometimes takes place in an airplane or automobile
accident is rather inappropriate. The ignition of a gas
mixture by a spark in such circumstances is not at all un-
likely, as the author points out. Once the factors contrib-
buting to the existence of the accident are present, the
accident is probable and the explosion is not at all un-
likely. As soon as there is determination in the direction
of the accident, the accident and the not unusual conse-
quences are no longer a question of chance.

But these factors are not what cause the chance effect
as such. They are an effect of chance. As soon as the
series of causes is converging the effect is determined
(unless by some other chance the determination which is an
effect of chance be prevented from producing its effect),
and it is because the series of converging causes has no
determinate cause that the meeting is called accidental.

25. St. Thomas, In II Phys., lect. IX, n.1, (Transl. by
R.A. Kocourek, North Central Publishing Co., St. Paul,
Revised ed., 1951)
The effect of their meeting is not called accidental because the converging causes were not per se ordered to produce it. If this were so the only thing necessary for prediction of the effect would be a knowledge of the direction of the determined causes. But as soon as there is a determination toward an effect there is no longer any chance involved. Chance is prior to this determination.

Indeed, it is sometimes said that the fortuitous encounter can be foreseen if the number and direction of the causes that produce it are known:

Chance, a fortuitous event, presupposes the mutual interference of independent lines of causation. Chance, and this is the basis of the ancient's notion of it, is the result of an irreducible pluralism, the plurality of the causal series that meet at a given moment. A fortuitous event can be foreseen, if its constituent factors are sufficiently simple. But it is a fortuitous event notwithstanding, since it is a mere encounter. (26)

This interpretation of chance completely destroys the true character of accidental causality. Compare these remarks with the assertion of St. Thomas that "Causae per accidens sunt infinitae...Et quia infinitum, secundum quod est infinitum, est ignotum, inde est quod fortuna immanuts (27) festa est homini."

27. In III Phys., lect. IX n.1; ibid, n.4: "Dicit ergo primo quod recte dicitur fortunam esse sine ratione: quia ratiocinari non possamus nisi de iis quae sunt semper vel frequenter; fortuna autem est extra utrumque. Et ideo, quia causae tales, in paucioribus existentibus, sunt per accidens et infinitae et sine ratione, sequitur quod fortunae sint causae infinitae et sine ratione: omnis enim causa per se producit effectum suum vel semper, vel ut frequenter."
To say that "a fortuitous encounter can be foreseen, if its constituent factors are sufficiently simple" is to say that it is not a fortuitous event at all, for the factors involved in a fortuitous event are never sufficiently simple, but are infinite. If what happens by chance is predicted, it is not predicted insofar as it happens by chance, but insofar as it is the effect of certain determined causes. The prediction is not made by knowing the proper cause of the chance event, which, as St. Thomas constantly reminds us, is unknowable because infinite and indeterminate, but is possible rather from a knowledge of what is already an effect of chance and determined. If God could know chance events only in their created causes, He could not know them until they had come to pass.

Let us consider a further remark by the same author:

The explanation of the fortuitous fact or event must be sought in the causes active in each of these causal chains. But none of these causes is predetermined to produce it and this multiplicity of causes explains the chance event only on the supposition that these chains meet.

28. St. Thomas, IA, Q.14, a.13, c.: "Alio modo potest considerari contingens ut est in sua causa. Et sic consideratur ut futurum, et ut contingens nondum determinatum ad unum; quia causa contingens se habet ad opposita. Et sic contingens non subditur per certitudinem aliiui cognitioni. Unde quicumque cognoscit effectum contingentem in causa sustantum, non habet de eo nisi conjecturalem cognitionem. Deus autem cognoscit omnia contingentia, non solum prout sunt in suis causis, sed etiam prout unumquodque eorum est actu in seipso." See also: In I Perih., lect.14, n.20; Q. D. De Malo, Q.16, a.7, c.; II Sent., Dist., 6, q.2, ad 1. et passim
at a particular point of intersection. And there is nothing in the world which requires this, save the actual manifold of existents posited at the outset. (29)

This view is shared by many other scholastic writers.

29. J. Maritain, op. cit., p.148. (Italics ours)

30. Canon Ferdinand Van Steenberghen, Ontology. (Transl. by Rev. Martin J. Flynn, Wagner, New York, 1952), p.244: "We have just seen how the evolution of the created universe must be determined in duration. Further, it must also have a determined orientation. Here again a distinction must be made. In so far as the evolution of the universe results from the essential tendencies of created natures, it is completely determined by the First Cause who creates the order of natures. But in so far as the evolution of this universe is due to free agents, they can determine the direction of that evolution by their own free decisions. Every free act which expresses itself by impact on the material world, has indefinite repercussions on the future evolution of the world;" Charles A. Dubray, S.M., Introductory Philosophy (Longmans, Green, New York, 1932), Chapter IV, p.495: "Accidental effects prove nothing against the existence of natural laws, for, although they are not constant and uniform, they result from an unforeseen meeting of several causes, every one of which acts according to its own laws. Man may act intentionally, and in order to realize his purpose, he uses the 'natural' activities of various instruments and materials. Physical beings act naturally in the same way. But if several physical beings combine to produce a result both unusual, because this combination seldom occurs, and unforeseen, because unusual, we call this result accidental, although it is due to natural causes...Accidental is, therefore, a relative term which applies to results due to an unfamiliar and unforeseen course of circumstance." - K.F. Reinhardt, A Realistic Philosophy, (Bruce, Milwaukee, 1944), Chapter I. P.63: "It is true, nevertheless, that we do not know and may never know the purpose of many things and it is likewise true that many occurrences in nature and life result from chance. However, it is necessary to distinguish between what may be called absolute and relative chance. If we admit that all agents act in view of ends in accordance with their natures, the possibility of absolute chance is thereby excluded, but the possibility of relative chance is not denied. It is quite conceivable that several independent causal series may have a chance encounter at a given point or moment and thereby produce a fortuitous event. While each series as such is causally determined, the intersecting of the different lines of causation is purely co-incidental..."
M. Louis de Raeymaeker in his book, "Philosophie de L'être", has this to say:

Au plan de l'être, la finalité exclut le hasard; car tout y est intelligible, tout y a sa raison d'être suffisante...Dans le monde matériel, il est naturel que des forces se rencontrent, parce qu'elles circulent dans un même espace. S'il s'agit d'opérations purement matérielles, elles ne donneront lieu à aucun hasard, parce qu'elles appartiennent à un seul système où tout se déroule dans un ordre naturel. Mais des qu'interviennent des agents libres, il doit se produire des rencontres fortuites. En effet, chacun de ces agents poursuit sa fin personnelle, et ses opérations se déroulent dans un ordre qui est indépendant des autres agents. Et comme ils vivent tous dans le même monde matériel et qu'ils peuvent se servir des mêmes objets, ils risquent de se rencontrer et de se heurter. (31)

After denying the reality of chance in the natural world, M. de Raeymaeker goes on to deny that fortune is anything more than an ignorance of the causes at work; again, the only kind of contingency admitted is extrinsic:

Ces rencontres sont fortuites, en ce sens que l'une des causes libres ne peut prévoir ce que fera l'autre et qu'elle ne peut dès lors savoir d'avance tous les événements qui vont se produire. Ainsi donc, la multiplicité et par conséquent la limitation des systèmes personnels et libres qui exercent leur activité sur la même scène du monde, rendent inévitable des effets du hasard. D'où l'on peut conclure que si l'existait un être parfait, doué d'une connaissance universelle, il s'étendrait non seulement à toutes les choses de l'univers mais également à toutes les personnes libres, rien ne pourrait échapper à sa connaissance et rien dès lors ne pourrait lui paraître imprévu et fortuit. (32)

32. ibid., p. 315
The author admits that it is difficult to know beforehand the future existence of the fortuitous event but still maintains that such a knowledge is possible if enough factors are known. The declaration that what is accidental and relatively unforeseeable is to be found only in the actions of free agents, and not in nature, will be discussed later. What is important to note here is that all of the writers that hold such a view, speak of the plurality of causes and factors involved in the production of an accidental effect, as a determined plurality. But the plurality that Aristotle and St. Thomas refer to in relation to chance is not of this kind; it is not the plurality of the converging causes, the circumstances of time and place etc., of which it is a question in chance; it is rather the plurality found on the part of the cause that is undetermined. In the Metaphysics, Aristotle gives the example of a man who, being thirsty, leaves his house to obtain water, and as a consequence suffers a violent death:

This man, then, will die by violence, "if" he goes out; and he will do this if he gets thirsty; and he will get thirsty if something else happens; and thus we shall come to that which is now present, or to some past event. For instance, he will go out if he gets thirsty; and he will get thirsty if he is eating pungent food; and this is either the case or not; so that he will of necessity die, or of necessity not die. And similarly if one jumps over to past events, the same account will hold good; for this - I mean the past condition - is already present in something. Everything, there-
fore, that will be in the future will be of necessity; e.g. it is necessary that he who lives shall one day die; for already some condition has come into existence, e.g. the presence of contraries in the same body. But whether he is to die by disease or by violence is not yet determined, but depends on the happening of something else. This then will be the starting point for the fortuitous, and will have nothing else as cause of its coming to be. But to what sort of starting-point and what sort of cause we thus refer the fortuitous - whether to matter or to the purpose or to the motive power, must be carefully considered. (33)

It is not the plurality of the causes in the series that renders the effect fortuitous, but the accidental unity among these, which results from an irreducible plurality in the per accidens cause prior to the series. Let us consider the example above: It is not because the man goes out of his house to seek water, and because the water is where it is from some other causal series in nature, and because the robbers are running away and are hiding in the place of the spring etc., that the man's being killed is called fortuitous. - Even so, causes of that kind can be multiplied to infinity - It is rather because the man could have died for any number of other reasons that it is by chance that he dies this way, in such circumstances. This event has no per se unity. The man goes to the spring to drink and not to be killed. Therefore, when he is killed upon his arrival

there it is by chance, since it is not intended, seldom occurs, and comes about as a result of something that was done for an entirely different purpose. To look upon such an occurrence in terms of the series of converging causes that produce it, is to view it, not as an effect of chance, but as something already determined. The accidental orientation of the causes is already an effect of chance. The cause of the casual event is not a multiplicity of per se causes, each determined to its own effect, and intersecting to produce some other, unintended effect; this is simply a collective determinism where there is no room for chance. Neither is the cause of the accidental effect some accident of a per se cause. A modern commentator on Aristotle seems to have given a conclusive explanation of this latter point:

Un effet de la fortune ne comporte pas une cause per se et d'autres qui se rattachent à celle-là comme ses accidents; il ne comporte qu'une seule et même cause et, si cette cause est dite accidentelle, ce n'est pas parce qu'elle est l'accident d'une autre cause, c'est parce que à la fin qu'elle poursuit s'attache comme accident de cette fin un effet qu'elle n'a pas poursuivi intentionnellement. Dans le premier cas, en un mot, l'accident est un accident de la cause; dans le second, au contraire, l'accident est un accident de la fin et la cause n'est dite accidentelle que parce qu'elle est la cause d'un accident. Elle n'est point un accident de la cause. (34)

34. O. Hamelin, Aristote, Physique II, Traduction et commentaire, 2e éd., p. 117
The constant tendency of many present day scholastic writers is to identify chance with the intersection of several causal series. They say that the intersection of these various causes is accidental, and in this way seek to preserve the indeterminate character of chance. They add, however, that each of these causes is determined to act according to a pattern dictated by its nature, as we saw in chapter III, and that, therefore, the casual event is only a certain appearance of accidentality, but in fact (de facto), necessary. What is not observed in this characterization is that, given a number of causal lines tending to intersect, the effect can no longer be considered undetermined, since the intersection which is to bring about the effect is already determined by the converging causes. From this point of view, the effect is not casual, but is already determined in its causes.

4. Chance is an intrinsic cause; Fortune, is an extrinsic cause;

The difference between chance and fortune is greatest when they are considered as species opposed in the genus of accidental causality, each with its specific difference. It has been shown that the term chance is often used to signify the genus. Hence, as St. Thomas remarks, "Omnem quod est a fortuna est a
(35) casu, sed non convertitur." When things take place in nature outside of nature's intention, they are not said to happen by fortune, but rather by what is pure chance. For example, if a man is born with six fingers, it is, in a sense, a misfortune for him, but he is not the cause of it. In this instance, it is not the operation of a voluntary agent that brings about a rare and unintended effect, but some cause in nature acting without deliberation. And just as nature is an intrinsic principle of the effect it brings about, so also those things in nature that are brought about without their being intended have an intrinsic cause; this cause is nothing other than nature itself as productive of accidental effects, that is, as an accidental cause that is intrinsic. (But what shall we say here of the dictum "Natura, causa determinata ut in pluribus"? It is nature, as a limited agent, that can be an accidental cause. - "Ideo dico quod id quod est in pluribus est causa entis per accidens, quia quod non est semper neque secundum magis, hoc dicimus esse per accidens. Et hoc est defectus ejus quod est in pluribus...")

35. In II Phys., lect. X, n. 3
36. St. Thomas, Ibid., n. 10: "Et sic possumus accipere aliam differentiam inter casum et fortunam, quod eorum quae sunt a casu, causa est intrinsecus, sicut eorum quae sunt a natura; eorum vero quae sunt a fortuna, causa est extrinsecus, sicut et eorum quae sunt a proposito."
37. St. Thomas, In VI Metaph., lect. II, n. 1184
On the other hand, when an intellectual agent causes a rare and unintended effect, this is said to have come about by fortune. And just as will and intellect are extrinsic causes of those things of which they are the principle by deliberation, so the unintended effects of the intellectual agent also have an extrinsic cause. It is one and the same cause that, as determined, produces a proper, intended effect; and as undetermined and limited in perfection, produces an effect that is not intended, but which nevertheless takes place.

Fortune, then, as a species of accidental cause, is spoken of in regard to intellectual agents, who, as limited and passively indeterminate in the order of efficient causality, can sometimes bring about effects that are rare and outside the deliberate intention. Chance, however, refers to nature, as nature can be a cause that fails to bring about the intended effect and causes something rare by accident. Nature is not a cause perfectly determined to its effects, and because of this insufficient determination, which also stems from an admixture of potency in the cause, there sometimes occur events that are rare and beyond nature's intention. Note that both chance and fortune are reduced to the genus of moving cause, since both nature and intellect are principles from whence there is movement. In the case
of fortune, however, the cause that is reduced to a per
se cause is extrinsic, while in the case of chance it is
intrinsic.

Now it is with pure chance that we are chiefly con-
cerned, for there is general agreement among modern scho-
lastic philosophers that the effects of free agents are
absolutely unforeseeable. Nevertheless, since the reason
that these authors assign for the unpredictability of the
free effect is too restricting, and covers only those effects
that proceed from the liberty of action possessed by the
deliberate agent, it must be added that a consideration of
pure chance will reveal the universal principle of intrinsic
contingency, which is in fact denied by these writers. We
hope to see that this principle applies in the case of both
a natural cause and an intelligent one if the intelligent
cause is finite.

But before attempting to account for the appearance of
chance events by explaining more fully the reason for the
natural cause: occasional failure to be a cause of sufficient
determination, it will be useful to point out briefly what
is sometimes erroneously called or described as the external
cause of the chance event. A few remarks will be pertinent
to the problem for it is very important to note that the
cause of the casual event is intrinsic and not external.
In Chapter VI of the second book of the Physics, Aristotle says:

Hence it is clear that in those things which simply speaking come to pass for the sake of something, when they do not come to be for the sake of that which happens, but come to be rather because of something extrinsic, then we say that they come about by chance. These chance events are said to be from fortune if they can be objects of deliberate intention and are caused by agents acting with the capacity to deliberate. (33)

From the explanation of St. Thomas, it is clear that for the sake of which some action takes place, is extrinsic, when it is unintended, to that for the sake of which the action takes place per se, that is, the intended end. Thus, when a man buys a train ticket, boards a train, etc., for the sake of attending a convention in some distant city, and encounters unintentionally some friend who, most improbably, is in the same city, the meeting is extrinsic to the man's intention to attend a convention, and is extrinsic to the means taken in order to be present at the convention. These means, i.e., buying a ticket, boarding the train, etc., are intrinsically ordered to attendance at the convention, and not to meeting a friend, who was not expected to be in the same city at all. Hence, when something that is done for a definite purpose results in some-

38. Aristotle, *Physics*, II, c.6, 197b18-22
thing else that is unexpected and rare, we say that such an action took place by chance for the sake of what it brought about by accident; this is true whether the action also brought about what was intended or not. The extrinsic, "for the sake of which", is not chance, but an effect of chance. In both chance and fortune there is something extrinsic in this sense. This extrinsic end, which is the effect of chance or of fortune, as the case may be, is attached to the final cause as a material end arrived at while not being intended.

Chance and fortune, then, are not reduced to the genus of final cause, but to the genus of efficient cause, as has been explained. Nevertheless, there must be an accident attached to the end as a material result not intended but achieved anyway, in order for us to speak of chance or fortune. We may recall here the division made earlier, according to which a cause is called accidental on the part of the cause or on the part of the effect. It is only in

39. In III Contra Gentes, c.74, comm. of Sylvester Farrer: "Videtur...Sanctus Thomas dixere contradictoris, cum sit evenire aliquid casualiter dum finis non intentus provenit. Nam de ratione finis est quod sit intentus: Est enim euius gratia aliquid fit. Ergo repugnat quod aliquid sit finis, et tamen non sit intentum.

Respondetur quod finis dupliciter accipit potest: uno modo, materialiter, quantum scilicet ad ipsam rem absolute quae terminat actionem; alie modo, formaliter, scilicet pro re quae terminat actionem ut habeat rationem causae finalis. Secundo modo, repugnat quod aliquid sit finis, et non sit intentum. Primo vero modo, non repugnat. Et sic intelligitur dictum Sancti Thomae: nam constat quod effectus fortuitus, inquantum huiusmodi, non est finis actionis quam terminat nisi materialiter."
the latter sense of accidental cause that chance and fortune are said to be causes per accidens. Thus, when we speak of chance as an intrinsic cause, and fortune as an extrinsic one, the reference is to an intrinsic or extrinsic efficient cause.

The final cause implied in the definition of chance as "causa per accidens in his quae flunt propter finem in minori parte", is not extrinsic as opposed to the intrinsic causes, the material and formal; it is extrinsic in so far as it is extrinsic to the intended end, to the agent’s intention, and to the things brought about by the agent for the sake of the per se end. These same things are accidentally, or by chance, for the sake of the extrinsic end.

Emphasis on the end-like character of the event caused by chance, and a brief explanation of how the effect of chance is the kind of thing that could be an end formally, will help to clarify some further confusion on this point.

Aristotle and St. Thomas teach that the effect of chance must be the kind of thing that might have been an end intended by the agent. It is necessary that it be sus-

40. Physics, II, c.IV; St. Thomas, lect.VIII, nn.3-7: "Ponit divisionem quae sumitur ex parte cause. Et dicit quod cum huiusmodi, quae scilicet a proposito sunt, propter aliquid, et in minori parte, flunt a causa secundum accidentem, tunc dicimus ea esse a fortuna... sicut si aliquis sciret se recepturum pecuniam in foro, ivisset ad deportandum eam; sed si non propter hoc venit, per accidentem est quod adventus eius fiat reportationis gratia, ideat habeat hunc effectum.
ceptible of being an end, not just materially, as it is when brought about accidentally, but also formally and intrinsically. (In the sense of intrinsic to, or within, the agent's intention.)

But if there occur in nature accidental effects that are beyond nature's intention and sometimes even contrary to it, how can we say that these events can have the character of a true end? Many authors have judged this to be a contradiction of the Aristotelian doctrine on accidental causality. They do not see, for example, how a monster can be in any way a possible end. And again, the same difficulty may be observed in the domain of the fortuitous; if a man goes to a well to get water, and by accident encounters bandits hiding there, and these bandits kill him, how could this possibly be something that the man might have intended?

The case of the monstrous birth in nature, in addition to the problem it presents when we consider that the effect of chance must be the kind of thing that might have been an end, also raises a difficulty in view of the fact that occurrences of this kind seem to have a determinate cause. Yet Aristotle and St. Thomas both mention this as an example of chance in nature:

Cum enim aliquid fit extra naturam in operationibus naturae, puta cum nascitur sextus digitus, tune non
dicimus quod fiat a fortuna, sed magis ab eo quod est per se frustrae, idest a casu. (41)

Even St. Albert sees a difficulty in this example, for he says:

_Ego tamen in isto exemplo non multum video proprie esse casum, nisi large sumatur; et ideo ipse Aristoteles talia etiam nata libro de Animalibus vocat occasio nata et non casu-aliter nata. Casus enim est causa per acciden-
cens. Occasio enim minus dicit quam causam, et est, ut diximus, quando propter aliquid accidens aliquid causatur, aliquid in moribus dicimus aliquam dare occasionem quando inuit vel negligit aliquid propter quod aliquid damnificatur._ (42)

A different view from either that of St. Thomas or St. Albert is taken by a modern author, who says that monstrosities are not products of chance at all, but are brought about necessarily; and the necessity in question is nothing other than the necessity of matter. This author, M. Augustin Mansion, even insists that these divergences from nature's intention were never attributed by Aristotle to chance:

_Aussi Aristote attribue-t-il, comme on l'a deja note, au hasard, mais non à la necessité, la géné-
ration spontanée d'organismes qui sont engendrés d'ordinaire par la voie normale. Inversement les
monstruosités, qui répondent à des fins manquées, sont décrites par le Stagirite comme résultant de_

41. *In II Phys.*, lect.X, n.10
42. *In II Phys.*, Tract.II, c.17
la nécessité, mais jamais il ne leur assigne, comme cause, le hasard. (43)

And in another place, Mansion says that the necessity of matter is included in chance, according to a wider sense of the term chance, so that the two are convertible as exceptional facts of experience:

Partant de là, on peut reprendre et résoudre assez facilement la question des rapports entre le hasard pris, cette fois, au sens restreint et la nécessité brute, qui s'oppose formellement à la finalité ou, du moins, ne s'y subordonne pas. Cette question, notons-le, n'est pas résolue d'avance du fait que le hasard ainsi spécifié n'est qu'un cas particulier du hasard entendu au sens large et que, d'autre part, on a ramené à celui-ci ce que relève de la nécessité. (44)

Finally, M. Mansion says that the necessity of matter and chance, the latter understood this time in a narrower sense, cannot be the same, since what happens by chance falls within the teleological order, accidentally. It is interesting to note the reason given for placing the casual event within the order of finality, for it does not serve at all to distinguish chance from necessity:

Dès lors, comme il n'y a pas d'opposition véritable entre le hasard et la fin naturelle, celle-ci demeurant en dehors de la sphère d'influence du hasard, on ne pourra pas dire qu'il se confond

43. A. Mansion, Introduction à la Physique Aristotelienne, 2ed. Louvain, 1945, p.310
44. ibid., p.309
avec la nécessité brute. Car cette dernière a des effets ou bien indifférent au point de vue de la finalité, ou bien nettement contraires à l'ordonnance vers la fin naturelle, tandis que le hasard ne vas pas à l'encontre d'une telle ordonnance, mais produit un effet qui rentre par accident dans un ordre téléologique, cet effet étant un bien qui eût pu être pris comme fin. (45)

These notions are indeed very far from the teaching of Aristotle and St. Thomas. First of all, with reference to monstrous births in nature, it is plain from the words of St. Thomas that these are products of chance:

Cum enim aliquid fit extra naturam in operationibus naturae, puta cum nascitur sextus digitus, tunc non dicimus quod fiat a fortuna, sed magis ab eo quod est per se frustra, idest a casu. (46)

The following words of Aristotle in the Metaphysics show the distinction that, apparently, is overlooked by Mansion and other writers when they assign a necessary cause for the monstrous effect, considered in itself:

Clearly then the process [namely, from accidental effect to cause] goes back to a certain starting-point, but this no longer points to something further. This then will be the cause of the casual event, and will have nothing else as cause of its coming to be. (47)

45. A. Mansion, op.cit., pp. 309-10
46. In II Phys., lect.X, n.10
47. Metaphys., VI, c.III, 1027a14-18 (In the translation by W.D. Ross, we have substituted "the cause of the casual event", for, "the starting point for the fortuitous."
Commenting on the passage just cited, St. Thomas explains the truth:

Infert quaedam conclusionem ex praedicis; dicens: ergo ex quo non quodlibet, quod fit, habet causam per se, palam, quod in futuris contingentibus, effectus futuri reductio ad causam per se, vadit usque ad aliquod principium; quod quidem principium non reductur in aliquod principium per se, sed ipsum erit cujus causa ((erit quocumque eventi,)) idem causa causalis, et illius causae casualis non erit aliqua alia causa; sicut jam praedictum est, quod ens per accidentes non habet causam neque generationem. Verbi gratia, quod iste occidatur a latronibus habet causam per se, quia vulneratur; et hoc etiam habet causam per se, quia a latronibus invenitur; sed hoc non habet nisi causam per accidentes. Hoc enim quod iste qui negotiatur, ad negotium vadens, inter latrones incidit, est per accidentes, ut ex praedictis patet. Unde ejus non oportet ponere aliquam causam. Ens enim per accidentes, ut supra dictum est, non habet generationem, et its ejus generationis causam per se quaeere non oportet. (48)

And by what is said here, St. Thomas also resolves the arguments brought forth by some that the fortuitous event, as such, can sometimes be foreseen, since the cause of it is the intersecting of causes operating per se, whose direction may be known. (49)

48. lect. III, n. 1201
49. J. Maritain, A Preface to Metaphysics - Seven Lectures on Being, p. 141: "Chance, a fortuitous event, presupposes the mutual interference of independent lines of causation. Chance, and this is the basis of the ancient's notion of it, is the result of an irreducible pluralism, the plurality of the causal series which meet at a given moment. A fortuitous event can be foreseen, if its constituent factors are sufficiently. But it is a fortuitous event notwithstanding, since it is a mere encounter."
It is certain, however, that in its proper cause, the effect of chance or of fortune is altogether undetermined and, therefore, unforeseeable; because a thing is knowable only to the extent that it has some determination in itself or in its causes:

Et ideo praesentia cognoscit tanquam actu existentia et sensu aliquiditer perceptibilis; praeterita autem cognoscit ut memorata; future autem non cognoscere sa potest in seipsis, quia nondum sunt, sed cognoscere potest in causis suis: per certitudinem quidem, si tota liter in causis suis sint determinata, ut ex quibus de necessitate eventient; per coniecturam autem, si non sint sic determinata quin impediri possint, sicut quae sunt ut in pluribus; nullo autem modo, si in suis causis sunt omnino in potentia non magis determinata ad unum quam ad aliud sicut quae sunt ad utrumlibet. Non enim est aliquid cognoscibile secundum quod est in potentia, sed solum secundum quod est in actu, ut patet per Philosophum in IX Metaphysicae. (50)

The effect of chance, when considered in relation to the conditions already present for its production, may indeed be known and predicted; and in reference to these conditions the effect may be necessary. Thus, it is possible to explain, up to a certain point, why the birth of an abnormal animal takes place, for example. The determinate reasons for this event may be known; such as, the disposition of the matter, the condition of the agent, facts of temperature, physiology, etc.; from the point of

50. St. Thomas, In I Periherm., lect.XIV, n.19
view of various material conditions, the generation in question may necessarily result in the composition of parts that are not in conformity with the natural end. Nevertheless, it is certain that the first cause of the deformity is chance; for the effect is rare, comes about as a result of operations that are for the sake of some purpose - which is not the production of monsters - and has no per se relation to these means, nor to the measure of normalcy that may be found at the same time in generations of this kind.

To know that an event is caused by chance is one thing; to know the determinate reasons for the chance event - which are posterior to chance - is quite another matter. And in so far as determinate reasons can be assigned, the effect of chance is already outside of its proper cause and determined. But to foresee an effect in a cause that is undetermined, is impossible; for a thing is knowable only to the extent that it is in act. Chance, however, is this kind of cause; therefore, it is impossible to foresee or predict the casual event as such.

Mansion's assertion that Aristotle did not mean that (51) monstrosities in nature are effects of chance, is based, apparently, on an erroneous interpretation of Aristotle's

51. see pages 154-55, footnote 43
repeated references to casual effects as belonging to the sphere of those things that are for some purpose.

In the second book of the Physics, for example, the Philosopher says:

Both are then, as I have said, incidental causes - both luck and chance - in the sphere of things which are capable of coming to pass not necessarily, nor normally, and with reference to such of these as might come to pass for the sake of something. (52)

In the Metaphysics, Aristotle refers to certain generations that take place by chance, yet which are not opposed to finality, but coincide with what nature might have produced:

Thus, then are natural things produced; all other generations are called 'makings'. And all makings proceed either from art or from a faculty or from thought. Some of them happen also by chance or by luck just as natural things sometimes do; for there also the same things sometimes are produced without seed as well as from seed. (53)

Mansion argues that the misinterpretation of these texts by most of the commentators after Averroes has been redressed by W.D. Ross, who understands Aristotle

52. Physics, Book II, c.5, 197a33-35
53. Metaphysics, Book VII, c.7, 1032a26-32
to exclude chance from being the cause of monstrosities; Ross's argument, with which Mansion agrees, is that a monster cannot be an object per se of a natural operation, and, therefore, cannot be a product of chance.

Obviously, an unlucky effect considered in itself, is not something that could be directly desired. A man who, by accident, encounters robbers and suffers an untimely death at their hands, would not pursue what has befallen him by misfortune. The same holds true for chance. Nature could not pursue as a per se end the monstrosity that comes about contrary to nature's intention. Since this would appear to be quite evident it seems advisable to seek an explanation of why Aristotle and St. Thomas number such effects among those brought about by chance, and why they state at the same time that effects of chance are the kind that might have been intended. The difficulty should not be circumvented by insisting that their words must signify something else, or by saying that this teaching is opposed to what is said in another place, or finally, that it is due to an evolution of their thought.

55. A. Mansion, Intro. a la Physique Aristotelicienne, p. 311: "Cette explication s'accorde fort bien avec l'hypothèse qui fait de la notion du hasard, précisée ainsi par Aristote, le résultat d'une évolution de sa pensée... C'est comme s'il prenait, sans le corriger suffisamment, le texte d'un exposé plus ancien et se contentait d'y ajouter un développement nouveau, destiné à exprimer sa pensée actuelle, au risque d'y mettre celle-ci en contradiction formelle avec ce qu'il venait de dire."
The solution to the problem is not exceedingly difficult if strict adherence to the teaching on this point is maintained, and close attention is paid to the words of St. Thomas. Indeed, it is hard to see why it has required such an involved discussion on the part of so many authors, in view of the fact that bad luck, as well as good, is commonly spoken of, and like chance, fortune too, is an accidental cause, both sharing the character of being unfavorable agents as well as favorable ones, in relation to good and bad effects.

The answer to the difficulty is that, the undesirable effect, although not in itself a possible object of intention, is nevertheless reducible to an end, as an evil to be avoided. Hence, it is included among the possible objects of purposeful activity, insofar as it has, negatively, the character of an end. In the Physics St. Thomas intimates this when he says:

Et dicit quod eusfortunium et infortunium dicitur, quando habet aliquod bonum vel malum cum magnitudine; nam eusfortunium dicitur quando sequitur aliquod magnum bonum; infortunium autem quando sequitur aliquod magnum malum. Et quia privari bono accipitur in ratione mali, et privari mali in ratione boni; ideo quando aliquis parum distat a magno bono, si amittat illud, dicitur infortunatus; et si aliquis est propinquus magno mali, et liberetur ab illo, dicitur eusfortunatus. (56)

56. In II Phys., lect. IX, n. 7
It will be useful now to consider briefly the difference between chance as it is understood in the philosophy of nature, and as it is used in reference to mathematical laws of probability. As explained earlier, it is not enough that an effect be rare in order that chance be assigned as the cause of it. Nevertheless, those things in nature that are rare, are said by many to have come about by chance. But the statistically rare cannot not be identified with what is by pure chance; what is rare from the viewpoint of probability is often something intended by a higher cause. The occurrence which is rare in the sense of being statistically improbable, in reality often constitutes a victory of form over matter. It is for this

57. Chapter III, pp.106-08
58. St. Thomas, In VI Metaph., lect. III, n.1205:
"Ordinatio, autem, quae est in effectibus ex aliqua causa tantum se extendit quantum extendit se illius causa causales. Omnis enim causa per se habet determinatos effectus, quos secundum aliquam ordinem producit. Manifestum igitur est, quod effectus relati ad aliquam inferiorem causam nullum ordinem habere videntur, sed per accidentem sibi ipsis coincidunt; qui si referantur ad superiorum causam communem, ordinati inventuntur, et non per accidentem conjuncti, sed ab una per se causa simul producti sunt;" ibid., n.1211-1212: "Haec autem contingentia, si ulterius in causam caelestem reducantur, multa horum inventuntur non esse per accidentem; quia causae particulares etiam non continentur sub se invicem, continentur tamen sub una causa caelesti communi...Quamvis igitur multa, quae videntur esse per accidentem reducendo ipsae ad causas particulares, inventuntur non esse per accidentem reducendo ipsae ad causam communem universalem, scilicet virtutem caelestem, tamen etiam haec reductione facta, inventuntur esse aliqua per accidentem, sicut superiorius est habitum a philosopho."
59. St. Thomas, Contra Gentiles, II, c.30: "In quibus vero formas con complet totam potentiam materiae, remanet ad-huc in materia potentia ad eam formam. Et ideo non est in eis necessitas essendi, sed virtus essendi consequitur in eis victoriam formas super materiam, ut patet in elementis et elementatis.
very reason that the perspective of finality is so important for a correct understanding of accidental causality in nature; for unless the role of final causality is given its proper place in a consideration of natural causes and effects, the kind of contingency that is most characteristic of the natural universe will be overlooked, and the most striking evidence of divine providence will be neglected. An example may serve to make this clear:

From a statistical point of view, the appearance of life is a phenomenon that is highly improbable, being given all the material conditions necessary to support it and enable its continued existence in the universe. From the statistical improbability of these conditions coming about, some might be inclined to attribute such phenomena to chance, as well as other less improbable occurrences, such as, the formation of the planets. Actually, however, in the light

60. Sir James Jeans, L'Univers, trad. Georges Gros, Paris, Payot, 1930; pp. 277-278: "Le calcul mathématique démontre que pour donner naissance à un système planétaire, deux étoiles doivent se rapprocher à une distance qui ne dépasse pas le valeur de trois fois leur diamètre; puisque nous connaissons la répartition des étoiles dans l'espace, nous pouvons calculer avec une certaine approximation la probabilité d'un tel événement; on trouve que, pour une durée d'existence de plusieurs trillions d'années, cette probabilité n'est guère que de 1 sur 100,000... Tout ce que nous indique que seulement une parcellle infiniment petite de l'univers peut se trouver dans les conditions voulues pour donner asile à des êtres vivants. Il faut que la matière primitive se transforme en radiations pendant plusieurs trillions d'années pour donner une quantité minuscule de cendre inerte sur laquelle la vie peut exister. Alors seulement, s'il survient un accident extrêmement exceptionnel, cette cendre, et pas autre chose, peut se trouver expulsée du soleil qui l'a produite et se condenser en donnant naissance à une planète. Mais ce n'est pas tout; il faut que ce résidu de cendre ne soit ni trop chaud ni trop froid; sinon, toute vie y sera impossible."
of final causality, life is seen as a result of universal nature’s intention to produce more and more perfect natural forms, by subduing the indisposition of matter to receive these forms. Finally, by disposing the matter to receive successively higher natural forms, the goal to which all of nature is ordered, and for the sake of which prime matter is created, is made immediately possible; the preliminary dispositions having been accomplished through this continuous process, the natural subject is then able to receive a form that is not imposed by a natural agent; this form, the human soul, is the final perfection, and the term to which matter was originally ordered.

At the same time it may be noted that what is merely statistically probable, is a result of the *necessitas materiae*. For the matter remains disproportional to the forms; in terms of statistics alone, it is, by its relative indifference and indetermination more often successful in setting aside the causality of the particular natural agent than the natural agent is, by its determination successful in overcoming the indetermination of the matter. A familiar example of this is the large number of seeds provided for the production of a single plant, most of which do not take

61. St. Thomas, *Contra gentes*, III, c.77: "Cum igitur virtus divinae providentiae sit maxima, per aliquas medias ad ultima suam operationem perducere debet...Exigit igitur divinae providentiae perfectio quod sint causae medias execucrtrices ipsius."
root and grow. This very profligacy, however, is, for the limited natural agent, a means of overcoming the indispositions of the matter. Hence, the statement that nature achieves its effects for the most part, must not be identified with the expressions of probability formulated in statistical laws. The important thing to note is that finality is not involved in laws of probability. The mathematical expression of a regularity in physical phenomena, in terms of statistical "laws of chance", does not permit the transference of this sense of chance (which abstracts from finality), to a philosophical context, where the word "chance" has an entirely different meaning. What is "by chance" in the statistical sense is not at all by chance in a philosophical sense. The term "chance", is equivocal in these two cases. For the statistician the expression "by chance", does not refer to finality, but merely to a formulation of the various alternatives in physical phenomena, in abstraction from the intention of any agent. The foundation of these calculations is, in reality, nothing other than the necessitas materiae.

We might reiterate here what was said earlier in speaking of the determination of the natural agent: what is rare or exceptional in relation to particular nature may not be rare at all in reference to a superior cause; what appears improbable in view of statistical probabilities, is not
necessarily improbable from the point of view of nature, acting for an end. The chance event is not unlikely just in relation to proximate causes, as has been shown, but is altogether undetermined to be before it is; by this is meant that it does not fall within the intention of either particular or universal nature. Thus, what is improbable statistically, can be the object of a more general intention that is directed to the end of the whole of nature, and which provides many possibilities precisely in order to achieve the intended effects. This profligacy on the part of nature is required in order to overcome the indetermination of matter; and although matter is necessary for natural becoming, the agent must subdue a certain material indisposition in order to introduce the natural form.

Even when a particular agent does not succeed in producing what was intended, if something does come about by chance it can accidentally contribute to the end of universal nature; in such a way chance may compensate for the insufficient determination of the natural case.

At this point, then, a closer investigation of the casual event and its cause, chance, must be undertaken.

62. St. Thomas, *Contra Gentes*, II, c.30: "In quibus vero formae non complet totam potentiam materiae, remanet adhuc in materie potentia ad aliam formam. Et ideo non est in eis necessitas essendi, sed virtus essendi consequitur in eis victoriam formae super materiam, ut patet in elementis et elementatis. Formae enim elementi non attingit materiam secundum totum ejus possis; non enim fit susceptivis formae elementi unius, nisi per hoc quod subjicitur alteri parti contrarietatis."
5. The reason for the accidental effect is the insufficient determination of the cause; but such a contingent cause fails, only when there is some impediment.

A great many modern scholastics assert that all things in the material universe come about necessarily, provided that the totality of causes operating in nature be taken into consideration, and if the intervention of free agents be left out. A natural cause may fail, they say, but this is only because of an impediment; they add that the impediment itself is a cause having a determined character. Thus, if all the causes at work are included, it is evident that the impediment is necessary; hence, it is also evident that everything resulting from this interference is necessary. Taken individually, in relation to its proximate cause, an effect may be contingent; in this sense rare events are said to happen by chance. But according to these writers the term is only relative; for if the original constellation of the universe is considered, and we suppose that no voluntary agent disturbs the flow of natural events, it is clear that everything is perfectly determined from the beginning, and happens now, and in the future, with complete necessity. The absolute impossibility of foreseeing the future is granted, only in the domain of voluntary operations; the effects of such activity cannot be foreseen since they result from acts freely performed.
It would appear that an incorrect interpretation of certain important texts, where St. Thomas speaks about contingency and necessity, has led to the position outlined above; the following passage is one that is often presented in support of the determinist view:

Primum enim non est verum quod, positae quacumque causae, necessae sit effectuum poni. Sunt enim quaedam causae quae ordinantur ad suos effectus non ex necessitate, sed ut in pluribus, quae quandoque deficiunt in minori parte. Sed quia huiusmodi causae non deficiunt in minori parte, nisi propter aliquam causam impedientem, videtur adhuc praedictum inconveniens non vitari; quia et ipsum impedimentum talis causa ex necessitate contingit. - Et ideo, secundo, oportet dicere quod omne quod est per se, habet causam, quod autem est per accidentes, non habet causam, quia non est vera ens, cum non sit vera unum. Album enim causam habet, similiter et musicum; sed album musicum non habet causam, quia non est vera ens neque vera unum. Manifestum est autem quod causa impediti actionem alicuius causae ordinatæ ad suum effectum ut in pluribus, concurret ei interdum per accidentes, unde talis concursus non habet causam, inquantum est per accidentes. (63)

It is strange that this should be interpreted as a denial of intrinsic contingency, in view of the fact that St. Thomas himself, considers the difficulty explicitly:

Ostensum enim est quod quamvis ex impressione corporum caelestium fiant aliquae inclinationes in natura corporali, voluntas tamen

63. St. Thomas, Ia, Q.115, a.6, c
non ex necessitate sequitur has inclinationes.
Et ideo nihil prohibet per voluntarium actionem impediri effectum caelestium corporum, non solum in ipso homine, sed etiam in aliis rebus ad quas hominum operatio se extendit. - Sed nullum tale principium inventur in rebus naturalibus, quod habeat libertatem sequendi vel non sequendi impressiones caelestes. Unde videtur quod in talibus, ad minua, omnia ex necessitate proveniant: secundum antiquam quorumdam rationem, qui supponentes omne quod est causam habere, et quod, posita causa, ex necessitate ponitur, concludebant quod omnia ex necessitate contingent. (64)

He then goes on to resolve the difficulty:

Primum enim non est verum quod, posita quacumque causa, necessis sit effectus poni. Sunt enim quaedam causae quae ordinantur ad suas effectus non ex necessitate, sed ut in pluribus...
Et ideo, secundo, oportet dicere quod omne quod est per se, habet causam, quod autem est per accidentes, non habet causam, quia non est vere ens, sum non sit vere unum... (65)

Cajetan, in a profound and complete commentary, admits of having been convinced, for a long time, that the meeting of natural causes with impediments, had a per se cause; that the results of such encounters are accidental, only in regard to us, - but that they are in themselves, predetermined by the whole constellation of causes at work.

64. St. Thomas, op. cit., corpus (Italics ours)
65. Is. Q.115. a.6, c
66. Ibid. Commentary of Cajetan, n.11:..."Probatur: quia in caelo nullus est per accidentes; omnia enim sunt ibi per se. Ergo consensus istorum inferiorum habet per se causam secundum esse; quævis quod nos sit per accidentes, quia latet suae connexionis perspectiva. At hæc ratio multo tempore me vinctum tenuisse videtur." (Italics ours)
Now it is this very position that is taken by modern scholastic writers; but it is hard to see why such a view should be held, for it is not the teaching of St. Thomas; and in his commentary on this question, Cajetan advances the most convincing arguments against it. Nevertheless, the following remarks of three different modern writers are representative:

Si on suppose qu'il n'y a dans l'univers aucun agent libre (intelligent), il est clair que tel événement survenu ici-bas (par exemple le fait que tel escargot grimpe sur tel arbre à tel moment sur telle montagne) était infailliblement prédéterminé dans la constellation de tous les facteurs de l'univers posée à l'origine. (67)

No matter to what extent mechanists may reduce natural operations to the rule of necessity - that is, to physical law - they come in the end face to face with stark contingency. Given matter, the nature which it actually has and its original distribution, and probably many other things, the present universe - let us admit - must have evolved. But you are given an awful lot when you are given matter, its nature, and its distribution! Starting with them, you can construct a universe in terms of the necessary laws of the movement of such matter so distributed; but this necessity comes into the picture only after the matter is presupposed. The necessity, therefore, is the product of a sheer contingency and consequently is itself contingent through and through: it is, but it might not have been. (68)

67. J. Meritain, _Les Degres Du Savoir_, p. 58
68. Brother Benjamin, _Nature Knowledge And God_, p. 89
Pour affirmer tout d'abord qu'un déterminisme vrai domine le cours des événements naturels, il faut mettre chacun d'eux en rapport avec la somme des influences qui contribuent à sa production. Il est clair qu'envisagées de cette façon ces événements sont déterminés complètement par l'action des causes dont ils dépendent... Et, dès, lors, on conclura que dans le système d'Aristote le monde de la nature tout entier est soumis à un déterminisme rigoureux, dans la mesure que où l'on fait abstractions dues à l'activité intelligente et libre de l'homme. (69)

As St. Thomas explains in question 115, the reason that the contingent cause which is ordered to its effects only for the most part, or ut in pluribus, can actually fail, is that it is occasionally impeded. But if chance is an intrinsic cause and rooted in a passive potency, how is it possible that it can be an impediment? If, on the other hand, the impediment is determined, how can there be effects that are truly accidental; for the cause that is defective does not actually fail unless it is impeded by some other active cause? Is it not necessary to admit, at least, a kind of collective determinism, as the authors who have been quoted plainly assert? This difficulty has led many to deny the absolute unpredictability of the casual event; the cause of the chance occurrence, they say, is nothing other than the series of active causes that meet to produce it, each of these causes being per se

69. A. Mansion, Introduction à la Physique Aristotelienne, pp.325-26
ordered to an effect of its own, different from the one
(70)
that their encounter brings about.

In reply to this it must be said, first, that any
failure of a cause to produce an intended effect is due
to the imperfection of that cause; this imperfection is
reduced to a passive potency which, in natural things,
is their potential principle, matter:

Deficere autem in actione sequitur imperfecti
onem: et ideo potestas defectiva quocumque
defectu, ad potentiam passivam reducitur, ut
patet ex 1 Caeli. Et haec intelligenda sunt
de defectu actionis ex parte causae qui est
ab intrinseco, de quo est objectio. De defectu
autem eius ex parte extrinsecorum, manifestum
est ex aliquo impediente provenire: sed quomodo
inferius dicitur. (71)

The apparent assumption that the impediment to a
cause's operation is active only, is unwarranted. As
Cajetan explains, there is a passive or material impedi-
(72)
ment, as well as an active one. The passive obstacle

70. J. Maritain, Reflections on Necessity and Con-
tingency, p.29: "This bird's falling from its nest today is
an event to which no nature tended of itself. It is a purely
fortuitous or chance event and is due simply to the interfer-
ence of a number of independent acts of causes...The event
in question depends solely upon an assemblage of factual events
or upon a, purely factual necessity."; A Preface to Metaphysics,
p.141: "Chance, a fortuitous event, presupposes the mutual
interference of independent lines of causation."

71. Cajetan, Ia. Q.115, a.6, commentary, nn.7
72. Ibid., n.16: "...Impedimentum est duplex: alterum
activum, alterum materiale. Activum enim est quod impedit
actionem ut recipitur in passo. - Et rursus, materiale contin-
git dupliciter. Uno modo, ex actione alterius agentis, sicut
aquisitas lighi impedit combustionem; et enim, quamvis materi-
ale impedimentum sit, est tamen effectivae a causa pluviæ,
quae madefaciat lignum. Alio modo, ex ipsa conditione materiae;
sicut frigidites acquae impedit calefactionem, cuius tamen,
frigiditas non est alia causa nisi ipsa natura aquae, quae
occurrit ut materia calefactibilis."
to the success of a natural cause, may be an indisposition in the subject due to previous active causes; the wetness of wood, for example, is an obstacle to the active cause, fire. But beyond this kind of opposition to the agent, which is really a determined thing since it is derived from some active cause, there is the natural indisposition of every material subject upon which a natural cause acts. This is nothing other than an indisposition caused by the passive principle, matter, which is never completely dominated; either by the form it has or the one it receives. In the potency of the matter, then, is rooted the contingency of the natural thing. The foundation of chance and uncertainty is the possibility of the non-existence of the natural effect:

Et quoniam manifeste patet quod posse deficere in minori parte, quod est radix casus et fortunae et omnis contingentiae in naturalibus, consequitur posse non esse. (73)

Because the possibility of matter is a potency that is "ad utrumque oppositorum", and because a purely natural cause is not one that is absolutely "determinatum ad unum", the coming to be of a certain natural thing is not absolutely assured. Hence, when an impediment is said to be the

73. Cajetan, op.cit., n.14
reason why the cause fails in a given case, by impediment
must be understood, not simply the thing that impedes the
action of the cause, but more precisely, the relation of
this active obstacle to what is impeded. It is from this
relation that the impediment is called an impediment.

Impedimentum enim duo dicit: scilicet rem quae
impedit; et relationem ad aliud, ex qua denomi-
natur impedimentum. Et de impedimento quidem
activo, dato inquantum res est, habeat causam
per se; sed inquantum impedit, non oportet, quia
impedire pertinent ad concursum, qui poteat esse
per accidentes. De impedimento autem materiali si
eodem modo est, habeat aliquam causam necessarium,
sive illa sit aliud agens, sive sit condition ma-
teriae; oportet dicere quod inquantum impedimen-
tum est, est per accidentes. Et hoc est venire ad
concursum; quia nihil aliud est dicere quam quod
concursus talis agentis cum tali materia hic non
habet causam. Et sic impedimentum ex parte ma-
teriae, et hic concursus est omnino idem. Si
autem impedimentum materiali, etiam inquantum res
est, in particulari sumptum non habeat causam ali-
quam quam necessario sequatur; tunc ex imped-
imento materiali dupliciter fit per accidentes, et
ex parte concursus, et ex parte rei concurrentis.
Et sic impedimentum materiale includit impedimen-
tum concursus et addit: et sic distinguitur ut
minus commune a magis commune. (74)

In other words, it is the defective character of a
natural cause that makes an impediment possible; the na-
tural cause is defective because of its matter and the
contingency of its form. Thus, what in fact does come
to be, does not come to be necessarily; its coming to be

74. in, Q.115, a.6, Commentary of Cajetan, n.17
can be prevented, since the matter upon which the agent operates is not perfectly subject to that agent's causality. Moreover, the insufficient determination of a natural cause, insufficient that is, to bring about its effects all of the time, is rooted in the cause's own admixture of potency - a potency which is to be identified with its negative indetermination.

The active obstacle, then, can be another efficient cause; this is something quite determined. In the passive obstacle, however, the indisposition resulting from prior active causes (which is thus something determined) must be distinguished from the natural indisposition of the corruptible thing, "quod potest esse et non esse". It is the latter that is the cause of what is accidental as such. In this regard it should again be noted that "potentia defective quocumque defectu, ad potentiam passivam reducitur." Thus, every obstacle involved in an accidental event is rooted in an indetermination; either the insufficient determination of the natural form, or the complete indetermination of matter.

The words of Cardinal Cajetan, expressed near the end of his commentary on Q.115 of the Prima Pars, present a concise summary of the difficult question of contingency in nature, and the points covered in this section dealing with the natural cause and the reason for its occasional fail-
ure; here Cajetan points out both the root and complete cause:

\begin{quote}
Scito tamen hic quod ratio contingentiae naturalium dupliciter potest assignari: uno modo, ex parte complementi; alio modo, ex parte radicis. Radix quidem huiusmodi contingentiae est natura potentiae inventa in naturalibus, qua et possunt deficere in minori parte, et sunt in potentia contra-
dictionis, ut dictur in I Periherm. Complementum vero contingentiae est concur-
sus accidentalis causarum, sive activae et passivae, sive acti varum inter se, etc. Et propter eas non opposites dixit, sed utrumque assignavit in diversis locis divus Thomas: In VI a quidem Metaphys., radicem; hic vero et in I Periherm., et in libro Contra Gentes complementum tetigit. (75)
\end{quote}

In the light of these distinctions, it may be seen that the teachings of St. Thomas on contingency in the Metaphysics, and in the Perihermeneias, far from being opposed, actually complement one another; this may be gathered clearly from (76)

his words in the Contra Gentes. For in the Metaphysics he reduces the contingency of the natural thing to its materi-
ality; in the Periherm., he adds to this explanation of the root of contingency, by showing that an active cause, not entirely determinatum ad unum, is required, in order that the

75. \textit{Ia, Q.115, a.6, Commentary of Cajetan, n.20}

76. \textit{Contra Gentes, III, c.86 – see chapter II, pp.37-41}

77. \textit{In VI Metaphys., lect.II, n.1136: "Et quia defectus ejus quod est ut in pluribus, est propter materiam, quae non subditur perfecte virtuti agenti ut in pluribus, ideo materia est causa accidentis alter ((quam ut in pluribus,)) scilicet accidentis ut in paucioribus; causa inquam non neces-

saria, sed contingens."}
effect be truly contingent:

Unde dicendum est quod possibilitas materise ad utrumque, si communiter loquamur, non est sufficiens ratio contingentiae, nisi etiam addatur ex parte potentiae activae quod non sit omnino determinata ad unum; alioquin si sita determinata ad unum quod impediri non potest, consequens est quod ex necessitate reducat in actum potentiam passivam eodem modo. (78)

What should be observed, finally, is that the only kind of contingency admitted by most modern scholastics is extrinsic contingency. This is the kind of contingency that is true of every creature insofar as its existence depends upon the divine liberty. But this is only a contingency

78. In I Periherm., lect.XIV, n.9
79. St. Thomas, In I Periherm., lect.XIV, n.22: "Sunt aetem differentiae entil possibile eet necessarium; et ideo ex ipsa voluntate divina originantur necessitas et contingens in rebus et distinctio utriusque secundum rationem proximarum causarum: ad effectus enim, quos voluit necessarios esse, disposuit causas necessarias; ad effectus aetem, quos voluit esse contingentes, ordinavit causas contingenter agentes, idest potentes deficere. Et secundum harum conditionem causarum, effectus dicuntur vel necessarii vel contingentes, quasvis omnes dependant a voluntate divina, sicut a prima causa, quae transcendit ordinem necessitatis et contingentiae;" - La. Q.9, a.2, c: "Omnes enim creaturae, antequam essent, non erant possibles esse per aliquam potentiam creatam, cum nullum creatum sit aeternum; sed per solum potentiam divinam, inquantum Deus poterat esse in esse producere. Sicut aetem ex voluntate Dei dependet quod res in esse producit, ita ex voluntate Dei dependet quod res in esse conservavit." - See the Commentary of Cajetan, n.7
secundum quid; contingency in the strict sense comes from an intrinsic principle that renders the natural thing indeterminate to some extent, and in a state of possibility in regard to existence and non-existence. This latter contingency is rooted in the pure indetermination of matter, and the imperfect determination of the natural form, and is inseparable from nature. Nevertheless, it is precisely in reference to the effects of chance and fortune, founded on an intrinsic potentiality, that divine providence is most strikingly revealed. Before bringing the discussion of accidental causality in nature to a close, this must be explained.

6. Conclusion – The intellect can conceive as one what is not one is nature.

Things which in reality have no per se connection, can be conceived together by the mind, and may stand as the object of a true judgment. If it is a question of a judgment bearing on the present or past, then an enunciation about such things is necessarily true or false. The statement, "Socrates, the grammarian, is musical", is necessarily true or false, for he is either a musician or he is not. What this proposition signifies in reality, however, has only an accidental unity, for it is per accidens that a grammarian
be also a musician.

As St. Thomas explains, an entity of this kind is not an unum per se, but is one in name only. But even though what is signified by the subject, "grammariam", and what is signified by the predicate, "musical", do not have a necessary connection in themselves, the intellect can, nevertheless conceive them as one; this is because, the intellect, unlike nature, is not determinatum ad unum. And what has no per se unity in physical reality can have a per se unity in the intellect insofar as, in the intellect, one can be ordered to the other. Thus, an agent operating by intellect and will can conceive together as an object of intention, and preordain to be joined contingently in reality things

80. St. Thomas, In VI Metaphys., lect. II, n. 1173: "Et ideo dicitur in Primo Elenchorum, quod secundum accidens faciunt syllogismos contra sapientes; ut petet in ipsis paralogismis, in quibus dubitatur utrum diversum an idem sit musicum et grammaticum. Ut fiat talis paralogismia. Musicum est alius a grammatico; musicum autem est grammaticum, ergo musicum est alterum a se. Musicum enim est alius a grammatico, per se loquendo; sed musicus est grammaticus per accidens. Unde non est mirum si sequitur inconvenientis, non distincto quod est per accidens ab eo quod est per se."

81. ibid., n. 1176: "Probat idem per rationem; dicens, quod rationabiliter hoc accidit quod scientia non speculatur de ente per accidens; quia scientia speculatur de his quae sunt entia secundum rem; ens autem secundum accidens est ens quasi solo nomine, inquantum unum de alio praedicatur. Sic enim unumquodque est ens inquantum unum est. Ex duobus autem, quorum unum accidit alteri, non fit unum nisi secundum nomen; prout scilicet unum de altero praedicatur, ut cum musicum dicitur esse album, aut e converso. Non autem ita, quod aliqua res una constitutur ex albedine et music.
which have a per se unity in the mind only.

Et ideo dicendum est quod ea quae hic per accidentes dicuntur, sive in rebus naturalibus sive humanis, reducuntur in aliquam causam praecordantem, quae est providentia divina. Quis nihil prohibet id quod est per accidentes, accipi ut unum ab aliquo intellectu; alioquin intellectus formare non posset hanc propositionem: Fodiens sepulorum invenit thasorum. Et sicut hoc potest intellectus apprehendere, its potest efficere. (32)

A man who knows that a treasure is buried in a certain place can send a friend to dig a grave in the same location. Although the finding of the treasure while digging a grave has no per se unity in reality (for if such were the case, one could not dig a grave without finding a treasure), it can be the object of a per se intention on the part of the man who orders one to the other by a deliberate act. Note

32. St. Thomas, Is. Q.116, a.1; - In I Periherm., lect.XIV, n.15: "Sed considerandum est quod id quod est per accidentes potest ab intellectu accipi ut unum, sicut album esse musicum, quod quamvis secundum se non sit unum, tamen intellectus ut unum accipit, in quantum scilicet componendo format enumerationem unam. Et secundum hoc contingit id, quod secundum se per accidentes evenit et casualiter, reduci in aliquem intellectum praecordantem; sicut concursus duorum servorum ad certum locum est per accidentes et casualis quantum ad eos, cum unusorum ignorant de alio; potest tamen esse per se intentus a domino, qui utruncus mittit ad hoc quod in certo loco sibi occurrat."
that the finding of the treasure is still fortuitous
for the one who digs the grave, since he did not intend
(this). In this way, what is accidental in relation to a
particular cause, can be reduced to a superior cause per
se. But insofar as the event is reducible to a higher
cause per se, it is not accidental, but intended.

We should not be led by this consideration, however,
to the conclusion that everything that happens outside of
the intention of a particular agent, can be reduced to some
higher created cause, acting per se. This would be to fall
into the error of those who fail to distinguish the mode of
existence that a thing has in the mind, from its mode of
existence in reality; it may explain how determinism becomes
held by so many modern scholastics. For since there is a
tendency to project into reality what can be only in the
mind, the determinist is inclined to attribute a per se
unity to what is one per accidens in reality. It would
also explain why ignorance of the causes at work is as-
signed as the reason that many occurrences are said to be
by chance; i.e., if we knew all the causes operating, we
would not say that such and such a thing is an accident, but

32. See above, footnote n.32; In VII Metaphys., lect.VI,
n.1403: "Sciendum est quod nihil prohibit aliquam genera-
tionem esse per se cum refertur ad unam causam, quae tamen
est per accidens et casualis, cum refertur in eadem causam."
- The same thing applies in the case of the two servants, as
is evident from St. Thomas's words in the Periherm.
that it was determined to be. Modern authors are thus inclined to speak of relative chance, and restrict chance to the accidental intersecting of different lines of cause-

34. Charles A. Dubray, S.M., Introductory Philosophy, p. 495: "Physical beings act naturally in the same way, but if several physical beings combine to produce a result both unusual, because this combination seldom occurs, and unforeseen, because unusual, we call this result accidental, although it is due to natural causes... Accidental is therefore a relative term which applies to results due to an unfamiliar and unforeseen course of circumstances."; - J. Maritain, in Reflections on Necessity and Contingency, p. 35, accepts the possibility of predicting the casual event from a knowledge of all the antecedent causes, for a mind that would know all of these factors, but denies this possibility for a mind that is in ignorance of these: "This, however, namely, the fact that, "the cause of a future contingent event is of such a kind that it fails to make known with certitude the thing to which it is preordained...." - why the cause fails to make known with certitude, its effect, is not clearly stated; but it becomes evident that the reason intended is that the cause here referred to, is nothing other than what the author calls, "the almost infinite number of actual factors in the universe since the first moment of the existence of the universe..." does not prevent future contingent events (events of nature imperfectly assured in their causes, or again events of chance), which are to be produced in the course of time, from appearing necessitated in fact with regard to the transfinite multitude of factors that we would have under our eyes, were we able to take into consideration, as we said above, all the placements of causes of all the agents of the universe and their complete history (excluding, by hypothesis, the intervention of free agents).... In this sense it must be said in a universal way that the future contingents which we are now discussing - although necessitated in fact with regard to the almost infinite number of actual factors in the universe since the first moment of the existence of the universe - are not capable of being foreseen with certitude." - This is, of course, a rigorous determinism, which in fact, denies any indetermination intrinsic to the things themselves. In such a system, the inability to predict the future is purely accidental, being due, simply, to an ignorance on the part of the observer.
tion (As explained, this intersecting is not really chance at all, but an effect of chance.) This point of view is well expressed in the following passage:

It is true, nevertheless, that we do not know and may never know the purpose of many things, and it is likewise true that many occurrences in nature and life result from chance. However, it is necessary to distinguish between what may be called absolute and relative chance. If we admit that all agents act in view of ends in accordance with their natures, the possibility of relative chance is not denied. It is quite conceivable that several independent causal series may have a chance encounter at a given point or moment and thereby produce a fortuitous event. While each series as such is causally determined, the intersecting of the different lines of causation is purely coincidental in that it is without a cause save only the pervasive causality of an all-knowing Mind or Providence which as such constitutes and acts as a First Cause. (85)

The concluding remarks in the above text are deceptive, for it is certainly true that the intersecting of the different lines of causation is accidental, and has no per se cause except Divine Providence. But seen in this way, contingency is only a kind of collision of agent causes, in abstraction from what permits such a collision. This must be distinguished from the contingency of that which is the effect of an accidental cause. What is neglected in such

85. K.F. Reinhardt, A Realistic Philosophy, p. 68
an analysis is the indetermination of matter, the passive principle to which the effect of chance is due. If we speak only of agent causes, or rather, as in the above text, of causally determined series, there can be no question of an undetermined result, and the intersection can no longer be called accidental. The denial of absolute chance is the denial of contingency in the strict sense, and the affirmation of a complete determinism in nature.

It will not then be necessary to attribute immediately to the universal causality of the First Cause, the coming to be of accidental events; for such a view posits a created per se cause of the casual effect, which would be nothing other than the causally determined series. Those who maintain such a position, project into reality, what can be only in the mind; because a thing can have a per se unity in the mind is no reason to affirm that it must have a per se unity in reality.

Let us recall, then, that in virtue of the positive indetermination of the intellect and will, that which is fortuitous can be the object of a per se intention in a superior cause. The master, for example, can be the per se cause that two of his servants meet, while in regard to the servants and their intention, the meeting is fortuitous. Thus, a created cause can sometimes be the per se cause of
a fortuitous encounter. Nature, however, cannot be a remote cause of that which is, in itself, casual, because nature is an intrinsic principle, determinatum ad unum:

Non enim aliquis eventus amittit rationem fortuiti nisi redueatur in causam per se. Virtus autem caelestis corporis est causa agens, non per modum intellectus et electio­nitis, sed per modum naturae. Naturae autem est propriis tendere ad unum. Si ergo ali­quis effectus non est unus, non potest per se causa eius aliqua virtus naturalis. Cum autem aliqua duo sibi per accidentem coniungi­tur, non sunt vere unum, sed solum per acci­dens. Unde huius coniunctionis nulla causa naturalis per se causa potest. (86)

Nature is not a rational potency that is "ad utrumlibet", in regard to its effects. For this reason, the chance event as such is not extrinsically contingent, for extrinsic con­tingency is defined in terms of the positive indetermination of the rational potency, which is at liberty to determine it­self to either of two contraries. But it should not be thought that, in distinction from the casual effect, what is fortuitous

86. St. Thomas, Contra Gentes III, c. 92; (Italics ours)

In I Periherm., lect. XIV, n. 14: "Simmiliter nec in aliiis cor­poralibus effectibus rerum corruptibilium, in quibus multa per accidentes eveniunt. Id autem quod est per accidents non potest reduci ut in causam per se aliquam virtutem naturalem, quia virtus naturae se habet ad unum; quod autem est per ac­cidens non est unum; unde et supra dictum est quod haece enumoiatric non est una, Socrates est albus musicus, quis non significat unum. Et ideo Philosophus dicit in libro De Sonno et vigilia quod multa, quorum signa praexistant in corpori­bus caelestibus, puta in imbris et tempestatibus, non eveniunt, quia scilicet impedientur per accidentes."
always has some created per se cause, as in the example of the master and the two servants. It is necessary here to distinguish between the deliberate agent acting freely, according to a positive indetermination, and as a limited, finite cause, who is unable to insure absolutely the existence of the intended end. According to the first mode of operation, which springs from a perfection of the cause participating in the perfect liberty of the First Cause, any effects are contingent extrinsically. But since every created cause is also limited, in so far as it is, in some measure, potential, the possibility of effects that are not intended is always present. The reason for this is that a created cause does not cause the very existence of its effects; being is per se an effect of God alone. It follows that there can be fortune even among the angels, for they too, are limited causes, and do not dominate perfectly everything that can happen to what they intend. In this way, an end-like effect, that is unintended and rare, is intrinsically contingent, since it is the intrinsic imperfection of the cause, and not intellect and will, that is responsible; note, that to the extent a thing is subject to reason it is not accidental:

Et licet ea tantum agent a fortuna, quae habent intellectum, tamen quanto aliquid magis subiacet intellectui, tanto minus subiacet fortunae. (37)

37. St. Thomas, In II Phys., lect. VIII, n. 10
Of purely fortuitous events, only God can be the per se cause, just as only He can be the per se cause of what is casual in nature. Indeed, the necessary and the contingent divide being as such; but God alone is the cause of being as such; therefore, only God can dominate all contingency:

Rursumque, virtus humanae animae, vel etiam angelii, est particularis in comparatione ad virtutem divinam, quae quidem est universalis respectu omnium entium. Sic igitur aliquod bonum accidere potest homini et praeter propriae intentione et praeter inclinationem caelestium corporum; et praeter angelorum illuminatem, non autem praeter divinam providentiam, quae est gubernativa, sicut et factiva, entis inquantum est ens, unde oportet quod omnis sub se continet. Sic ergo aliquid fortuitum bonum vel malum potest contingere homini et per comparationem ad ipsum; et per comparationem ad caelestia corpora; et per comparationem ad angelos; non autem per comparationem ad Deum. Nam per comparationem ad ipsum, non solus in rebus humanis, sed nec in aliqua re potest esse aliquid casuale et improvisum. (38)

Because God is the per se cause of being as such, nothing can escape His infallible providence; no created cause can be an absolutely universal cause of this kind. But this is precisely what the authors who deny intrinsic contingency require, when they speak of a necessity de facto predicable of natural effects. St. Thomas states

38. St. Thomas, Contra Gentes, III, c. 92
in more than one place that the comprimal of the whole
order of causes in nature does not make the coming to
be of natural things absolutely necessary. Yet this is
the repeated assertion of modern scholastic writers who
seem to obtain a necessary cause by the addition of con-
tingent ones:

This bird's falling from its nest today is an
event towards which no nature tended of itself ...
These singular events, whether they belong
to the category of events of nature or to that
of events of pure chance, are determined by
their antecedents (which antecedents are simi-
larly determined) according to combinations of
indefinitely complicated sets of historical

39. Contra Gentes, III, c. 86: "Ex multis contin-
gentibus non potest fieri unum necessarium: quis, sicut
quodlibet contingentium per se deficeret potest ab effectu,
ita et omnis simul."; In I Periherm., lect. XIV, n. 10:
"Hoc igitur quidam attendantes posuerunt quod potentia,
quae est in ipsis naturalibus, sortitur necessitatem ex
eliquis cause determinata ad unum quam dixerunt fatum.
Quorum Stoici posuerunt fatum in quaedam serie, seu con-
nexione causarum, supponentes quod omne quod in hoc mundo
accidit habet causam; causam autem positas, necessa est
effectum ponit. Et si una cause per se non sufficit,
multae causae ad hoc concurrentes acquirunt rationem
unius cause sufficientis; et ita conludebant quod omnia
ex necessitate eveniunt. Sed hanc rationem solvit Aris-
toteles in VI Metaphysicæ..."; In VI Metaphys., lect.
III, un. 1212, 16: "Quamvis igitur multa, quæ videntur
esse per accidens reducendo ipsam ad causas particulares,
inveniantur non esse per accidens reducendo ipsa ad causam
communem universalem, soliciet virtutem celestem, tamen
etiam hoc reductione facta, inveniuntur esse aliquas per
accidens, sicut superius est habitum a Philosopho...
Relinquitur igitur quod omnia, quæ hic fluunt, prout ad
primam causam divinam referuntur, inveniuntur ordinata et
non per accidens existere; licet per comparationem ad alias
causas per accidens esse inveniantur..."
events that inter-cross in the course of time. ... These events, on the supposition of all their antecedents, were necessitated by them; but the antecedents themselves, not having derived from a cause or an essential structure which by itself required them, could have been different from what they actually were; consequently, they remain contingent; they are never anything but facts. (90)

It is plain that the only contingency of which it is a question here is extrinsic; for the author states that once the antecedents are supposed, that is, placed in existence by the Creator, the effects follow necessarily. This type of contingency, as has been explained, is predictable of every creature from the fact that any might not have existed, since each depends on the Divine liberty and is a product of it. That it is only this extrinsic contingency in question is clear from the assertion, "But the antecedents themselves, not having derived from a cause or an essential structure which by itself required them could have been different from what they actually were." Moreover, the statement, "In short these events were infallibly predetermined in the constellation and the history of all the factors that were posited in the beginning," is unmistakeable.

90. J. Maritain, Reflections on Necessity and Contingency, pp. 29-30
91. ibid., p. 30
But the necessary cause of all the future events, whether this cause is supposed to be the sum total of the historical antecedents, or the initial constellation of things posited at the outset, or a combination of both - cannot be simply a necessary cause of just any kind; it would have to be one that causes the very being itself of its effects. Otherwise it would not dominate all contingency, because necessity and contingency are accidents of being as such.

It should be observed also that God does not know future contingent events simply because they are present to Him in His eternal science of the vision; this would imply a passivity in God, as if the divine science depended on things in order to know them; it is rather because God is the infallible cause of these future contingents, and because His causality is measured by His eternity. Thus,

92. St. Thomas, *In VI Metaph.*, lect. III, nn. 1220-1222: "Sicut autem dictum est, ens inquantum ens est, habet causam ipsum Deum: unde sicut divinae providentiae subditur ipsum ens, ita etiam omnia accidentia entis inquantum est ens, inter quae sunt necessarium et contingens...Sic ergo patet, quod cum de divina providentia loquimur, non est dicendum solum, hoc est provisum a Deo ut sit, sed hoc est provisum a Deo, ut contingenter sit, vel ut necessariosit. Unde non sequitur secundum rationem Aristotelis hic inducunt, quod ex quo divina providentia est positia, quod omnes effectus sint necessarios; sed necessarium est effectus esse contingenter, vel de necessitate. Quod quidem est singularie in hac causa, sciiceat in divina providentia. Reliquae enim causae non constituant legem necessitatis vel contingentiae, sed constituta a superiori causa utuntur. Unde causaliitati cuiuslibet alterius causae subditur solum quod ejus effectus sit. Quod autem sit necessario vel contingenter, dependet ex causa altiori, quae est causa entis inquantum est ens; a qua ordo necessitatis et contingentiae in rebus provenit."
God knows future contingent events in the free eternal (93) 

degrees of His will. Hence, to overcome the essential 
indetermination of the potential principle in nature, 
knowledge alone is not sufficient. The only One who can 
know with absolute certitude all future contingencies is 

93. St. Thomas, Is, Q.16, a.7, ad tertium: "Dicendum, 
quod illud quod nunc est, ex eo futurum fuit antequam esset, 
quia in causa sua erat ut fieret. Unde, sublata causa, non 
esset futurum illud fieri. Sola autem causa praeuma est a-
terna. Unde ex hoc non sequitur quod ea quae sunt, semper 
 fuerit verum ea esse futura, nisi quatenus in causa semi-
terna fuit ut essent futura. Quae quidem causa solus Deus 
est." — John of St. Thomas, referring to this passage, 
adds: "Ita D. Thomas; sed Deus non est causa ut res illa 
fiat, nisi per decretum suae voluntatis, quia eo remoto 
solum res manent pure possibiles; ergo res ut futurae non 
cognoscuntur a Deo, nisi in causa talis futuritionis quae 
est sus voluntas: per hanc enim discernuntur a statu 
purae possibilitatis:" — Curs. Theol., T.II, p.414a36; ibid., 
p.419a 21-b22: "Ex his colliges quomodo verum sit quod S. 
Thomas dixit in hac quæstione [Is, Q.XIV, a.9 ad 1], expli-
cans dictum Origenis, quod ((non propter aliquid erit quia 
Deus scit futurum)); Quod D. Thomas explicat de scientia 
nude considerata ut non habet rationem causalitatis ex ad-
juncta voluntate. Quando vero dicit ((praescire Deum aliquis, 
quia sunt futura)), intelligitur secundum rationem consequen-
se; sequitur enim si aliquis sunt futura, quod Deus ea praes-
cit; non tamen secundum rationem essendi, quia res futurae 
non sunt causa quod Deus ea sciat. Haec enim doctrina ex 
dictis optime explicatur; quia scilicet posito decreto seu 
voluntate Dei, ills est causa quod res sit futura, et quod 
cognoscatur a Deo ut futura: quia sic scientia cum decreto 
habet rationem causalitatis, ut aliquid sit futurum. Non 
tamen intelligi potest, quod futurum ante omnum voluntatem 
Dei sit causa ut sciatur a Deo tamquam futurum; quia nihil 
est futurum determinatum ante causalitatem voluntatis Dei. 
Quam tamen doctrinam S. Thomae non possunt sustinere qui 
ponunt futura esse determinata ante omnem voluntatem Dei, 
et ideo praesciri a Deo quia sunt futura seu supponuntur 
futura."
the Universal Cause of these future events according to their whole being. God causes such things to be, and to be contingently. And it is because of the complete universality of divine providence, that what is in itself fortuitous, can be ordered by God for man’s benefit; thus it is, most of all, that we can speak of good fortune.

Moreover, in regard to nature, unless nature itself is intellect and omnipotent, there cannot be within nature, a per se cause of what is accidental. Nevertheless, chance can contribute to finality by compensating in a way, for the insufficient determination of natural causes. For if natural causes were always successful, thus removing the possibility of accidental effects, many good things in nature would be prevented from coming to be; the reason for this is that a natural cause is restricted by its very determination to effects that do not exhaust the capacity of universal nature and of matter. Just as the deliberate

94. St. Thomas, In VI Metaphys. lect. III, n. 1220: "Ens inquantum ens est, habet causam ipsum Deum; unde sicut divinae providentiae subditur ipsam ens, ita etiam omnia accidentia entis inquantum est ens, inter quas sunt necessarium et contingens. Ad divinam igitur providentiam pertinent non solum quod facit hoc ens, sed det ei contingentiam vel necessitatem. Secundum enim quod unicuique dare voluit contingentiam vel necessitatem, praeparavit ei causas medias, ex quibus de necessitate sequatur, vel contingenter;" see also, Is. Q. 22, a. 4; C. D. De Ver., Q. 23, a. 5; Contra Gentes I, c. 67; In I Periherm., lect. XIV, nn. 16-23; and, Contra Gentes II, c. 30
acts of man may bring about effects that are rare and
unintended, and yet fortunate and fruitful, so too, matter
has capacities that the First Cause of all nature can bring
to fruition for the increase of perfection in the universe.
And it is in this way, owing to chance effects, of which God
alone is the per se cause, that some natural ends become
determinately possible, and, as parts of an orderly whole,
reflect the infinite wisdom of the Creator.

But to attempt to explain intrinsic contingency - most
properly found in the purely casual event - by seeking with-
in the universe for a per se cause of what is accidental,
is to attribute to creatures, a universal causality that be-
longs only to God. Thus is it said in the Book of Ecclesi-
astes that, "Under the Sun the race is not to the swift,
nor the battle to the strong, nor bread to the wise, nor
riches to the skillful: but time and chance are in all...

95. St. Thomas, Contra Gentes III, c.74: "Ad perfec-
tionem autem rerum requiritur quod non solum sint in rebus
entia per se, sed etiam entia per accidentia: res enim quae
non habent in sua substantia ultimam perfectionem, oportet
quod perfectionem aliquam consequantur per accidentia...
Oportet igitur ad perfectionem rerum quod sint etiam causa
quaedam per accidentem... Non est igitur contra rationem pro-
videntiae, quae perfectionem rerum conservat, ut aliqua
fiunt a casu vel fortuna."
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