

## CHAPTER VII

### THE COMPOSED AND DIVIDED SENSES OF THE MODAL ENUNCIATION

An additional problem to be discussed is that of composite and divided modals. The distinction is a legitimate one; it is made by St. Thomas and there is also foundation for it in Aristotle. However, the problem arises, rather, from a distinction of the modal enunciation made by some authors into two systems of modals with different definitions and properties. In the preceding chapters, no such distinction was made, since the teaching followed was that of Aristotle, St. Albert, and Cajetan in the Perihermeneias. The purpose of this chapter is to expose the errors resulting from a misunderstanding of this distinction as well as to explain briefly its correct understanding.

#### Erroneous Opinions

In the Summulae found in the volume of logic by John of St. Thomas, the author says there are two ways in which the mode can effect a proposition, thus accounting for the composed and the divided modal.

Modalis composita est, in qua modus se habet ut praedicatum et ipsum dictum ut subjectum, ut si dicas: "Petrum disputare est possibile." Modalis divisa est, in qua modus adverbialiter sumptus fertur in copulam, ut "Petrus possibiliter disputat."<sup>1</sup>

The composed modal, in which the mode is predicated of the dictum, corresponds to the modal treated in the preceding chapters. The divided modal, in which the mode is an adverb affecting the copula, has not been treated heretofore if, indeed, it differs from the composed modal.

These two forms of the modal enunciation give rise to two senses.

Et isti sensus consistunt in hoc, quod in sensu composito significatur ipsa simultas et unio duplicis formae in uno subjecto; in sensu autem diviso significatur unio seu convenientia duplicis formae in subjecto non simul, sed successive seu una excludente aliam, hoc enim est divisive.<sup>2</sup>

Thus the composed sense implies the simultaneous presence of two forms in one subject; the divided sense, their successive presence. The composed sense, the author says, is signified by a composite modal in which the mode is predicated of the whole dictum, for this modal signifies the simultaneous union of subject and predicate. The divided sense is signified by the divided modal in which

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<sup>1</sup>Curs. Phil., I, p. 48 b.

<sup>2</sup>Ibid.

the mode only affects the copula and thus denotes that the mode belongs to the subject. For example, sedentem stare est possibile signifies in the composed sense and means that the union of sitting and standing is possible. Sedens possibiliter stat, however, signifies in the divided sense and means that the sitter has the power to stand, although he cannot stand at the same time he is sitting.<sup>1</sup>

In a subsequent paragraph, the same author asserts that in divided modals the quantity is determined in the same way as the quantity of a de inesse enunciation:

Si dicas: "Omnis homo possibiliter currit," ly  
omnis distribuit simpliciter.<sup>2</sup>

Such a property is not compatible with the quantity of the modal already discussed.<sup>3</sup> It must be concluded, therefore, that the divided modal described by the author of the Summulae is not really a modal enunciation at all.

Exactly the opposite opinion is espoused by the Scotist, Peter Tataretus: only the divided modals are truly modals. The enunciation in which the mode is predicate of subject is not properly a modal, but is

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<sup>1</sup>Ibid., pp. 48 b-49 a.

<sup>2</sup>Ibid., p. 49 b.

<sup>3</sup>Supra, chap. vi.

really a de inesse enunciation, e.g., possibile est  
Sortem currere. In the divided modal, the mode is a  
determination of the copula, e.g., hoc possibiliter  
est currere.

Et adverte, quod in propositionibus modalibus  
compositis illud verbum, est, sine determinatione  
dicitur copula; sed in divisiis semper sumitur cum  
determinatione: ut quando modus tenetur adverbialiter:  
tunc, est, dicitur esse copula totalis, et modus  
determinatio, et non est pars copulae: ut Sortes  
possibiliter currit. Sed quando modus tenetur no-  
minaliter, tunc aggregatum ex isto verbo, est,  
est isto infinitivo, esse, explicite, vel impli-  
cite dicitur esse copula totalis.<sup>1</sup>

His point is that in possibile est Sortem currere there  
are two verbs; hence, est is not the whole verb. In  
hoc possibiliter est currere, est is the whole verb and  
is truly affected by the mode, which is an adverb.

The two foregoing opinions take the composed and  
divided senses in a purely grammatical way. As was said  
above,<sup>2</sup> the modal enunciation is indifferent to the gram-  
matical form in which it is expressed; it is essential  
only that the mode qualify the composition of the dictum.  
Its definition is enunciatio dicti modificativa.<sup>3</sup> It can  
be expressed with one verb, Socrates currit contingenter.

<sup>1</sup>In Summulas Petri Hispani Exactae Explicationes, p. 27 E.

<sup>2</sup>Chap., II, p. 24.

<sup>3</sup>Cajetanus, In Periherm., Lib. II, lect. 8, n. 4.

or with two, Secratem currere est contingens, Contingit  
Secratem currere--there is no difference in meaning.

The preceding enunciations differ neither in what they signify nor in their logical mode of signification, but only in their grammatical mode of signification. In each, the esse of the dictum is qualified as contingent. The distinction of divided and composed modals, therefore, is not on the part of the grammatical arrangement of words. Furthermore, there is no difference between a modification of the copula and a modification of the whole dictum, for the copula is the very sign of the composition of the dictum. It is this composition, the esse or non esse signified by the verb of the dictum, which is qualified by the mode.

It is true that some examples of the divided sense imply a succession of forms in a subject, but such succession is not essential to the divided sense. The proposition, Voluntatem efficaciter motam dissentire est possibile, is true in the divided sense, not because of a succession of forms or acts but because of a simultaneity on the part of the potency. More than one act cannot determine the will at one time, but, granted one act, the will considered as separate from that determination (i.e.,

considered in the divided sense) is in potency to the opposite act. Absolutely speaking, the will can be reduced to the opposite act; although on the supposition that it is already determined to one act, it cannot at the same time be determined to the opposite act. The distinction between the composed and divided senses, therefore, is not essentially that of simultaneity of acts opposed to succession of acts, but simultaneity of acts opposed to simultaneity of potency.<sup>1</sup>

Both in the Summa<sup>2</sup> and in the De Veritate<sup>3</sup> St. Thomas answers the following objection: the distinction of composed and divided senses is valid only in reference to forms which can be in a subject successively, e.g., as blackness and whiteness; but it is impossible that something be at one time known by God and, at another, unknown; therefore, Omne scitum a Deo esse est necesse cannot be distinguished according to the two senses, but must be taken to mean that the thing known is necessary. His answer is that the objection would be correct if scitum implied a disposition inhering in the subject. However, scitum implies rather an act of the knower.

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<sup>1</sup>Cf. Joan. a Sto Thoma, Curs. Theol., disp. 25, a. 6, n. 50, ed. Solesm., III, p. 239.

<sup>2</sup>Ia, q. 14, a. 3 ad 3.

<sup>3</sup>Q. 2, a. 12 ad 4.

Consequently, the thing known can have attributes that belong to it as it is in itself, but which do not belong to it as it is in the state of being known; just as material existence is attributed to a stone taken in itself, but not insofar as it is intelligible. He says, furthermore, that a thing is referred to divine knowledge in its state of being present, but "being present" is not always an attribute of the thing.

Quamvis scientia Dei invariabilis sit, et semper eodem modo, tamen dispositio secundum quam res refertur ad Dei cognitionem invariabilem, non semper eodem modo se habet ad ipsam: refertur enim res ad Dei cognitionem secundum quod est in sua praesentialitate: praesentialitas autem rei non semper ei convenit; unde res potest accipi cum tali dispositione, vel sine ea; et sic per consequens potest accipi alio modo quo refertur ad Dei cognitionem, vel alio modo; et secundum hoc praedicta distinctio procedit.<sup>1</sup>

The distinction of the composed and divided senses, accordingly, is founded, not on a succession of forms, but on different ways of considering the subject.

#### Explanation of the Distinction

One and the same enunciation can be considered in both senses. Album esse nigrum est possibile is true in the divided sense and false in the composed sense. The difference lies in how the subject is taken. In the composed sense,

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<sup>1</sup>De Veritate, q. 2, a. 12 ad 4.

the meaning is Album ut album esse nigrum est possibile. In the divided sense, Id quod est album esse nigrum est possibile. In the first enunciation, album is taken for what it formally is, i.e., as having the form of whiteness. Since whiteness cannot become blackness, the mode of possibility cannot be predicated of the dictum. But in the second, album is taken for the subject which receives the form of whiteness. Since such a subject can also receive the form of blackness, the mode of possibility can be predicated of the dictum taken in this sense.<sup>1</sup>

These two ways of considering the subject are differences in its supposition. Supposition is the taking of a term for that of which it is verified. If a term is taken for what it signifies primarily and immediately, it is said "to suppose" simply, e.g., "Man is a species." But terms are not only taken for what they signify formally and primarily, but also for that in which the primary signification is found. "Man" signifies human nature primarily and immediately, but mediately it signifies the individuals in

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<sup>1</sup> St. Albert, in clarifying the distinction between the composed and divided senses, points out that the composed sense signifies that the predicate is actually in the subject, not that the predicate is in that which can be in the subject. His example is Posse non scribentem scribere. "Non est verum quod in sensu compositionis non significet aliud quam quod praedicatum dicti possit inesse subjecto: significatur enim quod praedicatum dicti actualiter insit subjecto, quod est non scribentem; et hoc est possibile." Liber I Elenchorum, ed. Borgnet, II, p. 548.

which that nature is found. This second kind of supposition is called personal supposition, and is defined as the taking of a term for individuals or for that which is signified materially and mediately, e.g., "Every man is an animal" is true of individuals or persons.<sup>1</sup>

In the composed sense, album is taken according to simple supposition, i.e., according to its primary, formal, and immediate signification. In the divided sense, album is taken according to personal supposition, i.e., materially and according to the supposit in which it is found. Likewise, in Omne scitum a Deo esse est necesse, if scitum supposes simply, i.e., ut scitum, the composition of scitum a Deo and esse is necessary; but if scitum supposes only materially (personally), the composition of id quod est scitum and esse is not necessary. St. Albert explicitly says, in treating one kind of modal proposition,

Quia sumpta in sensu compositionis termini in ea (affirmativa de necessario) sumpti supponunt simpliciter.<sup>2</sup>

Simple supposition always involves another property of propositions, called appellation. Appellation is the application of something formally signified to something

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<sup>1</sup>Joan. a Sto Thoma, Curs. Phil., I, pp. 29 a, 31 b, 32 a.

<sup>2</sup>Priore, I, p. 572 a.

else formally signified, e.g., in "Peter is a great logician," "great" modifies "Peter" as logician, but not absolutely as Peter. The application of something formal to something material would not be appellation, but simple application or predication. John of St. Thomas says,

Unde appellatio inducit hunc effectum, quod terminus appellans non absolute conveniat subjecto, sed ratione ejus, super quod appellat, et quasi alligatus illi formalitati, media qua subjecto applicatur; sicut in dicta propositione ly magnus non absolute convenit Petro, sed ratione Logicae.<sup>1</sup>

Thus nigrum can be predicated of a subject, but not if that subject is under the appellation of album. In the other example, esse is necessarily predicated of the subject of the dictum, if the subject is under the appellation of scitum a Deo; but if the subject be taken materially and not as formally signified by scitum, there is no appellation, the supposition is personal, and the proposition is false.<sup>2</sup> The Perihermeneias offers a parallel in treating the inference Caesar est homo mortuus. ergo est homo. Cajetan says,

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<sup>1</sup>Curs. Phil., I, p. 40 a.

<sup>2</sup>For an explicit example of a paralogism due to variation of appellation see Joan. a Sto Thoma, Curs. Theol., "De Angelis," disp. 23, a. 2, nn. 33, 34, where a fallacy is made by a failure to take potentia according to its proper formality of tending toward its object.

Aliud est loqui de duobus terminis secundum se, et aliud de eis ut unum stat sub determinatione alterius. . . . Secundo modo, homo et mortuus, non opponuntur, quia homo transmutatus iam per determinationem corruptivam importatam in ly mortuus, non stat pro suo significato secundum se, sed secundum exigentiam termini additi, a quo suum significatum distractum est.<sup>1</sup>

In the third part of the Summa, St. Thomas inquires whether this proposition is true: Homo factus est Deus.<sup>2</sup> One way of understanding the proposition is similar in form to a modal proposition: if the factus is taken as a mode which determines the composition. It would then be stated, Hominem esse Deum factum est.<sup>3</sup> In this sense, homo would have to have a simple supposition, because it is not true to say "This man became God," since the person of the Son of God was God from all eternity.

. . . . homo non habeat personalem suppositionem, sed simplicem. Licet enim hic homo non sit factus Deus, quia hoc suppositum, persona Filii Dei, ab aeterno fuit Deus: tamen homo, communiter loquendo, non semper fuit Deus.<sup>4</sup>

Thus, if the subject is taken formally (simple supposition) for human nature, the proposition is in a composed sense

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<sup>1</sup>Lib. II, lect. 7, n. 4.

<sup>2</sup>q. 16, a. 7 corp.

<sup>3</sup>Ibid., comment. Cajetani, n. II.

<sup>4</sup>S. Thomas, ibid.

and in true. But if the subject is taken materially (personal suppositum) for the suppositum, the proposition is in a divided sense and is false.<sup>1</sup> Again, in the ninth article of the same question à propos of the proposition, Ille homo demonstrato Christo, incoeperit esse, St. Thomas says that the proposition is simpliciter false, because ille homo designates an eternal suppositum. Cajetan explains,

Fundatur processus litterae super hoc, quod, quia tenetur materialiter pro supposito, ideo oportet attributum supposito non repugnare supposito, nec sufficit non repugnare naturae seu formae.<sup>2</sup>

A further observation can now be made: that whenever a modal proposition is capable of being understood in both the composed and divided senses, the subject of the dictum is something apart from the essence of the suppositum. A suppositum cannot be denominated by two opposed forms at the same time, but since neither is an essential predicate, the suppositum can be considered either according to its own nature or as denominated such or such. St. Thomas explains this when treating the question of predestination:

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<sup>1</sup>Cf. ibid., ad 4.

<sup>2</sup>N. IV.

Nigredo et albedo sunt quaedam formae existentes in subjecto, quod dicitur album et nigrum; et ideo non potest aliquid attribui subjecto nec secundum potentiam nec secundum actum, quod repugnet formae praedictae, quamdiu in subjecto manet; sed praedestinatio non est forma existens in praedestinato, sed in praedestinante, sicut et scitum denominatur a scientia quae est in sciente; et ideo quantumcumque immobiliter sit sub ordine scientiae, tamen potest aliquid attribui ei considerando suam naturam, etiamsi repugnet ordini praedestinationis; hoc enim modo praedestinatio est aliquid praeter ipsum hominem qui dicitur praedestinatus, sicut nigredo est aliquid praeter essentiam corvi, quamvis non sit aliquid extra corvum; considerando autem tantummodo essentiam corvi, potest ei aliquid attribui quod repugnet nigredini ejus; secundum quem modum dicit Porphyrius (in Praedicam., cap. de accidentibus), quod potest intelligi corvus albus. Et ita etiam in proposito potest ipsi homini praedestinato attribui aliquid secundum se considerato, quod non attribuitur ei secundum quod intelligitur stare sub praedestinatione.<sup>1</sup>

The denomination can be from something extrinsic to the supposit, e.g., praedestinatum or scitum, or from a form inhering in the supposit, e.g., album. Cajetan, in his commentary on the Perihermeneias, points out that opposites can be taken in two ways: formally or according to what they signify, and denominatively or subjectively, e.g., "father" and "son" can be taken for paternity and sonship or for him who is denominated father or son.

Dicendum ergo est quod, licet ad omnia opposita seu distincta contradictio sequatur inter se formaliter sumpta, non tamen ad omnia opposita sequitur contradictio inter ipsa denominative sumpta.<sup>2</sup>

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<sup>1</sup>De Veritate, q. 6, a. 3 ad 8.

<sup>2</sup>Lib. II, lect. 7, n. 5.

A denominative term implies three things: the denominating form, the thing denominated, and the denominative name itself. For example, a man is the thing denominated by the denominative name, "white," from the denominating form, "whiteness." "White" and "whiteness" do not differ in what they formally signify, but in their mode of signification.<sup>1</sup> "White" is a concrete term and signifies something as a quod. "Whiteness" is abstract and signifies something as a quo. The concrete term includes its subject, and, therefore, is capable of a twofold supposition, i.e., simple and personal.

The modal enunciations cited from St. Thomas, scitum a Deo esse est necessarium, Album esse nigrum est possibile, with his explanations are sufficient proof that one and the same enunciation can be taken in both the composed and divided senses and that the difference between the two senses is founded on the supposition of the subject of the dictum. Taken in either sense, the nature of the modal enunciation remains the same: the mode always qualifies the esse or non esse of the composition of the dictum. In answer to an objection that the definition of the modal enunciation implied in the Perihermeneias

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<sup>1</sup> Cajetanus, Commentaria in Praedicamenta Aristotelis, ed. Laurent (Rome: 1939), pp. 15, 16.

is true only of composed modals and that all divided modals would be false, St. Albert explicitly says,

Dicendum quod hoc non sequitur in praedicato quod non ut esse, sed ut modus praedicatur: quia quod ut modus praedicatur, non praedicatur ut modus sui, sed aliorum: et ideo ad alia potest referri, vel sub divisione, vel sub compositione, sicut patet cuilibet parum consideranti.<sup>1</sup>

It must also be insisted that the properties of the modal remain the same in both its senses. The mode must be negated to form the contradictory of an affirmative modal; the equipollents are therefore the same; and the enunciation is quantified simpliciter by the mode which distributes the esse of the dictum according to the parts of time.

An objection, however, might be raised from the fact that St. Thomas speaks of the composed sense de dicto and the divided sense de re.

Omne scitum a Deo necessarium est esse, consuevit distingui. Quia potest esse de re, vel de dicto. Si intelligatur de re, est divisa et falsa; et est sensus: Omnis res quam Deus scit, est necessaria. Vel potest intelligi de dicto, et sic est composita et vera; et est sensus: Hoc dictum, scitum a Deo esse, est necessarium.<sup>2</sup>

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<sup>1</sup>Periherm., I, p. 442.

<sup>2</sup>Ia, q. 14, a. 13 ad 3; cf., I Sent., dist. XXXVIII, q. 1, a. 5 ad 5, ed. Mandonnet (Paris: 1929), I, p. 914.

The objection appears to be strengthened by the fact that he explains the divided sense with a de inesse enunciation which puts the necessity in the thing. Moreover, in the Summa Totius Logice,<sup>1</sup> a work falsely attributed to St. Thomas, the author distinguished modales de re from modales de dicto. However, the distinction made in this latter work is of no value, because it is a merely grammatical one: Socratem currere est necessarium is a modal de dicto; Socratem necessarium est currere is a modal de re. The two propositions are identical. Although this explanation of the modals de re and de dicto is inaccurate, the text from the Summa is not affected, because there the two senses really differ from each other.

The solution must be sought in the elements which are composed in the dictum. In the composed sense, the subject and predicate of the dictum are taken as one; two forms are united and are qualified by the mode predicated of the dictum. The enunciation is, therefore, said to be de dicto. But in the divided sense, the form of the subject is left aside and only the thing or supposit, which is denominated by the form of the subject, is united to the predicate. The form of the predicate is thus joined directly

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<sup>1</sup>Opuscula Omnia, ed. Mandennet, V, p. 93.

to the subject taken materially. The mode qualifying this composition is rightly said to be de re, because it does not qualify the composition of the dictum according as the predicate is united to the subject standing under its appellation, but it qualifies the composition according as the predicate is united to the res which is the subject taken materially. That St. Thomas explains the meaning of the modal de re with a de inesse enunciation makes no difference, since every modal enunciation can be reduced to a de inesse enunciation.<sup>1</sup>

#### The Modal Proposition in the Prior Analytics

In the Prior Analytics, the composed and divided senses of modal propositions are important for the generation of valid syllogisms. St. Albert, following Aristotle,<sup>2</sup> says that "to be contingent" can be taken in two ways:

Aut enim dicitur contingere id quod actualiter inest subjecto: aut dicitur hoc contingere cui subjectum contingit inesse.<sup>3</sup>

The predicate A can belong contingently to the subject B in either of two senses. Either it is contingent that A belong to that which is B according as B is actually inhering in that which is B; or it is contingent that A

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<sup>1</sup> Cf. St. Thomas, Contra Gentiles, Lib. I, cap. 67 in fine and comment. Ferrariensis, n. XXI.

<sup>2</sup> Prior Analytics, Bk. I, chap. xiii, 32 b 24-38.

<sup>3</sup> Priora, I, p. 540 b.

belong to that which is B, not actually, but only contingently, for what is contingently B does not imply being actually B. A is predicated of all of B either secundum inesse or secundum contingere inesse.

When both premises in a syllogism are contingent, they are taken according to contingere inesse, e.g., B is said contingently of that of which C is said contingently, and A is said contingently of that of which B is said contingently--or stated otherwise:

It is contingent that that which contingently is B be A.  
It is contingent that that which contingently is C be B.

The sense is that of a divided modal where the mode affects the composition of the subject materially taken and the predicate.

But when a syllogism is constructed from one contingent premise and one de inesse premise, the contingent is taken in the sense that A is said contingently of that of which B is actually predicated. This is secundum inesse and in the composed sense, i.e., the predicate of the dictum is contingently united to the subject formally taken.<sup>1</sup>

In another passage where there is question of a syllogism in which the minor is contingent and the major necessary or de inesse, St. Albert again says that, unless

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<sup>1</sup> Cf. ibid., pp. 540 b-541 a.

the contingent is taken in the composed sense, a necessary or de inesse conclusion cannot follow. The reason is that a universal necessary affirmative affirms a predicate only of that which is actually contained under the medium which is the subject of the major premise. The predicate is not affirmed of what is contingently contained in the subject. Omnis homo de necessitate est animal does not mean "whatever can be man is an animal," but it means "whatever is man is an animal." If the minor is contingent in the divided sense, there is no actual affirmation of whatever is contingently contained in the medium.

*Et ideo non sequitur conclusio de necessario affirmativa neque de inesse, nisi sumatur illa de contingenti in sensu compositionis: quia in utraque actualiter affirmatur praedicatum de subiecto.<sup>1</sup>*

Since it is not germane to this paper on the modal enunciation to treat the generation of syllogisms, the preceding passages have been cited only to substantiate from the Prior Analytics what was said above about the composed and divided senses. The passages also serve to indicate, contrary to the opinions of Scotus and Ockham as well as some modern historians, that there are not two complete systems of syllogisms generated from composed

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<sup>1</sup>Ibid., pp. 571 b-572 a.

and divided modals. Rather, in some combinations, the modals must be taken in the composed sense; in others, in the divided sense. Syllogisms are generated according to the dici de omni and the dici de nullo, and not according to a mechanical arrangement of terms and propositions.

The composed and divided senses are not limited to modal propositions. A detailed treatment of other fallacies of composition and division can be found in St. Albert on the Sophistics.<sup>1</sup>

The distinction of the composed and divided senses is of great importance in theology, as the foregoing quotations from the Summa and the De Veritate show. It is used in the solutions to problems such as the divine knowledge of future contingents, the necessity imposed on contingent beings by the divine will, the certitude of predestination, the operation of efficacious grace, and the freedom of negatively indeliberate acts.

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<sup>1</sup>Elenchorum, II, pp. 545 a-551 a.

## APPENDIX

In an article entitled "Notes Historiques sur les Propositions Modales,"<sup>1</sup> I. M. Bochenski O. P., sets himself the task of giving

. . . un aperçu rapide sur l'histoire de la logique formelle des propositions modales depuis Aristote jusqu'à Ockham.

Most of the article merely narrates what, according to Father Bochenski, Aristotle, Theophrastus, the Stoics, the Arabs, etc., thought on the subject. There would be no point in taking up the article author by author. But it is principally in his treatment of Aristotle, that the author gives evidence of having grasped neither the doctrine on the nature and properties of the modal proposition nor what the text of Aristotle actually says. The doctrine has been treated in the body of this thesis. It remains, however, to show from the words of Aristotle himself that Father Bochenski is not giving a true history of what Aristotle said.

First of all, Father Bochenski "to avoid misunderstandings" arbitrarily assigns only one sense to the word "contingent."

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<sup>1</sup>Revue des Sciences Philosophiques et Théologiques, XXVI (1937), pp. 673-692.

Pour éviter les malentendus, nous emploierons toujours le mot possible au sens de non-impossible, en réservant le mot contingent pour la possibilité bilatérale, non nécessaire et non-impossible.

Having imposed his unique sense on the word, he then shows how confused Aristotle was because he uses the contingent in other meanings. Here, there will be cited, first, the text of Father Bochenski's article, and, secondly, the references to Aristotle which Father Bochenski himself makes in his footnotes. It will be useful to add a word here and there explaining in what sense "contingent" is being used. The commentary of St. Albert on the Priora is more or less indispensable to an understanding of Aristotle; there is no reason to be ashamed to have recourse to it. The quotation from Aristotle are all from the Latin text of the Priora given in the Opera Omnia Aristotelis which contains also the paraphrase by Sylvester Maurus.<sup>1</sup>

Le traité, ou plutôt les traités (car il y en a deux: De Interpretatione, cc. 12-13 et Analytica Priora, A cc. 3, 8-22) des propositions modales d'Aristote sont peut-être l'œuvre la plus géniale, mais en même temps la plus difficilement intelligible que nous connaissions dans l'histoire de la logique. On sait qu'Aristote complétait ses notes peu à peu, sans les avoir jamais rédigées définitivement. Tous ses écrits et particulièrement ceux de l'Organon sont un amas mal ordonné de notices prises, corrigées et augmentées à l'occasion, peut-être durant de très longues

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<sup>1</sup>Ed. Ehrle (Paris, 1885), Vol. I, p. 98 ff.

années. Il fallut attendre le XIVe siècle pour y voir clair au point de vue systématique. Quant à l'aspect génétique du système, malgré les efforts de M. Paul Gohlke, nous sommes encore bien loin de l'avoir saisi.

Voici d'abord les thèses qui paraissent sûres. Le De Interpretatione comprend un tableau d'équivalences entre des propositions modales en  $\epsilon\nu\delta\epsilon\chi\omicron\mu\epsilon\nu\omicron\nu$ ,  $\delta\upsilon\nu\alpha\tau\omicron\nu$ ,  $\delta\upsilon\nu\alpha\tau\omicron\nu$  et  $\delta\upsilon\nu\alpha\nu\alpha\tau\omicron\nu$ . Il en ressort, que les deux premiers sont équivalents et ont exactement le sens de notre P. Par contre dans les Analytiques, le  $\delta\upsilon\nu\alpha\tau\omicron\nu$  n'apparaît presque jamais, et l' $\epsilon\nu\delta\epsilon\chi\omicron\mu\epsilon\nu\omicron\nu$  est défini, quoique d'une manière assez confuse, au sens du C.

Aristotele, Priora, A 13, 32 a 18 ff: Contingens id appello, quod cum sit necessarium, si ponatur esse, nihil inde sequitur impossibile.

This is the contingens non-necessarium.

Or, ceci implique des conséquences extrêmement graves et curieuses. D'abord, il est C que p équivaut à: il est C que non-p; p. ex.: s'il est contingent qu'il pleuve, il est contingent qu'il ne pleuve pas.

Aristotele, ibid., 32 a 30-33: Converti inquam, non affirmativas in negativas, sed quaecumque affirmativam figuram habent secundum oppositionem, ut haec, contingit inesse, mutatur in hanc contingit non inesse. . . .

This is the conversion to opposite qualities of the contingens non-necessarium.

On peut démontrer rigoureusement cette équivalence en partant des thèses de la logique propositionnelle et de la définition de C. En outre, Aristotele affirme qu'une proposition affirmative universelle C équivaut à une proposition négative C aux arguments isomorphes, et de même pour les propositions particulières.

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1"p" means possible, "C" means contingent.

Aristotle, *ibid.*, 32 a 34 ff.: . . . et haec, contingit omni, in hanc contingit nulli vel non omni contingit. Eodem modo et in aliis fit conversio. Cum enim contingens non sit necessarium, ac non necessarium possit non inesse, perspicuum est, si contingit a in b inesse, contingere etiam non inesse, et si omni contingit inesse, etiam omni contingere non inesse. Similis est ratio affirmationum in parte, quoniam eadem est demonstratio. Ejusmodi vero propositiones sunt attributivae, non privativae.

Agin, he speaking of the conversion of the conversion of the conversion to opposite qualities of the contingens non-necessarium.

De là une autre conséquence paradoxale: les propositions universelles négatives C ne peuvent être valablement converties;

Aristotle, *ibid.*, 3, 25 b 14 ff.: Quae vero eo quod plerumque eveniunt et ita natura sunt comparata, contingere dicuntur (quomodo definimus contingens) non similiter se habebunt in privativis conversionibus, sed propositio universalis privativa non convertitur.

The contingent here is the contingens natum, but the contingens infinitum can also be included, according to St. Albert.<sup>1</sup> In the preceding text, Aristotle denies conversion in terms to the universal negative in the natural contingent. In the paragraph before this one, he has just said that the negative propositions in the necessary contingent and the common contingent are converted in the same way as the de inesse propositions.

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<sup>1</sup>Priora, I, p. 482 a.

en effet, puisqu'elles sont équivalentes aux propositions universelles affirmatives C, celles-ci pourraient être converties simpliciter dans ce cas;

Aristotle, *ibid.*, 17, 36 b 35 ff.: Primum ostendendum est, contingens privativum non converti. Ut si  $a$  contingit nulli  $b$ , non est necesse etiam  $b$  contingere nulli  $a$ . Hoc enim ponatur, et contingat  $b$  nulli  $a$  inesse. Cum igitur contingentes affirmationes mutantur in negationes, tam contrariae quam oppositae, et contingat  $b$  nulli  $a$  inesse, perspicuum est, contingere etiam ut  $b$  omni  $a$  insit. Hoc autem falsum est. Non enim si hoc illi omni contingit, necesse est etiam illud huic contingere. Quare contingens privativum non convertitur.

The negative contingent is not converted in terms, but it is converted to opposite qualities. Aristotle is here speaking of premises which are contingent ad utrumlibet.<sup>1</sup>

The universal negative in the common contingent is convertible in terms.

par contre, les propositions négatives particulières C (équivalentes aux particulières affirmatives C) sont convertibles simpliciter.

Aristotle, *ibid.*, 3, 25 b 17 ff.: Quae vero est in parte, convertitur.

The conversion here is in terms. The universal negative in the contingens natum cannot be converted in terms.

Comme on voit, nous sommes loin de la bonne logique "aristotélico-thomiste" enseignée dans la plupart de nos manuels "traditionnels." De même la vraie lo-

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<sup>1</sup>S. Albertus, *ibid.*, p. 578 a.

gique aristotélicienne ne connaît aucun mode légitime à deux prémisses C en deuxième figure--car dans cette figure il nous faut avoir une prémissse négative, et toutes les prémisses négatives C équivalent à des prémisses affirmatives C.

Aristotle, *ibid.*, 17, 36 b 26 ff.: In secunda figura, cum ambae propositiones contingentes accipiuntur, nullus erit syllogismus, sive attributivae sive privativae ponantur, sive universales sive in parte.

As indicated above, Aristotle is here speaking of the contingens ad utrumlibet.<sup>1</sup>

D'autre part nous avons ici un grand nombre de modes avec deux prémisses négatives et pour la même raison.

Il faut noter, cependant, que ce tableau est bien loin d'être aussi clair dans le texte de l'Organon. Aristote (ou quelque copiste) brouille tout par des notes marginales sur les deux sens du C: d'une part il y aurait un C ἐπὶ πολλοῖς (contingens natum, disent les scolastiques), d'autre part le C ἀδελφιστικόν (ad utrumlibet);

Aristotle, *ibid.*, 13, 32 b 4 ff.: His definitio rursus dicamus, contingere dici duobus modis, uno, quod plerumque fit ac deficit a necessario, ut hominem canescere vel augeri vel tabescere, et omnino quod natura esse solet (hoc enim non habet continuum necessitatem, quia non semper homo est, sed si homo sit, aut necessario aut plerumque est). Alio modo, quod est indefinitum, quodque et ita et secus esse potest, ut animal ambulare, aut eo ambulante fieri terrae motum, et omnino quod fit a fortuna. Horum enim nihil magis ita natura comparatum est quam contrario modo.

These are the contingens natum and the contingens infinitum which are species of the contingens non-necessarium.

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<sup>1</sup>S. Albertus, *ibid.*, I, p. 577 b.

Aristotle, *ibid.*, 3, 25 a 37 ff.: Quod attinet ad contingentia, quoniam contingere dicitur multifariam (contingere enim dicimus et quod est necessarium, et quod non est necessarium, et quod est possibile).

These are the necessary contingent, the non-necessary contingent, and the common contingent which is convertible with the logical possible.

seul ce dernier possède de fait les propriétés dont il vient d'être question. Or, notre texte déclare expressément que le C<sup>2</sup> est "non scientifique" et qu'on ne saurait l'utiliser dans une véritable démonstration;

Aristotle, *ibid.*, 13, 32 b 18 ff.: Scientias vero et syllogismus demonstrativus non est eorum, quae sunt indefinita, quia medium est inordinatum, sed eorum quae natura comparatum est ut sint.

il attribue, par contre, toutes ces propriétés à l'autre C, le natum.

Aristotle, *ibid.*, 3, 25 b 14 ff.: Quae vero eo quod plerumque eveniunt et ita natura sunt comparata, contingere dicuntur (quomodo definimus contingens), non similiter se habebunt in privativis conversionibus, sed propositio universalis privativa non convertitur.

This is the contingens natum distinguished against the contingens commune. This property also belongs to the contingens infinitum.<sup>1</sup> The only property of which there is question here is the conversion of universal negatives.

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<sup>1</sup>S. Albertus, *ibid.*, I, p. 482 a.

En deuxième lieu, immédiatement après la définition du *ἐνδεχόμενον* au sens de C, on nous l'explique en lui attribuant les propriétés du P.

Aristotle, *ibid.*, 13, 32 a 21-29: Hoc autem esse contingens quod diximus, perspicuum est ex negationibus et affirmationibus oppositis. Haec enim, non contingit inesse, et impossibile est inesse, et necesse est non inesse, aut eadem sunt aut sese mutuo consequuntur. Quare etiam his opposita, id est, contingit inesse, et non impossibile est inesse, et non inesse, aut erunt eadem aut sese mutuo consequuntur. Non de omni re vel affirmatio vel negatio vera est. Ergo contingens est non necessarium, et non necessarium contingens.

The common contingent is convertible with the possible and follows on the necessary. The common contingent is not necessary not to be, and therefore is common to the necessary and the non-necessary.

Enfin un autre texte distingue deux sens du *ἐπαρχειν* ; il y aurait un *ἐπαρχειν* *κατὰ χρόνον* et un *ἐπαρχειν* *κατὰ χρόνον* ; seul le deuxième pourrait être employé dans les prémisses de certains modes.

Aristotle, *ibid.*, 15, 34 b 7 ff.: Omni autem inesse accipiendum est non tempore definitum, ut nunc aut hoc tempore, sed simpliciter, quoniam ex huiusmodi propositionibus syllogismos conficimus. Caeteroqui propositiones secundum tempus praesens accepta non erit syllogismus.

As the text says--inesse--Aristotle is speaking of de inesse propositions, which can be used in syllogisms consisting of one contingent proposition and one de inesse proposition. What is the relevance of Father Bochenski's sentence?

The next three paragraphs will be omitted here. In them, Father Boeckenski makes the distinction between the two senses in which contingent premises can be taken: contingere secundum inesse and contingere secundum contingere inesse. He then continues:

On aurait cependant tort de voir dans cette distinction l'idée maîtresse du système historique d'Aristote. Il est vrai que seul le sensus divisus peut justifier l'équivalence des propositions universelles affirmatives et négatives, particulières affirmatives et négatives C. Elle servirait très bien aussi pour expliquer la structure de la syllogistique aristotélicienne. Mais si Aristote avait vraiment édifié son système sur cette idée, il n'aurait pas manqué de l'indiquer dans les textes où il cherche à justifier ses thèses paradoxales. Or il n'en est rien; et même quand il s'agit de justifier l'équivalence que nous venons de mentionner, il est dit expressément que le modus doit être considéré comme prédicat de la proposition entière.

Footnote n. 29--An. Priora A 13, 32 b 2; καὶ περ ἐλέγχει πρότερον renvoie à A 3, 25 b 21 ss. Le εὐ-τιν de 25 b 21 n'est naturellement pas conçu comme copule, mais comme prédicat; cf. Metaph. 7, 1017 a 7 ss. Cependant Aristote confond constamment le modus comme qualification de la copule et comme qualification de la proposition entière (cf. p. ex. An. Priora A 8, 29 b 29- A 3, 25 b 21 ss.)

Aristotle, ibid., 13, 32 b 2: Nam contingit similiter ponitur in oratione ut verbum est, sicut prius dictum fuit.

3, 25 b 21 ff.: Nam contingit similiter ponitur in oratione ut verbum est; verbum autem est, quibuscumque attributis adiciatur, semper et omnino affirmationem facit, ut: est non bonum, vel: est non album, vel ut simpliciter et uno verbo dicam: est non hoc. Sed ex sequentibus etiam hoc confirmabitur. Quod vero attinet ad conversiones, has similiter se habebunt ut alias.

Aristotle is merely pointing out that contingit is affirmative, just as est is affirmative. In a modal enunciation the mode is always a predicate. It modifies the composition of the dictum which is signified by the verb (copula) of the dictum. Whether the est of the dictum be considered as a copula with a tertium adiacens or solely as a copula is of no consequence here; both are affirmative, e.g., Socratem esse est contingens and Socratem esse album est contingens.

8, 29 b 29: Quia vero diversa haec sunt, inesse et necessario inesse et contingere inesse (multa enim insunt quidem, non tamen necessario; alia vero nec necessario nec omnino insunt, sed possunt inesse), manifestum est etiam, horum cojusque syllogismum diversum fore ac terminis constare haud simili modo se habentibus, sed alium ex necessariis, alium ex his quas insunt, alium ex contingentibus.

Metaph., V, lect. 9, 1017 a 7 ff.: Ens dicitur hoc quidem secundum accidens, illud vero secundum se.

Secundum accidens quidem, ut justum musicum esse dicimus, et hominem musicum, et musicum hominem. Similiter autem dicentes ut musicum aedificare, quia accidit aedificatori musicum esse, aut musico aedificatorem. Hoc enim esse hoc significat accidere hoc huic. Sic autem et in dictis, quando hominem musicum dicimus, et musicum hominem, aut album musicum, aut hunc album. Hoc quidem, quia ambo eidem accident: illud vero, quia enti accidit hoc: aliud autem musicum hominem, quia huic musicum accidit. Sic autem dicitur et album esse, quia cui accidit ille est. Quae quidem igitur secundum accidens esse dicuntur, sic dicuntur aut eo quod eidem enti ambo insunt, aut quia enti illud inest, aut quia ipsum est cui inest, de quo ipsum praedicatur.

What is the relevance of these texts to which Father Bochenski refers?

En outre, en nous plaçant sur le terrain des propositions divisées, nous ne saurions expliquer comment une proposition N, dont seul le conséquent est qualifié, peut être légitimement convertie; et cependant cette conversion est partout présupposée comme correcte par notre auteur.

Footnote n. 30--P. ex.: An. Priora A 8, 30 a 2; A 10, 30 b 11. La théorie est proposée explicitement A 3 25 a, 27-36, où il faut noter qu'Aristote ne conçoit aucune différence entre les deux structures.

Aristote, Priora, 8, 30 a 2: Nam privativum pronuntiatum eodem modo convertitur; et in toto esse omnique attribui, similiter trademus.

10, 30 b 11: Quoniam igitur propositio privans convertitur,  $\neg$  b nulli a contingit.

25 a 27-36: Eodem autem modo res se habebit etiam in necessariis propositionibus. Universalis enim privativa universaliter convertitur. Affirmativarum autem utraque convertitur in parte. Nam si necesse est  $\neg$  a inesse nulli b, necesse est etiam  $\neg$  b inesse nulli a, quia, si alicui accidit, etiam  $\neg$  a accidet alicui b. Quod si necessario  $\neg$  a inest omni aut alicui b, necesse est etiam  $\neg$  b inesse alicui a, quia, nisi necesse sit inesse, neque  $\neg$  a necessario inest alicui. Quod vero est in parte privativum, ob eam ipsam, quam prius diximus causam, non convertitur.

Nous allons voir du reste que Théophraste ne savait rien du sensus divisus, ce qui serait surprenant si Aristote avait enseigné notre distinction.

En résumé, nous pouvons dire que la syllogistique modale d'Aristote pourrait être construite à base de deux postulats: 1<sup>o</sup>, 1'  $\neg$   $\forall$   $\neg$   $\chi$   $\mu$   $\nu$   $\nu$  a partout le sens du C; 2<sup>o</sup>, toutes les prémisses sont divisées.

Du premier postulat découle la non-convertibilité des propositions universelles négatives C et l'équivalence entre elles et des propositions semblables affirmatives--et, partant, l'invalidité de beaucoup de modes de la 2e figure avec la validité de nombreux modes à prémisses négatives. Du deuxième postulat découle la possibilité de construire des syllogismes corrects, dans lesquels la conclusion semble plus forte que la plus faible des prémisses. Naturellement, le système devrait être corrigé sur plus d'un point. Mais Aristote ne s'est probablement pas rendu compte du deuxième postulat. C'est à cause de cela que son système contient tant d'inconséquences et d'erreurs.

The first "postulate" was shown to have no basis in the first part of this Appendix. The second is equally without foundation in the text of the Priors. In 13, 32 b 25-ff., he says,

*Quia vero haec locutio, contingit hoc huic inesse, bifariam accipi potest--aut namque significat cui hoc inest, aut cui hoc contingit inesse.*

In the following lines, Aristotle explicitly states that some premises (when both are contingent) are to be taken divisae (cui hoc contingit inesse) and others are to be taken cui hoc inest, which is compositae; how can it be said that all premises are divisae? The concluding sentences merit no serious comment.

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