

[Gregorianum: vol.14:1933, pp. 153-184]

In the last century very many scholastic philosophers used to consider all the first principles of the sciences, or universal and necessary judgments, immediate and 'per se nota', as analytic judgments: other immediate judgments, neither universal nor necessary, would be synthetic, their knowledge being derived from the fact that the subject and predicate "are shown by experience to coincide in one object" (Frick, Logic³, n.325, pp. 228). This division of judgments was borrowed from Kant; but those scholastics differed from their philosopher inasmuch as they admitted analytic judgments which also extended our knowledge.

Many accepted the Kantian division (of judgments) to the extent that they held that those analytic judgments (even when they extended our knowledge) were derived from the sole analysis of the subject. Others correcting this opinion held a different analytic origin of the principles: they required a comparative analysis of both terms, the subject and the predicate. Thus Pasch:

Judgments are either analytic or synthetic. They are analytic when the reason why the extremes must be composed or ~~denied~~ divided [the predicate necessarily affirmed or denied of the subject] is derived from an analysis of the extremes themselves (of the subject and predicate). Therefore these judgments are called analytic not because we can always find the knowledge of the predicate by a simple analysis of the subject, but because by this analysis we can always show the reason why this predicate is ascribed to this subject, or, what is the same thing, because by the sole analysis of the subject and the predicate we can justify our judgment.

They are synthetic when the reason why the judgments are composed or divided (why the predicate is affirmed or denied of the subject) is not contained in the extremes (S & P) themselves;

"but this reason is external and derived from experience alone or from authority".

And the same author writes in another place:

"We have already said that those judgments are analytic in which the reason why the predicate is ascribed to the subject is contained in the very notion or comprehension of these terms and can be derived by analysis from the notion itself. To analytic judgments are opposed synthetics (n.269)".

Today however, year by year there is an increase in the number of those who, (at least) in the case of certain very important metaphysical principles, do not consider that such an analysis, even when it is comparative, fulfils the scope of the enquiry, and so they maintain that these absolutely certain principles are not analytic in either of the sources explained above; hence another origin of these principles will have to be sought.

From the studies we have made on the first principles of mathematics and which we hope to publish in due time, we are convinced that in these principles (and 'mutatis mutandis' in the principles of metaphysics also) the contentions of these more recent authors are verified: these principles cannot be derived from an analysis of the terms, even if that analysis is taken as comparative. As to the manner in which they are derived, we have reached the conclusion, which was formerly defended over a considerable period and in our own time, as we shall presently show, has been touched on in passing. Today, however, so it would seem it has again been entirely lost sight of, although it would seem to offer a significant contribution to the solution of a problem of the greatest importance.

We shall not now expound the enquiries and the line of argument we have referred to; but we shall briefly present the essence of the position to make it clear that it offers at least the possibility of a solution. We will go on to show historically that the position was discussed among the earlier scholastics but later forgotten.

I

That solution of the problem of the origin of the first principles is as follows: the first principles of mathematics, hence the universal judgments themselves (not only the notions of the subject and the predicate) are derived by immediate abstraction from the phantasm. Thus it is not the case that the notions are abstracted and then the judgment arises from a comparative analysis of them; in general, certainly, the simple notions themselves (with respect to some notes) are abstracted first but for the complex cognition which is expressed in the proposition, to be obtained, it is further required that the complex [universal] itself be directly seen (grasped) in the phantasm and abstracted from the phantasm, hence from experience; this experience therefore is a necessary pre-requisite that the nexus between the terms may be known. It is clear that the matter can be explained in this way.

The 'proper passions' which are expressed by the predicates (essential accidents, essential attributes, essential passions, proper passions according to Aristotle; for we are dealing with these) originate in the real order from the very essence of the subject and so there is an objective nexus between them and the subject; that nexus itself, provided only it is represented in the phantasm, can, like the terms of the proposition themselves, be known by the intellect by means of abstraction. Just as by means of such abstraction, where there is question of the simple incomplex apprehension, the nature of that which is understood (the simple term) is known universally - the universal idea is grasped, - so also in the abstraction here described the nature of the objective nexus itself will be known and indeed universally.

This has already been briefly but very well expounded by P. :

"The question is raised concerning those propositions in which not only the predicate but also the subject is universal, and which are therefore called universal propositions; and the question is

"where, how is the relation which is affirmed in them grasped. The difficulty is almost the same as for universal concepts; for experience as it presents only singular subjects, so also it only presents singular relations; by what right do we make universal affirmations, valid for every place and time."

In fact the difficulty is one and the same in the origin from experience of ideas and principles; the solution can be the same: they owe their origin to immediate abstraction from the phantasm, which in both cases reveals the universal nature.

It is clear that this abstraction and consequently the knowledge of the nature of the nexus cannot take place unless at the same time the terms themselves are also known; at least under the formality according to which the objective nexus is attained. This is the reason why such principles are known "when the terms are known" (not: from the terms known) as S.Thomas often says echoing Aristotle.

Hence, although such principles are perceived in the phantasm, like empirical judgments concerning a contingent reality, there is a great difference between the two kinds of judgments. For these empirical judgments, whether they be about a singular fact, or be laws which are universal or probable or certain by physical induction, do indeed enuntiate a certain objective nexus, but only the existence not the nature of that nexus is known. Our human mind has the capacity, in the subject matter where the first principles are operative, to perceive the nature of the nexus by abstracting from experience; it lacks this capacity when the matter of those singular laws or propositions is in question. If in physics also we had this capacity - or let us say rather: where in physics we have it, there also we have first principles which are necessary and universal.

This is perhaps what Aristotle means when he says (Poster.Anal. 1,31; 88a N, ed. Waitz):

"Nevertheless certain points do arise with regard to connexions to be proved which are referred to a failure in sense-perception.

"There are cases where an act of vision would terminate our enquiry, not because in seeing we should be knowing, but inasmuch as we grasp (elicit) the universal from the act of seeing; if, for example, we saw the glass penetrated and the light passing through it, the reason why it shines (is bright) would be clear to us, the seeing applying (only) to the singular instance but the mind at the same time grasping that it must be so in every instance".

These words seem to point to the process described above as applying to physical realities. If some phenomenon is perceived by one of the senses (sight), it is not the subject of further investigation; not as though in sight there were perfect knowledge (s), but because from sight we attain to a universal truth. Sight would be of singulars but understanding would at the same time envisage every case.

Hence we consider that this solution of the problem of the origin of the principles is true over the whole range of mathematics - and this we hope to explain in due course - now we simply outline this solution wishing to propose it for critical investigation; for in an analogous way it can be applied to metaphysical principles; in these also, if we are right, we experience in singular instances the nexus between the subject and the predicate and from this experience we attain to an intellectual intuition into the nature of this nexus; the resultant knowledge (without a previous analysis), because it is derived from experience, will be immediate and, because it concerns the nature, universal and necessary.

II

We have already said that this solution was discussed by the earlier scholastics and referred to in a passing way by their more recent followers. Here we offer proof of this from their writings: from these it will be clear that this was a question in dispute between the Scotists and the Thomists; in addition we give a series of texts which show St. Thomas' mind on this question.

Cajetan (In Pastor. Anal II Cap. 13) already explains the origin of the first judgments in a way that demands the experimental knowledge of the 'complexion' of the terms of the judgment itself in order that from that complex experimental knowledge the principle may be abstracted by the operation of the agent intellect; the knowledge, even universal, of the incomplex terms which is attained by abstraction from sense knowledge is not sufficient. This position of Cajetan is well known, as we shall show; it is proposed by Zigliara in the edition of St. Thomas' commentary on the Posterior Analytics where a considerable part of Cajetan's argument is presented. For our purpose it will be useful to give here another quotation from him.

"The second question is whether the habit of the principles requires a previous experience with respect to the knowledge of the terms, or with respect to their complexion. I consider that we must begin with the last question because from the end is derived the explanation of the means to the end. In response to this question Antonius Andreas, in the fifth question of the first book of the Metaphysics, says that experience is not necessarily required in order that we may have the complex cognition of the terms but only to enable us to have the incomplex cognition of the terms. The latter assertion he proves simply from the fact that intellectual knowledge depends on sensation in such a way that the phantasm made intelligible in act is that which moves the intellect to incomplex cognition [concept]. The former statement he proves on the ground that the intellect can of itself compone and divide the terms it has already conceived, and consequently know the principles since the complex cognition of the principles results from the terms alone, together with the light of the agent intellect. Hence (and in the first member of his reply) he asserts that we know the principles inasmuch as we know the terms. But (in my opinion) in advancing that view he erred when he stated that experimental knowledge is not necessary for the complex cognition of the principles. For this ~~xxx~~ seems to be contrary to

Aristotle and to reason. Contrary to Aristotle, because the act of sensation is a complex cognition, since it is the bringing together of many particulars (as is said in 1 Met.) There it is stated explicitly that it is experimental cognition to know that this herb is useful for this disease, and one like it etc. Therefore experimental knowledge is complex cognition and in consequence is at the service of the complex cognition of the intellect. Hence Aristotle in the same context, adds the assertion that from the experimental knowledge of this and that herb there results the complex universal, every herb of this kind cures this kind of disease. Secondly because Aristotle here says that the knowledge of principles arises from sensation by way of induction, an induction, clearly, which proceeds from complex particulars to a complex [universal]. Against reason however, since it is necessary..." (Here follows the argument which is given in Zigliara's note).

This is Cajetan's conclusion:

"We must admit therefore that an act of sensation is pre required by reason of the complex cognition) for the generation of the habit of the principles because it is that which properly moves or determines the intellect to this, and because it is the means essentially ordained to this".

Then, after further explanations the final conclusion is as follows:

"For the complex cognition of the principles, which is properly called the actual or habitual knowledge of principles, there is pre-required, as we have said, an experimental knowledge of that complexion. For it is necessary that not only the universal concepts of the terms be generated, but also their complexion, which is related in the same way to the experimental complexion as the cognition of the terms is related to the frequent sense apprehension of those terms. To the argument of Antonius Andreas to the contrary we reply..."

(Here follows the remainder of Zigliara's note: the lines we have underlined express the same idea we have already met above in P. Genv).

The way in which the whole process of the origin of the principles unfolds according to the mind of Aristotle is thus described:

The intellect is only moved by that which is intelligible in act; but intelligible realities, as they are found in particular instances, are only intelligible in very remote potency because of an excess of materiality; in order that they may be gradually reduced to act, they are first brought to the exterior senses, then to the common sense, then to the cogitative faculty; then a frequent conversion and operation of the cogitative faculty is required in order that the realities may become close to intelligibility in act. Then:

"Then when the matter has been so disposed and reduced to such a degree of spirituality, it becomes, by the operation of the cogent intellect, truly universal and intelligible in act, and consequently moves the possible intellect to the knowledge of itself".

So, therefore, the complexion itself of the terms of the judgment is abstracted by the agent intellect and impressed on the possible intellect, which thus actuated immediately knows the universal proposition. Again the likeness to the origin of the incomplex idea is stressed; in each case the operation of the cogent intellect must directly intervene, its function being to abstract the intelligible from the phantasm.

. . .

This position of Cajetan, as we have said, was then known. Farges mentions it, but with due deference to the authority of Cajetan, he rejects it without further discussion:

"Although this conclusion seems to us excessive and even contrary to the data of experience, there is no need to prolong here a discussion wholly useless to our thesis".

Mercier passes a milder judgment:

"An opinion claiming the support of such authorities is at least plausible" -

and if that is its status, he wishes to extend it to all principles.

P. Geny goes even further, calling Cajetan's opinion not improbable and in certain cases, so it seems, certain with some restrictions:

"In order that the principles may be grasped prior knowledge of the terms is required and that they be present to the mind at the same time [together]: for the latter, is it required that the terms be apprehended together in some concrete individual synthesis ? Cajetan affirms this and it is not improbable. At least it seems we must admit that some concepts cannot be formed, unless they are grasped in some concrete synthesis: thus the concept of a cause will not be obtained unless some cause actually causing is apprehended; so also the concepts of substance and accident are not distinctly formed except by the analysis of the fact of change".

These are, as far as we know, the only authors who mention the opinion of Cajetan.

III

But there was a time when this question was the subject of more discussion and it was a matter of dispute between Scotists and Thomists. Let us first hear the author who was named above by Cajetan as the adversary of his opinion and who is recognized as such since that time: Antonius Andreas, the immediate disciple of Scotus. In the 'quaertio' cited by Cajetan we read:

"With regard to the second basic point we must recognize that all intellectual knowledge is either of principles or conclusions. And both forms of knowledge are further distinguished, because it is either incomplex knowledge bearing on the terms of the principle or conclusion, or it is complex knowledge, namely of the complexion of the former or the latter. Having said this I reply to the question".

(1st: For knowledge of the terms sense or experimental knowledge is necessary) "Let this be the second conclusion. For the complex

knowledge of the principles: experimental or sense-knowledge is not simpliciter (absolutely) necessary; it is however useful and conduces to the more prompt assent to the complexion of the principle. The first part of the conclusion is explained as follows.

For the intellect itself when it has conceived the simple terms in the manner already explained is able by its own power to compone or divide them, so that if such complex concepts pertain to first principles they are known to be true by the natural light of the intellect because we know principles inasmuch as we know the terms (Anal.Poster.I); and hence experimental or sense-knowledge is not simpliciter necessary to arrive at such complex cognition of the terms. The second part is explained as follows. Because such complex concepts can be known as true from frequent sensitive, memorative and experimental knowledge, inasmuch as by means of that knowledge we recognize that the terms of such a principle in their singularity are conjoined in the objective reality. As sense-perception frequently sees that this totality and this greater part (majority) are conjoined, and from this perception the intellect more readily assents to this principle: 'every whole is greater than its part'. Thus it is clear from what has been said how experimental knowledge has the power to bring about the knowledge of the principles of art and science, which is described in Posterior Analytics II; it can do this for two reasons, both because of the knowledge of the simple terms, which are apprehended by sense-knowledge, and because of the knowledge of the truth in the 'composition' (complex concept/proposition) in the way we have explained above.

The meaning of these words needs no commentary; for the opinion which will later be enunciated by Cajetan is rejected and the following affirmed: to arrive at the knowledge of the complex cognition it is sufficient per se that one have the incomplex notions; that knowledge is indeed made easier and more expedite if the complex sensitive cognition has preceded, but this is not necessary. Consequently in

every case the incomplex notions alone arise from the abstraction of the agent intellect.

Antonius Andreas is considered by Cajetan (and others) to be the author of this opinion. But this is erroneous. For it is found, sometimes in almost the same words, in Andreas' master, Scotus himself. We quote here some passages of Scotus. In his metaphysical questions we find the same Quaestio IV "Whether art is generated from experience". Scotus also first insists that sense-knowledge is a necessary pre-requisite for the first operation of the intellect; then he continues(n.4):

"And further, because that which owes its being to the power (virtus) of the phantasm, according to the mode of its presence in the phantasm, is not proportionate to move the possible intellect, according to some authors: therefore it is given a certain form by the agent intellect by virtue of which it can move the possible intellect. The latter (the possible intellect) therefore, having conceived the simple terms, can by its own power compone and divide them: such complex concepts, if they belong to the first principles, are known to be true by the natural light of the intellect: because "we know the principles inasmuch as we know the terms "from the first book of the Posterior Analytics 1 C.6. They can also be known as true from frequent sensitive, memorative and experimental knowledge: by means of which we know that the terms of such a principle are conjoined in their singular instances: as sense-perception has frequently ~~seen~~ this whole and this larger part to be conjoined. So therefore it becomes clear in what way experimental knowledge has the power to know that which is the principle of art and science as we find in Posterior Analytics II, both because of the knowledge of the simple terms, which are apprehended by sense-knowledge, and because of the knowledge of the truth in the composition of the terms, as has been said."

N.5 For the simple apprehension experience is not necessary, a certain sensible apprehension is sufficient, but:

"With respect to the second point, experimental knowledge is a help: in order that assent may more quickly be given to an affirmative principle, if by the sense the conjunction of the extremes (the terms) is recognized in the singular instance: to a negative principle if their disjunction is recognized: but it is not necessary, nor is any sensitive apprehension. For although this affirmation or negation is never seen by any sense perception, nor their separation in objective reality, if however from sensible realities an affirmation or negation is apprehended, and the intellect enunciates (compones) this proposition "The affirmation or negation is true of every case (universally)" assent is given to that proposition. And even where the sense perceives the conjunction of the singular terms in objective reality, assent would be given to the complex principle with more certainty by the natural light of the intellect than on account of any apprehension of the sense".

This doctrine of Scotus seems to have been generally accepted among Scotists; at least we have the statement of Mastruis that this was the position held by Scotus "with all the Scotists".

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In the other camp, that of the Thomists, after Cajetan his position seems to have been universally accepted: this at least is what we learn from Javellus, who defends the position against the Scotists, resuming the arguments of Cajetan: a few quotations will suffice.

"The third conclusion, to bring about the complex cognition both of principles and conclusions frequent sense and experimental knowledge of the same complex (universal) is useful and helpful. All commonly admit this conclusion in its essential sense".

"Against the third conclusion the question raised whether that experimental knowledge is required only as useful and helpful, or also as necessary".

Then the arguments are expounded and they are a compendium of Cajetan's views. In his conclusion he distinguishes formal and virtual

sense-experience:

"Formal is that which results from many sense-perceptions of the same thing. Virtual on the other hand is that which results from one sense-perception and one remembrance, which although it is in itself only one, nevertheless is equivalent to many".

In Mathematical problems virtual experiment is sufficient, in natural ones formal is required; and he concludes:

"Therefore hold fast to the view that in every art and science resulting from human discovery sense-perception (experience) is necessary, either virtual or formal. This concludes our treatment of this question".

Thus we are informed by Javellus that the opinion of Cajetan was defended by the Thomists against the Scotists ("We will show the point of difference between the Thomists and the Scotists"); this we must admit to be true at least of his contemporaries, in view of this author's testimony; but is it a fact that the two positions were opposed even before Cajetan's time? It seems that the problem was not always posed in the clear terminology of Scotus and Andreas, which was later used by Cajetan; hence the question is not so easily decided; however Soncinas certainly seems to side with Cajetan.

Among those who, after Cajetan, accepted his solution we can mention: Fonseca although he does not accept the further explanation of Cajetan.

Cosmas Alaman makes a distinction: Those principles which are the principles of all the sciences ('dignitates') are known in the way put forward by the Scotists:

"The knowledge of these principles is not the result of pre-existent knowledge with respect to the complexion of the terms but with respect to the knowledge of the terms themselves". There are other principles whose terms are not known to all and the knowledge of these principles

with respect to the complexion of the terms must proceed from pre-existent sense-knowledge"; to this class belong judgments referring to mathematical and physical questions.

Sylvester Maurus , on the other hand, seems to give total adherence to the position of Cajetan. For he writes:

I reply that first principles are grasped of necessity by induction from singulars. . . we cannot form the apprehension of the universal unless we abstract it from the apprehension of singulars. e.g. we cannot abstract the proper apprehension of whiteness, unless we have experienced this and that singular whiteness; therefore we cannot form the judgment on the universal truth unless we grasp it from judgments concerning singular truths: e.g. we cannot form this judgment: "Every whole etc." unless we grasp it from the judgments that this and that particular whole is greater".

His reply to the first objection is as follows:

"Although first principles are known by a kind of reasoning (discourse) in the broad sense, in which the intellect proceeds from singulars to universals, there are in addition truths known per se, because in this discourse the intellect does not infer one truth from another, but merely notices that the predicate is connected with the subject in the singular instance and then it goes on to advert to its connexion with the subject universally: e.g. first it notices that to be greater than its part is a predicate connected with his whole, then that it is connected with a whole inasmuch as it is a whole, and hence every whole is greater than its part. Cf. his observations on mathematical and metaphysical induction.

Therefore it is wrong to attribute to Cajetan alone the view that maintains that first principles arise through the immediate abstraction of the universal principle from the phantasm, after the Aristotelian experimental induction, in such a manner that these complex principles

arise in the same way as the incomplex notions. This opinion was defended by many other authors and that in a deliberate way in a controversy which was more or less classical.

IV

We now proceed to enquire whether the opinion of the Thomists was derived from the doctrine of S. Thomas as that of the Scotists is from Scotus. The answer would appear to be in the affirmative. The problem is not posed in such a way that the twofold possibility in dispute among later writers is examined and the question decided in favour of one or other of the two; but there is indeed frequent discussion of the origin of the first principles (or of their habit) and many texts seem, sometimes clearly sometimes less so, to propose or to presuppose the solution of Cajetan. To decide this problem it will be necessary to consider a fairly lengthy series of texts from S. Thomas; to provide a more easy conspectus we present many of these here; we reduce them to certain general headings but we are sparing in our commentary; as a rule the simple underlining of certain words will suffice.

A. We have seen already that three authors - P. Geny, Cajetan and Sylvester Maurus - rightly insist on the likeness between the origin - and its problems - of the incomplex notions and that of the principles, a likeness which is demanded by the position of Cajetan. Both kinds of knowledge are acquired by abstraction from the phantasm by means of the agent intellect. [As we have noted above, for the judgment to be elicited, there is required in addition the second operation of the mind, which consists in reflexion, as we shall explain below].

Now this comparison between the two cases is admitted by S. Thomas.

In Boet. de Triu 2 6, a.4 "The whole procedure of the speculative sciences is reduced to some principles, which a man does not need to

learn or discover, ^{lest} ~~but~~ there be a 'processus ad infinitum'; but he possesses their knowledge by nature: and such are the indemonstrable principles of arguments (demonstrations), as for example: "Every whole is greater than its part", and similar principles; and also the first conceptions of the intellect, like (a) 'being', 'one', and the like, to which all the definitions of the said sciences must be reduced. From this it is clear that nothing can be known in speculative sciences, either by way of definition or by way of demonstration except those objects exclusively which fall within the range of the said naturally known principles. But these principles known by nature become manifest (evident) to man from the light of the agent intellect, which is part of man's nature: by this light, indeed, nothing becomes evident to us except insofar as, through it, the phantasmata are rendered intelligible in act. For this is the act of the agent intellect as is said in 3 de Anima.

But the phantasms are derived from sensation: hence the starting point for the knowledge of the said principles is sense and memory, as is clear from the philosopher in the end of the Poster. Anal."

Q.D. de Ver. q.11, a.1: "There pre-exists in us certain seeds of the sciences such as the first conceptions of the intellect, which are immediately known by the light of the agent intellect by means of the species abstracted from the sense impressions, whether they be complex, such as the first principles ('dignitates') or incomplex, such as the idea of 'being', and 'One' and such like, which the intellect apprehends immediately. For from those universal principles flow all other principles as it were from certain seminal reasons".

The agent intellect causes, and indeed immediately both the act and the habit of the principles in the possible intellect:

Q.D. de Anima, a 5 (c. in fin): "Some indeed have believed that the agent intellect is nothing other than the habit of the indemonstrable principles in us. But this cannot be so, because we know the indemonstrable principles themselves also by abstracting from singulars, as the Philosopher teaches in the Posterior Analytics I. Hence the agent intellect must exist prior to the habit of the principles as its cause; the principles themselves are compared (related) to the agent intellect as a kind of instruments it uses, because by means of them it makes the intelligibles in act".

Q.D.de Anima a.4, 6: "The possible intellect cannot have actual knowledge of the principles except by means of the agent intellect. For the knowledge of the principles is received from (the) sensible objects, as is said at the end of the Posterior Analytics. But the intelligibles cannot be received from the sensible objects except by the abstraction of the agent intellect. And so it is clear that the intellect in actual possession of the principles does not suffice to reduce the possible intellect from potency to act without the agent intellect; but in this reduction the agent intellect acts like a craftsman and the principles of demonstration like instruments".

S.Th.I,II, q.53, a.1: "If some habit is immediately caused by the agent intellect in the possible intellect, such a habit is incorruptible both per se et per accidens. Now of this kind are the habits of the first principles, both speculative and practical".

Therefore the simple apprehension and the first principle are equiparated in respect of their origin in that they are immediately caused by the agent intellect abstracting from the phantasm. We would expect the same equiparation if the correlative operation is considered, namely, the operation of the possible intellect, actuated by the impressed species, eliciting either an act of simple apprehension or, by reflexion, an act of judgment. And in fact this seems to be S.Thomas' teaching.

Q.D. de Ver. 2.3, a.2: "In the speculative intellect we see that the 'species' (appearance/form) by which the intellect is informed in order to actually understand, is the first factor by which understanding is realized; for from the fact that it is actuated (made in act), it can now operate through such a form in the formation of the 'quiddities' of things and in componing and dividing; hence the very quiddity formed in the intellect, and also the composition or division, is a kind of product of the intellect; by means of which, however, the intellect arrives at the knowledge of the exterior reality; and thus it is, as it were, the second factor by which understanding is realized".

S.Th.I, 2.85, a.2 and 3. "Both these operations [the 'change' ('immutatio') which is effected in the sense from the sense-object and the 'formation' which is realised in the imaginative faculty] are united in the intellect. For first attention is directed to the 'passion' of the possible intellect inasmuch as it is informed by the intelligible species. When it is thus informed it forms, in a second operation, either a definition or a division or composition, which is signified by a word (or judgment). Hence the idea (ratio) which is signified by the word (name) is a definition; and the judgment signifies the composition and division of the intellect".

III Sent., Dist. 23, q2. a.2., Sol.1. "One way in which our intellect can be considered is in itself: and thus it is determined by the presence of the intelligible (form) as matter is determined by the presence of form; and this takes place where the object become immediately intelligible by the light of the agent intellect, as in the case of the first principles of the intellect." cf. Q.D. de Ver. q.14, a.1.

The intelligible which is present is the impressed species; when it has received this actuation, the possible intellect knows the (first) principles also by an immediate operation; and also the immediate intelligibility is again attributed to the light of the agent intellect.

Both these points are expressed together in the following text.

Q.D. de Ver. 2.10, a.6 (corp. in fine.) "It is true that our mind receives its knowledge from sensible things; nevertheless the soul itself forms the likenesses of things in itself, inasmuch as by the light of the agent intellect the forms abstracted from the sensible things are rendered intelligible in act, so that they can be received in the possible intellect.

And thus in a certain way all knowledge has its originating source also in the light of the agent intellect [i.e. it is not only received from the senses], by way of the universal concepts which are immediately known by the light of the agent intellect, through which as by universal principles we form judgments about other things and have a pre-cognition of them in the same principles".

We are repeatedly referred to the last chapter of the Posterior Analytics: here it will be useful to give some excerpts from S.Thomas' Commentary.

In Poster. Analyt. II 20,n.7. "We must from the beginning have a certain power of cognition, and this must be pre-existent to the knowledge of the principles, but this power cannot, however, afford a greater certainty than the knowledge of the principles."

That power is however the power of sense-perception hence the celebrated aristotelian process is then described: sense --- Memory --- experience --- intellection (grasp) of the principles, from which these results knowledge or science.

n.11 "Therefore from this experience and from such a universal concept derived from experience there is found in the soul that which is the principle of art and science....Science, as is stated there, is concerned with things that are necessary; and hence if the universal refers to things which are always the same, it pertains to science, as in the case of numbers or geometrical forms. This universal character is found in the principles of all sciences and arts. From this we reach the conclusion that the habit of the principles do not pre-exist in us as already fully determined and complete;

nor, on the other hand, do they owe their origin to some more evident pre-existent habits, as the habit of science is generated in us from the prior grasp of the principles, but the habit of the principles are in us from the pre-existent sense-knowledge."

N.12. "However one could hold the view that the sense-perception or the memory of singulars could of itself suffice to cause the intelligible knowledge of the principles as some of the ancients held by failing to distinguish between sense and intellect; and hence to exclude this opinion the Philosopher makes the observation that in addition to sense perception one must presuppose that the nature of the soul is such that it can be affected in this way, namely that it be capable of receiving a knowledge of the universal; and this comes about through the possible intellect; and again that it can do this according to the agent intellect which makes the actually intelligible by abstracting the universals from the singulars".

S. Thomas not only explains Aristotle, but makes his doctrine his own and amplifies it; this is clear from the last words of the passage above, because he expressly adds the phrase "the agent intellect (i.e. the soul) which can do this"; for here Aristotle only speaks of the soul "which can suffer this". And note that it is always also the origin of the indemonstrable principles that is in question. Therefore they are arrived at by induction.

Ibid. n.14 "Since therefore we derive the knowledge of universals from singulars, (Aristotle) concludes that it is evident that the first universal principles must be known by induction. For thus, by way of induction sense-perception introduces the universal into the soul, inasmuch as all (some) of the singulars are considered".

It has already been stated in ~~the~~ first book of the Posterior Analytics that induction was required for the knowledge of the principles, but there the process itself was not described.

In Poster. Analyt. 1 lectt 30,n.4. "It is impossible to envisage universals without induction and this is most evident where sense-object are in question, for in this case we arrive at the knowledge of the universal through the experience we have of singular sense-objects".

This is immediately clear where physical realities are in question, but in those which are the result of abstraction, as in Mathematics, there might be room for doubt; but even here the same truth is verified: Ibid. n.5: "For the principles involved in the abstractions (of Mathematics) which are the starting point of further demonstrations in this subject, only become clear to us from certain particular instances which we perceive by sensation. For example from the fact that we see some singular, sensible whole we are led to know what is a whole and a part, and we know that every whole is greater than its part, by considering this in many instances. Thus therefore the universals, from which, the process of demonstration begins, only became known to us by induction."

It is the complex principles of mathematics that are in question, these only become evident from the sense-perception of particular instances; in the example given a twofold knowledge is described which has one and the same source, the knowledge of the terms ('What is it() and the knowledge of the principle; hence the process is one of induction.

That this knowledge of a mathematical (first) principle is immediately derived from the senses is even more strongly affirmed:

1 Sent. Dist. III, q.1, a.2. "Those things which are per se known to us, are made known immediately by sense: as when we have seen a whole and a part we immediately know that every whole is greater than its part without any enquiry. Hence the Philosopher's statement: We know the principles inasmuch as we know the terms".

In another context the principles of mathematics are attributed to

an induction which proceeds from particulars which are imagined.

In Eth. Nic. 1, lect. 11. "In some cases it is sufficient that the matter be evidently true; as in the case of the principles of a science: for a principle must be first. Hence it cannot be resolved into anything which is prior. Principles themselves, however, do not all become evident in the same way. But some are arrived at by an induction, which proceeds from imagined particulars, as for example that every number is either even or odd. Others are derived from sense-perception, as in the study of nature...others again are derived from customary behaviour, as in moral questions."

In the same way elsewhere the imagination is indicated as the ultimate ground of any judgement in mathematical questions.

In Boeth. de Trin. q.6, a.2: "In Mathematics knowledge expressed in a judgment must reach its term in the imagination not in the exterior sense".

. . .

B. In the preceding texts incomplex and complex (universals) are equiparated in respected to the way in which they are derived from sense-knowledge; hence the agent (the agent intellect) which is the immediate cause of both kinds of knowledge is one and the same. The same conclusion, that the first principles arise from immediate abstraction, ought to be drawn from the way in which S.Thomas opposes the intellect strictly so called, which is concerned with principles, and science as such, which is concerned with conclusions and is ascribed to reason. Assuredly intellect and reason are not two really distinct faculties but the mode of operation of this one faculty in eliciting two diverse types of cognition is described by S.Thomas in such a way that it again casts light on our question: how does the cognition of principles arise from the phantasm. The objects to which the natural knowledge of the human soul can attain are reduced by S. Thomas to two classes;

one comprises those objects of knowledge which are "abstracted from the phantasm", the other those which are deduced from the former by means of a reasoning process; to the former belong principles, to the latter conclusions. Principles therefore are known by abstraction from the phantasm by the aid of the agent intellect.

Q. D. de Ver. q.20, a.6, ad.2. "The intellect is in potency to receive all intelligible forms which are produced by the agent intellect; the Philosopher refers to the latter as "that by which everything is realised"; these are the intelligible forms which are abstracted from the phantasms and to the knowledge of which we can attain by the principles naturally known".

Two classes (of intelligible objects) are clearly indicated, firstly, "which....are abstracted", secondly "to the knowledge of which etc"; to the latter class alone belong conclusions, whereas the principles are abstracted, again the latter are simply equiparated to the incomplex universals (concepts).

Here there was question of the abstracting agent (intellect) itself and of the phantasm from which it abstracts; and in what follows the same contrast is described between (the) principles and (the) conclusions; there is no explicit mention (except in one instance) of the phantasm, from which the agent causing the knowledge abstracts; the principles have their origin in the agent intellect, the conclusions in the principles themselves; as the instruments of the agent intellect, as sometimes stated.

In Boeth. de Trin. q.3, a.1, ad. 4: "Whenever some degree of assent is given to a proposition, there must be something which inclines (the subject) to the assent; as the natural light (of reason) in the case of an assent to principles known per se, and the truth of the principles themselves in the case of an assent to conclusions which are known".

III Sent. Dist. 23, q.2, a.1, ad 4. "Because a principle or a middle term is called a proof insofar as it has the power to make clear the conclusion, and it has this power ultimately from the light of the agent intellect of which it is the instrument, for everything that is proved (reproved) is made clear by the light as it is said in Ephesians 5, (13), hence the light itself by which (the) principles are made clear, just as (the) conclusions are made clear by the principles, can be called the proof of the principles themselves".

Ibid. a.2, 3. "The intellect is determined to one (specified?) in three ways as we have said. For in the understanding (grasp) of the principles the determination (of the intellect) is caused by the fact that by the light of the intellect something can be sufficiently grasped in itself. But in the knowledge of conclusions the determination is caused by the fact that the conclusion is resolved into the principles known per se, according to the act of reason; in faith however, by the fact that the will imperates (moves to its act) the intellect."

Q.D. de Ver. q.10, a.15. "No action can proceed from an agent beyond the reach of the instruments he uses; as the carpenters art cannot build, because the instruments of a carpenter do not measure up to that effect. But the first principles of demonstration, as the Commentator says in III 'On the Soul', are, as it were, instruments of the agent intellect in us, and from its light our natural reason draws its power. Hence our natural reason can arrive at the knowledge of nothing to which the first principles do not extend. But the knowledge of first principles has its origin in the senses as is clear from the Philosopher II Poster."

From these texts we conclude: 1^o The knowledge of principles as opposed to the knowledge of conclusions is attributed to the agent intellect; because its function is to abstract from the sense; they arise by abstraction; 2^o if the knowledge of a principle were to result from an analysis of the notions, this would be said to be resolved into them,

as a conclusion "is resolved into the principles known per se"; but this seems to be excluded by the texts; 3^o if the knowledge of the principle was derived from the analysis of the notions, the notions also would be instruments of the agent intellect in eliciting the knowledge of the principle; but in this process such an instrument seems to be excluded.

The same conclusion must be drawn from the following statement, where the cause of the 'habit of knowledge' (in the strict sense) is indicated.

S. Th. I II, q.51, a.2. "The power of the intellect, when it is reasoning about conclusions, has as its active principle, a proposition known per se." Hence from such acts certain habits can be caused in the agents, not indeed with respect to the first active principle, but with respect to the principle of the act, which moves when it itself has been moved....the habit of knowledge is caused in the intellect, inasmuch as it is moved by the first principles (proposition known per se.)

We have already heard above (S.Th I II, 2.53, a.1) that the 'habit of the principles' is caused by the agent intellect, here we learn that 'the habit of knowledge' is caused by the principles themselves. Our conclusion must be the same as that reached above: if according to S.Thomas we knew the principles not by direct abstraction but by an analysis of the ideas, we would rather have to say: that the knowledge (and the habit) of the principles is also caused by the ideas, which would be the instruments of the agent intellect; one habit would not be caused by the agent intellect and the other, on the contrary, by the principles.

C. From the other differences used to illustrate the opposition between (the) principles and (the) conclusions, understanding and knowing (intellect and science), we seem to be able to reach the same conclusion: (the) primary judgments do not arise from an analysis or a comparison of the notions (terms) involved, but are immediately abstracted from the

sense-apprehension. Thus principles are said to be known: without "comparison" and "cogitation", "without movement", without reasoning from some other knowledge, suddenly and immediately; reason on the other hand requires "comparison and cogitation", movement and discourse from known principles. The primary knowledge is "the simple acceptance" of the truth, not so reasoning which demands inquisition (searching).

Q. D. de Ver. q.14, a.1. "The one who understands has indeed an assent, because he embraces with certainty one or other side of a contradiction; but he does not have cogitation, because he is determined to one side without any comparison. The one who knows, on the other hand, has both cogitation and assent; but cogitation causing assent and assent terminating cogitation. For from the very comparison of the principles to the conclusions he assent to the conclusions resolving them into the principles, and there the movement of the one thinking is brought to a halt and comes to rest".

S. Th. I. q, 64, a.2. "The apprehension of an angel differs from that of man in this, that an angel apprehends by the intellect without any movement, just as we apprehend the first principles of our 'understanding without 'movement'; but man by reason apprehends by a 'movement', passing by argument from one truth to another".

Q.D. de Ver. q.8, a.15 "In the proper sense to discourse means to proceed from the knowledge of one thing to that of another....something is said to be known from something else when the movement to both is not the same, but first the intellect is moved to one and from this it is moved to the other, thus here there is a certain discourse, as is clear in demonstrations, For first the intellect is moved to the principles alone, and secondly it is moved by way of the principles to the conclusionsAs our intellect is related to those principles, so an angel is with respect to all that he knows naturally... Hence just as we know the principles without discourse by a simple intuition, so the angels know

everything that they know; it is for this reason that they are called intellectual beings; and the 'habit of the principles' in us is called intellect."

II Sent. Dist. 24, q.3, a.3, ad 2. "Intellect is not the same as reason, For reason implies a kind of discourse from one (truth) to another; but intellection implies the sudden apprehension of something; and hence intellection is properly concerned with principles which immediately offer themselves to knowledge, and from them reason elicits conclusions, which are known by enquiry".

In Poster. Anal I, lect. 36, n.11. "Science proceeds by means of discourse from principles to conclusions; but intellection is the absolute and simple acceptance (admission) of a principle known per se. Hence intellection corresponds to an immediate proposition, but (science) to a conclusion, which is a mediate proposition. Cfr. Q.D. de Ver. 2.15, a.1, where there is frequent mention of simple, absolute knowledge, the simple acceptance of a truth.

. . .

D. But if the knowledge of the principles is the simple acceptance of the truth which becomes manifest in a sudden apprehension, it is no wonder that they are said to be beheld or seen; and if we then ask "where or in what" do we have that "simple intuition" of the truth, we are informed that we see those truths in the phantasm; and so we return to what we have been hearing from the start.

II¹ Sent. Dist. 23, q. 2, a.2, sol. 3. "In the understanding of the principles the determination (of the intellect) is caused by the fact that something can be sufficiently seen in itself by the light of the intellect..."

"The light of the human intellect, in which the principles are seen, or human reason, in virtue of which (the) conclusions are resolved into the principles".

De Mem. et Remin. lect 2. "The human possible intellect does not therefore only require the phantasm to acquire the intelligible species, but also so that it may as it were behold them in the phantasms . . . and so the intellectual power understands the species in the phantasms. The reason for this is that an operation is proportioned to the active power and essence; but the intellectual power of man is in a sensitive subject, as is said in the second book of the de Anima. And so its proper operation is to understand the intelligibles in the phantasms".

Explicit mention is not made of the principles but in general there is question only of the intelligibles and of the intellectual power and its act of understanding; but the truths expressed by the principles must be reckoned with the intelligibles in question, and the intellect certainly embraces the knowledge of principles.

We find the same teaching in:

S. Th. I, q.84, a.7. "Anyone can verify this in his own experience, that when someone is trying to understand something, he forms some phantasms (images) for himself by way of examples, and in these he, in a manner, looks at what he wants to understand. It is for the same reason that when we want to make someone understand something, we offer him examples by means of which he may be able to form phantasms (images) for himself to aid his understanding".

Thus it is not surprising that this knowledge of principles is regularly described by St. Thomas as "simple intuition" or in similar terms. In addition to the texts already cited we note the following.

I Sent. Dist. 3, q.4, a.1, ad 5. "To understand and to know are different; to know is to have the knowledge of a thing in oneself; to understand however means to see."

III Sent. Dist. 53, q.1, a.2, sol. 2: "But the inquisition (enquiry)

of reason, just as it starts from the simple intuition of the intellect (for from the principles which one grasps by the intellect to goes on to enquiry) so also it terminates in the certitude of the intellect, as the conclusions reached are resolved into the principles, in which they have their certitude".

Q.D. de Ver. q.8, a.15. "As we without any discourse know the principles by a simple intuition, so also the angels know all that they know; hence they are called intellectual beings; and the habit of the principles in us is called intellect (understanding).

S.Th. I. q.59, a.1. "The intellect knows by a simple intuition, but reason by arguing from one thing to another".

Ibid. II q.1.a.5 "All knowledge is derived from some principles known per se, and consequently seen."

Ibid. q.49, a.5, ad 3. "The intellect is so called because of its inward penetration of the truth; reason is so named because of its enquiry and discourse".

Ibid. q.180, a.6, ad 2. "There is no error involved in the understanding of first principles which we know by a simple intuition.

In Eth. Nic. VI, lect. 5. "The Habit of the principles is called understanding (intellect) from the fact that it (the intellect) reads into the essence of the reality by its intuition".

. . .

Some of the texts examined are clearer than others, but taken together they clearly warrant this conclusion: as a necessary condition for the g of the knowledge of an indemonstrable principle in the human intellect S. Thomas requires that the very "complexion of the terms" (as Cajetan says with (the Scotists) should be present in the phantasm

(in experience, by induction); from which there immediately results the knowledge of what is expressed by the proposition and to this knowledge we give our assent in the judgment; we do not have two notions, by the repetition of the first operation of the intellect, from the analysis of which the judgment would then result.

All this seems to be confirmed by another theory of S.Thomas and which we cannot now examine more fully. According to this (in a certain sense) we cannot know many things at one and the same time (S.Th.I q.85, a.4); the sense in which S. Thomas understands this theory is here briefly outlined; he says: "The intellect can indeed understand many things under a single aspect, but not many things precisely in their multiplicity". He then goes on to explain both these cases: "By under a single aspect, or in their multiplicity I mean by one or by many intelligible species." The reason why many things can't be understood precisely as many, is this: because the possible intellect can only be informed by one impressed species at a time (S.Th. I q.12, a.10).

"Thus we cannot understand many things at one and the same time, because we understand many things by different species; but one intellect cannot be actually informed by different species ~~at~~ the same time so that it can understand by them". The possible intellect (Q.D.de Ver. q.8, a.14) is indeed at one and the same time in potency to all species, and many can be present in it at the same time according to habit, which is an incomplete act, but not according to the perfect act.

But how, then, is the intellect able to consider a proposition (although this embraces many)? Only when it grasps it as one in one species, in the same way as it can consider a continuum as actually one, though embracing many (Contra Gent. I, 55): "At one and the same time it understands the whole continuum, not part after part; and in the same way it understands a proposition all together not first the subject and then the predicate: for according to one species of the whole it knows all

Therefore to understand any proposition one species which represents the content of the proposition must be actually present in the possible intellect; this species is derived by abstraction from the phantasm, which in turn must contain that whole as a unity. What is affirmed of every proposition must apply to the principles also. And so in this theory also there is presupposed the opinion, which is usually attributed to Cajetan alone, demanding as necessary the presence of "the complexion of the terms" in the phantasm.

If the texts cited above are re-read in the light of this theory, those which treat of the function of the agent intellect, and that of the possible intellect, actuated by the species, and all the others will acquire a greater clarity.

. . .

We have another confirmation, together with a further elaboration, from the now well-known text Q.D. de Ver. q.1, a.9. According to the outstanding exposition of this article by Charles Boyer, every judgment (the second operation of the mind) consists in the reflexion of the intellect on the simple apprehension (the first operation) and this reflexion consists solely in the knowledge of the conformity of the simple apprehension with its object. In this explanation, which we consider to represent the true mind of S. Thomas, all those elements are present which we have found above: in every judgement, therefore also in the first principles, by the first operation of the mind, one simple apprehension, there are already present all the elements that are expressed in the proposition. Thus the conclusion will be the same as that which are reached previously.

There are, however, some words of S. Thomas which are, or can be cited as objections to the position we have reached; these we propose to consider here.

First, however, we maintain that that phrase which occurs regularly cannot be alleged as an objection: the principles are known when the terms are known. For these words, which assert a priority of nature in this knowledge (of the principles) are intended to indicate the difference between the first necessary principles and other judgements, whether they be deduced by a reasoning process (necessary judgements indeed but not first principles, known per se), or immediately known from experience, but not as necessary (although there is sometimes in reality a necessary nexus between both terms).

With regard to mediate judgements: although a certain knowledge of the terms is required that their sense may be known, this nevertheless is not of such a kind that the truth of the nexus is immediately apparent: for this the intellect must be determined by the power of the principles. In immediate judgement concerning a contingent fact (or not recognized by us as necessary) there must indeed be a certain knowledge of the terms. Otherwise the sense of the proposition would remain unknown - moreover in this case in virtue of the testimony of the senses the mind immediately assent to this truth (if there is question of a particular judgement); as a result of experience gained by repeated observations (if an empirical law is in question); but the knowledge of the terms is not of such a kind that the nature of the nexus itself is understood, although the nexus which is in fact present is observed. For this there must be had such a knowledge of the terms that their nature, at least inasmuch as the nexus results from it, be perceived; this exigency seems to be expressed by the phrase "when the terms are known". This knowledge of the terms is a necessary but not a sufficient condition, it is further required that the very nature of the nexus be perceived in the concrete case.⁽¹⁾

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- (1) S.Thomas seems to wish to avoid the expression "From the terms known"; for the preposition 'from', as has been said (Q.D.de Ver.q.8,a.15) indicates a discourse, a movement, which is excluded in the knowledge of principles. The following formulas are used: immediately the terms are known, when the quiddities are known, by the knowledge of the proper terms.

But in some texts the knowledge of the terms is spoken of in such a way that some authors interpret them as teaching that the knowledge of the principles does indeed arise from an analysis of the terms already known. So Zigliara (Leonine Ed. T 1, pq. 259, note 0) treating of the text cited above (Poster. Anal. I, lect. 30, n.5) tries to weaken the sense of the words used, which seem clearly to teach the contrary as shown by the following passage:

In Met. IV, lect. 6. "For by the natural light of the agent intellect itself the first principles are made known, nor are they acquired by processes of reasoning, but solely from the fact that their terms are known. This comes about in this way: from sensible objects memory results, and from memory experience, and from experience the knowledge of those terms, and when these are known those common propositions, which are the principles of art and science, are known".

But these words seem rather to imply than to exclude the opinion of Cajetan. It is explicitly stated that only the knowledge of the terms is required, in order to exclude a process of reasoning. Then to insure the sufficient knowledge of these terms the celebrated Aristotelian process is required in the evolution of which the nexus of the terms is certainly perceived in the sense, in the memory, in the experience and therefore in the phantasm.

The following words may seem even stronger: In de An. III, lect. 10. "The intellect which is the habit of the principles, presupposes some things already/actually known: namely the terms of the principles, by the understanding of which we know the principles".

S. Thomas intends in this passage to prove that the agent intellect is not the understanding of the principles; for this it is sufficient for him to indicate some knowledge, caused by the agent intellect, which by nature - and often in time also - precedes the habit of the principles; the "complexion of the terms" in the phantasm is not excluded. Moreover in the parallel text cited above (Q.D. de An. a.5) he replies to the

difficulty: "We know the indemonstrable principles themselves also by abstracting from singulars", hence the agent intellect is the cause of the habit of the principles.

. . .

In view of these considerations it seems to us that S. Thomas is on the side of Cajetan not on that of Antonius Andreas; he also demands a previous experience of the "complexion of the terms" for the knowledge of the principles so that in it we may see the principle. And although he more frequently offers a mathematical example, he nonetheless speaks universally, so that it is clear that the same doctrine can be appropriately applied to the other first principles also.

We already have an example in the same article of the first question of the De Veritate discussed above. Fr. Boyer offers an excellent explanation in his article: in every certain judgement the nature of the act in every certain judgement the nature of the act of apprehension, as proportioned to reality, is known by the mind, and indeed naturally (not temporally) before the judgement of conformity itself is elicited; the nature of the faculty itself is implicitly known at the same time and not naturally prior: this S. Thomas expresses by these words: "And this (proportion of the act to the reality) cannot be known unless the nature of the act itself has been known (past tense!) and this in turn cannot be known unless the nature of the active principle, which is the intellect itself, is known." [Present tense!] Nor is it necessary that the integral nature of the soul be known, but it is sufficient that it be known that the intellect is of itself adapted to what is true; for the Holy Doctor immediately adds: "Whose nature it is to be conformed to reality".

All this, therefore, we experience in ourselves in every judgement; if afterwards this experience, which **reveals** to us the nature of the act

and in it the nature of the faculty is considered, in it (as above in the phantasm) we can understand this necessary and universal principle by a new judgement: our mind is adapted to truth. Thus we do not know this principle by a certain analysis of the terms, but in the same way as mathematical principles, in experience, but an experience of such a kind that in it the nature becomes clear to us.

V

From all this it seems to follow that the opinion which we have called Cajetan's but which seems to be S. Thomas, should be considered anew in the investigation of a theory of knowledge. It cannot be seen as a difficulty that many of the arguments put forward by earlier authors concentrate on more psychological aspects of the problem. For many statements of S. Thomas, as those cited above on the agent and possible intellect, only employ the language of psychology to express a position and arguments which are purely criteriological, others at least presuppose a criteriological theory.

That opinion is also worthy of consideration because in it the scholastic position in relation to Kant is considerably altered. We can only give a brief outline of this point.

With regard to the terminology itself, "analytic and synthetic a priori judgements", this has frequently been treated by the scholastics. In the theory described above ('Cajetans') the first principles are certainly not analytic judgements in the classical or Kantian sense, nor in the sense of the scholastics who wrote after Kant. For the principles do not derive their origin from analysis, nor from a comparative analysis of each term; the principles do not pre-suppose such an analysis which would be naturally prior. They could indeed be called analytic judgements in this sense, that from the principle there results an analysis of the subject, which is by nature posterior; but then the word no longer has

its classical sense.

Are they then synthetic? If every judgement that is not analytic is synthetic, that would have to be said; but this condition does not seem to be always verified where there is question of some composite (judgement). But if immediate, particular, empirical judgements are called synthetic; first principles also, inasmuch as they also derive their complex content from experience, must be said to be synthetic, but their synthesis does not proceed from the knowing subject.

Are they then synthetic a priori? Certainly not totally, for the same reason: because they arise from experience with respect to their content. They are in some measure 'a priori'. What is there is in our mind a faculty (the agent intellect) which can abstract from the content of experience the nature of this content, both with respect to the terms (that is classical doctrine among the scholastics) and with respect to the nexus of the terms (this is peculiar to Cajetan's theory); in this way universal and necessary knowledge comes about. And this cause of such knowledge is assuredly from our soul, i.e. a priori (cf. the text ~~seted~~ cited from Q.D. de Ver. q.10, a.6 and others). Because it is only in well-determined areas (metaphysical, mathematical, and certain physical matters) that our mind is capable of such abstraction, hence it is that the expression 'a priori' distinguishes the principles from other judgments arising from experience (in many questions of physics), which treat of matters with respect to which our mind does not possess that capacity or aptitude; these judgements are a posteriori.

Certainly this 'a priori' is utterly different from that of Kant; for our mind in no way impresses its subjective forms on the material which is presented to it, but rather abstracts and frees the nature of both the terms and their nexus from the singularity of the object in which it is objectively (really) present.

But with this is connected yet another change of position with regard

to Kant. For he puts forward the view that experience only teaches us that something is de facto of such and such a kind, but not necessarily so; experience cannot provide truly universal judgements, but only (by induction) judgements that are comparatively so, or general judgements; hence he concludes to a twofold criterium, by which we can recognize a priori judgement, not derived from experience; that criterium is: the necessity and universality of the judgement. These are the presuppositions for the division of judgements into analytic and synthetic and for their investigation, they are presupposed in the discovery of the synthetic a priori judgement. But these pre-suppositions are adopted in advance without examination, without argument, without discussion, as per se known. But the possibility of the opinion 'of Cajetan' implies the possibility of a judgement, necessary and universal, derived from experience by a truly aristotelian induction; and there seems to lie the essential opposition between Aristotle and Kant.

For this reason the opinion described above seems to merit renewed investigation.

P. Hoenen, S.J.