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The apodictic method and the dialogue between theology and science (II)

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Abstract

Many present-day scientists think that religion can never come to terms with science. In sharp contrast with this widespread opinion, the authors of this paper consider that, historically, scientific reasoning and religious belief joined hands in their effort to investigate and understand reality. In fact, the present-day divorce between science and religion is nothing else than the final outcome of a gradual, long-term, and deliberately assumed process of the secularization of science. However, especially during the last decades, we have all been equally confronted with the advance of a new concern that some contemporary scientists have, namely reviewing the sphere of problems specific to the domains of investigation in which they are involved while now facing themes that are usually addressed by theological thought. It can be said that this recent development is being captured by an emerging new field of investigation within the modern scientific epistemology, Science and Religion.

Against this background, the purpose of this paper is three-fold: firstly, to briefly emphasize that one of the defining dimensions of the science and religion dialogue is given by the discontinuity relationship in which the knowledge acquired through scientific reason is placed in relation to the divinely revealed one; secondly, to argue that another defining dimension of the dialogue consists in the hierarchical harmony relationship that mediates the encounter between the two, thus transgressing the discontinuity and making the theology-science dialogue possible and viable; and thirdly to advocate the idea that the apodictic method (based on antinomic logic) can successfully structure such a dialogue.

The paper is divided into two parts: the first one addresses the problem of truth in theology and science with particular focus on the antinomic logic, while the second part aims to illustrate how the apodictic method (based on antinomic logic) effectively implements together-workingness between scientific analysis and theological teaching by applying it to the field of economic science, namely the theory of rational behavior, with reference to the issue of wealth and poverty.

Key words: science and religion dialogue; discontinuity relationship; apodictic method; antinomic logic; patristic teaching.

3.2.2.8. A logical demonstration of antinomy

The conclusion of the previous section is, therefore, that truth is an antinomy. However, this important finding requires a more rigorous expression, through a logical-formal definition of the antinomy. We will

follow one of the possible ways to reach it¹, which lends itself very well to the abbreviated transcription of logical operations. Therefore, before making the actual presentation of the chosen path, we consider it useful to briefly review the meaning of the logistical symbols (in the sense that they are used in logical analysis) that we will use.

(1) Thus, the first and essential principle of modern symbolic methods of logic is:

$$p \supset q \quad (8)$$

that is, the principle of implication (if p and q represent sentences) and of inclusion (if p and q represent classes). In the following argumentation, p and q mean sentences, ie products of a judgment, so that formula (8) expresses that the truth of q is in relation to the truth of p , which can be expressed by the words: "therefore", "means", or "ergo".

Therefore, $p \supset q$ means: " p , therefore q " or " p , so q ". The wordings "therefore", "so", or "ergo", in developed form, express the meaning that:

"if p is true, then q is also true";

or:

"if q is false, then p is also false";

or:

"it is not possible that p be true while q be false";

or, finally (the preferred expression, due to the lack of ambiguity):

"or p is false, or q is true"

(2) The latter formula makes it possible to understand the equivalence between the operation of involvement/inclusion (symbolized by ' \supset ') and the operation of logical addition (symbolized by ' \cup '). Indeed, the combination of symbols:

$$p \cup q \quad (9)$$

that is, the operation of logical addition, means nothing but the alternative character of the factors p and q :

"or p is false, or q is true";

or, in simplified form:

$$"p \text{ or } q" \quad (10)$$

¹ In the following paragraphs we take as such the demonstration developed in Pavel Florenski, *op.cit.*, pp.99-102.

(3) It follows that one can write the logical equation of the two operations, namely:

$$p \supset q. =. p \cup q \quad (11)$$

which, in turn, is an equivalent relationship to:

$$p \supset q. =. \neg p \cup q \quad (12)$$

that is, the expression "or p is false, or q is true" is equivalent to the expression "or the negative of p is false, or q is true".

4) Let us further mention the logical multiplication operation, designated by the sign " \cap ". Placed between two symbols or groups of symbols, it indicates the coexistence (conjunction) of these symbols or groups of symbols.

(5) Finally, let us also mention that by the symbol " \vee " is denoted "the truth", and by the symbol " ∇ " overturned, that is by " \wedge ", the negation of the truth, " \neg ", or "the false" is marked.

It seems that we have now all the data needed to move on to what we set out to do in this section of our analysis: a logical definition of the antinomy (which we denote by " P "), as well as the expression of its schemes.

Of course, the reflections developed here on antinomy stem from the process of reduction to the absurd². In the symbolism of logic, this method is expressed by the following formula:

$$\neg p \supset p. \supset \neg p \quad (13)$$

that is, "if the negative of a sentence (or, respectively, of a class) implies that sentence (or, respectively, that class) which it denies, then the sentence is true."

Logic explains and justifies this paradoxical reasoning. Indeed, according to formula (11) we can have:

$$p \supset p. =. \neg (\neg p) \cup p \quad (14)$$

but, in accordance with the principle of double negation:

$$\neg (\neg p) = p \quad (15)$$

and hence:

$$\neg p \supset p. =. p \cup p \quad (16)$$

But it is understood that the alternative " $p \cup p$ ", namely " p or p ", entails the irrefutable confirmation of p , so that:

² The reduction to the absurd is, to our knowledge, a reasoning initially applied in mathematics by Euclid (to prove the twelfth sentence in Book IX of the Principles), while in philosophy it is used by "dogmatists" to reject radically skeptical arguments directed against the demonstrable nature of the truth. The method was also frequently used later by both mathematicians and philosophers, and we can say that it has spread even in the wide circles of society.

$$p \cup p. \supset. p \quad (17)$$

namely:

$$\neg p \supset p. \supset. p \quad (18)$$

which was to be demonstrated.

This is the path indicated by logic. But the question arises: is it enough? In other words, is the method (reasoning) of reduction to the absurd strictly rigorous? The answer is no, and to convince us of this it is enough, we think, to denote - p with q:

$$\neg p = q \quad (19)$$

Regarding q it is clear that there is no reason to exclude in advance the possibility of what has been said so far about p , ie not to admit that formula (13) is also applicable to q . Therefore, it cannot be excluded the possibility that:

$$\neg q \supset q. \supset. q \quad (20)$$

or, substituting the corresponding terms in formula (19):

$$\neg (\neg p) \supset \neg p. \supset. \neg p \quad (21)$$

or, finally, according to formula (15):

$$p \supset \neg p. \supset. \neg p \quad (22)$$

So not only p is proved (formula 18), but also $non-p$, namely - p (formula 22). Thus, two equally unequivocal demonstrations were obtained, which compose the antinomy P . In other words, using logical methods (reduction to the absurd) and operations (implication/inclusion; addition; multiplication), the possibility of antinomy was demonstrated in the most rigorous meaning of the word and, through it, the antinomic connection between elements in human truth.

As such, we are now able to render the logical scheme of the antinomy between the constituent elements of truth, as follows:

THE LOGIC SCHEME OF ANTINOMY P

THESIS p

It can be assume either the thesis p , or its negation, the antithesis $\neg p$. In the first

ANTITHESIS $\neg p$

It can be assumed or the antithesis - p , or its negation, anti-antithesis - ($\neg p$). In the

case it is not necessary to prove the thesis, and in the second, as can be seen, from the antithesis the thesis is deduced again so we can get the alternative: "or thesis, or thesis":

$$p \cup p,$$

that is, the thesis p is asserted.

In formula form:

$$-p \supset p . \supset . p \cup p . \supset . p$$

So, if we state the thesis directly or if we deny it, we cannot avoid it anyway.

first case it is not necessary to prove the antithesis, and in the second case it is found that from the thesis the antithesis is deduced again so we can get the alternative: "or an tithesis, or antithesis":

$$-p \cup -p,$$

that is, the antithesis $-p$ is asserted.

In formula form:

$$-(-p) \supset -p . \supset . -p \cup -p . \supset . -p$$

So, if we state the antithesis directly or if we deny it, we cannot avoid it anyway.

3.2.3. Autonomous reason cannot reach human truth

We believe that the logical demonstration of antinomy can offer us some welcome epistemological benefits. A first one would be the proof of the antinomic connection that operates between the elements that structure the (human) truth: the presence of the thesis does not guarantee at all the non-existence of the antithesis; on the contrary, the thesis always presupposes the antithesis in the realm of the spirit (we saw this when we discussed the antinomic character of the Divine Truth), and it often presupposes it in other fields as well (scientific research, for example). Therefore, the thesis and the antithesis together constitute the expression of truth, which means that truth is an antinomy and cannot but be so.

A second methodological benefit would result from the first and would consist in a better grounded understanding of the relationship between truth and reason, more precisely the extent to which natural (autonomous) human reason can access antinomic truth. In this respect, we now know that the antinomy is a sentence which, being true, contains both the thesis and the antithesis, so that no objection can affect it³. It follows, therefore, that: "*The antinomic does not say at all: <Either this, or the other is not true>; nor does it say, "Neither this nor the other is true." It only says: <Both this and the other are true, but each in its own way; reconciliation and union are above reason>*"⁴ [emphasis added].

In our interpretation, this statement of Pavel Florenski means that, as long as human reason acts autonomously, ie remains within the limits of its natural powers, it cannot accommodate the antinomic: reconciling and uniting of contradictions, of thesis and antithesis "they are stupid, absurd for reason. A cannot be *non-A*. It is impossible, but also undoubted!"⁵. And this stems, we believe, from the very "existential condition" of reason. In fact, the antinomic comes from the division of existence itself⁶, including here reason as part of existence. Thus, the existence of a plurality of discordant schemes and theories - equally honest, it is true - but which come from different starting points is, we believe, the best proof of the "cracks" of the universe. Whatever our object of research, we inevitably divide what we

³ Or, in an alternative formulation: if the antithesis entails the thesis and, at the same time, the thesis entails the antithesis, then the ensemble formed by the thesis and the antithesis, if it is not false, is an antinomy.

⁴ Pavel Florenski, *op.cit.*, p.106.

⁵ Pavel Florenski, *op.cit.*, p.108.

⁶ From a dogmatic perspective, it can be said that if there is sin, then our whole being and the whole universe are divided. In fact, the ancients also spoke about the precarious ontological condition of the world and of the man living in it, a special voice among them being that of Heraclitus. And it was this philosopher - who aspired to the "*impassive heart of the indisputable Truth*" (Parmenides) -, who did not cease all his life to insist on the division, fractionation, and antinomic character of our earthly life. Discovering the perfect harmony of the Godhead, he also saw the inner discord of the world: "*People do not understand how the opposites are harmonized. The harmony of the world consists of a combination of tensions and attenuations, as in the case of a bow or a lyre (when the string is stretched and weakened). The rejection reaction between the opposite terms actually brings them closer. The perfect harmony is born of the clash of opposites. Everything is due to dissent*".

examine, dissect into incompatible aspects what we study. And we don't see any consistent argument that would contradict the statement we just have made a little above: tangled and mired in invincible contradictions - since it wants to permanently attach itself to this selfishly fragmented world, both in time and space. -, autonomous human reason, on its own, does not want to adjust to contradictions, rejects "organically" the antinomic.

It is a positioning that seems to us detrimental to human knowledge. Ideally, we should let the contradiction remain deep, as it is: we must not, and we believe that we do not have the deontological derogation, to hide the contradiction behind the smokescreen of our philosophems (aporema). If the knowable world has cracks and we cannot effectively remove these cracks, we must not camouflage them. If knowing reason is fragmented, if it is not monolithic, if it contradicts itself, we must not again pretend that such a thing does not exist. The helpless effort of human reason to reconcile contradictions, the "arrogant" attempt to react against them should have long been rejected by the lucid recognition of the *contradictory* and the *antinomic*.

But even if autonomous reason would engage in an effort of recognition and accommodation with the antinomic condition of truth, even then, we believe, for autonomous reason the fullness in unity of contradictions would only be postulated. And the condition for the postulate to become a genuine intuitive act, an authentic experience, would be to restrain our rational activity and to pass into the spiritualized thinking of a human nature restored, purified and recreated from the state of sin.

Autonomous reason, which exists through its own natural powers, is denied access to the understanding and acquisition of truth. To know the truth one needs the enlightenment of grace, the spiritualization of reason, that is, spiritual life and, therefore, asceticism. Or, **the asceticism of reason is faith**⁷, that is, the self-denial of reason. And the act of self-denial of reason is the expression of an antinomy. For, indeed, one can believe only in an antinomy; any non-antinomic judgment is either recognized or denied by reason, because it does not go beyond the selfish isolation of reason (that is, reason sufficient to itself). If the truth were non-antinomic, then reason, always frequenting its own domain, would not have a point of support "beyond" its domain, would not see the extra-rational object and, therefore, nothing would cause her to begin the asceticism of faith.

4. Towards a specific method of the science-theology dialogue

The access of reason to the truth is therefore mediated by faith. Which means that the relationship between reason and faith acquires a critical importance for the issue that concerns us here, namely: the emancipation of the science-theology dialogue from the current stage of exploratory methodological probing to that of methodological joint-working based on the hierarchy-in-harmony relationship between theological and scientific knowledge. In such conditions, the effort to identify (more precisely, as we have seen, to reconstitute) the method which could ensure the support of this emancipation must be channeled towards understanding how the elements that are prefigured to be the basic structural "ingredients" of the method relate to each other, respectively *faith*, *reason* and *antinomy*.

4.1.Faith

Saint Maximus the Confessor says that the very possibility of the existence of faith is a gift given to man by God: "... *He (God – our comment) gives to the pious people a faith in His existence more grounded than any demonstration. For faith is a true knowledge, based on principles that cannot be proved, as one that is the foundation of things above mind and reason*"⁸ [emphasis added].

In the same spirit, St. Gregory Palamas states that faith is not based on abstract notions, but on life, pragmatism, realities, or rather on the reality of man's encounter with God: "*Our faith is not in words, but*

⁷ Pavel Florenski, *op.cit.*, p.98.

⁸ Saint Maximus the Confessor, *Capete gnostice* (Gnostic Headings), I, 8-9, in "Filocalia", Vol.2, Bucharest, Humanitas Publishing House, p.130.

in things." And the saint states elsewhere: "*We do not consider the knowledge found through reasoning and syllogisms (to be – our comment) a true opinion, but that demonstrated by facts and life, which is not only true, but also certain and non-overthrow (by logical arguments – our comment)*"⁹.

Of course, the divine is beyond the mind and reason, so it is not subject to the senses, nor to science, nor to reasoning and syllogisms. However, in Orthodox (patristic) theology it is confessed that, amongst the divine, some can be known, researched, and therefore demonstrated, and others are unresearchable: "... *some are known, and others are sought; and there are also some that prove themselves, and others are utterly incomprehensible and unexplored (...) which - knowingly¹⁰ - we have by faith*"¹¹ [emphasis added].

Against this background, let us remember in particular the fact that the Holy Fathers teach, by their example, that judgments and syllogisms can be made about the divine, but not starting from human wisdom, but from the wisdom that comes from the Holy Spirit. Based on these sound premises, they were not afraid to call this type of reasoning as apodictic or demonstrative. Thus, just as hymns are made for God, even though He is beyond any hymn, so can demonstrations of Him be made, even though He is beyond demonstration. So it is not a simple reasoning (syllogistic, let's say), but one that is based on the experience of ecclesial life, of the Church, the only unshakable foundation. As long as this foundation remains unaffected, there is no danger in the use of reasoning and demonstrations.

The Church Fathers point out that when the apodictic method needs to be used¹², it exists as a starting point "... *the power moved by the Spirit, by which (in the form –our comment) above the mind being shared by those above the mind, by-God-wise and by-God-speakers, from God they were taught and - following God - they taught us*"¹³. Which means that the principle or foundation of theological and patristic demonstration is the truth received from the Spirit, His power shared with the Church Fathers.

For the context of our analysis, these patristic testimonies tell us that the method we are looking for - meant to instrument the science-religion dialogue - should not be limited to being an intellectual, conceptual enterprise, but that it is necessary to consist of the very experience of faith by its practitioners, apodictically, that is, on the basis of the truth coming from the Spirit.

4.2.Spiritualized reason

As we showed in the previous subsection, the second "ingredient" that we set out to consider in configuring the specific method of science-religion dialogue is reason, more precisely its relationship with faith.

In essence, the Christian-Orthodox teaching on the relationship between reason and faith can be expressed as follows: man must give up his reason for believing in God, and through this he will also gain his reason, that is, he will also use his reason at maximum power. Exaggeratingly loving his reason, he loses it; but using reason within its limits, but aided by grace, he arrives at a fruitful teaching¹⁴. This means that man must use his mind correctly: to use it for the glory of God, to find God, not to make his mind God. Otherwise, science helps a lot, but it also disturbs a lot¹⁵, as reason darkens and works below its normal capacity.

⁹ Saint Gregory Palamas, *Pentru cei ce se liniştesc întru sfinţenie* (For those who rest in holiness), I, 3, 13, Vol.I, Hristou Publishing House, p.423.

¹⁰ With the meaning that it is about the scientific objectivity of the act of faith, in the sense of experiencing the content of faith.

¹¹ Saint Gregory Palamas (2013), *Opere complete, Volumul II – Antiepiigrafii. Epistolele către Achindin şi Varlaam* (Complete Works, Volume II - Antiepiigraphy. Epistles to Achindin and Varlaam), Bucharest, Gândul Aprins Publishing House, p.77.

¹² For example, in the case of combating heresies.

¹³ Saint Gregory Palamas, *op.cit.*, pp.10-11.

¹⁴ Saint Basil the Great (1982), *Against Eumonius*, Paris, Sources Chretiennes Collection, Vol.2 (translated by Bernard Sesboie), pp.107,113,121.

¹⁵ Elder Paisie Hagiorite (2000), *With pain and love for contemporary man*, Holy Mount Athos, p.206.

But, "... **grace is constitutive of reason, it is the spirit, it is the power that sets in motion, it gives life to reason**"¹⁶ [emphasis added]. Therefore, the state of union is the fundamental state that expresses the true relationship between reason and faith, more precisely between reason and grace. For, as Father Dumitru Stăniloae shows, faith is the attainment of the grace of reason, it is the "spiritual feeling" of God's faith, "... *His spiritual feeling in His works, in His power that touches us*"¹⁷.

Therefore, reason is set in motion by a spirit. And Saint Basil the Great confesses in this respect: " *I am of the opinion that in the mind of man there are two powers, one evil and demonic, able to draw us to fall, and the other divine and good, able to raise us to the likeness of God* "¹⁸. We can infer from this that:

- if reason is set in motion by an evil spirit, then it darkens and boasts, indifference and contempt for the divine appear, and thus the "wisdom of this world" is reached. This circumstance means that man, through the very contemplation of the surrounding nature, through the very act of (scientific) investigation of reality, comes to the conviction that God does not exist;

- if, on the other hand, reason is set in motion by the grace of the Holy Spirit, reason can be opened to humble thought, it can be opened to faith, it can be spiritualized. At this moment, the pure soul feels apathy (the calm of the soul similar to the calm of the divine nature), because through this "*the image of God is restored in the soul, as much as possible to the man*"¹⁹. In terms of our analysis, this means that for man who opens his soul to humble thinking, contemplation of nature and investigation of reality are opportunities to confess faith in God.

Thus, appealing again to the teaching of Saint Basil the Great, let us remember that "*This world was not conceived in vain, nor in the desert, but for a useful purpose and for the great need it brings to those who exist on earth, if the world is really a school of souls endowed with reason and a place where can learn the knowledge of God, being through what is seen and felt in the world a guide of the mind for the contemplation of the unseen* "²⁰ [emphasis added].

In line with these thoughts, it should be noted that, according to the patristic vision, "*God created the world for a reason and a purpose. He created the world out of goodness, in order to make other beings partakers of His love ... The world, as nature, is created for human subjects, because only in man the rationality of the world, of indefinite virtualities, acquires a meaning, a purpose, or it reaches its fullest fulfillment* "²¹. Above all, "...*the world and the things in it discover their meaning because their rationality is seen by man as having creatively its source in the personal God, because they are seen as a means of God's love, therefore of His dialogue with people... Man's dialogue with God through things contributes to his development, as they are seen as images or transparent faces of God's reasons, of the meanings He pursues through their creation, meanings through which He wants to lead man all more to Himself and to man's own development. Man thus grows through things, because through them he knows more and more the loving intentions of God towards him* "²².

In this sense, Saint Gregory Palamas explains that "*God, being neither seen nor material, He can be known, no other than from sensible and intelligible beings. For knowledge being knowledge of creatures and stopping at the edge of creatures, from these, they show God* "²³. And Saint Maximus the Confessor

¹⁶ Father Petre Comșa (2003). "*The Knowledge of God in the Teaching of Saint Basil the Great*", Bucharest: ASA Publishing House, p.85.

¹⁷ Fr. Dumitru Stăniloae (1979), *Being and Hypostases in the Holy Trinity, after Saint Basil the Great*, in Orthodoxy, Year XXXI, 1, p.69, apud Fr.Petre Comșa, *op.cit.*, p.56.

¹⁸ Saint Basil the Great (1986), *XII Homily, At the Beginning of Proverbs*, in "Writings. Part I", Bucharest, EIBMBOR p.481, apud Fr.Petre Comșa, *op.cit.*, p.57.

¹⁹ Saint Basil the Great (1988), *Epistle 2*, in "Writings. Part III", Bucharest, EIBMBOR, p.117, apud Fr.Petre Comșa, *op.cit.*, p.55.

²⁰ Saint Basil the Great (1986), *Homily 1 at Hexaemeron*, in "Writings. Part I", Bucharest, EIBMBOR, p.77, apud Fr.Petre Comșa, *op.cit.*, p.64.

²¹ Fr. Dumitru Stăniloae (1978), *Orthodox Dogmatic Theology*, Vol. I, Bucharest, EIBMBOR, p.339.

²² Fr. Dumitru Stăniloae, *op. cit.*, pp.355-356.

²³ Saint Gregory Palamas (2001), *Word for those who calm down with piety; the third of the latter. About the holy light*, in Filocalia, Vol. VII, Bucharest, Humanitas Publishing House, p.357.

states that in the unseen of God which are seen "from the creation of the world, being understood from creatures, that is, His eternal power and divinity" it shows "the reasons of the things made before centuries by God, as He Himself knew... These, being unseen, are seen by understanding from creatures. For all the creatures of God contemplated by us by nature, with the help of due science and knowledge, **secretly announce to us the reasons** according to which they were made and reveal to us through them the purpose set by God in every creature" [emphasis added].

The teaching of the saints shows us clearly, therefore, that alone, by itself, man's natural reason cannot fully understand the reasons of things. But she can know enough, as much as is necessary for her to open herself to humble thoughts and faith, and thus starting from what she has seen, to come to understand the mysterious and unseen reasons of things. What can happen, we have seen, only if faith is allowed to the mind, and this when it is enlightened by the Holy Spirit. That is, when reason becomes spiritual. In such a vision, one of the hesychastic descendants, Patriarch Calist, also contemplates existence in its entirety, Creator and work: *I see myself filled with the Holy Light of my heart, by the gift of God, as an unquenchable candlestick of the spirit, and if it may be said so **I am introduced into the reasons of creatures, and I see all the reasons of all united in a mysterious Reason, and all of Scripture I see ending in that Reason... That reason is the great Council of God***²⁴ [emphasis added].

Through spiritualization, reason becomes enlightened, expands, and can include in itself the logic of grace, the logic of faith, as much as possible to it²⁵. The soul repents, makes metanoia, that is, the change of thought, of reason; there is an orientation of reason towards God, towards faith. And believing, then reason understands the logic of faith, for as the prophet Isaiah says: "If you do not believe, you will not understand", and Saint Basil the Great says in his turn: "The good can be truly understood by reason only by faith"²⁶.

4.3. Antinomic thinking

We believe that the essence of what was discussed in the previous subsections of our paper in relation to faith and reason, as "ingredients" of the desirable method of instrumenting the science-theology dialogue, can be summarized in this formulation: the diminution of reason (to give way to faith) means its use at maximum powers, while the exacerbation of reason (to the detriment of faith) is equivalent to its use not even at the level of its normal powers.

This means that the problem of finding the correct and natural relationship between reason and faith is solved in *antinomic thinking*, since antinomies - which operate with the ternary logic of paradox - are positive for knowing God, because natural reason itself - which operates with the binary logic of non-contradictory - gets to know its own limits, is prevented from hardening itself, *humbles itself*²⁷.

In this sense, let us recall the words of Pavel Florenski: "... the asceticism of reason is faith, that is, its self-denial." Assuming its limits and making asceticism, reason gives up to considering itself sufficient and opens itself to faith, lets itself be assisted by faith, engages in a process of working-together with faith. But this act of self-renunciation of reason in favor of faith, this self-contradiction of reason — through its working-together with faith — is the very expression of an antinomy. Through its asceticism, through its openness to faith, reason ends up asserting itself and denying itself at the same time. *So it ends up operating in terms of antinomic logic.*

²⁴ Saint Calix the Patriarch (1979), *Heads about prayer*, in *Filocalia*, Vol.VIII, translated by Fr.Dumitru Staniloae, Bucharest, EIBMBOR, pp.292-293.

²⁵ Fr.Petre Comşa, *op.cit.*, pp.54-55,71,90.

²⁶ Fr.Petre Comşa, *op.cit.*, p.55.

²⁷ Fr.Petre Comşa, *op.cit.*, p.54.

4.4. Apodictic method based on antinomic logic

Throughout the present research we have been looking for a method that can instrument the emancipation of the interdisciplinary science-theology dialogue from the current stage of *exploratory methodological probing* to that of *a viable methodological working-together*. In our opinion, we have gone through two distinct and successive stages in this regard.

(i) From the results of the first stage we can conclude the following:

- the basis of patristic theologizing is the truth coming from the Holy Spirit, His power shared with the Fathers;
- we ascend to the knowledge of God not by the common notions processed autonomously by our intellect, but by the grace of God;
- the starting point in the knowledge of God is the power inspired by the Holy Spirit;
- scientific knowledge can also be part of this ascent to the truth of Creation only if the scientist engages himself in such a spiritual ascent and opens himself to his own transfiguration under the work of grace of God;
- the work of its own transfiguration of scientific knowledge under the power of grace hypostasizes the reality of the together-working between the patristic teaching and the scientific analysis, testifying in this way to the hierarchical nature of the dialogue between them.

(ii) On the other hand, from the second stage, some more important findings resulted:

- the method is not an intellectual construction, but an experience of faith intertwined with apodictics and antinomies. As such, the faith based apodictically on the truth of the Holy Spirit, the spiritualized reason, set in motion by the activation of the grace that constitutes it, the antinomic nature of asceticism in which spiritualized reason is engaged, are all these dynamic processes that give substance and delimit the territory of the specific action employed by the method;
- functionally, the method is dual: on the one hand, the premises and conclusions are given by faith (which represents the apodictic component of the method); on the other hand, the “path” from one to another is rationally-syllogistically woven, this warping itself being done in the atmosphere of faith, in its “gravitational field” (which is the antinomic component of the method);
- teleologically, the demonstrative reasoning thus obtained does nothing but confirm and thus strengthen what is already held by faith.

5. An illustrative application

We aim to illustrate how the apodictic method (based on antinomic logic) effectively implements together-workingness between scientific knowledge and theological knowledge by applying it to the field of economic science, in particular the theory of rational behavior, with a special reference to the issue of wealth and poverty.

5.1. The context of the problem

Expressed synthetically, the teaching of faith that crowns the patristic interpretation of revealed truths about human nature and rational economic behavior has a paradoxical formulation that undoubtedly aggresses the common sense of the logic of professional economic research: *”Scatter your wealth so that*

*you do not lose it ! Don't keep it with you if you want to have it ! Throw it away, to keep it! Spend it to earn it !*²⁸.

At the risk of formulating the dullest platitudes, let us mention that, as a whole and beyond the differences related to doctrines, schools of thought or ideologies, economic thinking agrees with the idea that the whole edifice of the economy is set in motion by man's desire to improve his situation, to do everything in his power to, given a certain situation of choice, to achieve his own best interests. As such, when dealing with the problem of human nature and rational economic behavior, "all-color" economists are willing to consider it in the nature of man that man should always prefer to have more goods than fewer; to want to own as much of certain things as possible; be interested in giving up a smaller quantity of a given good in exchange for a larger quantity of another good; choose the course of action that promises the highest expected value; to want to obtain the highest level of value and satisfaction from a certain action he undertakes. In other words, the idea that well-being represents the possibility of man to satisfy as many of his desires as possible, that these desires tend to be unlimited, and that man is, consequently, a maximizer, is broadly agreed upon.

In view of this state of affairs, it can be said that the vision that emerges from the interpretations of the Holy Fathers on the divine truth revealed about human nature and rational economic behavior, is in conflict with the vision commonly shared by the community of economists. At first glance, the conflict seems to be about the teleology (ends) of economic behavior. Thus, while secularized economic thinking considers ends such as the accumulation of wealth and the eradication of poverty, the patristic vision speaks of the damage of enrichment in material goods and the benefit of impoverishment through the merciful spending of wealth.

Our opinion is, however, that, in fact, the conflict is based *on the logic of argumentative discourse*, which, in the case of economic thinking, is the logic of science, and in the case of patristic thinking is the antinomic logic.

In the following, we will try to discuss these issues in more detail.

5.2. The logic of scientific research

We start from the fact that professional economic research, like any act of authentic scientific investigation, is based on a rational thinking that involves the intervention of three fundamental logical principles²⁹.

(1) *The principle of identity*: stipulates that every thing is what it is, that is, that a thing is identical with itself (examples: A is A; B is B; I will be what I will be; I wrote what I wrote; non-A is non-A; if A is non-B, then A is non-B). All these examples show that identity is valid for all logical forms: notions, judgments and reasonings. The principle of identity is not a tautology or a truism. Thus, the formula "A is A" specifies that A (an object, a notion, a term) is itself and is also nothing else.

(2) *The principle of non-contradiction* (or excluded contradiction): stipulates that it is impossible for a sentence to be and not to be true (at the same time and under the same relation). Likewise, two contradictory sentences cannot both be true (at the same time and under the same relation), if one is true, the other must be false. Or, a property cannot be asserted and denied about the same object (at the same time and under the same relation).

(3) *Excluded third party principle*: stipulates that a sentence cannot be neither true nor false. Likewise, two contradictory sentences cannot both be false (at the same time and under the same relation); one of them is necessarily true. Or, it is impossible for a property neither belong nor not to belong to an object. In other words, it is impossible for there to be a middle (third) term between the two extreme terms of a contradiction, because for any object every property must be affirmed or denied (if between the extreme

²⁸ Saint John Chrysostom (1994). *Writings. The third part - Homilies to Matthew*, The Collection "Church Fathers and Writers", Vol.23, Bucharest, EIBMBOR, p.75.

²⁹ Our references to the principles of the logic of science follow the line of analysis developed in Botezatu, *op.cit.*, pp.174-198.

terms of a contradiction there were a middle / third term, then, even because of the mixture of properties, nothing true could be stated).

If we were to try to formalize, in terms of the principles of the logic of scientific research, economic behavior in relation to the problem of poverty and wealth (a crucial topic addressed by the teaching of the Holy Fathers), then the logical scheme would be as follows:

SCHEME OF THE LOGIC OF SCIENCE

Principle of identity:	A is A	Poverty is poverty
Principle of non-contradiction:	A is not non- A	Poverty is not non-poverty (wealth)
Excluded third party principle:	There is no a T (third) state that is neither A nor non-A , at the same time and under the same relation	There is no man who is neither poor nor non-poor (rich), at the same time and under the same relation

5.3. The logic of patristic thinking

To address the problem of the characteristics of logic that underlies patristic thinking, we believe that it is first necessary to return to the Holy Fathers' teaching on the existential condition of man in relation to the problem of wealth and poverty, and try to deepen their meaning. Thus, we have seen that the Church Fathers are advancing in successive steps in clarifying the problem, namely:

(1) To begin with, they show the fallen state and bad order of this world.

("For the world is a lover of sins ... and the world is related to those who are united with the ugliness of morals and have bad behaviors, and they value it" / Saint Cyril of Alexandria)

The bad order of this world lies especially in disobedience to God's commandments, which leads man to a "second fall," in which the tyrannical authority of the body over the soul is installed, as well as the worship of idols, such as worldly power, wealth, glory, pleasures.

(2) Then, the Fathers urge to despise the worldly (which makes man a slave to the excesses of the needs of the body), and to renounce the passion of enrichment (which is the major source of all evil).

("... in all circumstances, let us despise all that is beyond necessity. That nothing makes us submit so much to the devil as the desire to have more, as greed" / Saint John Chrysostom)

("Those who want to get rich ... fall into temptation and a in a trap and into many mad and harmful lusts, like some that plunge people into ruin and perdition. For the passion for the love of silver (of riches) is the root of all evil ..." / Saint Paul the Apostle).

(3) Further, it is shown that the renunciation of the passion of enrichment can be achieved only by giving one's own wealth to those in need. Which means it equates to merciful impoverishment.

("Now ... He [the God – our comment] speaks directly of the contempt of wealth, showing that He gives this Commandment not for the benefit of those who receive mercy (alms), but for the benefit of those who give mercy (alms), so that, even when there is no one to do us injustice and to bring us to justice, even then we should despise our fortunes, giving them to the needy" / Saint John Chrysostom)

(4) Next, the Church Fathers learn that merciful impoverishment is edifying only if it is done out of love for those who receive mercy, who are in need. Otherwise, it is merely a harmful accumulation of sins.

“Truly, the great and honest man is the merciful man, because almsgiving, then, is true, when one does it with love and voluntarily, disregarding that he gives, but that he receives a gift, as if he were acquiring, and not as damaging”/ Saint John Chrysostom)

“That every one that does mercy in his earthly live shall receive back hundredfold of it, and also he shall inherit everlasting life: but this I say to you, that you should not repent of your alms, neither doubt the poor when you have given him something, lest, instead of payment, double damage to receive”/ Prologues)

In line with the Holy Parents' interpretations, we believe that we can consider that the merciful impoverishment powered by love, far from being limited to philanthropy or, in a more precise formulation, to a voluntary unilateral transfer of wealth, of material goods (as usually happens in the case of different schools and currents of secularized economic thinking), is a type of economic behavior that hosts the equivalence of two components: the act of merciful impoverishment powered by love (that is, the loving sacrifice of someone's consumption of material goods in favor of those in need) is equivalent to the act of renouncing enrichment (that is, the loving sacrifice of the temptation of passionate enrichment in material goods).

Thus, if we were to formalize in logical terms the equivalence relationship between the two components, we would use the following notations:

- the term **A** defines the notion of merciful impoverishment powered by love;
- the term **non-A** defines the notion of non-impoverishment out of love, or the alternative notion of renouncing to the impoverishment out of love;
- term **B** defines the notion of enrichment;
- the term **non-B** defines the notion of non-enrichment, or the alternative notion of renunciation of enrichment;
- the wording “merciful impoverishment powered by love is the renunciation of enrichment” defines the equivalence relationship between impoverishment out of love and the renunciation of enrichment and is at the same time the expression of **the logical principle of dual identity** (we will return to these notations later in our paper, when we shall present the scheme of antinomic logic).

(5) Then the Church Fathers reveal that impoverishment powered by love for the sake of those in need is in fact a loan granted to God.

“Whatever you give to the poor, you put those into the hands of Christ, and no one can snatch them from the hands of the One who took them, but they spend there, a lot of fruit bringing us ...

For this is what Solomon says: <He who has mercy on the poor lends to God> But, have you seen what a glorious way to borrow? That another is the one who takes the loan and Another puts Himself as guarantor for it. For it has not been simply said, "He who has mercy on the poor gives to God". And this was not said in this way because, at the reward of the merciful man by God, he may not only take back what is his due interest, but together with it he receives from God even more interest” /Saint John Chrysostom) [emphasis added].

Trying to understand more deeply the teaching of the Holy Fathers, let us observe that the act of impoverishment powered by love (that is, the renunciation of enrichment as a passion) is a narrow path, which requires spiritual ascent. A transfigurative spiritual ascent, as it "descends heaven to earth" (cf. Father Constantin Galeriu) and leads the merciful man to God. It is a synergistic act of man's cooperation with God, an act that makes God the debtor of the merciful man.

(6) After that, the saints show that, having God as debtor and guarantor at the same time, the merciful man becomes the beneficiary of the mysterious transfiguration of the material goods sacrificed into spiritual goods.

“He gave them [the material goods – our comment] to God and shall receive back hundredfold, because they have all become spiritual and above the mind” / Father Ilie Cleopa)

Understood in terms of the meeting between earthly and heavenly, between contingent and transcendent, between creation and Creator, in short between man and God, the act of impoverishment

powered by love reveals its deep nature: the material goods sacrificed from the consumption of the passing, worldly life, *are transfigured*, as a gift, by the power of the indebted God, into spiritual goods, as snacks capitalized in the passing earthly life to be consumed in the eternal heavenly life. At the same time, say the Holy Parents, it is *a mysterious transfiguration*. But what does this mysterious transfiguration really mean?

Sacrifice in material goods is the loving initiative of the merciful man, and their transfiguration into spiritual goods is the answer of God's unspeakable love of people. Material sacrifice is a human act what takes place at the level of the intelligibility of human reason, while the transfiguration of material goods into spiritual goods is a divine, mysterious act, what takes place beyond the level of understanding, knowledge and explanation of human reason (it is "*above the mind*", as Father Cleopa says). As such, the impoverishment powered by love is a reality that is both open and closed to human rational knowledge. In other words, human reason alone cannot understand, know and explain it in all its fullness. It is necessary for reason to assume its own limits, to humble itself, and therefore to make asceticism (see, in this sense, Florensky's argument previously presented in our paper). Or, the asceticism of reason is faith, ie the renunciation of reason in favor of faith (assuming its limits and making asceticism, reason gives up considering itself sufficient and opens itself to faith, lets itself be assisted by faith, engages in a synergic process of together-working with faith). But this act of self-renunciation of reason in favor of faith, this self-contradiction of reason itself — through its together-working with faith — is the very expression of an antinomy. Through its asceticism, through its openness to faith, reason ends up asserting itself and denying itself at the same time. In other words, *it ends up operating in terms of antinomic logic*.

Which means that impoverishment powered by love (as renunciation of enrichment) is a form of economic behavior that falls outside the understanding of rational thinking unassisted by faith (and based on the logic of science), but which can be understood instead by the rational thinking assisted by faith (that is, spiritualized reason), based on antinomic logic.

(7) Furthermore, the Holy Fathers put at our disposal an spiritual teaching of cardinal importance, we would say, namely: the promise of Christ for heavenly goodness is also accompanied by His promise for earthly things.

("... *Verily I say unto you, There is none that hath left a house, or a brother, or a sister, or a mother, or a father, or a child, or a land for my sake and the gospel's, and hath not taken them; in this time of persecution - houses and brothers and sisters and mothers and children and lands, and in the age to come: eternal life* " [emphasis added] (Mark 10: 29-30).

It turns out that the promise given by Christ simultaneously targets both planes of human existence: the earthly and the heavenly. So:

- in the heavenly plane, the Savior's promise refers to the fact that the choice of impoverishment powered by love / renunciation of enrichment (it is about those who put Christ and His gospel above the family and the material goods held) brings the transfiguration of material goods (sacrificed from consumption of transient earthly life) into spiritual goods (as snacks capitalized in the passing earthly life to be consumed in the eternal heavenly life);

- on the earthly plane, the promise refers to the fact that the impoverishment powered by love in material goods (the renunciation of enrichment as a passion) brings increased reward in material goods. Which is equivalent to the paradoxical wording: *the renunciation of enrichment in material goods enriches in material goods*.

(8) Finally, as a culmination of the interpretation of the revealed truths, the Holy Fathers take to the limit of their consequences the paradoxical teaching exhortations they give: "*Scatter your wealth so that you do not lose it ! Don't keep it with you if you want to have it ! Throw it away, to keep it! Spend it to earn it !* "

We believe that it is now even clearer that only in the register of an antinomic logic can we understand how it is possible for the impoverishment powered by love, that is, the renunciation of enrichment (in material goods), to enrich (also in material goods). Note, at the same time, that accepting the possibility of such a reality ("renunciation of wealth enriches") presupposes operating with the principle of contradiction in antinomic logic (as opposed to the principle of non-contradiction in the logic of science)

which, applied to our problem, stipulates that two contradictory notions ³⁰ [the notion of B (enrichment) and the notion of non-B (the renunciation of enrichment)] are true at the same time (the renunciation of enrichment enriches), but they are also true in the same respect (the renunciation of enrichment in material goods enriches in material goods).

Moreover, accepting the possibility of such a reality also presupposes operating with *the principle of the included third party* from antinomic logic (as opposed to *the principle of the excluded third party* from the logic of science), a principle which, applied to our case, stipulates that there is a term (**T**), **mercy/alms**, which is neither non-enrichment nor enrichment, at the same time and under the same relation. This is because in mercy there is neither non-enrichment (because mercy enriches) nor enrichment (because mercy is the renunciation of enrichment), at the same time and under the same relation.

Now, if we were to try to formalize, in terms of the principles of antinomic logic, the characteristics of economic behavior in relation to the problem of impoverishment and enrichment, as they result from the teaching of the Holy Fathers (which we have just analyzed above), then the logic scheme would be as follows:

SCHEME OF ANTINOMICAL LOGIC

Principle of dual identity	A is non-B	Impoverishment powered by love is the renunciation of enrichment
Principle of contradiction	Non-B is B	Rejection of enrichment enriches
Principle of the included third party	There is a T (third) state that is neither B nor non-B, at the same time and under the same relation	Mercy is neither enrichment nor non-enrichment

5.4. Conclusions

In this illustrative exercise on the apodictic method, we had as a working assumption that its application will highlight the tension that exists, in terms of the logic of argumentative discourse, between economic thinking (operating with the logic of science) and patristic thinking (operating with antinomic logic). We now reached the finding that the application of the method was likely to lead to a process in

³⁰ Let us recall the (symbolic) notation with which we operate:

- the term **A** defines the notion of merciful impoverishment powered by love;
- the term **non-A** defines the notion of non-impoverishment out of love, or the alternative notion of renouncing to the impoverishment out of love;
- term **B** defines the notion of enrichment;
- the term **non-B** defines the notion of non-enrichment, or the alternative notion of renunciation of enrichment;

which the fundamental principles (of identity, non-contradiction and the excluded third party) with which economic thinking operates lose their authority (hitherto undisputed).

Thus, it can be seen how, in the case of the patristic teaching of divine revealed truths, how the three fundamental principles of the logic of scientific research are dislocated one by one: *identity* gives way to *dual identity*, *non-contradiction* is replaced by *contradiction*, and the excluded third party leaves room to the included thirdparty. In logical terms, the antinomic vision of the Holy Fathers does not say: "*The poor and rich attributes of man cannot be both true, at the same time and under the same relation, since one of them is necessarily false*" (The principle of non-contradiction in the logic of science). It also does not say, "*The poor and rich attributes of man cannot be both false, at the same time and under the same relation, because one of them is necessarily true, and therefore there can be no middle/third attribute between the extreme attributes, **poor and rich***" (The principle of the excluded third party from the logic of science).

The patristic antinomic says, instead: "Both the **poor** attribute and the **rich** attribute of the merciful man are true, at the same time and under the same relation" (The principle of contradiction in antinomic logic). As he also says that "*There is a middle attribute between the extreme **poor and rich** attributes, namely the **merciful** attribute, which is not included by the two extreme attributes.*"

In this way, we believe that the "scandalous" assertion of the patristic vision of economic behavior ("*Scatter your wealth so that you do not lose it ! Don't keep it with you if you want to have it ! Throw it away, to keep it! Spend it to earn it !*"), becomes logical and intelligible when translated in terms of the apodictic method based on antinomic logic.