

5. Changes in renaissance rationality: from the revival of antiquity to the foundation of modernity

5.1 Introduction

Despite the considerable historiography, the academic thought of the Renaissance for a long time did not find such distinction and recognition as the art of this era as its most complete exponent. Until now, some kind of special *rationality*, say, humanistic or natural-philosophical, has been reluctantly noted here, often limiting itself to its assessment as transitional to classical New European or as synthetic in relation to ancient and medieval ones. Indeed, on the one hand, a number of Renaissance cultural categories (*nuovo*, *popolano*, *virtù*, *ideale*) appear to be harbingers of the bourgeois worldview of the New Age, which generally removes from the mind the traditional moral and soteriological criteria of truth, and on the other hand, in the then academic environment, all scientific justifications continue to be regulated by the «4 reasons of the doctor's teacher» (Aristotle).

This duality is reflected in the methodological approaches to the study of the subject of Renaissance rationality: instead of the social history that prevailed in recent decades, intellectual [184]. Within the framework of the intellectual history, different aspects of the more general ideological orientation of the Renaissance towards the *improvement* of nature by worldly means of philosophy, art and science (*ratio mersa et confasa*), emancipated thanks to the concept of «double truth» that was established the day before, are continued.

In particular, the magical-astrological *aspect* of spatial (*compositio*) and temporal (*dinamis*) self-*movement* which eliminates the ontological dualism of «truly existing» and «existing» in favor of an aesthetic gradient between them, in the perspective of scientific rationality is a prerequisite for the mathematization of scientific knowledge, in the physical plane can explain the process of relativization of peripatetic «natural places», and also has access to the socio-historical problem of the humanistic breakdown of the social status quo.

The humanistic *aspect* of improvement based on the material of the individual «body», connected with this breakdown, contains both a direct impact on the actual position of the individual in the dominant hierarchical world order and new possibilities for overcoming it through revived cyclical patterns of political history and an inverse relationship with the magnitude of the public good. Together with the dynamization of history and nature, which was outlined by the Renaissance artists, there is a basis for translating the speculative transcendental world into its sensually comprehensible infinity, and the discourse of his manifestation – into the phase of engineering and artistic interaction of everything that exists and linear models of mathematical analysis.

The natural-philosophical *aspect* of improvement has already been consciously positioned as a power-esoteric one, aimed at creating *artifiziola natura* as a symbolic abstract of the Human. Although contemporaries perceived it as a simple resuscitation of a doctrine deficient in Christianity in the spirit of *περι φύσεως*, the «own principles of nature» had a solid pedigree in the Hellenic-Roman religious and mythological syncretism, which, obviously, is closer to the former Christian consciousness of the Renaissance in its semantization of nature and the demiurge of human.

Thus, it is promising to investigate such processes that originate in the Middle Ages and finally take shape in classical New European science in the role of secularization, innovation, and epistemology of the mind and its experiential-mathematical methodology, as well as to compare them with examples of self-awareness of *intellectuals* of that time.

5.2 Academic status of Renaissance thought

Intellectuals of the XIV–XVII centuries in one way or another, they share the «Renaissance project», which paradoxically requires *renovating* sentiments (*renovatio*) to be convinced of the continuity of the *restored* ancient tradition, which is often illustrated by the examples of M. Copernicus, who, despite all the revolutionaryness of his own mathematical theory of heliostatism, understood it as a way of clarifying the discoveries of Ptolemy and A. Vesali, who, despite the initiation of experimental anatomy and diagnostics, considered himself only a restorer of the

original teachings of Galen [185]. According to F.A. Yates, this belief of intellectuals in a continuous chain of sages from Moses or Hermes Trismegistus, and with it the world of the Renaissance itself, was shaken only in 1614, when I. Casaubon «re-dated» the Corpus hermeticum [186, p. 351].

It should be noted that despite the conscious opposition of humanist philosophers of the XV century the previous millennium, which they felt as «the middle ages between classical Antiquity and its revival», many features of these «dark», «barbaric» and «lost to mankind» ages are noticeable in their philosophy. And in a figurative expression, ««...» from the pupa of the Middle Ages, which allegedly did not show signs of life, a brilliant butterfly of the Renaissance suddenly hatched, but if the pupa had not undergone complex processes of histolysis, no butterfly would have emerged» [187, p. 221]. Yes, the very name «humanists» sends connoisseurs of the history of philosophy, if not to Cicero, then at least to patristics, where Tertullian or Lactantius tried to defend the peculiarity of Christianity as a religion, which values the human and, in particular, the personal principle in relations with God, with the help of the concept of humanism. The terms «revival» and «rennovation» in relation to the person, religious and political institutions gain prominence in the mysticism of the Middle Ages and the Proto-Renaissance (Bonaventura, Francis of Assisi, Joachim of Florence, Dante), in order to slowly become secularized in Francesco Petrarch, Giovanni Boccaccio and their followers [188]. Many meaningful related features can be found in scholasticism:

- the continuation of the development of «natural theology», which contrasts written testimony with real creatures that contain a share of their Creator and are not obscured by doctrinal interpretations;

- continuation of the development of the ontology of the «world rock» in a more original and naturalized version of the Neoplatonists;

- the continuation of the development of the anthropology of the «image and likeness of God», the meaning of which is transferred from an honorable right to an essential requirement;

- the continuation of didacticism, which qualifies any knowledge as teaching already open knowledge, the source of which is recognized authorities, now pushed back into antiquity (for example, instead of Thomas Aquinas, who explained the meaning of Aristotelian texts, they are now reviving Alexander of Aphrodisias);

- the continuation of the development of the epistemology of the universal objectivity of language and philological methodology in connection with the found folios or the rereading of already known original languages and in identical versions, so as to retell not only the glosses, but also the personal integrity of canonical antiquity...

However, the specific weight of disagreements seems to be greater. First of all, it is about rejecting the excessive speculativeness (syntax) of scholastic philosophy in the effort of humanists to make wisdom more aesthetic and practical («poetic»), oriented to earthly life, sometimes even to earthly paradise. For example, Petrarch said: «Rejoice here on earth, and the way to heaven will be opened to you». This not only meant the landing of the heavenly half of the world and the spiritual *bridge* of man and God, the aesthetic version of which inspired the iconology of the image of a beautiful body, and the rational version served as a justification for scholastic speculations. Often, on the contrary, it led to the exaltation (transcensum) of the earthly through the mediation of the most outstanding and accessible of creatures – Man, who has the example of Christ, in whom human and divine natures are harmoniously combined.

5.3 Rationality in search of the substrate of human creativity

In this context, Dante uses neoplatonism to soften transcendental creationist values and sees in art an «anagogic» way of exalting the natural in the soul to reveal the norm of the divine in the world. The corresponding risk of profanation of abstract scholastic casuistry by the poetics of human experiences, allegorically depicted in the Comedy as the passage of hell and purgatory, is overcome by the «first secular piety of the Middle Ages» with the help of the Thomistic argument *lumen intellectus agentis*. This «light of reason» must balance the totality of «natural», including astrological «reasons», the determination of a person by analogy with how the transcendent

Intention of the Creator compensates for the vicissitudes of the redemptive incarnation of Christ the Logos.

For Nicholas of Cusa, the connecting link of such different attitudes turned out to be the figure of Christ as the incarnation, individuation of the universal supernatural eternal Divine in a single natural-historical Human. «I see in you, Jesus, divine sonship, the truth of all sonship, and at the same time the highest human sonship, the most accurate image of absolute sonship <...> In your human nature, I thus see everything that I see in the divine, only everything that in the divine nature is the divine truth itself, in the human I see existing in a human way <...> And here in you, Jesus, the human understanding is united with the divine understanding, as the most perfect image with the truth of the type <...> So in you, Jesus, the artist of artists, I see the deepest connection of the idea of all things with their likeness <...> You are God and at the same time creation, infinite and at the same time finite <...> You are the combination of divine creative nature and human created nature» [189, p. 79-80].

A symmetrical fate is destined for the human individual, which, in contrast to the pre-Christian infinite approximation, potentially contains the image of the divine whole (*imago dei*), but actualizes it by virtue of the fall spontaneously – in disorderly transient forms [190, p. 49]. Considering the intellectual context of the confrontation between nominalism and realism, this intuition is realized in the most opposite way, for example, in grotesque literature (F. Rabelais) and «political novels» (T. More, A. Brucholi, A.F. Doni, G. Gergot, K. Stiblin, T. Campanella). The fact is that, on the one hand, humanism initiated an anthropocentric imitation of creationism, returning to the patristic *accidental* nature of the world, requiring divine support (*creatio continua*), cognizable only in an infinite *linear* perspective. On the other hand, humanism not only removes moral and substantial restrictions from the sublunar world, but also undertakes to indicate perfect examples of overcoming the order falsely established by sin, and even – examples of inspiration from his shadowy mystery. These are visible images of the infinite, Beauty as a sensually comprehensible Logos [191].

This delegation of the functions of a transcendent Subject to a person is usually perceived as an epiphenomenon of the Renaissance autonomization of an *individual*

from a clan, estate, church, and other communities, so that the individual in the long run «may use his mind as an adult». Indeed, class mobility, consonant with the content of the revived atomism, in certain circles contributed to the perception of one's own life as a more or less transparent *artifact*. And his dignity, inspired by the sovereignization of yesterday's vassals, largely depended on the ability to spiritualize the bodily – both through the lustration of feudal law and through the epistemologicalization of the «mechanical arts» (mechanization of crafts). First of all, we are talking about painting, where mathematical experiments with the image visualized the anthropocentrism of the Italian Renaissance. ««...» It is enough to take into account the idea of the mathematical basis of nature, which originates in ancient Pythagoreanism (the idea that God, whom, by the way, the Renaissance figures called *Summus Artifex* – the Great Master or *Deus Artifex* – the God-Master, put a mathematical plan at the basis of the world he created), and take into account the situation of the collapse of the world-building foundations of society, then a natural assumption arises that the purpose of this pictorial technique is not so much an image as the *literal creation* of human, the world and all things» [192, p. 58]. So the notorious «autonomization» contributed to the alienation not so much of the Subject as of nature as the opposite creation. «A real feeling of isolation from nature appears in a person when he begins to consciously build his own life – not according to a ready-made model given by tradition, but according to a specially defined law, when the inner life of a person, permeated with self-consciousness, in its intensity and significance begins to “compete” with the external life of an individual» [193, p. 36].

At first, under the conditions of the semi-mystical Trecento, nature becomes just as teleologically indebted to the self-willed human subject as it is to its communion Subject: get something *supernatural* – moving and creative predicates – she could only in *antithesis* of orthodox Christianity. The same personalized forms of Christian questioning, allegory, and theurgy now form the arsenal of pseudo-pagan *demonic* magic and judicial astrology. «In full accordance with the position of theology, magic and astrology in the Middle Ages were the realm of the demonic and grew outside the limits of a reasonable schedule. Exiled from the world of form, they operated beyond

the bounds of reason. They lived among others, where the contingency of the possible left a gap for human activity. These were “experimental” sciences» [194, p. 338]. However, the sacral-philological age was soon supplanted by secular models of artists and inventors (ingenious mechanici), for whom the similarity to natural actions better indicates involvement in the same root causes. Therefore, the actual miracle is not the result of demonic intervention, but the revelation of the inner potential (virtù). «Just as the art created by man, acting from the outside, creates according to random principles and creates random forms, so the art of nature, generating and transmitting substantial forms from the depths of matter, acts according to eternal and fundamental principles» [195, cit. ex. 196, p. 273].

Together with the imminent religious and political restrictions on the autonomization of the individual in his mind, cosmic harmony is damaged by the «fierce» fortune, therefore, in relation to the increasing randomness of the miracle, power initiatives arise. «Man has already freed himself from the “fear of God”, but not from faith in the mysterious forces hidden in nature; he does not deny the kingdom of heaven, but tries to take possession of it» [197, p. 470]. One direction, armed with hermetic knowledge, teaches the individual the secret canon of the symbolic *affinity* (συμπαθία) of the macrocosm of the «world soul» and the microcosms of the «vital spirits». The other, having experienced a similar reaction of the Churches (M.A. del Rio, I. Vier, T. Erast) and skeptical science, orients a person towards the search for natural «causes». After their discovery, both transcendent miracles and carnal imperfections will pass into the status of (im)possibilities of regular movement, coinciding not as two homogeneous symbols, but as artificial and natural, essence and determination, experiment and deduction, idea and images. «This primarily affected the understanding of freedom: if in the Middle Ages it was identified with the freedom of a spirit alien and opposite to nature, now the focus of freedom (as well as the expression of the essence of man in general) is the “natural light of nature itself” in man – reason» [198, p. 58].

5.4 Rational philosophy as a creative reception of Antiquity

In the Renaissance course of the rapprochement of the heavenly and earthly worlds, there were different periods and means, but in general one can see the assertion of an independent theology and the defining role of rational philosophy. For example, Dante, justifying it, resorts to imitating the Boethian «Consolation of Philosophy» both in the form of «satura» and in the content of «felicity»: participation in virtues brings one closer to God and bliss in equal measure [199]. L.A. Bruni sees philosophy as a liberator from false judgments and everything else that disrupts and interrupts the pursuit of the true good, embedded in man by nature [200].

The interest in antiquity is explained by its rich *experience* of the earthly and physical half of the world, which was lacking in the medieval stage of Christianity and which began to be realized as a found national Italian cultural heritage. «Thanks to this brilliant contact, antiquity and Christianity became equally renewed. Passionate art spiritualized the first and humanized the second. From this collaboration and this contact, which would have outraged the Fathers of the Church, but far from shocked the popes and cardinals of the XVI century, ultimately gave birth to a series of intellectual concepts that became guiding ideas for the following centuries» [201, p. 292].

Externally, this anti-scholastic course manifested itself in the development of purely secular communities and unofficial scholarship, derived from the framework of university programs and theological interpretations (*printing houses, botteggi, academies, collegiums*); the study of ancient languages for a more adequate translation of canonical texts and deformatization of communication; in the expansion of commercial and intellectual geography (*the Faustian spirit*); in the imitation of various ancient forms, in particular, art, which undertakes to reflect not only the sufficiency of sensual experience or the beauty of the body, but also abstract points of worldview; in the ideal of comprehensive development of the personality (*uomo universale*); the interception of the legislative initiative of the nobles and clergy by the «third estate» (*popolanism*); in a transformative attitude towards reality and one's own life, up to individual salvation (*humanism*)...

In general, what humanists considered a return to Antiquity (that part that was known to them and could be perceived in harmony with Christianity) turned out to be a creative synthesis of the corporeal (earthly, natural) part of Antiquity and the spiritual Middle Ages:

- *studia humanitatis* by F. Petrarca, C. Salutati, L. Bruni, which liberate humanitarian disciplines from the theological direction of research (*studia divinitatis*) in connection with the ideal of life in earthly natural bliss, where purely human properties and experiences become universal means of knowledge, since direct the truth into the stream of practical improvement of reality;

- *fortuna* of humanists as a symbol of manifested existence, which combines the ancient Roman mythology of capricious fate (Cicero, Sallust, Seneca) with the medieval concept of divine tools (S. Boethius) and requires personal achievements from life, understood as the embodiment of the dogma of free will (Dante, G. Manetti), more sophisticated and glorious than ascetic devotion (F. Petrarca), but devoid of guarantees of good success (Leonardo);

- *virtù* of Vergilius and Thomas Aquinas as the spiritual-symbolic potential of the world, which fully manifests itself in earthly nature under the condition of its improvement - through symbolic connotations that serve as a common denominator of different levels of existence or through the artification of the «second nature» (*seconda natura* of Cicero) based on it;

- *coincidentia oppositorum* of Nicolas of Cusa, which represents the opposites of finite creatures relatively identical to the infinite Creator, as illustrated in geometry by the infinitive possibility of combining different levels of being – intuitive infinite idea (line) and visible finite matter (figures);

- *religio universalis* by G. Plethon, representing religion and authoritative sources in a harmonious variety of confessional dogmas or in historical retrospect from naive cults to esoteric Christianity or the rational theology of Plotinus, where they are all united as emanations of the One;

- *Corpus Hermeticum* – Latinized by M. Ficino «Egyptian wisdom» as a continuation of the medieval ideal of book wisdom (*ratio scripta*), revised by the

esotericism of the original sacred texts, symbols and special methods of their knowledge and translation (mathesis, numerology, gematria, etc.), the echo of which is felt in the common G. Galileo's expression that the Book of Nature is written in the language of geometry: triangles, circles, spheres, pyramids and other figures serve as its letters, and our task is to learn to read it [202, p. 41].

5.5 Humanistic studies: the change of generations

As a result of the reception of the teachings of antiquity, the approach of the Renaissance manifests itself in a certain eclecticism or openness, so that a certain humanist or natural philosopher can simultaneously find elements of the teachings of Epicureanism, Stoicism, Platonism or Peripatetism. To a large extent, this is explained by the emergence of philosophy beyond the boundaries of university departments, which is noticeable in the revival of the genres of dialogue, invective or declamation, where Renaissance figures do not so much implement a certain corporate doctrine, but grope for ancient worldview support for their own «simple» intellectual creativity, intertwined with oratorical practice, literary hobbies or historical studies [203]. However, the noted general characteristics are to a large extent typological and acquire distinct specifications at various stages and spheres of the Renaissance project implementation.

The periodization of the latter is most often subordinated to the vicissitudes of the formation, development, and decline of Renaissance *humanism* as a peer and the intellectual and worldview aspect of the age under consideration: if Europeans spontaneously at that time generally learned divine instructions and learned to rely on themselves, then it was consciously necessary to justify this human right to occupy a clerical instance. Therefore, it is in humanism that the Hellenic-Roman context of antiquity is revived, when a person has not yet ceased to feel himself a part of a harmonious whole, but this connection has ceased to be two-way and, as a result, speculatively comprehensible. As then, unable to prove the sought-after good (salvation) as the starting point of philosophizing and the principle of being, philosophers focused on cultivating good (virtue) in themselves. But now the existence

of *bliss* relies not so much on the coincidence of a person with the ontology of Nature, but on the dogma of kenosis and the hermetic elimination of original sin (status *sorrutionis*). «Jesus Christ, the Son of God, is at the same time the son of man, thus it is as if Heaven was brought down to earth, or, which is the same thing, earth was raised to Heaven <...> In hermeticism, as well as in the Kabbalah, which also belonged to the magical and occult tradition, man is proclaimed the Heavenly Adam, capable not only of revealing all the secrets of the divine creation of the world, but also of becoming the second creator who transforms nature and rules over it» [204, p. 55, 241]. In one way or another, according to the expression of M. Foucault, «the intensification of the attitude towards oneself» is reproduced [205, p. 47-51], which first in the image of a Poet or a Statesman will transform the ancient and scholastic rationalization of objectivity into a pile of philosophical tools (*humanism*), and then in the image of the Absolute Subject and completely push it to the worldview periphery (*Reformation*).

Based on the name (*humanus*), the humanist principle can give preference to *human* in two logical meanings – individual and generic. The first of them was an antithesis to the impersonal church-feudal regulation of life, supported by the destruction of the state structure of feudalism in trade-guild Italy and the expansion of geographical horizons. The second – was a certain reaction to the abstract «universals» of theology in the role of a model of God on Earth, supported by a revived image of Christ as a practically active God, capable not only of suppressing the fallen nature, but also of perfecting it. «The Renaissance marks the transition from a fatally pathological picture of the world, in which nature is identical with sin, to an evolutionarily pathological ontology; from now on, nature is not just eternally and forever sinful, but sin is only its current state, which must be overcome by activating the second natural tendency – evolution to perfection» [206, p. 36].

Both meanings are often illustrated by paraphrases from the «Oration on the Dignity of Man», where G. Pico della Mirandola gives an interpretation of the doctrinal thesis that «god created man in his own image and likeness», and tries to specify what exactly should be transmitted to a person in this way. This is personal activity for self-affirmation in divine eternity, since God is not created by anyone and has freedom and

the ability to self-determine. « We have given you, Oh Adam; no visage proper to yourself, nor any endowment properly your own, in order that whatever place, whatever form, whatever gifts you may, with premeditation, select, these same you may have and possess through your own judgment and decision. The nature of all other creatures is defined and restricted within laws which We have laid down; you, by contrast, impeded by no such restrictions, may, by your own free will, to whose custody We have assigned you <...> It will be in your power to descend to the lower, brutish forms of life; you will be able, through your own decision, to rise again to the superior orders whose life is divine» [207, p. 6-7].

At the stage of early humanism, there is an enlightening renewal of the scholastic trivium by ancient rhetoric in the role of a found «ancestor» of faith and canon by the power of the human mind alone. To some extent, this was assumed even under the patristics and matured in medieval universities in the universal didactic and methodological status of philosophy, which it developed while fulfilling the tasks of theology. In the 1330–1390 by the efforts of Petrarca, Salutati, and Boccaccio, theology is being supplanted by rhetoric and poetics in the role of guardians of good and bliss, which was already begun by Dante and the authors of novels about knights and novels about burghers, but now also with the addition of Latin Roman sources («History» by Titus Livius; «Philippics», «On the Orator», «On Duties» by Cicero; poems by Vergilius, Ovid, Horace; works of Augustine and other church fathers), with the result of the formation of studia humanitatis – a complex of humanistic (linguistic, moral, legal) knowledge of the world.

His first task is to educate, following the example of Cincinnatus, Scipio, Mucius Scevola, Regulus, Cato, and especially Cicero, the *ideal of a politician* in whom political experience would coincide with virtuous wisdom and be manifested in suggestive eloquence. «Here we have before us the very center of the Renaissance problematic: the quality of expression is no less important than the teaching itself, at least in the sense that the teaching sets ethical, psychological and civil truths, and thanks to the efforts of the writer, they become worthy of being perceived and convincing» [208, p. 197]. For example, Pope Pius II, known in the world as humanist

E.S. Piccolomini, in his letter to the invader of Byzantium, Sultan Mohammed II, sincerely sought to achieve peace and harmony with the help of eloquence. How far this ideal is learned from the opposite in the ability to resist strife and tyranny through the limitation of one's own arbitrariness by the prescriptions of laws and the subordination of personal gain and pride to the good of citizens and the victory of their homeland [209].

In the first half of the XV century a new generation of humanists (L. Bruni, P. Vergerio, G. Manetti, P. Bracciolini, L. Valla, F. Filelfo, M. Palmieri, A. Rinuccini, D. Achaivolli) notices in rhetoric and philology a scholastic recurrence of «dialectical disagreements» and for his overcoming resorts to an ambivalent *ethical* practice: instead of grace, it is justified by Augustinian pastoral *nature* as a miraculous creature and, first of all, it is justified by the most perfect, closest and most transparent to the mind – human nature. Its study by updated studia humanitatis (ethics, history, pedagogy) reactualizes the Aristotelian concept of «natural sociality», on the basis of which the *moral and civil* extrapolation of humanism takes place: improvement and reorganization of the social body of the community significantly reduces the limitations of the earthly way of existence of the individual. Thus, there is a prospect of practical overcoming of status *sorrutionis* in state institutions - mainly republican ones, where virtue must be verified and proportionally manifested in property nobility (*nobilitate*) and victory (*virtù*). ««...» Not the cult of poverty and ignorance, but the justification of wealth as a basis for moral self-improvement through education and culture; not monastic hermitage, but active, normal life leads a person to salvation, not theological (faith, hope, love), but Aristotelian civic virtues (justice, courage, prudence and moderation) came to the fore» [210, p. 480].

The reactualization of Plato's «Republic», «The Laws», late antique descriptions of the Pythagorean brotherhood, the community of the Essenes, etc. will later form the basis of utopian concepts of state regulation of ethical practice (T. More, G.B. Jelli, A. Brucioli, A.F. Doni, G. Hergot, C. Stiblin, L. Agostini, L. Zuccolo, T. Munzer, T. Campanella, G. Cardano). Moreover, depending on the prevailing ideology, the etymology of the term «utopia» by T. More is derived either from the Greek «good

place» or from the Latin «no place». The source of reorganization in these projects will be the antitheses of current trends (collectivism to individualism, communalism to nationalism, artificial language to vernacular, planned economy to spontaneous capitalism, autarky to trade dependencies, technocracy to naturalism, education to luxury, conservatism to pragmatism, natural religion to clericalism, pacifism to expansionism...) with the aim of normatively renewing *justice* (most often in the form of «proportional» equality) in relation to management, work, property, trade, family, priesthood and thus releasing the conditions for the self-improvement of man as a fundamentally social being. On the other hand, the same Platonic genealogy gave rise to individual liberal teachings (U. von Hutten, I. Reuchlin, Erasmus).

The further massive fall of the city-republics in other countries. XV century – beginning XVI century is regarded by humanists as the triumph of «fierce Fortune» and forces them to transfer the conditions of a person's recovery from the public upbringing of virtue to a contemplative private life on the basis of individualistic ethics and Neoplatonic ontology rediscovered from the «Byzantine» primary sources (L.B. Alberti, G. Argiropulo, A. Poliziano, E. Barbaro, G. Pontano; M. Ficino, C. Landino, G. Pico della Mirandola, G. Nezi, G. Beniveni, Leonardo). In particular, in the Florentine Platonic Academy, the resonance of the ancient «microcosm» and the hermetic «second god» with the Christian «in the image and likeness» in the concepts of «world binding» (*copula mundi*) and «beings of uncertain nature» (*chaemeleon*) opens up an ontological or epistemological ability to man *overcome* the world hierarchy (*transcensum*), assimilating the driving functions of the World Soul in an unchanging natural order (*circuitus spiritualis*) and encroaching on miracles not with scholastic syllogism, but with mentally comprehensible love. «In general, man imitates all creatures of the divine nature, and he brings to perfection, corrects and improves the creatures of a lower nature. After all, man has almost the same power as the divine nature, since man himself, that is, by his own judgment and art, rules himself, being very little bound by the limitations of mortal nature, and competes with every creature of a higher nature» [211, p. 195].

5.6 Renaissance prerequisites for the mathematization of classical European science

A kind of *arbiter* of power strategies of Renaissance rationality is usually called mathematical analysis as the first means of scientific description of the laws of [mechanical] motion. «The logical form of the “episteme” is the knowledge of the “fusus” – definition and predication. The logical form of natural science theory is implication and deduction. Although the law is formulated as a connection of *certain* concepts, it is the law that becomes the basis for the theoretical definition of the concepts included in it. <...> In the cognition of nature, one cognizes not “for the sake of what” or “why” of some existing “nature”, but the possibilities of existence in general, the connection of which is determined by laws expressed in the form of differential equations» [212, p. 164.].

However, the first intuition of infinitesimal calculus was preceded by a difficult period of methodological development of mathematics in its most bizarre «revived» forms of «philosophical geometry» (mathesis). The fact is that in the beginning, young Christianity did not need the truthful mediation of the [wonderful] created world: Christ had already «saved the phenomena». Therefore, when mathematics is still included in the Christian picture of the world – on the rights of an *analogy* of a priori origin and non-cessional status of geometric and moral axioms with the truths of the grace of divine illumination [213, c. 31] – it is already phenomenalized and thus can connect the worlds above and below: since the same forms express both the speculative and the *sensuous*, the latter receives a verification criterion in geometricity. In the conditions of the «autumn of the Middle Ages», the certification of knowledge by the degree of generic perfection, analogously (and consequently-causally) ascending to the perfection of the mutual similarity of the Trinity [215], was burdened by the ambiguities of linguistic interpretation and the intentionalities of the subject. Therefore, despite the speculative and qualitative form of ratio *sensus*, the dual status of mathematics allowed it to displace generic syllogisms from the mediators of the archetypal intuitions of the divine mind – as an uncorrupted, embodied and contemplated by a finite human revelation of an infinitely good purpose that permeates

the world order. In particular, in the realistic tradition, supported by the Timaeus argument of «heavenly origin», it takes on the role of «forms» (universalia) in the role of that part of predicates that is responsible for the position of a thing in the general ensemble of primordial-hierarchical nature (*Ordo natura naturata*). In another tradition, going from Augustine to Luther, the *formality* of mathematics reduces the «released» patristic miraculousness as an «imaginary assumption», or «philosophical theses», for example, in the role of a human mimesis of the divine instrument of limiting the chaos of material accidents.

Based on the Augustinian coincidence in the «form» of sensual beauty and reasonable number, the revival of ideal-sensual natural philosophy, Pythagoreanism and Neoplatonism is justified: ««...» if everything quantitative is necessarily qualitative, living and animated, then, by clarifying the mathematical and geometric relationships and proportions of things, we find out its *innermost secret as a whole, its very vitality and animation*» [216, p. 106]. The mind, which has discovered the identity of ideal intuition and practical visualization, also opens up the possibility of a new one – artistic comprehension and mastery of the structure of the world. «The relationship between human and divine creation is governed by the principle of agreement, similarity, which consists in the application of the rules of harmony, proportions, symmetry, and clarity. Discovering them at the same time both in himself and in nature, the artist can achieve that beauty, which is nothing but a visible manifestation of divine majesty. Thus, the artist imitates not only *natura naturata* (created nature), but also *natura naturans* (creating nature)» [217, p. 403].

Later, in the circle of the Florentines, the mathematical proportion began to perform a mirror aesthetic function. «If even a mediocre and uneducated mind distinguishes the beautiful from the ugly, avoids the formless and strives for the formed, then this indicates that it carries a certain canon of beauty, regardless of any experience and learning.» [218, p. 71-72]. In *experiments* with him, the artist worked out (im-)possibilities that the natural scientist would perceive as reality: the «second nature» will be the expansion through which the «first nature» (*prima natura*) will reveal its limits. Limits of Design (Ratio), secularized in harmony with the sensuous

necessity of nature and the willfulness of the speculative spirit, which are personified by symmetry, perspective projection and especially strict proportion, which distinguishes the *master*. Since he will not immediately come to the democratic «similarity of the mind to the forms of created nature», his mathematical simulations of the transcendent still sin with «sacred uncouthness» (C. Salutati). «The predominant study of static phenomena with their simple visual dependencies, which allowed an exhaustive unambiguous mathematical expression, and the limitation of mathematical knowledge to exclusively improbable sections – all this served as the basis for the naive-optimistic ideas of the Renaissance about the fundamental simplicity of the laws of nature» [219, p. 37].

Thus, the foundations of the *mathematization* of various kinds of events and processes, together with the future types of scientific regularities derived from it, simultaneously reflected the *problem* of distinguishing between universal divine and private human goals in relation to nature. Influenced by the Platonic dialogues, Nikolas Krebs (from Cusa) presented it as an «ascent to eternal truths» (*transcensum*) with the help of mathematical symbolization of categories [214, p. 184], turning them into obviously incomplete for human understanding, but free from human content. On this paradoxical basis, despite his opposition to Thomism, he was able to realize the scholastic idea of Ratio, according to which the ideas of the divine mind can be comprehended if they are taken entirely as an *ensemble*, especially since the systematization of *natura naturata*, symmetrical to it, into the *Ordo* world order seemed to be nearing completion. Since such a picture of the world consisted of colorful plots, it took a whole arsenal of cognitive «parts of the soul» of a person to describe it – sensations (*sensus*), representations (*ymaginacionum*), reason (*racionis*), intellect (*intellectum*), mind (*mens*). If the first of them are called upon to express («bring under the word») a heterogeneous hierarchical space that contains things main and secondary (holy and worldly, central and peripheral, male and female, appropriated and unmastered), then the latter are to move from these heterogeneous final «images of forms» to the «forms» themselves – infinite divine ideas. The mind embodies them into final forms, in which it is assisted by intermediaries – the mind and the «ability to

judge». If the latter evaluates the mind in its induction and deduction of the sensible, then the mind correlates the mind with the ideas of the mind as a movement from the point of Ratio to the boundless space of Ordo [220, p. 162].

In other words, this movement as «identification of the non-identical» was by the time of Cusanus the most reliable means of reproducing Creation, in which the problem of the Creator's Intention and the essence of creations was concentrated as a *process*. Other ways of reproduction – mystical, moral, aesthetic, natural philosophical (physical) – fixing the more speculative beginning or end of creation, seem to be secondary, obviously, because the actualized Platonic «God-geometer», having gone through the school of creationist personalism, does not just emanate sensual diversity, imitating an impersonal model, but also constantly cares about the created diversity [214, p. 139-142]. In the same way, a human who has geometry as his «innate» principle, has the accuracy of a symbolic reflection, as it were, of a twice created being – God and Man – that is sought for by science and imitating the Creator.

Sensual nature is not yet known here: in the atmosphere of Christian ontological dualism, its mathematical symbols of architecture, first of all, to fill the human image with the divine prototype. With their help, he will be able to realize his creative claim to reorder sublunar accidents, because the ratio of their «forms», hidden in the divine intellect, is the same as the ratio of their geometric figures, only adjusted for projection proportions. Therefore, Cusanus's mathesis still remains of a hermetic quality: weaving a person through mathematical ciphers into the «secret connections of nature», he excludes the possibility of a detached cognitive attitude towards it [212, p. 31-34]. But in contrast to orthodox Hermeticism, closed in on itself as a macro- and microcosmic subject, Krebs's liberation of categories from content was recognized as the main function of a symbol to attract new experience, to develop.

Precisely because the conscious increment of experience requires a generalized perception of individual things and oneself (*empeiria* instead of *sensus*), the formation of the classical subject of cognition is burdened with an additional dimension of perception – expediency. This also explains the above-described complication of the mental nomenclature, officially justified by the fact that in the cognitive abilities

bestowed on the human spirit, the mind is also intended to evaluate the *possibilities* of creations explicated by the intellect and thereby glorify the Creator. «Outside of human nature there are no evaluations, no principle of comparing things according to their degree of perfection; you can exclude this nature from the totality of things – and then the value preference of one over the other will disappear» [218, p. 43].

At the first glance of humanists, the Platonic-Pythagorean understanding of mathematics as a «contemplative life» is reproduced here (βίος θεωρητικός → *vita contemplative*): there, too, nature was reputed to be the subject of chance – both in the ontological sense of a wayward beginning, and in the epistemological sense of an opinion relativized by sensibility (δόξα), which equally testify to the *transient* dignity of its object. However, in antiquity this instability was not miraculous: it was the result of a poor implementation of the original idea (goal) – usually due to an implied neglect or excess (ὕβρις) in relation to Destiny, tragically known only in a cyclic perspective, including linear segments of individual lives. ««...»The Greek cosmos (from Homer to Plato) is an ideal theatrical device, delighting itself with luxurious improvisations, where Harmony and Order play themselves under the masks of Chance and Discord» [221, p. 168].

Here, epistemology, having behind it the paradigm of intentional procedures (sermons, parables, meditations), still retained ambiguity in the truth of this world and the other world, inherent in one and the same thing. Therefore, empirical randomness is considered quite amenable to magical influence, that is, contrary to the «cosmic» organicity perceived from the «Timaeus» and the corresponding «natural» epistemology [222, p. 242; cit. ex. 223, p. 23], nothing prevents experience and experiment from *bringing* it into the desired second nature; and mathematics will provide constructive principles for this [224, p. 72-75]. As a result, a complex and ambiguous synthesis of an intuitive alternative to the Platonic and Aristotelian statuses of mathematics that are initial for the European mentality was outlined [225].

5.7 Historical-political motives of late Renaissance rationality

In the XVI century against the background of power disharmony of the Italian Wars and spiritual wanderings of the (counter)Reformation period, the contradiction of humanism to the state structure of society turned into a contradiction to the economic resources of freedom: the ideals of development and elevation of the universal man also need extraordinary resources, which individualistic ethics cannot take care of, but manipulative politics that throw off the shackles of subjectivity – communal (utopia) or signorial (real politic). If the theorists of the first (F. Pucci, C. S. Curione, K. Renato and some of the aforementioned utopians), nurturing anti-despotic attitudes, rely on the «natural» education of citizens, then the theorists of the second (N. Machiavelli, F. Guicciardini, B. Castiglione), developing the original humanistic ideal of the ruler in all the complexity of social situations, separate higher morality (human nature) and the context of its application (personal interest) with the right and risk of the individual at his discretion to reunite this gap between the heavenly and earthly worlds. Along with this practice of human virtues, nature also becomes true only when it is perfected by art, already adopted by the rationality of goals and means.

The fact is that in real politics, several conflicting moral requirements are usually involved at once, so they have to be divided into ends and means, weighing the latter differently than outside the given situation, for example, softening their sinfulness or canceling it altogether. «A human always faces one difficulty in his decisions and actions, namely: the truth of the opposite; there is no such perfect order in which disorder does not hide, there is no evil in which there is no good, there is no good in which there is no evil <...> one should weigh the inconveniences of each decision, stop at the one where there are fewer of them, and remember that there cannot be a solution that is flawless and perfect from all sides» [226, p. 176]. However, it is worth swapping goals and means, as the ambivalence of the latter turns into cynicism of manipulation of public opinion, and humanistic erudition into skepticism as a philosophical antidote to it. «In this devaluation of values, the most likely symptom of the monumental bifurcation of the era, which already stands with both feet in the new and is still getting rid of obsessive reminiscences of the past, is imprinted; it is clear that skepticism and

noncommittal musings turned out to be almost the only chances to avoid uncertainty and confusion» [221, p. 183]. Thus, the extrapolation of political practice to everyday normality and its philosophical reflection once again reveals the overcoming of traditional rationality as an overly schematic vertical dialectic of perfect essence and changing *phenomena*, the formation of which is subject to description by four Aristotelian causes.

Developed on the material of Florentine history, the new rationality is subordinated to the value of freedom, so the justification of the means by the end takes on a moral form on a supra-individual scale. «One of the greatest successes that can befall a person is to have an opportunity to show that the actions of people, carried out for their own interest, were done for the sake of the public good» [226, p. 152]. If the goal is to bring benefit (maximum pleasure and minimum suffering), which will constitute the fund of republican possibilities or monarchical potential, they replace a priori theological values with empirical natural causes (mainly psychological «human motives»), in which Aristotelian objective and formal, which during the time of scholasticism were transcended to the evil world and intellectual knowledge. Vertical access to their substantial species and explanatory potential is now mediated by horizontal accidents (fortune, virtue, political system, military or trade dependencies...), generally forming a historical cycle of «eternal natural law». Thus, according to N. Machiavelli, the republican system does not yet guarantee the reproduction of the common good on which any state rests: for this, it needs its periodic re-awareness, «updating». Sometimes this happens by itself – due to «external» tests of the state, but it is better to prevent them with «internal» measures – by changing the law that gives preferences to some parties over others, or by changing the entire state system to a monarchy, because it is the victory of a «worthy» person and constitutes the primary potential of good from which states arise [227]. Thus, the historical and political justification of the «Renaissance» (*era rinata*) takes place and the transition from the pre-scientific theological to the scientific naturalistic paradigm of the law is initiated on the basis of human nature.

5.8 Humanistic and scholastic motives of natural philosophical rationality

According to V. Windelband's well-known assessment, the famous humanism of the Renaissance turned out to be only one of three «positive anti-scholastic factors»: if others sought the true life of the human spirit «outside themselves» and grew into the philosophy of the state and law and into natural science («true knowledge of nature»), then this «path of the rebirth of the human spirit, which leads inwards, to the depths of the human soul», is finally realized in the Reformation [228, p. 35-36].

The initial worldview problem, from which they seek to displace scholasticism and clericalism in general, they have in common – the lack of categories and methods regarding the «earthly» «half» of man in the face of the sociocultural crisis of traditionalism, extrapolated to the entire Thomistic-Aristotelian world structure. The desire to compensate for the mentioned lack on both sides of the Alps is manifested in the demystification of the earthly half of the world with the simultaneous requalification of divine mediators into sensory elements, and cognitive abilities into creative actions of the mind, as a result of which man finds himself at the top of the created world. Common means are also visible – to find a solution to this problem in the ancient primary sources (*ad fontes*), and at the same time to reread the rest of the canon in the original original languages or with a refreshed personal faith (*Christianismus renascens*). So, taking into account other directions of Transalpine thought of that time, sometimes, by analogy with the «transfer of the Empire», they say about the continuation of the beginnings of the Romanesque Renaissance in the Germanic, because, at a minimum, it is about transferring a new humanistic experience of dealing with revived texts to biblical studies, and, at a maximum, it is about implementing these developments in the revival of *piety* with the qualification of scholastic theology and canon law as outdated. ««...» In the initial period of humanism and the Renaissance, a deep stream of cultural revival flows in the same river with another, even more powerful stream of *church reform*. The word *reformatio* had the same meaning then [229, p. 133].

On the other hand, due to the well-known polemic of Erasmus of Rotterdam («On the Freedom of the Will», 1524) and Martin Luther («On the Slavery of the Will»,

1525) in the Renaissance and the Reformation, in general, opposite values are noted – exaltation and humiliation of a human's status in the world; free-thinking and dogmatism; rationalism and mysticism; allegorism and fundamentalism; sacramental piety and worldly piety; sacraments as Christ's visible signs of grace and mysteries as symbols that do not have theurgical power; the sacrament as the transformation by force of the general status of the clergy and the mystery as coexistence by the force of the personal virtue of the pastor; freedom of will and freedom of conscience; mercy and justice; the democratization of holiness and the impossibility of earning grace; aestheticism and purism; enrichment for the sake of hedonism and for the sake of piety... The comparative study of these values in the scientific plan does not lose its relevance until now thanks to the constant renewal of the dilemma of the Late Renaissance regarding the intellectual status of the *individual*, which determines the various relations of scientific and ethical-religious spheres, law and value, truth and existence. Even more problematic are the new relations of cognitive and axiological components *within* scientific activity compared to the traditional Aristotelian scheme of «four causes», which prevailed in the minds of scientists at that time.

As the sources of «ancient wisdom» were exhausted and reproduced in print and the contradictions of its ideals increased in practice, the project of revival of the «once obtained» sufficient truth partly repeated the fate of ancient philosophy, focusing on its skeptical part, in which the arguments of naturalness for decision-making supplanted logic and aesthetics. «The harmonious integrity of the classical style was disintegrating, and the Renaissance in Italy was replaced by a style whose meaning was given by the crisis worldview of the 20s–50s of the XVI century. Individualism is supplanted by subjectivism, idealization of a person by spiritualization or emphasized interest in a private, characteristic detail; free will is suppressed, and the mind is supplanted by feeling and even instinct, as the last resort of “natural” freedom» [230, p. 125].

For example, M. de Montaigne, reviving the Pyrrhonic «epoch», calls to abandon the hope of humanists to reunite the earthly and heavenly worlds by human forces (transcensum) or the demand of Protestants to «know what we do not know» and to

come to terms with bodily existence on the new grounds of a priori harmony of soul and body in the creative activity of a person. «It is quite probable that if the soul knew anything, it would first of all know itself; if she knew anything besides herself, she would first of all know her body and the shell in which she is placed» [231, p. 270].

Thus, in the suprapersonal structure of the mind affected by the crisis, which turned thinking into a game of theoretical hypotheses, M. Montaigne introduces an internal dialogue of explicit and implicit knowledge about everyday life (family, illness, customs, ambitions...) in its ethnic and historical variations and contradictions. Only this will make it possible to overcome the equal chance of truth and error and to find a moderate natural *norm* for them, in which reasonableness will coincide with benefit, and morality – with pleasure. Until now, it was most successfully formulated by ancient authors – Socrates, Seneca, Epicurus, Plutarch... However, in contrast to the similar approach of N. Machiavelli, the «last humanist», although he reduces all the diversity of determination to natural law, but seeks its norm only at the level of an individual as a representative of the human race and does not hope for its permanence. «He questions the competence of the mind in general and the measure of Protagoras (a person is the measure of all things): a mind that does not know itself, that is somehow connected with nature itself and thus is aware of its measure, that knows how to distinguish its knowledge from ignorance. <...> The skeptical attitude of the mind over itself turns it into a knowing mind. This means that being is separated from meaning and turns on itself, the mind turns to itself, becoming the object of analysis, and between the object of knowledge (a fragment of being) and the knowing subject there is some environment that includes imagination, ideas that should be studied and turn into forms, means of knowledge» [232, p. 81].

At the same time, representatives of natural philosophy try to solve questions related to man in a purely natural way (*filosofi naturali*). Due to the justification of the goals of ethical, aesthetic, political or religious practice by the *immanent reasonableness* of general natural goals and laws, which develops into methodological and ontological problems, they are further identified mainly with the «proper principles of nature». However, natural philosophers distanced from practice by the Counter-

Reformation, despite all efforts to get rid of scholastic manners, generally retain their devotion to *philological* models of the mind: combining things by symbolic analogy dictated by their shared *hidden* formal and purposive «causes» (unless by shifting the purposive cause as the source of motion from external form to internal matter), they *demonstrate* this as deductive inferences from dogmatic abstractions. «The scholastic view that matter also strives for perfection is here reinforced, since natural philosophers ascribe to it lust and aversion, pleasure and displeasure; through such a spread of the hylozoic doctrine of movement, the philosophers of the Renaissance reach their characteristic panpsychism, the basis of which is the sphere of human sensations» [233, p. 14-15].

On the other hand, the scholastic Aristotelianism of the universities was also discredited in places, so to understand naturalness they began to turn to the more ancient elemental-materialistic models of the pre-Socratics, especially since their famous «fragmentation» left room for urgent conjectures. So, just as with humanistic ethics, it was not possible to avoid cultural layering.

First, *natural philosophy* was taken up in the more popular and eclectic Hellenistic-Roman versions, which had a monarchical and stylistic context related to the late Renaissance and were also an appendix to anthropology, so it turned out to be an anthropocentrism inside out: understanding the *macrocosm* became a condition for arranging the *microcosm*. For example, *Epicureanism*, which in the XV century attracted the humanist L. Valla with his hedonism as a sign of the goodness of human nature, in the second half XVI century known to the natural philosopher G.C. Vanini only with his atomistic analysis of all kinds of mysteries as completely rational combinations of elements. The through-body «pneuma» (aethēr) of Stoicism, with which humanists justified the anthropocentric stitching of the world hierarchy, was bequeathed to Copernicanism as a pantheistic bridge between heavenly and natural causes. «Love longing» (*abstractus amatorius*) of *Neoplatonism*, in which Florentine academicians saw a cyclical counterpoint to the emanation of being, which gives a person a cherubic level of intelligence, in the XVI century hypostasised in the form of

a vortex of «elements» (G. Cardano), «earth and sky» (T. Campanella, B. Telezio), «heat and moisture» (F. Patricius), «monads» (G. Bruno).

Secondly, the general impersonal order of nature was influenced by monotheistic theocentrism, which bequeathed to nature a model of exclusive universal substantiality of the World Soul, in which individual places, life-giving and driving forces of things are dissolved, forming a system of self-movement of parts of the whole with each other in an infinite homogeneous space (*dynamic pantheism*).

Thirdly, natural philosophy felt the influence of anthropocentrism: when the macrocosm should be identical to the microcosm, the human body becomes a «medical» model of the natural organism (for example, according to Paracelsus, «there is nothing in heaven and on earth that is not in man»), and a person can find immanent natural first causes with his own mind, seeing in material things proportions, periodicities (neopythagoreanism, hermeticism, cabalistics) and dialectical contradictions (philosophy). «The process of cognition is an ascent to the unity of nature, the path of human cognition coincides with the “unfolding” of nature. If unity is “unfolded” in the creation of things, then in knowledge their mind advances “on the same scale” as nature, “collapsing multiplicity”, advancing “from unity to unity”» [234, p. 73].

In this way, he gets the ability, at a minimum, to speculatively anticipate the course of natural events (mantic, astrology) and, at a maximum, to materially control them, revealing or perfecting the original divine creationism (alchemy, magic). In combination with the flow of curiosities from overseas lands (the works of G.F. Oviedo-y-Valdés, N. Monard, H. d’Acosta, etc.), such a «hermetic» style of thinking not only restored the miracle of seemed finally condemned by medieval scholastics as a sign of ignorance and credulity, but also changed rationality from demonstrative to searching [235, p. 416-418].

However, as with the humanists, all discoveries here, although directed beyond the existing boundaries, but with the Renaissance goal of expanding or clarifying the already known nomenclature of causes. «It cannot be disputed that the conscious “competition” of the Renaissance with Antiquity took place as if on a common plane,

under the same qualitative criteria, under the sign of a single scale of values. It is as if the eras and the people who live in them are musicians who compete for the mediation of the same instrument in the richness and virtuosity of variations on a given theme: who can better and in their own way reveal some diverse essence» [236, p. 44].

The advantages obtained as a result constitute the potential of human *freedom*, but together with the emancipation of its institutional organizers (real politic), it is deprived of the newly acquired ontological guarantees, dooming a person to constant self-improvement in order to ensure a dignified life. ««...»The ideas of “self-cultivation”, the practice of creative self-creation have a touch of elitism and spiritual aristocracy in Renaissance culture. The Reformation makes these ideas mass acquisition, democratizing and simultaneously depriving them of the aura of brilliance, glory, and greatness. Work on oneself, transformation of one's “damaged” nature, self-education become demands put forward to a person by the mass ideologies of Protestantism, Jansenism, etc.» [237, p. 53].

5.9 Instrumental form of rationality of the Reformation and the birth of classical science

After, in 1231, Pope Gregory IX, as part of the fight against heresies, limited the access of ordinary laymen to reading the Holy Scriptures, the status of the clergy began to grow, because now the priests had not only to interpret, but also to communicate the religious content. In combination with the historical breakdown of feudalism and rational theological metaphysics in the XIV century this led to the aggravation of relations between church and secular authorities, and in the XV century – relations within the church. For example, the Councils of Constance and Basel opposed themselves to the Pope as the true rulers of the Church and administrators of its property. Finally, in 1517 in Wittenberg, the Augustinian monk and teacher of biblical studies M. Luther, with 95 theses, began to criticize a number of church orders that seemed too secular or irrational, using the example of one of the forms of forgiveness of sins – the so-called «indulgence of St. Peter» (The name is related to the fact that this «certificate of forgiveness of sins» was used as a source of financing for the

construction of St. Peter's Cathedral in Rome), because it was a way to redeem the salvation of one's own soul without painful repentance of sins [238].

After receiving support from the local secular authorities, the spontaneous thirst for renewal (*reformatio*) turned into schismatic Protestantism regarding scholastic encroachment on Revelation, paternalism, church and feudal law, calendar holidays, theurgy, the sacred status of the clergy, the graces of the church, the sacraments of ordination, confirmation, confession, wedding, consecration... In the XVI–XVII centuries in their teachings, contrary to Catholic *doctrine*, Luther's followers substantiated the thesis that a person should perceive the Holy Scriptures, report to God and take care of his salvation without the «extra» mediation of «human traditions» (St. Tradition of patristics, Aristotelianism, scholasticism, papal decrees, Constantine's Deed of Gift), only with the help of the Holy Spirit. For example, in the case of Constantine's Deed of Gift, we are talking about the popularization of L. Valla's treatise «Considerations about the forgery of the so-called Constantine's Deed of Gift» (1440), in which the Italian humanist, primarily through philological analysis, refutes the authenticity of the document on the transfer of the imp. Constantine gave half of the Roman Empire to Pope Sylvester, and with it the legitimacy of the then papal state. The «symphonic» involvement of ancient philosophical content in theology in the form of the famous «baptisms of Plato and Aristotle» was particularly criticized precisely because of their intermediate position between the Holy Scriptures and reason, and therefore invulnerability when discussing vital questions of doctrine.

For example, T. Müntzer notes that the matter of knowledge of sacred objects is doomed to fluctuate between empty faith and weak sophistry, until a person raises his mind above partial sloppiness to the direct revelation of God. In contrast to Italian humanism, where rationality was also identified with the titanic struggle of the supernatural spirit in the finite conditions of the earthly world, the «natural light» of human reason is here associated with the evil fallen subjectivity, which must be eradicated in the form of delusions and delusions. «While preserving theological differences and ecclesiastical differences, these teachings adhered to unity in the following dogmatic provisions: “sola gratia” – faith in the omnipotence of grace and

Christ the Redeemer; “sola fide” – justification as a gift of God does not depend on man at all; “sola Scriptura” – the Bible is the revelation of God, and every divine truth is revealed in a sermon» [239, p. 47].

Of course, in philosophical retrospect, this religious positivism soon explained its own worldview guidelines, which also formed the interpretive framework for the texts, and with them new «school» preferences, despite their official cancellation in Luther’s program. For example, the interpretation of the message of Ap. Paul, about the priority of faith over works in achieving salvation (justification) (Rom. 3:20-28) and eternal election to salvation (justification) (Rom. 8:30), revealed the reception of the ambiguous Augustinian concept of grace (*gratia sanans*), human freedom (*libero arbitrio*) and divine predestination (*prae-destinatio*). If in A. Augustine it allowed believers to be justified (saved) by grace, benevolent and God-loving even outside the church, then in the Protestant interpretation it divides people into «white lists» chosen for salvation and «black» – doomed regardless of their piety in within the boundaries of the church – «matters of faith» such as fasting, pilgrimage, donations.

Thus, the Protestant opposition of faith and rite formalizes the Renaissance-Catholic tendency to purify the original truth from the burden of comments and conventions, relying on the Augustinian radicalization of the Neoplatonic gradualism of the divine presence in nature. M. Luther’s disappointment with the pilgrimage to «Pilate’s steps» in Rome in 1510 became a symbolic confirmation of the latter. «It was an attempt to recreate Christianity from its original foundations and its primary conditions, an attempt to revive early Christianity in its supposed purity, to recreate the teachings of Jesus Christ in its simple original form, not obscured by further historical layering. This direction does not pretend to be new, rather on the contrary, subjectively it is focused on returning to the origins and strengthening the principle of faith that is also contained in Catholicism» [240, p. 45].

There was no question of the complete elimination of the church, but if for some humanists the weakening of the role of religious institutions (both in cult, intellectual, and legal terms) testified to the urgency of their reforms «from above», then for Luther’s followers it meant the transfer of their functions and responsibilities on an

ordinary *individual*. According to Protestant ethics, deprived of intellectual guarantees of truth, he can serve God mainly «morally» – through worldly means of crafts, trade, politics, art, capable of embodying sacred values and virtues without humanistic «self-cultivation» (*transcensum*), which accompanied exceptional creative achievements. Conscious methodical work (*negotiant*) of a layman acts as an analogue of asceticism (*otium*) of a cleric, therefore it acquires the status of a means of repentance for «original sin» and an indicator of divine election. ««...»The soul of a person in the Old Testament is humbled, but in a humanistic way, a person is exalted due to the possibility of his complicity in His plans» [241, p. 90].

A special direction was the «Christian humanism» of Northern Europe (J. Collet, T. More, G. Beaudet, L. D'Etaples, J. Reichlin, Erasmus of Rotterdam, etc.), which embodied the «third way» of resolving the contradiction of religious worldview and institutions – without revolutionary changes either «from above» or «from below». Like the «Christian renaissance» (Protestantism), he directed the search for the salvation of the *uomo universale* to a renewed faith, but not so much subjecting it to matters of religion, but humanizing it with the still unused possibilities of the previous stage of development – the rationality and skepticism of antiquity. «If in “classical” humanism it was about the earthly purpose of man, then in Christian humanism the problem of the “earthly purpose” of the Christian teaching itself is posed, which is considered not only in the role of an instrument of eternal salvation, but also in the role of a reasonable and just arrangement of earthly human life based on the principles of Christian morality» [242, p. 11].

Due primarily to the scriptological work of Erasmus, northern humanists are often perceived as the founders of the *ideology* of the Reformation, from which M. Luther, J. Calvin, and others made purely religious institutional conclusions [243]. Thus, the ideologues of the Reformation, who generally shifted the emphasis of Christianity from the cosmic drama to the personal one, were dominated by the belief in the goodness and intelligence of an individual person: at a minimum, this being is universal, at a maximum, a spirit is present in it a priori. This is obviously where the Protestant belief comes from, that it is able to interpret the sufficiently direct language

of the Holy Scriptures on its own, replacing clerical norms and scholastic reason with an intuitive conviction that arises in the process of reading this revealed text («conscience»), being critical of one's own views («slavery of the will» compared to the divine) and tolerant of others («freedom of conscience»), in order to generally overcome the «Old Testament Adam» deformed by sin and to implement divine decrees in earthly life. The life of Christ should serve as a moral and practical model for imitation here: ««...» if for the Romanesque Renaissance God is more symbolic and man is realistic, then for the Germanic Renaissance it is God who is realistic, while man is a symbol, a hint of more» [244, p. 82]. In addition to the content of the sermons, this shift in religious interest is reflected in the paintings of Rogier van der Weyden, H. Memling, J. Bellini, P. Perugino, etc.

However, judging by the outbreak of all kinds of superstition (unglauben), not everyone coped with the new level of responsibility. The fact that the truth is now «obvious as an open Book» means that the supernatural, which happens in poceibich, acquires associations with the ungodly. «Luther himself did not care about working miracles himself: these signs would not affect, of course, those who were not converted by the word <...> He sees little convincing power in miracles <...> And besides, miracles can, as he often repeats, deceive; the devil can and does perform miracles when he wants to» [245, p. 154-155]. Therefore, we still need to learn to evade heresies generated by «unnecessary» symbolization, guesswork, zealotry, and diabolical interventions. Such «negative piety» under the conditions of equating the believer with the church institution increased mutual distrust and suspicion of «obsession» with sorcery (alchemy), divination (astrology), witchcraft (empirical medicine), inspiration (rhetoric) and, therefore, in violation of «freedom of conscience», which contributed, according to W. Dilthey, to «shifting the legal basis of dogmas into religious morality» [246, p. 37].

On the other hand, all the doubts of a believer about his own experience could be dispelled by being firmly rooted in a certain community (certitudo moralis). The mass experience of artisans and folklore, far removed from metaphysical ambiguities, were especially important. «At the epicenter of an era when the awareness of personal

sin was sharpened, Luther wanted to save man by depriving him of his freedom of choice» [247, p. 420].

If from an ethical point of view Protestantism rejects monastic practice, then from a philosophical point of view it relies on nominalism, which refutes universals as bureaucratic mediators of the heavenly and earthly worlds, and is based on W. Ockham's «double truth», which radically separates *faith* and *reason*: the first concerns only the truths of Revelation, the second – the world of earthly things. On this basis, the antinomy of the proper / being is proclaimed, in order to attribute the sacred and miraculous exclusively to the proper and lead them away from all the diversity of the being, in particular, the natural order, history, theology, baptism and the Eucharist. The urgency of this approach is evidenced by how, on the other side of the Alps, G. Galileo, associated with the progressive layers of Catholicism, would reinforce Copernicanism with epistemological arguments: although the «mathematical order of nature» reflects divine decrees, astronomy does not have the didactic goal of «getting to heaven», therefore all its possible contradictions are fully evaluated by the means of humanized science, not heresiology [248, p. 216-219].

The communication between man and God is dominated by medieval mysticism (Aurelius Augustine, Dionysius the Areopagite, Bernard of Clairvaux, Meister Eckhart, Johann Tauler, Jean Gerson), while nature in relation to man reveals features of a peculiar Augustinian *wonder*. Such a creature is more aesthetic in the humanistic sense than rational in the scholastic sense, and acquires certainty in the order of purely human empirical hypotheses (M. Montaigne, P. Charron and other «new pyrrhonics»), justified by labor or experimental practice and embodied in social reforms (B Palissy, P. de la Rame, F. Bacon).

Notable in this regard is the fate of the Copernican system of the celestial spheres at the Wittenberg University under the care of F. Melanchthon: despite all its seditiousness, its mathematics enjoyed official popularity as a profitable model of astronomical calculations and predictions without regard to «causal explanation», since it was considered sufficiently supported by Aristotelian physics and, most importantly, by indifferent practice [249, p. 80-84].

Among English scientists, on the eve of the founding of the Royal Society of London, for similar reasons, religious, political, and humanitarian issues were «put aside» and later they did the same with general theories, transferring the dignity of their probability to empirical facts and methodical procedures. In the charter of the Royal Society of London, the goal was declared «to improve the knowledge of natural subjects and all useful arts <...> with the help of experiments, without interfering with Theology, Metaphysics, Morals, Politics, Grammar, Rhetoric, or Logic» [250, p. 58]. In France, the National Academy of Sciences of Paris had external control from the royal power, which recognized the experimental approach on the condition that it did not extend to politics, religion and social orders. «Scholars could offer several competing viewpoints on the same issue and have a sense of common progress and eventual agreement. It was no longer necessary for them to split into factions opposing each other with a wide and scattered front, as before in philosophical conflicts» [251, p. 147].

At the same time, to the extent of the institutionalization of the assets of Protestantism and the development of its own theology, some scholasticism, in particular, the servile status of philosophizing, returns and makes itself felt in the internal opposition of Protestantism. «While the first generation of reformers were preoccupied with serious concerns about the rights of human reason, it seemed to their successors that it could play a role both in formulating new theological dogmas and in reconciling the conflicting beliefs of the various denominational groups that arose after the Reformation» [252, p. 241]. For example, F. Melanchthon began to include Aristotle in the university curriculum, but in his original «pagan» form, which acquires the aura of a humanist and loses its relation to the metaphysical maintenance of religious issues.

At the end of the Thirty Years' War, rationality is increasingly concentrated in the «natural light» of human reason (for example, in craft productivity and personal enrichment, which have become conjoined with grace). Under the influence of Protestant thought, which rejected the inner activity of matter as «occult» and «supernatural», philosophy and natural science in the first half of the XVII century

reject the intrinsic value of privileged types of activity and switch to a mechanistic «philosophy of nature». Having connected it with the ancient mathematical pedigree, as artists and humanist engineers (F. Brunelleschi, Taccola, Leonardo, G. del Monte, A. Ramelli, etc.) had already done with «service» art, merchants, sailors and craftsmen of northwestern Europe (R. Record, J. Dee, R. Norwood, R. Norman, V. Borrow, etc.) took the place of new «doctors». «It was during the Renaissance that the boundary that existed between science (as an understanding of things) and practical, technical, craft activities was first removed – a boundary that neither ancient scientists nor ancient craftsmen: artists, architects, builders, crossed» [253, p. 515].

By regulating the order of actions (means) and not the content of experiences (goals), the new *methodical* rationality abandons the appendages of natural magic, rethinking the «natural causes» of things from their imaginary expedient substances to «corpuscular texture» – visible and commensurate with everyday trade and craft experience and the Lutheran understanding of the Eucharist is the (re)combination of parts of things. Such «small machines of nature» are set in motion no longer spontaneously – by inner souls, mutually coordinated by a transcendental Idea or global sympathy, but by the actions of other parts of matter, ideally covered by the *formal means* of mathematical functions. The latter, expressing all possible ways of corpuscular (re)combinations regardless of the world hierarchy of goals, equate earthly active and heavenly formal causes of scholastic determinism, and thus reduce the qualitative diversity of things to their quantitative ranking.. The values of this kind of laws are not contained in the totality of material things, but are given by the *relations* of theoretically relevant conditions of their existence and are tested not by the creation of an ideal instance for the entire series, but by the temporary change of the state of an arbitrarily taken individual from the existing to the experimental.

Thus, in Protestant circles, the mediated and asymptotic grasp of the ultimate mystery of the dispensation of grace amidst the pretended randomness of personal predestination is projected onto science as a matter of mutual refinement and testing of scientific instruments in relation to the infinite expediency of divine knowledge amid the wondrous possibilities of his natural creatures. In particular, the practice of moral

self-awareness, which includes purification from unnecessary urges and extrapolation of the received *due* to the whole life, is projected onto science as a methodology of experimental elimination of *uncontrolled* factors of the existence of objects and theoretical generalization of the rest in the form of mathematical relations. «Yes, mathematical natural science, which in its own calculations rationally represents the processes of nature, turns out to be reason, and the highest completion of the inherent reason would be if the course of human history did not encounter the obstacle of *factum brutum*, chance and arbitrariness anywhere, but (using the words of Hegel) would allow us to reveal reason in history» [254, p. 97].

5.10 Conclusions

The era of the European Renaissance is considered a rare example of a relatively sharp change in social outlook – from theocentrism to anthropocentrism, which resembles a repetition of the ancient context of the genesis of philosophy and science with a «cosmic» emphasis on the forms and methods of rational thinking in the fields of philosophy, philology, logic, mathematics (and its applications in astronomy, geography), and now also artistic and mechanical arts. Regarding rationality itself, they are reluctant to note any specifics here, limiting themselves to its assessment in philosophy as synthetic in relation to the ancient and medieval paradigms and in science as transitional from the scholastic to the classical scientific paradigm. The starting condition for the possibility of such a synthesis was a number of humanistic antitheses of scholastic rationality, which directly involved converting a person to his «once achieved» ideal:

- the philological revival of the practical «spirit» in addition to the formal «letter» in relation to ancient texts, which involves the distinction between narration and documentary evidence, exact quotation and compilation, hence the possibility of supplementing archeography with new finds and interpretations;

- ethical secularization of spiritual practice in the unity of its personal economic and socio-political development, which leads to a reorientation of knowledge from authoritative statements to the earthly world itself;

- philosophical apologia of the dynamic ability to combine in one person the harmony of all levels and types of existence (microcosmism), which consolidates the rhetorical ideal of a comprehensively developed person (*uomo universale*) and maximally expands his place in the world (anthropocentrism);

- the artistic provision of the creative ability of man as the heir of God in the cause of the unlimited improvement of created nature (titanism), which initiates the blurring of the medieval demarcation of the heavenly and earthly worlds through the «spiritual circulation» of the Florentine Platonic Academy;

- socio-historical justification of experiential methodology as a scientific means of establishing natural laws in the form of N. Machiavelli's «eternal cycles», which contributes to the structural identification of hierarchical levels of the world.

Contrary to the medieval spiritual practice, the Renaissance man, sifting through the creative abilities of the Absolute, ceases to perceive things exclusively in their involvement in *superpersonal* existence, and himself gets rid of the predominant regulation by external structures. In particular, this is manifested in the development and dynamization of the late scholastic hierarchy of cognitive abilities, goal-oriented towards divine ideals: human aesthetics (*sensus*) corresponds to the existing ontology, and rationality is capable not only of experiential generalizations and demonstrative conclusions, but also of intuitively revealing everything hidden (*intellectus*). However, from the XVI century disappointments in the anthropocentric hopes of humanism turned the philosophical thought of Italy to the *natural* expediency of human activity, as it had already happened in Greek rationalism.

On the other hand, taking into account the duality of the Christian perception of nature, in addition to the cosmic emphasis in «God's creation», the biblical one, which was embodied in Augustinian voluntarism, needs a separate study. After all, it is with the realization of this emphasis in the Reformation that the formation of the mechanistic image of *living* nature as the inheritor of the affective chaos of the human fall and the *mechanized* one as the sacred ideal of the original world order with the approach of man to the status of an absolutely preceding «subject» and therefore completely free in his goal-setting is connected mind.

The transitional status of natural philosophy led to the combination of the scholastic mind of the speculative demonstration of a priori truths with the search methodology of hermeticism, providing a short perspective of the closed rationality of revealing the «realistic» secrets of pantheized nature with the humanistic-aesthetic measure of its knowledge. At first, the process of substantialization as the transfer of all the fullness of being to corporeal nature (atoms, elements, or bodies) provided a mutual projection of determination and explanation by «causes» of the above and below worlds. However, the exhaustion of the humanistic institutions of the Renaissance project against the background of the Copernican revolution in astronomy removed the hierarchy of objects and means of the scientific mind: instead of the traditional demonstrative circulation of ἐπιστήμη and δοξαί, corresponding to the levels of being and non-being, respectively, probabilistic innovative hypotheses are put forward, in which internal perfection corresponds to various methods of external justification, combining images and ideas, experiment and deduction, artificial and natural.

The economic atomization of society and worldly distortions of theocentrism provoked the transfer of a person's attachment to the Absolute into personal life and civic self-identification. As a result, in the Reformation, the mysteriousness of orthodoxy or the excess of practical expediency began to be qualified as irrational and brought to the fore of personal conscience. Her «worldly asceticism» as an earthly criterion of inspiration took the place of the means of philology, with which humanists tried to restore the original reading of the Holy Scriptures. In a similar way, the attitude towards the Book of Nature is also deprived of rational-scholastic mediators: if in natural philosophy the pyramid of the world is endowed with substantiality and is perceived as homogeneous – with equal expediency of all elements in the common structure of the organismic universe, then in the Reformation – dually connecting the initiative man and spontaneous-atomistic nature, polarizing them in the future as a complete goal-setting «subject» and materially-empirical «object».

Here, the scientific mind is presented with *experiential* guidelines of truth and mastery of nominalistic nature – procedural, interventional, instrumental, incomplete

and hypothetical. Being indifferent to the substantial arrangement of nature, they feed not so much on the creative encroachments of a person as on his moral motives (*certitudo moralis*), the probable expediency of which is justified by the invariants of their mathematical means. It is characteristic that at that time the trial against H. Galileo concerned only the literal physical interpretation of Copernicanism, which, in addition to its «irrationality» and «impracticality», brought confusion into the «uncharacteristic» field of revelation truths. On this basis, only the reformation of the mathematical apparatus of astronomy, approved as a neutral means of clarifying calendar and astrological forecasts, will prove promising in order to shake the official Aristotelian-Ptolemaic cosmology and prepare rationalism as a rational narrowing of the theory of knowledge of the XVII century. The latter requires further research, because it is through his lens that the *apologia uomo universale* will pass into the discourse of power, naturalism into deism, Christian creationism will acquire the features of deism, and kenosis into the unequivocal determinism of «classical mechanism».