

I would define the following text as a Note in which different cultural extractions and equally different personal ideas have led to a discussion and the consequent need on the part of each of the authors to write the short paper which, rightly and emphatically, does not exclude others, but rather integrates them into the specific subject matter. The theme it discusses - "Truth" - as an axiom itself, in this case is directed at the cultural areas in which, and for which, the authors themselves operate: art and science. Thus the authors of the paper, the scientist, the philosopher and the jurist, with the perspective of openness toward transcendence that unites them, albeit in different ways and with different convictions, give meaning and reason to the concept of "inter-disciplinarity" and "transdisciplinarity". In this regard, I would like to underline that this concept, which has developed into the stronger form of "cross-disciplinarity", is present in the Apostolic Constitution "Veritatis Gaudium", defined as another step in the cultural revolution of Pope Francis. Here, in short: "Thinking independently and, then, as one".

Editor-in-Chief

THINKING INDEPENDENTLY AND, THEN, AS ONE: THE RELATIONSHIP BETWEEN TRUTH, ART AND SCIENCE IN THE FIELD OF CROSS-DISCIPLINARITY

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1. Introduction

In this day and age, often dominated by monographic surveys and approximate sociologisms, discussing a work of art is undoubtedly not a literary exercise, as the art historian Roberto Longhi professed, nor is it a starting point for elaborating theories, as other art historians, such as Venturi and Argan, claimed. It is instead, as Federico Zeri says in comparing himself with the former, the discipline of observation, the restitution of the alleged truth to the artistic text, the revelation of the unexplored, the attributive mastery, the austere frequentation of the archives.

Hence the need to bring together as one the various philological contents and codify the palimpsest of the work, relying on sober prose. On the other hand, since forms have no autonomous life, art and society must be in a position to dialogue with the aim of tracing artistic inventions back to a certain era, also by studying everyday objects.

In the relationship between truth and art, there is another aspect that leads back to the now real possibility of obtaining a reproduced work of art, that is, one realized using digital technologies.

It is worth noting that virtuality and reality constitute two dimensions, two worlds, which seem to be in contrast, but which can actually explain something about each other and open themselves up to different interpretations.

In speaking about virtuality, our thoughts lead us to the related contents that are able to influence and question what is real, presenting us with a problem of authenticity as we are unable to distinguish the true from the reproduced. As a result, openings arise prompting questions about the values of identity of an art work.

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Is identity something material and immutable? Or is it the result of a dynamic evolution in which the *same* continues to persist in the *other*? How can the *old* and the *new* or the *real* and the *reproduced* be integrated without altering the entity of the “cultural good”? However, it is equally true that there are also commercial interests connected to the dilemma of the real-virtual. In particular, contemporary art is recognized by critics - very often authentic values are discovered and commented after a considerable time has passed - as being a widespread phenomenon of commodification and speculation and far from what real figurative representation should be [1-2].

2. Truth and science

There is, moreover, the relationship between truth and science, a subject addressed by the paleontologist Henry Gee amongst others. According to the scholar, the goal of scientific investigation is to find out what one can and what is not yet known. Science should favour uncertainty, constant self-correction and, in so doing, accumulate increasingly more reliable knowledge that nonetheless starts from the exercise of systematic doubt.

This skeptical theory may be misunderstood by some, in that it may be seen as representing and demonstrating a weakness and not a strength. In fact it could be said that science is the only form of knowledge in which the interrogatives increase with time rather than decrease, highlighting the axiom that “*the more we know, the more we know we do not know*”. This is what is vehemently and, at the same time humbly, pointed out to those who - as mentioned earlier - misunderstand, by emphasizing both the same and the opposite truth of the bare facts. This obviously depends on the type of science in question.

Twenty years ago, in 1998, Pope John Paul II published the Encyclical Letter *Fides et ratio* on the relationship between faith and reason, dedicated specifically to the theme of truth, stating that a person holds the desire to know in their heart and it constitutes the goal towards which the human spirit strives:

“In both East and West, we may trace a journey which has led humanity down the centuries to meet and engage truth more and more deeply [...] the more human beings know reality and the world, the more they know themselves in their uniqueness, with the question of the meaning of things and of their very existence becoming ever more pressing. This is why all that is the object of our knowledge becomes a part of our life. The admonition Know yourself was carved on the temple portal at Delphi, as testimony to a basic truth to be adopted as a minimal norm by those who seek to set themselves apart from the rest of creation as “human beings”, that is as those who “know themselves” (Fides et ratio, n. 1).

In times that are called “post-truth”, one of the fundamental challenges of “making culture” is therefore recovering and promoting a unitary and organic vision of knowledge, as well as overcoming the self-referential sectors that often involve approaches that are partial and reductionist and lead to the “fragmentation of the meaning”. The Pope continues in *Fides et ratio*, saying:

“I want only to state that reality and truth do transcend the factual and the empirical, and to vindicate the human being’s capacity to know this transcendent and metaphysical dimension in a way that is true and certain, albeit imperfect and analogical. [...] Wherever men and women discover a call to the absolute and transcendent, the

metaphysical dimension of reality opens up before them: in truth, in beauty, in moral values, in other persons, in being itself, in God. We face a great challenge [...] that of knowing how to move from phenomenon to foundation, a step that is as necessary as it is urgent" (n. 83).

Without this openness to dialogue, the consideration regarding the most profound relationship between truth and science risks being mutilated [3].

3. Art and science

In this perspective, the relationship between art and science must also rest on the concept of truth, which must necessarily exist and characterize the methodological paths used in both. This common purpose is evident in the mutual need and in the integration of the aforesaid methodologies, as it enables a comparison of the findings to be made and thus attain a scientific truth. This particular viewpoint can be applied to an issue in the artistic and scientific field concerning the attribution of a work of art which, in relation to what has been reported, necessarily needs the previously underlined discussion and integration.

In this regard, the subjective evaluation, carried out from a historical, aesthetic, stylistic and iconographic standpoint, supplemented by the objective evaluation, carried out on the basis of diagnostic-analytical technologies, can lead to a result supported by both the art historian and the technician, allowing the attainment of a correct, complete scientific truth that is therefore also reliable.

On the other hand, questioning any authentication also implies distinguishing the true artifact, in other words, the real artifact from the reproduced or virtual artifact.

It is clear therefore that the instrumental eye, together with the human eye are both essential, so that the 'undressing' of the work of art under investigation, synonymous with acquiring knowledge of the materials and products used for its realization, can be evaluated. In this regard, the characterization of the material components, when compared with what is known historically of the artifact in question, integrates this knowledge, confirming and supporting the aforementioned truth. This truth, which is only scientific, also testifies to how, on the one hand, materials and constitutive products are assembled according to a determined artistic technique, while iconographic and iconological contents and expressive values are transmitted through the material, due to the fact they are inseparable [4].

4. An emblematic example of the relationship between art and science: the Journal "*Conservation Science in Cultural Heritage*"

Different ideas, one objective. The meeting of various experts, each with different independent backgrounds and scientific expertise, each with their own ideas and beliefs, offers a wide choice of methodologies and strategies that can help to diversify training and education in the human and experimental sciences; but if all synergistically address one common objective it can lead to achieving the right results.

This not only allows the expert involved in the historical-scientific investigation, it also enables the young neophyte, respectively to confirm and choose their specific inclination towards the corresponding scientific area. Everyone must have the same

chance to be assessed on merit, which is a fundamental condition for kick-starting things from a scientific point of view. It is also true that for the most part, one instinctively relates to peers or those from a similar background, but in the long term, this has shown that an absence of diversity may produce results that are partial or, even worse, incorrect.

This is particularly true in the case of young people because, if the aforementioned is missing, not only is their training scientifically incomplete, it is also difficult for them to enter the employment market. This is therefore, “interdisciplinarity”, coming from experts in various scientific areas: this is the term linked to the intent with which the historic-technical journal “*Quaderni di Scienza della Conservazione*” was first launched in 2001 at the University of Bologna. Thus a project was designed around which a sense of scientific community was built. The idea was to replicate the model and service given by Prof. Walter Ciusa, who founded the Journal “*Quaderni di Merceologia*” at the same University in the 1960s. Many questions were posed by colleagues and interested opponents who wished to understand how an idea with such characteristics could have a favourable outcome while addressing the intent of becoming global, that is, an enterprise that would last over time and that was founded on ethical values that were scientifically and financially sustainable.

“Those who work with this intent in mind - expressing latent as well as manifest obstacles - are those who imagine something that today is hard to envisage, but there is no doubt that the different skills are essential synergistically, in order to achieve the corresponding objective”. Those who said that the project was unworkable went unheeded: it was essential to be courageous, to dare and above all to be curious. Hence, with the passing years and the Journal’s change in name to “*Conservation Science in Cultural Heritage*”, the second key word on which it is currently based, came into being, “internationalization”. This refers to the adhesion of researchers belonging to different schools and countries at an intercontinental level who have shared and continue to share the same intent mentioned earlier. They are those who by participating in ever-increasing numbers provide scientific contributions and respect those values that distinguish the “truth between art and science”.

And by respecting this truth, a new “humanism” that also contemplates a culture of feelings can also come into being: if interest and prevarication are forces that move the world, the sharing of intentions and objectives remains a force in which to believe with conviction [5-6].

5. Interdisciplinarity and crossdisciplinarity, as part of “*Veritatis Gaudium*”

Following this line of thought, it may be interesting to recall several elements in Pope Francis’ recent Apostolic Constitution. Bearing the significant title *Veritatis gaudium* (The Joy of Truth), it addresses Universities and Ecclesiastical Faculties, defining them as “*providential cultural laboratories*”. The Foreword (n. 1-6) offers particularly meaningful insights into the relationship between truth, unity of knowledge and scientificity. In terms of both content and method, it stresses “*the vital intellectual principle of the unity in difference of knowledge and respect for its multiple, correlated and convergent expressions*” (*Veritatis Gaudium*, n. 4).

The text underlines the urgency of making the different levels of human knowledge interact, including the theological, philosophical, social and scientific and recalls the in-

dispensability of an “open line of thought that is incomplete”, well-prepared and always striving towards the truth, capable of “full-fledged dialogue”, of “networking”, in order to take up the “*great cultural, spiritual and educational challenge, which will demand that we set out on the long path of renewal*” (*Veritatis Gaudium*, n. 6).

“The Joy of Truth” affirms that “*Today’s recovery of an interdisciplinary approach is certainly positive and promising, even in its “weak” form as a simple multi-disciplinary approach that favours a better understanding from several points of view of an object of study. It is all the more so in its “strong” form, as cross-disciplinary [...] (Veritatis Gaudium, n. 4).* Cross- or meta-disciplinarity in this sense is conceived and proposed as a higher stage of integration between the disciplines in which mutual relations take place within a system with open borders between the disciplines themselves. It is not a matter of merging or separating, but rather of being positioned according to an intrinsic relationality which, by implying an order, at the same time maintains the different levels of knowledge distinct. If we take into consideration the main meta-disciplinary questions, there are indeed a number of them of an epistemological nature and others that arise from studied themes which in turn refer to other fundamental questions; and there is also a third group of crossdisciplinary questions that arise from the need to discover and deepen metaphysical, ethical and religious frameworks. Within them are those who practice these sciences, because no scientist can be totally neutral about radical issues and completely ignore them in his research. In this instance particularly, “knowing” passes from being simple “information” to an educational and “performative” dimension.

This is why Pope Francis, following his perspective of Christian thought, can speak in *Veritatis Gaudium* of a “strong” form of crossdisciplinarity as “*situating and stimulating all disciplines against the backdrop of the Light and Life offered by the Wisdom streaming from God’s Revelation*” (4). Even for those who might not share the inspiration however, there is no doubt that the prospect suggested by this crossdisciplinary perspective brings with it a historic opportunity for many disciplines and for fruitful dialogue to take place. This very clearly highlights the meaning of “university”, as a place in which the distinct areas of knowledge, each one recognized and protected independently, but at the same time intrinsically ordered and related to each other, come together as one, prove that the “joy of truth” can be experienced at every level of research.

It is only natural that Giovanni Battista Montini, who later became Pope Paul VI (and was declared a saint on October 14, 2018), in following the education of numerous university students should remind them that “*those who devote themselves to studying a subject [regardless of what it is, ed] are to be considered true benefactors of humanity*”- and only natural that these words are to be found in a text called *Carità intellettuale* (Intellectual Charity).

6. Natural moral law: truth in law and art

The possible “joy of truth” reveals all its strength in the “moral sciences”, particularly in the legal context of the rules aimed at ensuring the loving, responsible and prudent use of the “creation”, according to necessity and justified reason, in the respect for the values that the primary and inalienable good of life clearly sets before our conscience

and reason according to truth. A truth that establishes and implements itself through natural laws and ethics.

In the search for truth, the opinion about the origin of the world as being the fruit of the creation is not universally shared. But the primacy of humans is not denied in relation to the environment that surrounds them and other living things. Nor is it believed that intelligence, reason and conscience can sensibly transcend the rules that order the natural state of the world, ensuring its vital processes with the complex interweaving of the physical, chemical and biological laws that govern the inorganic and organic reality of matter and of the vegetal and animal world.

The human species must be subordinate to these laws according to its peculiarities, with the coexistence of the three spiritual elements on which free self-determination or “free will” is based.

The exercise of free will is in itself objectively conditioned primarily by the laws of nature, on which depends, as we have said, the vital process of all species. In the sphere of spirituality and rational intelligence, they respond to the fundamental canon of the moral norm which characterizes judgments and determines the scale of values compatible with the promotion and development of life.

Man’s dominion over creation, moreover ordered according to juridical rules of action and of relationship, therefore appears strictly co-essential and inseparable from the moral duty to exercise it, in respect of the pre-established order in the regulatory statute of each species.

It is evident, therefore, that this domination is represented on the whole, by “widespread use” which, as such, indicates a problem in terms of social interaction. Within its context, only its consistent use can be legitimized with the order established by the natural system of rules belonging to the relative components. In this regard, since “legitimate use”¹ delineated in this way, guarantees the natural life process, drawing on the goodness of the user and the good of what is used, it is evident there is a connection with the “common good”, to be understood as “*the sum of those social conditions which permit and foster in human beings the integral development of their person*”.²

Thus, the close relationship between the primacy of man and the problematic ethics of life emerges, whereas natural moral law reveals its immense scope as “... a true guarantee offered to everyone in order to be able to live in freedom and to be respected in their own dignity”.³

Adherence to natural moral law is also an insurmountable limitation to use in technical fields. Indeed, such use can be considered legitimate provided that it does not go beyond the system and the logic of the norms that regulate the natural state of creation. Consequently, the “culture of technology” stretched to the point “where one can achieve what one is able to do” is not permissible, independently or in contrast with the design outlined by the natural laws which are its ordinarors.

Therefore, the primacy of man cannot be a source of autonomous lawmaking with respect to the regulatory arrangements of creation or to the design of nature and its laws. The culture of science and technology, therefore, becomes a tool for the acquisition of knowledge and a foundation responsible for the rules aimed at a compatible and consistent use in line with the order pre-established by the laws of nature.

Responsibility for making the rules related to the “legitimate use” of knowledge highlights the need to re-consider the long-debated question of “natural law”, as yet unresolved by legal science.

In terms, of positive law, the question becomes evident when considering the rel-

evance of the rules of natural law in establishing moral law. It presages the scale of values inherent in producing the regulatory sources aimed at a use that is compatible with the safeguard, protection and valorization of the creation. This rule constitutes the metalegal datum of legitimation, in observance of the natural statute, along lines that are open to the possibility of “*legitimate use*”, which in turn is the foundation of “*substantive law*”⁴ understood as a projection of natural moral law.

Otherwise, making laws on the basis of “*procedural positivism*”⁵ divorced from the metalegal, in which are found the roots of ethical principles and absolute values of substantive law, outlines its failure, making recovery difficult.

Indeed, substantive legality is a category of the spirit that is closely connected to the roots and traditions of civilization. Of these traditions, the search for truth through knowledge is the ultimate expression if it corresponds to the ability to enhance the spiritual and cultural heritage on which it is based.

The process of valorizing substantive law can therefore start only through the legitimation of the legal systems regarding natural moral rule, drawing on the conception of law as “*ars juris*” in the true sense, as well as on the correlation between law and art.

Law and art are in fact, respectively: the first, a manifestation of the patrimony of values from which the legal rules draw inspiration; the other, a manifestation of the image or of the motion of the spirit created with art. All this considering that law and art have a reason to exist if they respond to the common good: the joy of truth.

Notes

¹ “*Legitimate use*” consists in the use of knowledge and goods in a manner and measure justified by compatibility and consistency with the laws of nature and ethics.

² Pope John XXIII, *Mater et Magistra* n. 51.

³ Pope Benedict XVI, address to the participants at the International Congress on “Natural moral law” promoted by the Pontifical Lateran University in “*L’Osservatore Romano*”, 14/02/2007, p. 6

⁴ “*Substantive law*” corresponds to the content of the laws that are compatible and justified by natural moral law and ethics.

⁵ “*Procedural positivism*” recognizes the validity and effectiveness of the laws for the sole fact that they have been adopted by carrying out the acts envisaged by the procedure of approval regardless of the value judgments that underlie “substantive law” and, therefore, regardless of the rules of natural moral law and ethics.

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