

The integration of the knowledge "of mind, heart and hands" in the sciences and in life: singularity and normality

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Singularity: the integration of knowledge in one person

It is only right to start from the most famous Italian artist in the world who, throughout the whole of 2019, is being celebrated – it is the 500th anniversary of his death: however, it is not enough to define him simply as an artist, as a painter, draftsman, scientist, art theorist, engineer, anatomist, a scholar in hydraulics, he is the author of paintings considered to be absolute masterpieces worldwide and of a large number of manuscripts: Leonardo da Vinci. Leonardo was an investigator, whose aim was always to highlight that a theory can be proven by experimentation, allowing conclusions to be reached and, therefore, establishing a norm.

As an assiduous researcher, his first step was to investigate. He was always seized by the desire to understand what surrounded him and it was for this reason that his paintings were experimental and often unfinished; in contrast there were many notes. Among them can be found theoretical considerations of extreme value relating to the superiority of painting and a push toward the theory of perspective. Leonardo also studied and designed "flying machines" and, as such, was a forerunner of many of the 'machines' made in the following centuries, such as the balloon, the helicopter, the machine for human flight, planning and giving meaning, as early as the 1500s to the words: "When science becomes art".

Artist, scientist, philosopher, painter, architect, etc., Leonardo may be regarded, in a certain sense, also as a "theologian", considering his pictorial production which effectively represents a great "hymn to the Creator". "In Leonardo's writings – says the art historian Rodolfo Papa – we find frequent reflections on the relationship between the art of painting and God. Furthermore, most of the works we have by Leonardo are of an unquestionably sacred theme: creation, incarnation, redemption. Leonardo is a theologian due to his ability to represent totality" (cf. *Leonardo Teologo*, Ancora, Milan 2006). His figure, unfortunately often associated only with themes such as heresy, freemasonry and esotericism, is also – if not primarily – that of a "believer", as his pictorial works and his writings historically bear witness to. A believer, naturally according to the typical form that existed in fifteenth century Tuscany – certainly different from the later cliché of the devout Catholicism of the Counter-Reformation – and therefore

a great passionate investigator of the divine Mystery and its manifestation in human history. It was within this particular context that he was able to conceive, mature and develop his idea of an artist as "one of God's grandchildren", and thus fully integrate art, science and faith.

The knowledge gathered from his multifaceted activity represented a force that drove him to observe, meditate, draw inspiration and persevere in conceiving, undertaking and realizing the objectives that he had set himself and, over the years, achieved within the context of his work and life. Mention has been made of his inner impulse and shaking-up from an atavistic and accepted condition and situation of that time by resorting to those peculiarities deriving from his own abilities, his own inclination and his own horizon of values and religion.

A similar proposition and behaviour can be found in another great versatile master of the Renaissance, a talented painter, engraver and treatise writer, who profoundly influenced his contemporaries and subsequent generations, Albrecht Dürer. In his "*Four books on human proportion*", he underlined that creativity is a gift from God but, he added: "Never manifest yourself as being able or wanting to do something better than what God has conceded nature, which he himself created. Because your power is weak before one of God's creations".

Normality: the integration of knowledge through the reciprocation of participants

It is possible, as previously stated, that the integration of knowledge is the prerogative of a single person who, as such, represents a "unicum". This is because they have their own particular genetic heritage that allows them to exploit the unquestionable faculties of their mind, their heart and their hands, thus giving rise to expressing themselves for their own fulfillment and / or for the well-being that can be drawn from the outside world.

Instead, in normality, which as a rule is synonymous with good custom and with common usage, it is fundamental, among participants – whose intent is to integrate the respective knowledge of their minds, their hearts and their hands – for there to be a significant preliminary knowledge and sharing in wanting to undertake together the path that is needed to achieve the planned objectives. This implies the previously mentioned integration of knowledge which can be defined as "reciprocation" of intents and objectives for one's own and other people's well-being.

When faced with the results achieved and with the consequent commendations, the question they ask themselves about what has matured over the years with conviction on their part is: "How is the accumulated experience, the eventual success, the disenchantment of those who are convinced, going to be useful to those who are still at the starting line and do not have, cannot have, the slightest idea of how things will go?".

In particular, we are addressing young people and those in training, by underlining that the consequent response must necessarily also imply any impediments, adversities that may be encountered and how it may often lead to having second thoughts and foreseeing the possibility of failing in something.

It is also true that today, more than ever before, we can perceive the rarity and difficulty of truly effective pedagogical actions. It is too easy to blame this difficulty on the usual, open crisis of values and on the meanings suggested by those values. It would mistakes that we are no longer able to convey appropriate feelings and convictions to counter the richness, violence and fundamental ambiguity of life. Faced with the strictly rational arguments of a technocratic vision and cultural paradigm, these sentiments, it must be admitted, are altogether quite useless. In theory, an orderly flow of information from one generation to another may disregard any form of training. And so the question to ask is: "How can you bypass the obstacle that separates you from the outside world?" You can only do so by following a road that is rough but

you from the outside world?" You can only do so by following a road that is rough but which, in the end, is effective, i.e. by interpreting the advice and experiences which are mandatory for whoever dedicates themselves to educational activities, understood as appropriate training in the context of one's own activity: it means, in this cultural context, focusing on the most unpopular of subjects, the least suitable for the specific occasion, presenting the reality, in other words, the realism of one's own experience that represents an inestimable "reserve for the future".

be like declaring that the whole of reality is the consequence of such irremediable

And in this experience, if on the one hand, it is true that adversities and difficulties may be encountered and the consequent psychological reflex may determine a state of profound uneasiness – without even wanting or deserving it – as well as renouncing what was desired, on the other, it is equally true that one never really knows oneself or the strength of their beliefs until they are put to the test by adversity. Combined with an awareness of the situation is the ability to express oneself when re-proposing one's convictions willfully and with determination.

Consequently, a simple but solid idea: "being advanced in years, i.e. being enriched by the past does not necessarily mean we are able to transmit truth. It is only experience that can teach, having lived it to the full and having drawn strength and conviction from it".

And so, treasuring the years of experience and defining the continuation of one's life, one says to oneself: "Why then in some cases is there the temptation to give up, to give in, to surrender?" Because picking oneself up again and resisting, requires effort, courage, invention: it requires a generous spirit. Those who give in, flee and, out of fear and avarice, surrender, put forward justifications that represent the expression of a mean soul that has no desire to make any effort, of an intelligence that has no wish to reconsider things and think about new ones. "Surrender" – as the Polish sociologist Paul Kecskemeti wrote – is a service that the loser renders to the winner. In life, on the other hand, we must never give up".

Also by referring to classical authors, we wish to highlight what happens upstream and downstream in the creative act, in integrating our knowledge with that of others, at the beginning and at a certain point in time of our activity.

If you want to be creative, you have to bear a certain amount of creative boredom, i.e. apathy, which is the precise meaning of the Latin "otium". Only when there are the conditions and the time to reflect, are there insights that can lead to unforeseen solutions: this provides the opportunity to "create" which follows the line of thought defined by the philosopher Seneca "secum morare", in other words to study oneself. However, there is no doubt that the verb "to create" refers to a capacity that goes beyond human possibilities, as it pertains to the divine. In reality, however, as a synonym for imagination, the creative act can, rightly and correctly, be and represent the expression as well as the occasional prerogative of the individual, determining the passionate involvement of the external world: in one word, empathy. Empathy, in fact, from the Greek "empateia" – "en" inside and "pathos" feeling, but also suffering – highlights the ability to fully understand the state of mind and the consequent need of others.

Considerations

There is no question that in the two previously discussed cases, the faculties, sensibilities, possibilities, capacities of the individual, even if alone in their solitary greatness, and of most of those participating in the integration (all sharing common intents), represent decisive aspects and factors to achieve their objective in the first case, or in the second case, the commonality of purpose.

It is just as true that in believing in, managing and achieving any goal, the need to dialogue intimately with oneself and with one's own convictions, is dictated by the mind, heart and hands in a form of natural albeit lonely integration or, in the second case, is extended to the participants of the aforementioned integration.

"Yet at the same time we must dare to be different, to point to ideals other than those of this world, testifying to the beauty of generosity, service, purity, perseverance, forgiveness, fidelity to our personal vocation, prayer, the pursuit of justice and the common good, love for the poor, and social friendship". This thought can be found in n. 36 of the Post-Synodal Apostolic Exhortation *Christus vivit* of Pope Francis to young people and to all the people of God. It is this very pontifical document that has taken up the expression "the ability to integrate the knowledge of head, heart and hands" where in no. 222 there is talk of the renewal and revival of ecclesiastical educational and cultural institutions, according to some important inspiring criteria: "a fresh experience of the kerygma, wide-ranging dialogue, interdisciplinary and cross-disciplinary approaches, the promotion of a culture of encounter, the urgency of creating networks and an option in favour of those who come last, those whom society rejects and discards".

And continuing: "We need to create more spaces where the voices of young people resound: 'Listening makes possible an exchange of gifts, in a context of empathy'. [...]. This means humbly recognizing that some concrete things must change and if that is to happen it also needs to appreciate the vision but also the criticisms of young people" (38,39). It is interesting that the Holy Father invites all educational bodies, starting from the ecclesiastical ones, to "develop spaces for the best culture for young people", because they "have the right to it". Thus, we read in n. 223 in the Christus vivit: "Today, above all, the right to a good education means protecting wisdom, that is, knowledge that is human and humanizing. All too often we are conditioned by trivial and fleeting models of life that drive us to pursue success at a low price, discrediting sacrifice and inculcating the idea that education is not necessary unless it immediately provides concrete results. No, education makes us raise questions, keeps us from being anaesthetized by banality, and impels us to pursue meaning in life. We need to reclaim our right not to be sidetracked by the many sirens that nowadays distract from this pursuit. Ulysses, in order not to give in to the siren song that bewitched his sailors and made them crash against the rocks, tied himself to the mast of the ship and had his companions plug their ears. Orpheus, on the other hand, did something else to counter the siren song: he intoned an even more beautiful melody, which enchanted the sirens. This, then, is your great challenge: to respond to the crippling refrains of cultural consumerism with thoughtful and firm decisions, with research, knowledge and sharing".

This is why it is important to point out that the condition of human and cultural wellbeing and growth that one achieves cannot ignore the fatigue and defeat, but by experiencing and overcoming them, they are manifesting their true credentials. In other words, the imperative of what is called "winning" is incompatible with defeat. Suffering, due to the ethics of the result as being imperative, must be eliminated and so for the well-being discussed earlier on defeat becomes a place of truth, research and initiative. This is the path that frees one from the resentment that paralyzes creative energy, inventiveness and action.

By insisting on this aspect, which is believed to represent the result of integrating mind, heart and hands in the individual case and in the normality of the participants, the meaning encloses what is said in the axiom: "The most able person is not the *'faber'* nor the *'sapiens'*, but the *'patiens'*, i.e. the one who knows how to give meaning to fatigue and suffering by transforming them into creativity".

And this is what happened at the beginning of the year 2000, when with dedication and enthusiasm we launched the Journal "Quaderni di Scienza della Conservazione" to address the numerous problems of protection and enhancement of cultural and environmental heritage. By offering means and ways to inform and educate readers, attention was paid in particular to young people who, in a subsequent future, would give meaning to our efforts and be encouraged to improve it. With a vision that stretched beyond the medium-long term, the efforts made to start the Journal, planting the seeds for the future, greatly sought after in the present day, have convinced the media and the international market. With the new title, "Conservation Science in Cultural Heritage", the Journal, published in both paper and electronic versions, is based on the two conceptual terms that distinguish it: interdisciplinarity and internationalization.

This is therefore how the research, studies, experimental contributions, thematic collections, published annually in the Journal in the last twenty years from 2001 to 2019, have constituted a concrete result attributable to the integration in the scientific field of the previously mentioned knowledge. It is knowledge that knows no scientific boundaries, since the publications come from researchers with very diverse backgrounds, experience and skills regarding both the human sciences and the experimental sciences.

And with the integration of the sciences, the recognition from international organizations has sealed the achievement of the objectives: – those of a scientific nature, related to the use of the correct scientific methodologies; – those of an institutional nature, promoting coordination, progress and dissemination of the sciences and their application in the sector of cultural and environmental heritage; – those of a cultural nature, performing a communicational, social and educational function.

Undoubtedly, the concept of internationalization, as the prerogative of the cultural asset, is also connected to the value that emanates from the cultural asset itself, not attributable to a specific place or region or country, but which goes beyond both spatial and temporal limits.

Therefore, the vision and mission illustrated in the contents of the Journal by the Authors of the published articles, are representative of a reality that goes beyond all borders carrying out its identitary mission.

In conclusion, how can one not link the integration of knowledge with the profound changes that have taken place in recent years, including the process of globalization not only in the economy, in the employment market and in society, but also in culture. The essential productive factor is human capital and, therefore, education, creativity, inventiveness and new ideas, new products, new processes: the economic performance of human capital has increased rapidly.

With this in mind, we are working at an international level with the aim of supporting cultural sectors and offering increasing opportunities, especially for young people who are experiencing the current problematic fluctuations, to enter the employment market. Promoting an integral and integrated vision of art and science also offers us the opportunity to highlight and support the intrinsic value of technoscience, when it is "well-focused". It is consequently able to produce – as Pope Francis writes in his encyclical Letter of 24 May 2015, *Laudato si* '- "important means of improving the quality of human life, from useful domestic appliances to great transportation systems, bridges, buildings and public spaces. It can also produce art and enable men and women immersed in the material world to "leap" into the world of beauty. Who can deny the beauty of an aircraft or a skyscraper? Valuable works of art and music now make use of new technologies. So, in the beauty intended by the one who uses new technical instruments and in the contemplation of such beauty, a quantum leap occurs, resulting in a fulfilment which is uniquely human" (n.103).

There is a need to bring to the forefront a set of cultural values which though different in each individual, can become common elements and be such as to make a real project of integration feasible within a context of the knowledge or commonality of the knowledge of mind, heart and hands. This is with the aim of promoting together profound interiority, relational quality and openness to transcendence, which are also indispensable for a healthy relationship between the different generations, for mutual dialogue and the responsibility of one towards the other, and for the delicate, but at the same time, fascinating "handing over" between past, present and future generations.