

Combinatorics and Reciprocity: A Note on the Validity of Lullian Art

Alexander Fidora. Institució Catalana de Recerca i Estudis Avançats, Barcelona,
and Universitat Autònoma de Barcelona

The great challenge that Ramon Llull confronted with his life and work was religious diversity or rather, the failure of the conversion of Jews and, especially, of Muslims in his time.

Traditional apologetics, which had been practised for centuries, was designed for the dialogue with Jews. With them, Christians shared an authoritative text, i.e., the Old Testament.

This model of dialogue entered into crisis in the 13th century when the main interlocutors for the mission were no longer Jews but rather, because of the political significance they had gained, Muslims. While, as we have mentioned, there was a common authoritative base with Jews, for the dialogue with Muslims, in contrast, there was no similar document. Thus, it was necessary to develop new strategies for the dialogue between religions. This was what Thomas Aquinas and Ramon Martí, among others, did when trying to introduce the philosophical-rational discourse as a foundation for dialogue with Muslims. Both believed that, although the Christian mysteries cannot be rationally proven, at least it is possible to rationally refute the Muslim religion.

Ramon Llull is located at the heart of this philosophical-rational discourse. He also believes in the strength of reason for inter-religious debate, but he finds the proposal of

Thomas Aquinas and Ramon Martí inadequate. For Llull, the rational discourse practised by Ramon Martí, Thomas and others, falls short, as it is merely negative and, therefore, unsatisfactory. Thomas, like Ramon Martí, limits himself to refuting the religion of the others against Christian faith, such as the accusation of Trinitarianism.

What they do not do, nor want to do, in contrast, is to provide rational evidence of the truth of Christianity. This is, in fact, the Lullian project: in his eyes, apologetics and the mission can only yield good results if they not only rationally demonstrate the falsehood of the interlocutors' religion, but can also rationally demonstrate the truth of one's own faith; that is, the Christian. In other words, that in addition to the reasons against other religions, it is necessary to have good reasons in favour of one's own religion. However, the question that unavoidably arises faced with Llull's missionary project and its innovative character is: What kind of reasons are we talking about? Which rationality can show the Christian mysteries, such as the Trinity and the Incarnation, which as such are traditionally viewed as super-rational?

It is here where the famous Lullian Art comes into play – a system that seeks to answer this question fairly. The Art is based on the concepts common to the three monotheist

religions. In other words, it takes what Judaism, Christianity and Islam have in common. This collective substrate of the three religions of the Book consists, firstly, of the attributes of God: the *dignitates*, as medieval Christians called them, which Muslims called *hadrat* and Jews *sephiroth*; that is, divine goodness, its greatness, eternity, etc. Moreover, the cultures of the three religions of the Book share some logical concepts such as relations, knowledge, difference, concordance and contrariety and so on, or the questions of Aristotelian logic; that is, if one thing is, what is a thing? Where does this thing come from? And so on. And they also share ontological concepts, such as the staircase of the being that starts from the elements, continues through the plants, animals and men, until reaching God. Furthermore, there are shared moral notions. All these common concepts make up the so-called Lullian alphabet. The Lullian Art is a complex mechanism that combines these concepts, representing each of them by a letter (B, C, D, etc.) with the objective of generating all their possible combinations (BC, BD, etc.); and this is done with the famous figures. Lull, therefore, seizes the elements shared by all religions and combines them to reflect on them and to show that if we understand these elements well, they themselves will lead us to Trinity and Incarnation.

Take for instance the combination BD; that is, goodness (=B) and eternity (=D). Muslims, Jews and Christians believe in perfect goodness and eternity in God. If we reflect on these concepts, we realise that to be a perfect and eternal goodness, as corresponds to God, this *bonitas* (goodness) must necessarily be active, *bonificativus* (making good), and we must have an object which is *bonificabile* (made good). If it is not so, the goodness of God would be pointless, as Lull states, which is not acceptable. Nevertheless, the act of God's goodness and its object cannot only correspond to him accidentally, making his creation good but

rather must correspond to him from eternity and coessentially. The reason for this lies in the fact that divine goodness, according to Lull, can only be perfect and eternal if its act is also so and this, in its turn, can only be perfect and eternal if its object is also so. The perfect and eternal goodness of God requires, therefore, an act and an object equally perfect and eternal. Thus, there must be three moments in God: *bonificativus*, *bonificabile* and *bonificare*, as Lull states; and this, according to him, means Father, Son and the Holy Ghost. The "necessary reasons" of the Lullian Art are of this kind, with which Lull not only wished to refute the Muslim and Jewish religions, as Saint Thomas and Ramon Martí did, but also positively convince Muslims and Jews of the truth of the Christian faith.

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This combinatorics of Lullian Art is, in fact, a process of elementary analysis and of reconstruction. On the one hand, it resolves the historical religions in their most primitive elements; on the other, it represents these elements by the letters of the alphabet, in order to recombine these letters and the elements of the different religions that they designate until, through these combinations, a vision of the world is reached that is as consistent as possible: this will correspond to truth. Undoubtedly, this process, which does not limit itself to religions but rather, for Lull, is universal, is a key ingredient of modern thought.

We only have to think of Gottfried Wilhelm Leibniz's *characteristica universalis*. In his *Dissertatio de arte combinatoria*, in 1666, the young Leibniz, clearly inspired by Lull, had

already outlined the project of a reconstruction of the whole of reality based on a definite number of basic notions. Leibniz criticises the basic notions of the Lullian alphabet as too limited and proposes another alternative and broader alphabet. In contrast with Llull, Leibniz does not represent these basic notions with letters but rather uses numbers. Thus, the basic notion of “space” is represented by number 2, the basic notion of “between” by number 3, and the basic notion of “the whole” by number 10. Consequently, according to Leibniz, a complex concept such as, for instance, interval can be formulated as 2.3.10, that is, “space between the whole”. Leibniz was convinced that in this way all the questions could be reduced to mathematical problems and that, in order to solve any problem, we only have to set about calculating. This is the meaning of Leibniz’s famous *calculemus!*

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It is through Leibniz that the Lullian influence also became decisive for more recent developments such as formal logic. It can be said that it starts with Gottlob Frege, in the late 19th century. According to Frege, Leibniz’s *characteristica*, in its later evolution, limited itself to different fields, such as arithmetic, geometry, chemistry and so on, but did not become universal as Leibniz, in fact, had wished. This is why Frege, in his famous *Begriffsschrift* of 1879, intended to create an elementary language that would unify the different formal languages which, after Leibniz, had been established in the different natural sciences. This language is the formal logic that until now has dominated the philosophical discourse and which was an important step in the journey towards the creation of computing

languages. What characterises this kind of logic is its formal notation, using variables and symbols to represent the different logical proposals and operations. Based on this notation, Frege developed the so-called logical calculus.

Although the language reached by this formal logic has little to do with the Art, Llull can be considered as the forerunner of this project as in his thought we already find the idea of an elementary language that follows logical rules and uses variables while operating with the principle of substitution of these variables.

Nonetheless, it is also necessary to stress the differences between Llull’s Art and the evolution of modern logic. Notably since the early 20th century, with the so-called Vienna Circle, to which thinkers such as Rudolf Carnap belonged, the project of an elementary language has been increasingly linked to the idea of the elimination of all the metaphysical expressions of current language. Thus, the project of an elementary language, conceived from the logical-mathematical paradigm, has become programmatically antimetaphysical. The Lullian Art is obviously understood, in contrast, as a clearly elementary metaphysical language.

While formal logic and computing languages are therefore limited to “calculate” or coherently process the given information, with a certain indifference to its specific content, Llull’s Art never neglects what we could call the material aspect: the semantics of the metaphysical principles on which it is based. This certainly has to do with Llull’s purpose, as the Majorcan had to set out from solid metaphysical presuppositions in order to finally convince Muslims of his religion.

However, it goes further: Llull seems to have seen a problem that has accompanied logic since its Aristotelian origins. In fact, already in Aristotle the rules to find a good argument and the rules to guarantee the validity of the argumentative process seem to follow different

From Lullian Art to Cross-Disciplinarity and Complex Thought

I would like to emphasise Lull's relation with dialogue, with the search for meeting, because it is him who travels, who goes to what today is Algeria to meet the wise men, the scientists. The man of the Lullian Art was a man of moderation and of a method that allows scientific rigour and avoids any arrogant and dogmatic position. However, Lull sometimes showed too much passion in defending his points of view that led him, perhaps through "excessive" militancy, to be arrested during his stay in Bougie. The occasion revealed the involvement of the ulemas, who secured his freedom and ensured that the matter did not have unpleasant consequences.

As a scientist, I consider that accepting complexity and favouring not only dialogue but also listening is of great importance in Ramon Lull's thought. It is not possible to dialogue without listening. Trying to simplify complex things which, therefore, need a cross-disciplinary approach is quite deceptive. This approach usually goes beyond the speciality in which different intellectuals can achieve in-depth knowledge and to see behind the appearances that cover reality.

Ramon Lull had a very remarkable influence on one of the great scientific philosophers, Gottfried Wilhelm Leibnitz. Leibnitz represents the transposition of the philosophy of Heraclites, who was, in his turn, the great "scientific" philosopher of that time when, through reflection, meditation and rumination, almost empirical results were sometimes attained. Scientists based themselves on reflection, on a capacity that emerges in the analysis of complexity, in the daring hypothesis that goes beyond reality because, in fact, the aim is to try to find explanations beyond appearances, through the underlying reality.

After reading the Lullian Art it is very difficult to accept the position currently held, in the wake not only of a new century but also millennium, by those who, sometimes with touches of intellectuality, do not want to accept the hypotheses that go beyond the preterit reality and the explanations that for years, sometimes centuries, knowledge of the past has brought. The formulae of the past often serve to explain today's problems, dilemmas and alternatives. Moreover, in the study of complexity, it is important to bear in mind, along with the retrospective, the prospective. It is in fact through the "heterodoxy" in the hypotheses that progress in the interpretation of facts and in the meditation on the possible future scenarios takes place.

Lull goes from Majorca to Bougie in search of dialogue, in search of conversation. It is quite curious that another later genius, Cervantes, hardly ever speaks of dialogue but rather of conversation, of *cum-versare*. And this "turning over" of things, conversation, is the first step to conciliation, to formulae of understanding, which does not mean an abandonment of one's own forms of thinking, points of view and philosophical interpretations. In Lull's work there is always a meeting between "exact" sciences (mathematics, algebra, geometry, cartography...) and what he above all represented: metaphysics. In all these processes it is fundamental to accept that if one does not finally convince or persuade, success consists of always maintaining positions that avoid force, imposition and violence. Unfortunately, it does not happen this way. For this reason the initiative by Senén Florensa and Maria-Àngels Roque of trying to build platforms and links through the European Institute of the Mediterranean is so important, incorporating science into daily life with great intensity. It is in this way, through conversation, meeting, the crossroads and the crucible and never through walls, enclosures or fortresses, that we will be able to advance to confront 21st century challenges. It would be enough to follow the Lullian Art, the method of approach that Ramon Lull gives us – to the point that it is him who goes rather than receives or waits –, to always continue, through debate, trying to unveil the complex reality. And in this process, on many occasions we need the support of specialists and cross-disciplinary teams to be able to approach it.

The lesson is clear: we must not be passive spectators but proactive actors. To engage. To share. To build bridges between shores and ensure that the Mediterranean is truly the *mare nostrum*.

Federico Mayor Zaragoza

Former Director General of UNESCO, co-President of the High Level Group for the Alliance of Civilizations

paths. On the one hand, we find the books of *Topics*, which establish the heuristic rules so as to find good arguments and, on the other hand, the *Posterior Analytics*, which provide the forms to ensure that our indifferences are valid from a formal point of view. As if it was possible to have a valid argumentation without having to start from a valid argument!

For Llull, in contrast, the inventive part of logic, which is devoted to finding valid arguments, and the demonstrative part, which watches over the validity of the connection of the diverse arguments, are inseparable. With this, Llull clearly distances himself from the modern attempts of a purely formal logic and calls for the metaphysical or, at least, semantic foundations of any logic.

Closely linked to combinatorics and elementary language, we find a second aspect of the Art which, because of its applicability, deserves our attention: reciprocity. As mentioned before, the final aim of the Art is conversion to the true faith. However, convincing the others is only one of the two faces of the Art. Because the rational approach that Llull promotes has the consequence that, if in the process of recombination and valuation of the common presuppositions the arguments of our interlocutor are better than ours, then we must accept them and allow ourselves to be convinced: "While every day more and more wise men of the Muslim religion came, Ramon declared, among other things, that he was fully acquainted with the reasons of the Christian faith and its articles and that he had come here [i.e., Tunis] to convert to the Muslim faith if, once he had heard the reasons of the Muslim wise men, he found these reasons to be more valid than those of Christians."¹

Accepting reason as the main authority means accepting the reciprocity of the ar-

gumentative process and, to a certain extent, putting one's own convictions at the disposal of the other – a highly courageous attitude, even today! It is true that we can doubt whether Llull was really going to convert; but this is not the question. What seems decisive is that Ramon Llull, in his time, was able to conceive of this idea!

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Subjecting oneself to the force of the best argument, and this is the Lullian project, also means starting from the supposition that what the other says, although it seems wrong to us, could be true; while one's most private convictions, in contrast, could be false. If this rule, which philosophers such as Donald Davidson and Willard van Orman Quine have called the charity principle, is not accepted and each of the interlocutors affirm, in contrast, the impossibility of the truth of the other, they will not enter into dialogue.

Certainly, today, in the apparently enlightened societies, we are much more willing to accept this criterion of reciprocity in the field of religious affairs, attaching little importance to it, perhaps because, for many, religion has lost its absolute and unconditional character. At present, however, there are other discourses where the idea of absolute or unconditional value appears, such as that of the universality of democracy and human rights. These values are known to often be non-negotiable and, if necessary, must be imposed by force.

1. Ramon Llull, *Vita coetanea*, ed. Hermógenes Harada, ROL VIII, p. 289.

Are we again, therefore, faced with a dilemma similar to that of the traditional medieval apologetics? In the famous dispute of Barcelona in 1263, between Rabbi Moisès ben Nahman and Pau Cristià, called by King James I, the Christian authorities clearly state the unquestionability of their convictions: “[We have met here] not with the intention of taking the faith of Christ the Lord to debate with the Jews as if it was in doubt, because given its certitude this faith does not admit any kind of discussion, but rather so that the truth of this faith is revealed as so evident that the errors of the Jews are made to vanish.”²

Just like faith in the past, today in many dialogues and political negotiations it seems that human rights have become unquestionable. In fact, if in the above quotation we substituted the words “faith of Christ the Lord” with “human rights”, the sentence would articulate a very current problem.

Let us be clear, Llull did not preach relativism and neither do we, and even less so when

dealing with human rights. But we must rethink, in the same way as Llull did, how to reach an agreement on these questions of unconditional values, an agreement that according to Llull is only possible if we share or combine the different perspectives and submit ourselves to the reciprocity of the rational discourse.

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In conclusion, we can say that combination is Ramon Llull’s response to the complexity of the world; reciprocity, in contrast, is his response to the diversity among men. Responses that in eight hundred years have not lost their strength!

2. *La Disputa de Barcelona de 1263 entre mestre Mossé de Girona i fra Pau Cristià*, introductory study by Jaume Riera i Sans; translation of Hebrew and Latin text, and notes, by Eduard Feliu; prologue by Pasqual Maragall, Barcelona, Columna, 1985, p. 65.