

**“Parler sans jugement, de choses qu'on ignore”:
lullism and the Cartesian method**

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The comparison of the methodological problems of Lull and Descartes is justified by their shared demand for a unification of the epistemological perspective of the sciences, which they sought by reducing the sciences to methodological dispersion, a heritage of the logical and metaphysical structure of aristotelianism and scholastic thought. Both philosophers pose the question, in fact, of how to implement a unique method in order to reunite all the sciences with respect to their determination and resolution.

The lullian *Ars Generalis* sought to erect a supreme Science above the particular sciences; but, in doing so, Lull conceived of a combinatory system, which intended to propose, after a definition of the elements concerning the problematics he posed, a resolving mechanism based on the multiple possibilities of arranging their components.

The characteristics which have aided the diffusion and success of lullism after his death and during the Renaissance, and into the XVII century, drew the interest of those who were engaged with the debates concerning a new science and new method. It goes without saying that lullism cannot be transposed *tout-court*. In fact, the motivations and the results of his work were not, in the end, considered by modern thought to be able to fulfil the tasks of a truly methodological and scientific revolution.

Descartes, in particular, considered Lull a witness to an artificial and ineffective sophistic, which was based on a merely positional principle of argumentative connection. However, it was precisely with respect to this principle that Descartes glimpsed a new rhetorical version of the art of logic. In fact, in his *Discours de la méthode*, Descartes, after having reaffirmed his analytical procedure, showed how the latter is characterized by a widening path, in which the simple setting of elements is ineffective in realizing a structure of knowledges indefinitely expandable. Furthermore, Descartes criticized such a system, which seemed to be articulated as a mere formalism, susceptible to vacuity and vagueness, as well as to an abstraction that would corrupt any possible extension of a single problem to its reference in reality. Fernand Brunner, in describing the continuity between the aims of Descartes and Leibniz, which tried to construct a new logical and mathematic formal system, clarifies this point (Brunner, 92):

[Leibniz] songeait aussi bien à Descartes, qui recommandait de soutenir l'effort de l'entendement par des représentations sensibles, et qui affirmait fortement l'unité de la science». All'arte di Lullo «s'oppose l'effort de Descartes tendant à secouer les chaînes de la forme et à ranimer l'attention de la pensée. Leibniz de même, énumérant les auteurs qui ont cherché à donner des démonstrations de leurs pensées, cite Lulle et déclare que son art serait sans doute une belle chose, si ses termes fondamentaux n'étaient pas vagues et s'ils ne servaient pas seulement à parler et point du tout à découvrir la vérité.

In a well-known passage, taken from the *Discours de la méthode*, second part, Descartes indeed affirms (Descartes 1637 [2011], 42):

J'avais un peu étudié, étant plus jeune, entre les parties de la philosophie, à la logique, et entre les mathématiques, à l'analyse des géomètres et à l'algèbre, trois arts ou sciences qui semblaient devoir contribuer quelque chose à mon dessein. Mais, en les examinant, je pris garde que, pour la logique, ses syllogismes et la plupart de ses autres instructions servent plutôt à expliquer à autrui les choses qu'on sait ou même, comme l'art de Lulle, à parler, sans jugement, de celles qu'on ignore, qu'à les apprendre. Et bien qu'elle contienne, en effet, beaucoup de préceptes très vrais et très bons, il y en a toutefois tant d'autres, mêlés parmi, qui sont ou nuisibles ou superflus, qu'il est presque aussi malaisé de les en séparer, que de tirer une Diane ou une Minerve hors d'un bloc de marbre qui n'est point encore ébauché¹.

A similar observation, referring in this case to Dialectics, was already present in *Regulae ad directionem ingenii* (Reg. X), where Descartes argued (Descartes 2011, 740):

Atqui ut adhuc evidentius appareat, illam disserendi artem nihil omnino confere ad cognitionem veritatis, advertendum est, nullum posse Dialecticos syllogismum arte formare, qui verum concludat, nisi prius ejusdem materiam habuerint, id est, nisi eandem veritatem, quae in illo deducitur, jam ante cognoverint. Unde patet, illos ipsos ex tali forma nihil novi percipere, ideoque vulgarem Dialecticam omnino esse inutilem rerum veritatem investigare cupientibus, sed prodesse tantummodo interdum posse ad rationes jam cognitae facilius aliis exponendas, ac proinde illam ex Philosophia ad Rhetoricam esse transferendam².

These passages, with their peremptory tone, concentrate on an essential element: the unproductivity of an *Ars* and a dialectic method with regard to the investigation of truth. According to Descartes, *Ars* and Dialectics, are able to make claims on any topic without a knowledge of the matter, or, at best, are able to declare something that is already known by means of the premises from which it has been developed.

So, the attack of Descartes is strictly limited to the productive efficacy of method; what is more, this is a question on which Descartes worked since his youth, its first realization coming in 1637 with the editing of the *Discours*.

¹ “When I was younger, I had studied, among the parts of philosophy, a little logic, and among those of mathematics, a bit of geometrical analysis and algebra—three arts or sciences that, it seemed, ought to contribute something to my plan. But in examining them, I noticed that, in the case of logic, its syllogisms and the greater part of its other lessons served more to explain to someone else the things one knows, or even, like the art of Lull, to speak without judgment concerning matters about which one is ignorant, than to learn them. And although, in effect, it might well contain many very true and very good precepts, nevertheless there are so many others mixed up with them that are either harmful or superfluous, that it is almost as difficult to separate the latter precepts from the former as it is to draw a Diana or a Minerva from a block of marble that has not yet been hewn”, tr. Ariew, Roger.

² “But that it may appear with even greater evidence that this method of argument is of no use for knowledge of the truth, it must be noted that the dialecticians can find by their art no syllogism that yields a true conclusion unless they first have the material for it, that is, unless they have already learned the truth itself which they are deducing in their syllogism. Hence it is clear that they themselves learn nothing new from such a form, and that vulgar dialectic is therefore entirely useless for those who wish to investigate the truth of things. On the contrary, its only use is that now and then it can expound more easily to others arguments already known; hence it should be transferred from philosophy to rhetoric”, tr. Ariew, Roger.

In any case, it would be too general to stop before a set of considerations that measure a mere refusal, which clearly separates the Cartesian solution and supporters of the lullian *Ars*. If the results of the latter are not, ultimately, considered by Descartes, it is nevertheless possible to identify some continuity, especially concerning matters and motivations that could link both thinkers insofar as a specific solution at least allows one to keep the question alive.

Descartes, as far as it is possible to deduce from his correspondence with Beeckman, had encountered lullism in 1619, as he writes a letter concerning Llull, dated 26th March 1619 (Descartes 2005, 6):

Et certe, ut tibi nude aperiam quid moliar, non Lulli, *Artem Brevem*, sed scientiam pentius novam tradere cupio, qua generaliter, solvi possint quaestiones omnes, quae in quolibet genere quantitatis, tam continuae quam discretas, possunt proponi³.

Beeckman answers on 6th May, same year (Descartes 2005, 14):

Rogas me, ut commentaria Agrippae diligenter evolverem atque claves quas vocabat senex tuus expiscarer, quibus ars illa aperitur ab Agrippa aut ipso Lullio, arti huic non adjunctas ne quis temere ejus peritus foret.

The prior event, which drove Descartes to seek clarification in Llull's works, was an encounter in Dordrecht on 29th April 1629 (Descartes 2005, 12); a fortuitous conversation with an old scholar, in which the "*senex aliquantum loquax*" affirmed that neither Llull nor Agrippa, in their books, had clearly exposed the secrets of their art. Although Descartes had grave suspicions concerning the affirmations of that "old loquacious man", his assertions produced an interest in exploring Llull's thought; hence, the letter on 29th April sent to Beeckman. It is likely that the letter sent earlier on 26th March refers to a detailed study of Llull, in spite of lingering suspicions. As Descartes himself wrote, he could not hide his initial ignorance on the subject: (Descartes 2005, 12): "Quod illum certe dixisse suspicor, ut admirationem captaret *ignorantis*, potius quam ut vere loqueretur."

The interest of Descartes in Llull's works is likely confined to this period, although later it will be present for the philosopher, enough to be recalled during the editing of the *Discours*.

There is not, so far as we know, other evidence about a successive and new study; moreover, many scholars agree that the knowledge of Llull's works by Descartes is exclusively linked to his closest interlocutors, as confirmed by Constantin Teleanu's recent book: "Il semble que Descartes ne se renseigne davantage au sujet de l'Art de Lulle qu'à travers quelques mentions de Beeckman ou du sage de Dordrecht qui agace Descartes par son verbiage lulliste" (Teleanu, 124).

In an opposing view, Édouard Mehl (491-492), claims:

Étienne Gilson a eu raison de souligner que Descartes n'avait apparemment pas, à ce moment du moins, une connaissance directe de cet art de Lulle, dont il a toujours dénoncé, au demeurant, l'aspect formel et vide. L'art de Lulle ne servirait qu'à « parler sans jugement des choses qu'on ignore » ; les raisons de

³ "Let me be quite open with you about my project. What I want to produce is not something like Lull's *Ars Brevis*, but rather a completely new science that would provide a general solution of all possible equations involving any sort of quantity, whether continuous or discrete", tr. Bennett, Jonathan .

Lulle ne seraient que des « sophismes » dont le philosophe fait « peu d'état ». Rien de plus qu'un bavardage automatisé. On peut toutefois montrer que Descartes a tâché, dans les semaines qui suivent, d'obtenir une connaissance exacte de cet art, et qu'il y est parvenu.

Despite the lack of agreement concerning the result of Lull's *Ars*, Descartes' analysis of his work had two important implications:

Ainsi, au lieu d'une référence extérieure assez vague, l'art de Lulle aura eu le privilège d'avoir focalisé l'attention de Descartes au point de constituer sa référence unique et exemplaire en matière de logique pure. Après avoir établi ou rétabli le fil des recherches lulliennes de Descartes entre mars et novembre 1619, il deviendra possible d'en dégager deux implications essentielles pour le cartésianisme. La première sera le rejet du probable et, corrélativement, la destitution du principe de contradiction de son rôle de pierre de touche de la vérité logique, car l'art de Lulle établit du probable, c'est-à-dire du non-contradictoire, mais la certitude requise pour le savoir ne se satisfait pas du non-contradictoire, elle exige l'évidence dans le rapport aux objets, ce qui est tout autre chose. La seconde conséquence concerne la question de la systématisation de la science par la voie de la logique ; par où la tradition allemande, elle-même déterminée par la place qu'elle fait au ramisme et au lullisme, prendra toute son importance pour la compréhension de la genèse de la pensée cartésienne.

The two conclusions drawn here by Descartes, the refusal of the probable and the systematization of science through logic, which according to Mehl established two essential elements for understanding the genesis of Cartesian thought, are not trivial details. The lullian *Ars* represented for Descartes the second system – which Descartes refers to as Dialectics – alongside the one of syllogism, from which he aims to distance himself. Nevertheless, while it is evident from Descartes' biography and works that he had a deep understanding of Aristotelian logic, the signs of a similarly deep analysis of Lull's thought are scarce. The more probable hypothesis remains that Descartes was satisfied with the indications received by Beeckman, but, from what we know, of little else. André Robinet points out that the correspondence between Beeckman and Descartes (Robinet, 178-179) on that occasion has as topic a sort of clarification and a distinction between «Logica Ramea» and «ars Lullii», following the task of discovering or identifying a “science nouvelle permettant de résoudre toutes les questions” (Robinet, 180).

This is not the right place to consider the question of the relationship between Lull and Ramus; in any event, the synthesis of Beeckman's results, seen in his lecture and present in his *Journal*, which were probably sent to Descartes, and described by Robinet, is highly useful⁴. It is necessary to highlight, nevertheless, that this lecture was not the product of a direct study of Lull's works, but rather of Agrippa's commentaries on Lull's *Ars*. Robinet specifies the source: it concerns H.C. Agrippa de Nettesheim, *Opera omnia in duos tomos cincinno digesta*, Lyon, 1600, in which, in the second volume, two parts are dedicated to the lullian *Ars*, *In artem brevem R. Lullii commentaria* and a *Tabula Abbreviata*; on the other hand, it is not certain that Descartes knew the famous lullian anthology that circulated during those years⁵, nor that the result

⁴ Cfr. De Ward, 294-295.

⁵ “In the seventeenth century Lull was chiefly read in the famous Zetzner anthology published in Strasbourg (1598, and reedited 1609, 1617, and 1651), in which genuine works such as the *Ars generalis ultima* and the *Ars brevis* were accompanied not only by three of the works just mentioned - the spurious

of Beckmann's lecture reached Descartes⁶. In any case, that result is schematically returned to by a very efficient synthesis (Robinet, 179-180):

Lulle divise toutes choses en « lieux généraux » (sans doute les « subjecta universalialia »); cette division est telle qu'il n'y a rien de la chose qui ne puisse être réduit à quelque partie de cette division.

Pour appuyer cette division, les choses sont d'abord divisées en 6 ou 7 parties qui peuvent être saisies ensemble et qui sont distinguées les unes des autres de manière manifeste et utile (sans doute les prédicats absolus et respectifs).

Lulle divise à nouveau chacune de ces parties singulières en 9 parties (sans doute le chapitre des questions). Le résultat est dénommé « terminos intraneos » qui reçoivent chacun un dénombrement par des lettres majuscules.

Chacune de ces 9 parties peut à son tour être divisée en autant de parties qu'on veut : en résultent des « terminos extraneos » qui reçoivent d'autres lettres qui les dénombrement.

Toutes ces divisions étant effectuées, on passe à la multiplication des termes en combinant les choses entre elles, et chaque fois que quelque chose peut être dite de quelque chose, on l'assemble par un, deux, trois ou quatre cercles. Ce qui fait voir comment toutes les choses tiennent à toutes généralement et spécialement, en évitant que l'on omette ce qui est assemblé.

On met des nombres ou des lettres à ces cercles. Si bien que ces cercles, qui reçoivent les lettres S, A, T, et Q, se retrouvent divisés en 9 compartiments désignés par des lettres de B à K. Chaque cercle énumère 9 termes qui vont soit de Dieu aux instruments, ou qui rassemblent les 9 catégories: Utrum, Quid, De quo etc.

Accordingly, it is not certain that Beeckman's scheme, anticipated by the sentence "non sunt claves hae longe petendae", is arrived at by Descartes. The letter concerning this subject is interrupted here. However, one cannot fail to notice various elements of continuity with the methodological Cartesian solution, in particular the analytic principle and enumeration. Of course, Descartes bore in mind the abstract nature of the lullian system, as well as its combinatory structure; hence, his determination to consider it as far from the solution for which he was searching. This conclusion will be repeated even later when he writes to Mersenne on 25th December 1639 (Descartes 2005, 1106): "Pour les raisons de Raymond Lulle, ce ne sont que sophismes dont je fais peu d'état."

It is necessary to emphasize that the horizons in which Descartes and Lull moved were not the same: if the Cartesian methodological enterprise was strictly linked to the solution of practical problems (or at least, this was the task until the *Discours*⁷) –an aspect probably inherited from the Renaissance– Lull writes from an apologetic perspective. Emmanuel Faye (Faye, 32) specifies the lines of the lullian methodological proposal:

La signification philosophique de l'œuvre de Lulle est cependant difficile à établir, du fait que la pensée de Raymond Lulle est toute entière animée par un dessein apologétique. Unifiée par ce dessein, son œuvre ne ménage aucune

Logica brevis and *De audito*, together with Agrippa's commentary -,but also by the *In rhetoricam isagogem*. Since there is little doubt that it is this anthology in which Descartes read Lull, one can sympathize with his characterization of the Art as something that would allow one to speak on many subjects without knowing any of them" (Bonner, xiii).

⁶ Cfr. R. Descartes, *Tutte le lettere 1619-1650*, nota 6, p. 16.

⁷ Cfr. Alquié.

autonomie à la philosophie, et, sur ce point, Lulle combat résolument ceux qu'il nomme les « averroïstes » parisiens.

This claim is, however, integrated into considerations of the implications of Llull's works, that is to say on the philosophical nature of his thought (Faye, 32):

Deux dimensions de sa pensée ont cependant une incidence philosophique essentielle. Il y a tout d'abord la volonté de développer une argumentation rationnelle par raisons nécessaires et le projet d'un art ou d'une science nouvelle, intelligible aux peuples des trois confessions : chrétienne, musulmane et juive, qui permette de démontrer la vérité de la Trinité et de l'Incarnation.

This kind of impulse allowed, according to Faye, the lullian proposal not only to expand itself ambitiously toward a universal methodology, by “an Art or a new science”, but above all, permitted science to become accessible, “intelligible to the people”; the successive specification (“three confessions”) is clearly not a trivial aspect, but one needs here to overlook it, so as not to risk locating the crux of the question in the relationship between faith in truths and the meaning of their demonstration. The element on which we wish to insist here the ambition of method with regard to its extension (Faye, 33):

Ainsi, la démonstration par raisons nécessaires n'est pas limitée, comme dans l'apologétique thomiste, aux préambules de la foi : elle s'étend aux articles même de la foi chrétienne, ce qui implique une extension considérable du domaine d'exercice de la raison et lègue à la pensée un problème capital, celui du champ d'extension légitime de la raison naturelle.

The following passage of Faye's essay specifies another fundamental element, which links Llull to Descartes in an unequivocal way (Faye, 33):

«Dans son introduction aux *Articuli fidei*, Lulle va jusqu'à affirmer qu'il peut démontrer l'existence de Dieu par une démonstration plus nécessaire encore que l'est toute démonstration mathématique⁸. Cette conviction de Raymond Lulle devance de manière remarquable l'affirmation de René Descartes lui-même qui, dans l'*Epistre* introductive aux *Méditations*, écrira que les raisons dont il se sert pour démontrer l'existence de Dieu «égales, voire même surpassent en certitude et évidence les démonstrations de Géométrie».

In short, Faye highlights three crucial aspects of continuity between Llull and Descartes: 1) in the first place, the intention to plan a new science based on a grammatical argumentation that is rational and necessary; in the second place, 2) the will to make this science accessible to different people, posing the question of methodological unity and therefore positing the principle of the unification of the sciences; 3) and finally, the possibility of extending the applicability of an *Ars* independently of the subject at hand.

The influence of lullian works in philosophical thought certainly does not stop here. However, we limit this discussion to an emphasis of his influence on the birth of modern philosophical method.

As is clear from the cited passages, as well as those taken from Descartes'

⁸ Cfr. Faye, 33, note 1: “Sed praedicta asserentes ostendunt se ignorare Deum esse, et quum est Deus, deum autem esse est necessarium, et demonstrabile magis necessaria demonstration quam sita liqua demonstration Mathematica”, Lullus, f. 5v.

correspondence, the interest in Lull cannot exclude a consideration of the effects of that interest. It would be, nevertheless, imprudent to try to rebuild a linear derivation; at the same time, it would be careless to ignore the elements that preserve a continuity, albeit connected and synthesized by new elaborations. Moreover, the relationship between medieval thought, in particularly the scholastic strain, and the formulation of the philosophical undertaking that opens the modern age, which is usually identified with Galileo, Bacon and Descartes, has been deepened during the twentieth century, such that describing a clear-cut discontinuity would be a trivial solution (one need only consider Gilson's masterwork⁹ about the role of medieval thought on Cartesian system formation). Similarly, as De Ruggiero rightly affirms (De Ruggiero, 12):

Perché la scolastica possa dirsi veramente sorpassata, bisogna che gli spunti di pensiero nuovo si svolgano in un sistema, o meglio si organizzino in una nuova forma mentis, capace di ripensare tutti i problemi della speculazione precedente e d'imprimervi il proprio suggello e questo è un lavoro lento, assiduo, che occupa tre secoli, dal trecento al cinquecento. Solo con Galileo e Descartes noi potremo dire di essere in una concezione moderna, bene articolata nelle sue parti, della vita e del pensiero; dal trecento al cinquecento, invece, non è che un ininterrotto periodo di preparazione e quasi di fermentazione, dove l'antico e il nuovo si sorreggono a vicenda, creando forme composite e mobili.

To this we could add moreover that where, as in the case of Cartesian systematization, one can realize a certain fulfilment or a new elaboration, the elements that compose it are stratified throughout the centuries, often in a composite form, retaining a poignancy and an independent life, for which their dissolution does not entail an exhaustive overcoming of the whole from which they emerged.

This is also the case for lullism, and in particular for the combinatory art, which during sixteenth century and until the second half of seventeenth century, had been a matter of renewed interest, thanks to important thinkers like Giordano Bruno, Pierre Grégoire, or Agrippa, to name a few. Although lullism spread in relation to an interest in Kabbalah and universal writing, nevertheless, it was not extraneous to larger epistemological matters that animated the Renaissance, as for example, the search for the fundamental principles of all knowledge, or the art of memory and the formulation of a unitary logic. In reference to one of biggest exponents of the rebirth of lullism, Agrippa, it is possible to notice how the terms were very clearly and directly related to subjects that transcend the time in which they were proposed. As Paolo Rossi (43-44) writes in his work *Clavis Universalis*:

Mentre si richiamava ai grandi maestri del lullismo, Agrippa chiariva anche brevemente la portata e il senso della combinatoria lulliana, le ragioni della sua superiorità e della sua efficacia: l'arte, scrive Agrippa, non ha nulla di volgare, non ha a che fare con oggetti determinati e proprio per questo si presenta come la regina di tutte le arti, la guida facile e sicura a tutte le scienze e a tutte le dottrine. *L'ars inventiva* appare caratterizzata dalla generalità e dalla certezza; con il suo solo aiuto, indipendentemente da ogni altro sapere presupposto, gli uomini potranno giungere ad eliminare ogni possibilità di errore e a trovare la verità di ogni cosa conoscibile. Gli argomenti dell'arte sono infallibili e inconfutabili, tutti i particolari discorsi e principi delle singole scienze trovano in essa la loro universalità e la loro luce; infine, poiché racchiude in sé ogni

⁹ Gilson.

scienza, l'arte ha il compito di ordinare, in funzione della verità, ogni sapere umano.

It seems clear that, independent of the results and the combinatory system, the fundamental question of lullism concerned the formulation of an argumentative system based on unitary principles which could be applied to all knowledge. Indeed, it is a question of method, a method that aimed to cross the aristotelian dispersion based on a productive development related to the type of object under consideration. Lullism affirmed the clear necessity of a unitary methodology and consequently a general applicability, independent of particularity of discipline and the field of its operation. Paolo Rossi (45), indeed, reiterates:

Il tema di una logica intesa come chiave della realtà universale, come discorso concernente non i discorsi umani ma le articolazioni stesse del mondo reale, si congiunge infatti strettamente, nei testi stessi di Lullo e del lullismo, con l'aspirazione ad un ordinamento di tutte le scienze e di tutte le nozioni che corrisponda all'ordinamento stesso del cosmo.

Lullian art intended therefore to track down common principles in all the sciences, establishing *de facto* a principle of epistemic reunification, which was the favored horizon of modern thought. The description made by Ruiz Simon (97-98) on what actually defines lullian art, is oriented exactly in this direction. It was, indeed, characterized by invention, since it multiplied investigative techniques; demonstration, since it achieved necessary conclusions; compendium, as it produced an unlimited variety of arguments, starting from a limited base of principles; generality, since it could be applied to every kind of object (Simon, 98).

Returning to Descartes, it is clear that we have an encounter that is much less agonistic than that expressed in the *Discours de la méthode*, if for nothing else on account of the questions he shared with Llull, that is to say, method and the problem of the unity of the cosmos; questions that in the seventeenth century were far from resolved. As Paolo Rossi (45) says again:

Comunque siano da valutare queste espressioni cartesiane, certo è che il programma del giovane Descartes, può apparire, da questo punto di vista, singolarmente vicino a quello presente nelle sintassi e nelle enciclopedie lulliane del tardo cinquecento: dietro la molteplicità delle scienze, il loro isolamento, si nasconde un'unità profonda, una legge di connessione, una logica comune. Una volta liberate le scienze dalla loro maschera, sarà possibile rendersi conto di una catena *scientiarum* nel cui ambito le singole scienze potranno essere ritenute con la stessa facilità con la quale si ricorda la serie dei numeri.

These conclusions may be superimposed onto the Cartesian chain of sciences, onto their interrelations and their interdependence; moreover, in the same way, there is an inevitable reference to the question of the relationship between metaphysics and logic, which sustains that unity. Accordingly, Vittorio Hösle affirms (Hösle, lxiv): "Llull tries to combine logic and ontology, that is, to build the former on the latter - a program which naturally harmonizes with Llull's concept of the unity of being and thought."

Yet, what characterizes the distance between Descartes and Llull, between Descartes and lullism? Descartes himself points this out, as already seen in *Discours*. The usefulness of certain of Llull's propositions were nevertheless inextricably linked to the superfluosity of others. Here, the reference speaks to the nature of lullism in the seventeenth century, strictly related to and mixed up with traditions of magic and

occultism; for Descartes, this relation was impossible to undo (recall his comments on alchemy and magic in the *Discours de la méthode* [Descartes 2011, 32]). More than that, Descartes affirmed that Llull's art allowed for the manipulation of his argumentations, abstracted from a knowledge of their objects. Here was an evidently clear opposition to the principle of the simplification of method, which collides with the esoteric and potentially empty dimension of knowledge. The question of method was, for Descartes, directed toward the constitution of a knowledge that was shared and accessible, aimed at a universal applicability, without sliding into unproductive erudition. It is here that Descartes probably identified the risk of lullism: taking an entirely valid enterprise, namely the consolidation of the sciences, and imposing upon it an argumentative deformation, which is founded entirely on a formal structure instead of on the real contents of propositions (it is not fortuitous that Descartes addresses the same argument against aristotelian and scholastic syllogisms).

In spite of the evident and inevitable divergences, it is, in any event, necessary to recognize the debt to Llull and lullism that Descartes himself acknowledged. The French philosopher was attracted to Llull precisely because, since his youth, he represented a horizon that inspired the fundamental innovation of modern thought: namely, the unification of knowledge and the certitude of method. This inspiration became, for Descartes, a clear task: to build, by an epistemologically unitary idea, the principle of the unity of the world in its internal articulation. It is not a coincidence, moreover, that Descartes transposed the lullian image of the Tree of Sciences in order to represent his epistemic hierarchy. In this regard, Paolo Rossi (53) underlines:

L'unità del mondo del sapere appare dunque fondata sul fatto che i principi assoluti e i principi relativi dell'arte costituiscono la comune radice del mondo reale e del mondo della cultura. Su queste radici (simboleggiate dalle nove lettere dell'alfabeto lulliano) poggiano infatti sia l'*arbor elementalis* i cui rami indicano i quattro elementi semplici della fisica, le cui foglie simboleggiano gli accidenti delle cose corporee, e i cui frutti fanno riferimento alle sostanze individuali come l'oro e la pietra, sia l'*arbor humanalis* che raccoglie, accanto alle facoltà umane e agli abiti naturali, anche quelli artificiali o le arti meccaniche e liberali.

L'immagine lulliana dell'albero delle scienze, non a caso ripresa da Bacone e da Cartesio, sarà particolarmente fortunata, ma, soprattutto, agirà a lungo nel pensiero europeo l'aspirazione lulliana verso un *corpus* organico e unitario del sapere, verso una sistematica classificazione degli elementi della realtà.

It cannot be ignored that Llull sought an internal formal structure for reality, which implied a reflection more oriented to a metaphysical definition of logic. Bonner, indeed, affirms (Bonner, 204):

One only has to recall the definitions of the Principles given above, the dynamism - articulated by the correlatives - of Llull's ontology, as well as his attempt to discover a formal structure to all of reality, as in the *Tree of Science*.

There is a chasm between Llull and the Cartesian method; and yet, nevertheless, precisely on account of the distance between them, one might find in this image of separation a productive metaphor for their distance as well as their underlying proximity.

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