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Leibniz and the Conciliarists on Natural Motion and the Legacy of Ancient Philosophy

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1. Syncretism in the 17th century: an historiographical puzzle

One of the most successful narratives relative to the early modern era is that which presents the rise of the new science as a revolution, a change in the ideas assumed and in the authors' mindset so strong that it was incompatible in any way with what was thought before concerning the philosophy of nature, dominated until then by the Scholastic tradition. While some scholars have already questioned the idea that an actual revolution happened,² this narrative remains one of the most successful, mainly for two reasons: it is based on a truth universally acknowledge and it was adopted not only later by the historiographical tradition, but also immediately by the very same authors of that supposed revolution. The truth that somehow justifies the revolution narrative is that, as a matter of fact, the concept of inertia developed by the authors of the new science is completely incompatible with how motion and rest were described in the Scholastic tradition. Since the very beginning, drawing from this assumption, the rhetoric based on the opposition between the old and the new, and similar simplifications, began to spread, to the point that in the writings about these topics we often find declarations that specify the position of the author on this opposition.

From a historiographical perspective there is however a real danger in naively accepting this narrative: the dichotomization that it entails prevents a fair understanding of certain authors that built their position precisely on its refutation. These authors are generally called syncretists and the problem of their interpretation and role appears in the history of science and philosophy whenever a strong and irreconcilable opposition of certain ideas is presupposed.

In this paper I would like to argue that in general the very notion of syncretism is detrimental to the understanding of historiographical issues and, more specifically, that the concept of syncretism developed in the 17th century was detrimental to the understanding of the relationship between the

¹ This project has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation program (grant agreement n°101020985).

² See for instance Garber [2016, 133-148] for a brief bibliography on the topic and for his account in relation to the Kuhnian concept. With respect to what I am about to argue in this paper, I would like to point out that even among those who dismiss the idea of an actual revolution, the alternative interpretation is often presented as a slow and more complex process of replacing old ideas with new ideas. In this sense, undervaluing the role of the syncretists because of an excessive dichotomization between old and new ideas is still possible, even in this context.

rising new science and the influence of ancient philosophy, as it is in the analysis of Leibniz's notion of natural motion and its connection with certain Aristotelian concepts.

The perfect embodiment of these issues in fact is an author such as Gottfried Wilhelm Leibniz, on one side because while he was one of the most important scientists and philosophers involved in the development of the new science, he was slightly younger than other fundamental scholars such as Galilei, Descartes, Spinoza and Hobbes, so much so that growing up he was already influenced by the main narrative concerning their theories. On the other side, because Leibniz's syncretistic efforts are widely known and present throughout his life, at least concerning religious and scientific matters, making him a privileged case study on how syncretism and the rising new narrative interacted.

The dichotomy between old and new authors is perfectly described in fact by a 23-year-old Leibniz in a famous letter to Thomasius dated April 1669 [Leibniz AA II 1, N. 11].³ Here, a clear distinction is drawn between the *recentiores* or *reformatores* on one side, including, among others, authors such as Galilei, Hobbes, Descartes and Gassendi, and on the other side the Scholastic tradition in general. The irreconcilable dichotomy is here fully embraced: «That which is denied by the Scholastics is affirmed by the Reformers» [Leibniz AA II 1, 25-26].⁴ Leibniz's interpretation is influenced by early modernity's own narrative, which openly substituted the aporetics of ancient and medieval natural philosophy with an axiomatic approach that tended to suppress or mask at any cost big or small inconsistencies.⁵

This clear distinction is consistent with another famous passage, a 1697 letter to Burnett, where Leibniz recalls his early years and his indecision between two opposing approaches: «La plus part de mes sentiments ont este enfin arrêtés après une délibération de 20 ans. Car j'ay commencé bien jeune à méditer: et je n'avois pas encor 15 ans quand je me promenoirs des journées entières dans un bois pour prendre parti entre Aristote et Démocrite. Cependant j'ay changé et rechangé sur des nouvelles lumières. Et ce n'est que depuis environ 12 ans que je me trouve satisfait, et que je suis arrivé à des démonstrations sur ces matières qui n'en paraissent point capables» [Leibniz AA I 14, 224]. One could argue however that in this last passage Leibniz is simply referring to the choice

³ Given the peculiar state of Leibniz's critical edition, abbreviated here using the term AA, I will specify in my quotes the series and the volume used, rather than the year.

⁴ When not specified, the translations from the original Latin text are made by the author of this paper.

⁵ However, as shown later in some seminal works, these inconsistencies were already understood and discussed before the early modern age. See for instance the works of Maier [1949, 1951], which by the way significantly influenced Kuhn approach, and Wolff [1978].

between admitting the existence of atoms and the void or not, and it is not referring to a more general distinction between the old and the new, exemplified by Aristotle and Democritus' different approaches. This possibility leads us to a first inconsistency related to Leibniz's own narrative displayed in the 1669 letter to Thomasius previously quoted: what is exactly the criteria that defines the *Reformers* as such? After all, authors like Galilei, Descartes, Hobbes and Gassendi for instance are far from being comparable, especially concerning their philosophy of nature. Arguing that their novelty resides in the assumption of atoms and the void for instance would be false for some of these authors and, even more, the rejection of these concepts is instead consistent with the Scholastics' views on these matters.

Finding the common denominator that justifies the inclusion of these authors in Leibniz's *Reformers* then is crucial to understand the main narrative he was adhering to. The hypothesis most accepted by the scholars is that Leibniz, thanks to his genius, was already well aware of what we nowadays consider as granted only after centuries of research on the matter, i.e. that all these authors exhibit a certain way of approaching the study of nature following the scientific method described by Descartes, a certain notion of a body as something which is affected by a variety of forces that allow us to describe its behavior and, directly related to this, a certain notion of inertia based on Galilei's findings, so that no body (whether it is a distinct impenetrable atom or not) can change its behavior according to a change that comes from within that body, as the Scholastics believed, but only thanks to the agency of an external force. In other words, determinism and mechanism, provided the needed distinctions on these subjects between the different authors, should be then at the core of Leibniz's difference between the Reformers and the Scholars.

I am not going to deny this assumption in its entirety or Leibniz's capability of understanding the novelty of the new science of course, but the prosecution of the 1669 letter to Thomasius is not consistent with these strong assumptions: Leibniz introduces a new category, so to speak, a new list of authors called *conciliators*, which includes personalities such as Johannes De Raey and, above all, his former teacher Erhard Weigel, and inside which he includes himself.⁶ The inconsistency derives here from the fact that Leibniz seems to define himself as a syncretist, while he just displayed a clear awareness of the incompatibility between the old and the new ideas emerging on

⁶ «NequeveroRaeus conciliatoruminterAristotelemetrecentioresprimus solusque est.Primus Scaliger mihi viam stravisse videtur; nostris temporibus Kenelmus Digbaeus et ejus assecla Thomas Anglus, ille in libro *de animae immortalitate*,

hic in *institutionibus peripateticis*, idem longe ante Raeum ex professo egere. Nec abludunt tum Abdias Trew, tum inprimis Erhardus Weigelius» [Leibniz AA II 1, 30]

natural philosophy. If we astray for a moment from the historical context, this is what happens in general when syncretism is evoked, because in its very definition what is combined by the syncretic philosopher are parts or ideas that are already thought as autonomous, intrinsically different and mutually excluding.

From an historiographical perspective then, syncretism is always a derogative concept, because it entails the impossibility of a real union between the different theories, thus preventing any form of originality by the author. If we take for instance the descriptions of Johannes De Raey's *Clavis philosophiae naturalis, seu introductio ad naturae contemplationem, Aristotelico-Cartesiana* present both at that time and nowadays in various authors and encyclopedias, we often find this work descripted as a book presenting the novelty of Descartes theories in the fear of their controversial effects, which were mitigated by the author introducing a mixture of Aristotelian concepts. I fail to understand how this could be even possible, if such ideas are universally acknowledged as incompatible, and it is evident that approaching De Raey's production in this way would lead to nothing, but the demonstration of a thesis already presupposed, that is that his approach has no value whatsoever.⁷

The alternative to this reading that I am proposing here is to consider these author not as syncretists in this derogative way, but rather as pseudo-syncretists, or conciliarists as Leibniz would call them and himself, stressing the fact that they are not philosophers imprisoned in an old way of thinking, scholars that chose the defeating side of history, but thinkers that saw some limits in the general narrative that was rising, to which they responded reintroducing concepts dear to ancient philosophy. As I will be showing in fact, in these passages Leibniz is facing a situation which is similar to the one I described in this paper concerning the supposed scientific revolution: the same dichotomizing narrative was already universally accepted, and he had to find a solution to avoid being accused of supporting a vain syncretism.

While the term syncretism is not openly used in the letter to Thomasius in fact, it is clear that Leibniz thought about it and thought himself as a syncretist. This is hinted in a close letter to Spener, dated February 1670, when Leibniz is explaining his additions to the edition of Nizolius' works: «I added a letter I wrote to a very learned man written by me on the reconciliation between Aristotle and the more recent authors (such as Gassendi, Descartes Hobbes, Digby [...]). Which syncretism seems to me even more correct and solid than the theological one» [Leibniz AA II 1,

⁷ An excellent exposition of the complexity of De Raey's ideas instead can be found in the many works by Andrea Strazzoni. Concerning the wider topic of science and its evolution see for instance Strazzoni [2018].

56]. The letter mentioned is the 1669 letter to Thomasius. We know then that Leibniz's aim is to offer some kind of syncretic solution and we already mentioned that his irenic efforts comprehend during these early years and throughout his life both religion and the philosophy of nature, but the exact relation between the two syncretistic approaches remains unclear.

In order to understand the context in which Leibniz's concept of syncretism arises then we need to refer to another important and coeval letter to Spener, dated December 1670 [Leibniz AA II 1, 116]. Here, Leibniz mentions an important work on the topic, that is Peter Musaeus' Liber de syncretismo fugiendo. Peter Musaeus, father of the slightly more famous Johannes Musaeus, was much like his son a theologian active in Jena around the same time of Weigel, in that controversial cultural milieu that was open to Leibniz's irenic efforts. His book, which of course deals with the matter more from a theological perspective, is particularly interesting because describes a brief history of syncretism, presenting various definitions. It is clear from this book that already during the 17th century the concept of syncretism was intended in a derogative sense: in this brief history, it is defined at first as a «collusion between truth and falsity, which is interpreted as a mixture of religions» [Musaeus 1670, 53], later as something that has to deal at the same time with the *auctoritates* and reasoning, something which puts at the same level Luther, the Pope and Calvin in a strange equivalence, conjunction and mixture.8 The author then tries to identify the problem behind syncretism as commonly known in history: the origin of the accusations made to syncretism is the inability to discern between the wrong opinion and pure tolerance. In this sense, Musaeus revaluates theological syncretism stating that «its natural aim is tolerance» [Musaeus 1670, 290]. It is for the same reasons however that syncretism needs to be abandoned at a certain point, because it cannot provide more than an initial common ground for a confrontation between different religions. Nevertheless, this was already a great step forward if we consider how the different clashes inside Christianity spread hatred and death throughout the whole Europe at that time, and for this reason, embracing this concept of tolerance is consistent with Leibniz's irenic attempts.

At the same time, we can now clearly understand why Leibniz needs to specify in the letter to Spener that the syncretic efforts concerning the new science are somehow different and stronger than the ones attainable in theology: while being extremely useful in religious matters, tolerance has no place as a value when our aim is determining the behavior of a certain body with respect to its motion. In this case, what matters is only an effective determination of the analyzed situation. The

⁸ Cf Musaeus [1670, 60].

conciliarist approach then needs to be more than this, because it needs to allow a coherent use of the concepts taken from ancient philosophy and used in the context of the new science.

To obtain such results, Leibniz utilized a rhetorical artifice that he shared with his former teacher Erhard Weigel: establishing a distinction between the contemporary use of ancient philosophy concepts as reshaped by the Scholastics and the use of the same concepts by those who understand the real and original meaning that they had in ancient times. Understanding Weigel's influence on this topic is easy if we look at his major work, the *Analysis Aristotelica Ex Euclide Restituta*,9 which is based on the very premise that there was a misunderstanding on the interpretation of Aristotle's philosophy because it was not explained with the rigor of Euclid's demonstrations. The rhetoric of the rediscovery, of the newly found *true meaning*, purifies the concepts taken from ancient philosophy, because their compatibility or incompatibility with the new science is unverified. Hence, Leibniz can state: «It seems to me that the opinion of the reformers is not only truer, but also closer to Aristotle [than the one of the Scholars]» [Leibniz AA II 1, 26]. I do not intend to analyze in detail how this project of reintegration happened, because it is already the topic of many writings on the young Leibniz, 10 but I rather want to stress how important, liberating, and innovative was for him approaching the rise of the new science in this way.

Even more, as much as we should not accept the dichotomic narrative on the scientific revolution just because it was believed at that time, we should not adhere naively to Leibniz's narrative on ancient philosophy as well: this rhetorical artifice in fact was utilized by him not only in relation to concepts clearly taken from Aristotle, but also in relation to concepts taken from the Scholastic tradition and presented in a purified new form, as in the case for example of modal scholastic logic and how it was reinterpreted in the *Confessio Philosophi*. We witness here the birth of a signature feature of Leibniz's thought that went beyond the mere use of ideas taken from ancient philosophy, i.e. what I would call the ability of extracting an idea out of its context and evaluating its rational foundation. This practice of reinterpreting, cutting, reshaping, integrating, streamlining and ultimately perfecting different concepts has its origin in Leibniz's young reflections on the

⁹ Cf. Weigel [1658]. Weigel is also another perfect example of how adapting a narrative about the history of science and philosophy based on how the authors of the period analyzed positioned themselves in the debate is extremely dangerous: apparently, this correction of Aristotle made through Euclid was based on the false assumption that Euclid was born before Aristotle, a common mistake during those years justified by the confusion between Euclid of Alexandria and Euclid of Megara, Socratic philosopher born before Aristotle.

¹⁰ See, among others, Kulstad et al. [2014], or for a general overview on the evolution of Leibniz's philosophy Antognazza [2009].

¹¹ I have already analyzed this topic in Brancato [2016].

definition and role of syncretism. Ignoring the origin of these reflections can sometimes be detrimental to the understanding of minor authors related to Leibniz's milieu and it is typical of a certain way of approaching the history of philosophy and science where complex relationships between authors and teaching and religious institutions are often depicted as a mere background of a more important intercourse between few isolated personalities.

In the second part of this article, I will show that on the topic of natural motion, which concerns Leibniz also at a later stage of his production, reevaluating the relevance of the conciliarists can instead highlight new and interesting interpretations on the development of early modern science.

2. The concept of natural motion

During the 1680s Leibniz is not a young and promising scholar anymore: he already attempted to enter in the Royal Society, he studied mathematics in Paris and contributed significantly to the development of the infinitesimal calculus, to the use of the binary numeral system and to new explorations on the foundations of geometry, culminating with its *analysis situs*. As every Leibnizian scholar knows, the 1680s are particularly important concerning natural philosophy, because we witness Leibniz's reflections on the concept of *vis viva* based on his discoveries in the *Brevis demonstratio erroris mirabilis Cartesii* and similar writings where the analysis of the limits of modern mechanism will lead in the end Leibniz to the revaluation of substantial forms and the rise of his original monadology.

As for the early years, these topics are already well analyzed by other scholars, so I would like to focus less on the content of Leibniz's reflections and more on the consequences of these reflections on how he perceived his role and his doings in the history of philosophy and science. The concept of *revaluation* after all suggests immediately an affinity with the topic of syncretism analyzed in this paper regarding the early years and in fact, while it does not exist during these years an equivalent documentation on Leibniz's influences as clear as the letter to Thomasius, some important remarks of the author on sources akin to his new theories can still be found. More precisely in 1689, during his journey to Italy, Leibniz wrote the *Phoranomus seu de potentia et legibus naturae*, a seminal work on the topic of natural philosophy where he hints at his inspiration

¹² Cf. for example Fichant [2016] and Duchesneau [1994, 1998], and more recently Arthur [2021, 232-324], with whom I share the opinion that derivative force does not act on a different ontic level from primitive force, and that bodies are not on a different ontic level from forces.

for the use of certain terminology: «When, about material things, I was accepting only the jurisdiction of imagination, I was of the opinion that there cannot be inside bodies any natural inertia and that in void or free space a body at rest has to obtain its velocity from another body, as small as it is. [...] believing that movement was nothing more than a change in space, I was observing that a moving body differs from the same body at rest at least in this, i.e. that the body at rest always possesses a certain *conatus* or (to use a term belonging to Erhard Weigel, renown Saxon mathematician) a *tendentia* [tendency], that is the beginning of a direction» [Leibniz 2007, 789-790]. Leibniz then concludes stressing the novelty of his new approach: «it is not possible to make sense of the bodies' inertia or of *potentia* unless we presuppose inside bodies something else than extension and impenetrability [...] concerning bodies, it is not possible to explain everything only using the principles of imagination, that is size, shape, position and their changes» [Leibniz 2007, 799].

Leibniz's reflections show once again that, whether it is conducted following the new ideas or the old ones, natural philosophy during the 17th century has always been body-centric or object-centric: the best exemplification possible to display all the concept involved in the explanation of phenomena entails the observation of a single body/atom/object and all the elements involved in its movement. So much so that major developments in this field, like Galilei's relativity principle and Huygens' generalized version, were based specifically on the thought experiment of subtracting the majority of elements from a situation in which the experimenter observes the behavior of one entity, in order to understand the generalized law behind that behavior. In this sense, the experience of observing, even when it is an idealized experience in which we pretend we are observing something affected by conditions that are not perfectly reproducible in the actual world, becomes crucial.

Leibniz invokes the same thought experiment: «it has been doubted whether the same thing could happen to bodies in an original and natural state, when every gravity is removed, and bodies are found as into the void. It is indeed a big question whether a certain *inertia naturalis* is given within bodies, through which they resist more to a greater motion than to a lesser one» [Leibniz 2007, 780].

Both concepts of *tendentia* and *inertia naturalis* (tendency and natural inertia) are inspired in Leibniz by his reading of the conciliarists. One could argue that these concepts and terms are so generic and utilized that determining their origin is extremely hard: after all, the concept of *tendentia* is also present in Descartes, and in general the idea of something intrinsically pertaining

¹³ I am using here the Latin version of the excellent critical edition made by Gianfranco Mormino in Leibniz [2007].

one body is nothing else than Aristotle's original idea resurfacing in this context. However, the reason that justifies a closer connection with Jena's conciliarists is that their criticism to modern mechanism is similar in every aspect to that of Leibniz, starting from the fact that Leibniz does not dismiss completely natural philosophy based on imagination to replace it with the ancient views of Aristotle, but he rather reintegrates a different approach to natural philosophy alongside mechanism, which nonetheless makes its own positive contribution to the advancement of knowledge.

This approach, that I would call a compatibilist approach, is shared by the conciliarists already during Leibniz's early years. In the Exercitatio Philosophica De Quantitate Motus Gravium by Georg Samuel Dörffel, wrote under the guidance of Erhard Weigel, motion is defined for example highlighting three aspects of its nature: «I. Impetus, which is Motion, that is an effort (conatus) to move away from its place. Specifically concerning things subject to gravity, it is called *Gravitation*, Natural tendency [...] II. Determination, which is the disposition of motion, which is the direction of something in motion towards a certain place, so that when the place changes [that something] is taken towards one space instead of another one [...] the path covered in this way is called Line of direction. III Motion strictly speaking, that is Advancement or Carrying, an actual and continuous modification of place [...] which considers, as Aristotle mentions in De Generatione et corruptione [...] the change of the contraries, when it happens according to place. So that objects subject to gravity, when changing their place removing all the obstacles, move through the line of direction for as much as they are allowed, and this particular motion is called Natural (Naturalis)» [Dörffel 1663, 2]. The first two aspects of motion are typical of a mechanist view, and they are consistent with Leibniz's reconstruction about his early years and its adoption of the notion of tendency in the Phoranomus, but through the third aspect the conciliarists feel the need to reintroduce the Aristotelian concept of motion as a change within the body, to explain something that happens when all the external influences are removed. This third aspect of motion is called Natural as well and it is, in my opinion, the closest precursor of Leibniz's concept of natural inertia. It shares with it the idea that mechanism, since it is grounded in imagination, needs to be completed somehow with something that restore our experience, in which the leading role in motion is interpreted by the body itself.

Focusing on this experience, it is possible to understand why the conciliarists suggested the reintroduction of Aristotelian concept in the explanation of motion: in the experience of observing one object, while we don't actually see the forces involved in its behavior or the mathematical

structure that grants the possibility of its description, we do see the object itself, as a substance affected by change. Modern science is counterintuitive with respect to this basic experience, while the Aristotelian framework granted the conciliarists an easy way to reintroduce this marginalized experience in the study of motion, without conceiving it completely in opposition with its core premises. If we combine the conciliarists' three aspects of motion without prejudices, we obtain nothing more than a modern theory of collision accepting at the same time natural inertia.

When in the 1680s Leibniz develops his concepts of natural inertia, *vis viva*, action and resistance then, it is no coincidence that he is reminded of his early years and the cultural context in which he grew up, so much that he adopted the same terminology as an homage. In this sense, Leibniz keeps alive the legacy of ancient philosophy by reintroducing certain concepts as if they are alive, changed as much as needed to withstand the passing of time, but similar in the core premises.

3. Conclusion: a different take on the real and the known

In 1669, Leibniz is a young scholar who wants to compete with the best on his field. He is perfectly aware of the latest and most successful narrative on natural philosophy and of the authors that alimented it, but he is also a classicist who believes in the importance of the older philosophical tradition. To overcome this apparent contradiction, he adheres to a concept dear to the cultural context he was born into, a conciliarist approach where ancient philosophy's supposed true interpretation of certain concepts would turn them in an alive and breathing theory compatible with the new science.

In 1689, after twenty years, Leibniz has acquired a relevant position in the European cultural debate on natural philosophy, but the situation was already significantly different with respect to his early years, especially after he had the opportunity of reading Newton's *Principia*, recently published in 1687. Some core concepts of the new science became undeniable by that time, so much that presenting an opposing theory to that of Descartes or Newton as a reconciliation with ancient philosophy was not possible in the same terms: Leibniz needed to present his work through new concepts, paving the way for the notion of monad of the latest years.

Nonetheless, the fact that Leibniz intended the results of his new physics as a revaluation of substantial forms and the homage to the terminology of the conciliarists he defended in the early years show that he saw a strong connection between his way of criticizing the modern theories on the impact of bodies and the way the conciliarists were criticizing it. Conceptually, it was the same

controversy, but played with much higher stakes and conducted using much more refined tools, because Leibniz's critique was based on a better knowledge of every aspect related to the subject.

The historical context that led Leibniz to these positions is often understudied and undervalued precisely because, as early modern scholars, we perceive syncretism in a negative way, and we refuse to categorize Leibniz's position together with other authors who are surely not perceived as original and innovative as he was. Following this dichotomization between the old and the new however, something is lost: the reintroduction of Aristotelian concepts was not the last resort of a tradition that was not understanding the great shift taking place at that time, but it was a first attempt to make sense of some limits concerning physics done only through imagination, as Leibniz would have called it later. That of the conciliators was not the sterile position of a syncretic author who cannot think if not things already thought, but it was the position of scholars that deeply understood the matter at hand and identified for the first time some inconsistencies. This is already an achievement from the point of view of the history of science, because it means that the conciliarists must be ideally placed after the first diffusion of the new scientific ideas: as a reaction to them and not as a confused attempt to understand them, even if the alternative offered couldn't compete with other theories.

Given these premises, the notion of natural or real motion explored by Leibniz and the conciliarists highlights in my opinion a new and peculiar way of understanding the relationship between the real and the known, i.e. between the supposed objectively true and universal plane of science and the subjective and relative plane of knowledge. As I've shown in fact, the conciliarists already conceived natural motion as something which was not completely opposing classic mechanism, but something that has to be though alongside it, as a completion of an experience that is lacking something from the point of view of reality. If for these authors, when we experience motion, we witness its true nature (while we can still learn something from its geometrical and mathematical exemplifications), it means that the traditional distinction that was emerging during those times between the real and the known, attributing to the known a mere subjective connotation, does not hold in their case. I believe that Leibniz shared this approach, not only concerning physics, where not by chance he writes about phenomena that are well-founded and where a new theory is discovered on the basis of the very principles that he was criticizing, but also concerning other topics throughout his life: when addressing the problem of Hobbes' nominalism in the *Dialogus*, ¹⁴ it is the experience of addressing the same entity that suggests the existence of something real that

¹⁴ Cf. Leibniz [AA VI 4, 24].

guide us towards the same truth, despite any arbitrary decision; when confronting the problem of false perceptions in the *Nouveaux Essais*, 15 it is again the experience based on something real that grants the possibility of being deceived. From the point of view of ancient philosophy, this idea that even in the experience which is farthest from the truth we are somehow oriented towards it, because the experience of knowledge shares with the truth its ontological foundation, is surely connected with Aristotle's notion of *eikos*, especially when applied to physics.

Revaluating the influence of the conciliarists on Leibniz then means also criticizing those interpretations that stress the phenomenological aspect of Leibniz's philosophy as something intrinsically separated that was paving the way to Kant's vision. Analyzing the historical context, the evolution of the approach I've described highlights a clear path: from the influence of Saxon universities and the conciliarists on Leibniz, to his impact on the works of Christian Wolff and finally on the young Kant. Works such as Kant's *Monadologia physica* and similar ones in fact should be interpreted in this context as attempts of making sense and perfecting Leibniz's compatibilist approach in physics. Consequently, Kant's mature criticism can be seen as a reaction to these failed attempts of his early years, which led him towards a more drastic distinction between the real and the known. The debate between these philosophers then shows how wider studies on the cultural context of 17th century Germany challenge from a different perspective the most popular opinions on the role of ancient philosophy in the development of early modern science.

4. Bibliography

Arthur, R. [2021], Leibniz on Time, Space, and Relativity, Oxford, Oxford Academic.

Antognazza, M. R. [2009], *Leibniz. An Intellectual Biography*, New York, Cambridge University Press.

Brancato, M. [2016], Erhard Weigel and His Influence on Leibniz's Philosophy of Mathematics, Università degli Studi di Milano, Milano.

De Raey, J. [1677], Clavis philosophiae naturalis, seu introductio ad naturae contemplationem, Aristotelico-Cartesiana, Amsterdam, apud Danielem Elsevirium.

¹⁵ Cf. Leibniz [AA VI 6].

Dörffel, G. S. [1663], Exercitatio Philosophica De Quantitate Motus Gravium, Jena, Literis Krebsianis.

Duchesneau, F. [1994], La dynamique de Leibniz, Paris, Vrin.

Duchesneau, F. [1998], Leibniz's Theoretical Shift in the Phoranomus seu dynamica de potential, In *Perspectives on Science*, VI, 2: 77-109.

Fichant, M. [2016], Les Dualités de la Dynamique Leibnizienne, in Lexicon Philosophicum: *International Journal for the History of Texts and Ideas*, (4).

Garber, D. [2016], Why the Scientific Revolution Wasn't a Scientific Revolution, and Why It Matters, in: R. J. Richards and L. Daston (eds.), *Kuhn's* Structure of Scientific Revolutions *at Fifty*, Chicago and London, University of Chicago Press, 133-148.

Kuhn, T. S. [2012]. *The Structure of Scientific Revolutions*, Hacking, I. (ed.), Chicago, University of Chicago Press.

Kulstad, M. Laerke, M. Snyder, D. (eds.) [2014], The Philosophy of the Young Leibniz, in: *Studia Leibnitiana – Sonderhefte*, volume 35.

Leibniz, G. W. [AA 1923 –], Sämtliche Schriften und Briefe, Darmstadt- Leipzig-Berlin, Akademie der Wissenschaften (Akademieausgabe). Collected in 8 series, each one divided in several volumes. Series I: Allgemeiner, politischer und historischer Briefwechsel. Series II: Philosophischer Briefwechsel. Series III: Mathematischer, naturwissenschaftlicher und technischer Briefwechsel. Series IV: Politische Schriften. Series V: Historische und sprachwissenschaftliche Schriften. Series VII: Philosophische Schriften. Series VIII: Mathematische Schriften. Series VIII: Naturwissenschaftliche, medizinische und technische Schriften.

Leibniz, G. W. [2007], *Dialoghi filosofici e scientifici*, Milano, Bompiani.

Maier, A. [1949], *Die Vorläufer Galileis im 14. Jahrhundert: Studien zur Naturphilosophie der Spätscholastik*, Roma, Edizioni di Storia e Letteratura.

Maier, A. [1951], Zwei Grundprobleme der scholastischen Naturphilosophie: das Problem der intensiven Grösse: die Impetustheorie, Roma, Edizioni di Storia e Letteratura.

Musaeus, P. [1670], De fugiendo syncretismo liber unus, Kiel, Typis J. Reumanni Acad. Typogr.

Strazzoni, A. [2018], *Dutch Cartesianism and the Birth of Philosophy of Science*, Berlin/Boston, De Gruyter.

Weigel, E. [1658], Analysis aristotelica ex Euclide restituta, republished as Idea totius encyclopaediae mathematico- philosophicae hoc est, Analysis Aristotelico-Euclidea Genuinum Demonstrandi Modum & Plenam solidioris Philosophiae faciem Per omnes Disciplinas & Facultates ichnographice depingens; Opus Omnium Facultatum Cultoribus ad solidam eruditionem perquam necessarium, maxime proficuum. Jena, Apud Johannem Meyerum Bibliop.

Wolff, M. [1978], Geschichte der Impetustheorie: Untersuchungen zum Ursprung der klassischen Mechanik, Frankfurt am Main, Suhrkamp.