Paving the Way of Ideas: Pierre Gassendi's Epistemology and Its Reception up to Locke

Simone Bresci

Abstract: This paper aims to outline some features of Pierre Gassendi's epistemology and its reception in John Locke. To do so, I will also analyze a few potential intermediaries between Gassendi and Locke, that is, the so-called Port-Royal Logic and Gilles de Launay's *Essais logiques*. Then, I will address Locke's manuscript drafts of his well-known *Essay*, showing the extent to which he endorses Gassendi's objections to Descartes. According to the present interpretation, Gassendi's epistemology is mainly a polemical weapon for Locke. Accordingly, the present tentative inquiry aims to place Locke's 'New Way of Ideas' in a wider context of anti-Cartesian claims. Ironically, the framework in which both Gassendi and Locke articulated these anti-Cartesian claims is entirely Cartesian, resulting from his epistemological shift towards ideas.

Keywords: Pierre Gassendi; René Descartes; Antoine Arnauld; Port-Royal Logic; Gilles de Launay; John Locke; Logic; Epistemology; New Way of Ideas.

1. Introduction

Engaging with the reception of Pierre Gassendi's epistemology first requires addressing the *vexata quaestio* of its influence on John Locke.[1] The origins of this controversy can be traced back to the well-known passage almost at the beginning of Leibniz's *Les Nouveaux Essais sur l'entendement humain* (written in 1704), where the character impersonating Locke argues that

> [Locke] is pretty much in agreement with Gassendi's system, which is fundamentally that of Democritus: he supports void and atoms, he believes that matter can think, that there are no innate ideas, that our mind is a *tabula rasa*, and that we do not think all the time; and he seems inclined to agree with most of Gassendi's objections against Descartes.[2]

I will return to this passage in the Conclusion, as I believe it deserves proper attention.

As a preliminary step, I tackle the issue of the legitimacy of an investigation into the reception of Gassendi's epistemology in Locke, as the scholarship on the subject demands. Locke scholar J. R. Milton, in what is perhaps the most significant contribution on the subject, is very dismissive about Gassendi's real influence on Locke, especially in the field of epistemology. He distinguishes between two different ways of investigating such an influence. The first one, the 'internalist' approach, involves a morphological analysis of the similarities between the doctrines of the two authors. Milton dismisses this approach, but he does so too hastily, in my opinion. The second approach, the 'externalist' one he adopts, focuses on the explicit mention of Gassendi in Locke's various writings and notebooks, along with the analysis of Locke's library *et similia*.[3] The downside of this method is that Locke, like most seventeenth-century authors, did not frequently refer to his sources. Milton does not seem to be too aware of this fact. Nevertheless, I acknowledge the results of his research here. In his thorough investigation of Locke's manuscripts, Milton polemically targets the claims of those, beginning with the biographer Richard Aaron (1937), who assert this influence without providing any supporting evidence. As a result, he is inclined to accept as evidence only an explicit mention of Gassendi's name in Locke's writings. Following this track, he convincingly demonstrated that although Locke personally knew François Bernier, the influence of the *Abrégé de la philosophie de M. Gassendi* (1678) on him was likely minimal. Moreover, he convincingly argued against Kroll's suggestion that Thomas Stanley's English translation of Gassendi's *Syntagma philosophiae Epicuri* had no influence on Locke.[4] But, most importantly, he shows that Locke was a reader of both Gassendi's *Syntagma philosophicum* (1658) and the Fifth Objections to Descartes' *Meditationes de prima philosophia* (1641). Surprisingly, he does not dwell at all on the relevance that the diatribe with Descartes might have had for Locke.[5]

Following the 'internalist' approach of exploring the similarities between Gassendi's and Locke's doctrines and drawing on the 'externalist' insights provided by Milton, I will attempt to show that Gassendi's objections to Cartesian epistemology were endorsed by Locke. In order to do this properly, I will first outline Gassendi's main epistemological tenets, primarily expounded in the *Pars logica* of his works. I will then examine the presence of these tenets in the French context of the subsequent decades of the seventeenth century. The so-called Port-Royal Logic (1662) written by Antoine Arnauld and Pierre Nicole and the neglected Gilles de Launay's *Essais logiques* (1673) are significant examples of the Cartesian and Gassendist sides, respectively. Lastly, I will examine the early drafts of Locke's *Essay,* looking for these same Gassendist doctrines. As a result, I endeavor to place Locke's 'New Way of Ideas' in the wider context of anti-Cartesian claims about the nature and origin of ideas. Yet, paradoxically, the framework within which these claims were ar-

Department of Philosophy and Cultural Heritage, Ca' Foscari University, Venice
Venice, Italy
email: simone.bresci@unive.it

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ticulated by both Gassendi and Locke turns out to be entirely Cartesian.[6]

2. Gassendi's Logic, Before and After Descartes (1636-1658)

Gassendi articulates his epistemology in the *Pars logica* of his works. He wrote and published several versions of it, divergent in their form but, for the most part, consistent with each other.[7] The earliest surviving version is the manuscript written in 1636, preserved at the Bibliothèque Inguimbertine in Carpentras, which coincides with books IX-XI of *De vita et doctrina Epicuri*. Here, I will briefly focus on the third and last book of the manuscript (Book XI, *De criteriis veritatis specialiter*), the one in which Gassendi lays down the Epicurean canons.[8] These canons or rules lie at the very core of his epistemology, serving as a guide for the investigation of natural phenomena. These same canons, which he elaborates relying upon the brief account of Epicurean canonics in Diogenes Laërtius' work (DL X 31-34), will be later reproduced with very few changes in the *Animadversiones in decimum librum Diogenis Laertii* (1649) and in the *Philosophiæ Epicuri syntagma* published as an appendix to the former. These same canons have also been reprinted in the *Pars logica* of the posthumous *Syntagma philosophicum* (1658).[9]

However, the latest version of his logic is likely the one that had the greatest influence. It is a sort of standalone treatise, published as the third and final book of *Syntagma*'s logic, titled *Institutio logica in quatuor partes distributa*. This short treatise was reprinted twice in England, in both 1660 and 1668, and the first volume of Bernier's *Abrégé* is simply the French translation of it.[10] As I will show, the reformulation of Epicurean logic in the *Institutio* depends on two factors. The first is to insert Epicurean content within a traditional, scholastic form of logic in order to make it more digestible for the audience of his time. The second, less evident but not less significant, is to focus on ideas or mental content in order to propose an alternative to Descartes' epistemology.

But let us first consider the earlier manuscript version of Gassendi's logic. The starting point of the third book of the 1636 manuscript logic is the conclusion of the previous one. There, Gassendi established that "there is something true that we can know and make judgments about."[11] The first and foremost criterion for establishing truth is sensation. The second one is the intellect, which makes judgments and inferences relying on sensation.[12] The canons he expounds in the following eleventh book deepen this basic tenet. The first canon reads as follows: "Sense is never deceiver, and therefore every sensation, every imagination, or every perceptual appearance is true in itself."[13] Describing it, Gassendi states that every sensation or direct apprehension of a thing (*nuda rei apprehensio*) is true of a so-called 'truth of existence' (*veritas existentiae*), which has no opposing falsehood. This implies that every perception is true insofar as a cause (i.e., a thing) produced it, and so the perception exists as its effect. In perceptions as such, there is nothing false. In contrast, opinions or judgments are true in a much different way, as they can be either true or false. While perception or simple apprehension neither affirms nor denies anything about what it perceives, judgment, in contrast, is subject to error as it affirms or denies the content of apprehension.[14] The latter, consequently, depends on the former, as specified in the second canon: "Every opinion or judgment depends on sense and follows sense; truth and falsehood pertain to it [and not to sense]."[15] As the third and the fourth canons state, a judgment is true when it is supported or not contradicted by the evidence of senses. On the contrary, it is false when it is contradicted or not supported by them.[16] This distinction between the 'truth of the existence' of all sense data and the 'truth of judgment' (*veritas enunciationis*) that depends on the former and in which falsehood and error fall lies at the core of Gassendi's epistemology. On the one hand, this distinction allows Gassendi to argue that any knowledge, i.e., any proposition or judgment about things, is grounded on the evidence of the senses. In other words, what is immediately given to sense perception is the source of evidence and the touchstone through which the truth of any judgment is measured. On the other hand, It allows him to maintain that all sense data upon which knowledge is based is entirely free from falsehood and error, making it epistemologically reliable.

Gassendi's conception of probability, which he indifferently calls *verisimilitudo* and *probabilitas*, is grounded on the evidence and reliability of sensation as well. In the controversy with Descartes, for instance, especially when the veracity of the senses is at stake, the link between sensory evidence and probability clearly emerges. Against Descartes, Gassendi argues that it is absurd to consider all sensations false just because some of them seem to deceive us. Hence, it is absurd to hold that all opinions or judgments, which depend on the senses, must be regarded as false for this very reason. In his view, a false opinion is much further from the truth than a doubtful one, which, insofar as it is close to the sense, is in any case probable.[17] According to Gassendi's probabilism, all knowledge lies within a scale that ranges from maximum certainty or truth, which is directly attested by the senses, to minimum certainty or falsity, which is directly denied by the senses. The inferences that the intellect makes from sense data lie somewhere in between, leaning more towards truth than falsehood. As a result, they are probable. Accordingly, he writes:

> with respect to our knowledge, things are either evident and clear [*manifesta et evidens*], and then we have certain and indubitable knowledge of them, or they are hidden and obscure [*occulta et obscura*], and this makes their knowledge uncertain and doubtful ... or else we call them likely and probable [*verisimilis et probabilis*] when they are closer to certainty than to uncertainty.[18]

In other words, all knowledge is as more probable as it is closer to the evidence of sensation.

The first four canons concern the source of evidence, which is sensation, and the truth of our knowledge, which depends on sensation. Having established this, Gassendi accounts for knowledge as content of the mind. Following Epicurus, he describes these mental contents as preconceptions (πρόληψεως), which literally means 'notions already present in mind'. The first canon on preconceptions reads as follows: "Any anticipation or preconception present in the mind depends on the senses, or by input [*incursione*], or by analogy, or by resemblance, or by com-

position."[19] In other words, any mental content is either directly produced by sensation (by input) or indirectly produced by the mind reworking the content of sensation (by analogy, resemblance and composition). By characterizing 'anticipation or preconception' (*anticipatio, seu praenotio*) in this way, Gassendi establishes the foundation for linking all mental content, even the most abstract and general, to the mental images coming from sense perception.

Moreover, any other mental operation borrows from these preconceptions, as he argues in the second canon on preconceptions: "Anticipation is the very notion of the thing and almost his definition, without which it is not legitimate to seek, to doubt, to have opinions, or to express anything."[20] Opinions or judgments depend on preconceptions, which are the basic constituents of every knowledge. These preconceptions, in turn, depend on the input of the senses. As he writes further on, judgments are nothing but propositions in which the contents of the mind are joined or disjoined. When the conjunction or disjunction of these contents of the mind corresponds to a conjunction or disjunction in things, judgments are true. Conversely, when they do not correspond to the way things are connected, they are false.[21] What informs us about things are, as we have seen, the senses. In sum, in this early version of his logic, Gassendi first describes the source of evidence and the nature of knowledge without mentioning mental contents. Only later these mental contents are described in terms of 'anticipations or preconception' (*anticipationes, seu praenotiones*) produced directly or indirectly by sense-perception.

These preconceptions are never defined, in the 1636 manuscript, as 'ideas'. In my view, this absence is an extremely important clue to understanding the subsequent development of Gassendi's logic. Now, the very same Epicurean logic Gassendi expounds in the manuscript *De vita et doctrina Epicuri* was later published, with very few reworkings, in the *Animadversiones* and in the brief *Syntagma* of Epicurus' philosophy (1649). There, Gassendi merely adds the same aside each time he defines preconception: "[Anticipation or preconception], that is, that idea, or form, and *species*, to which we look at in ourselves."[22] Apart from this aside, his 1649 Epicurean logic remains the same as that in the 1636 manuscript. Only later, in the posthumous *Institutio logica*, will the structure and vocabulary of Gassendi's logic change significantly due to a shift in focus. Gassendi's mature logic hinges on mental content, now defined as 'ideas'. Logic, he states in the preface of the Institutio, is the art of correct thinking (*ars bene cogitandi*). Since thought consists of four distinct actions, Gassendi divides logic into four parts. The first part deals with the art of correctly forming ideas in the mind that correspond to things (*bene imaginari*). The second part deals with the art of making correct judgments, affirming what each thing is and denying what it is not (*bene proponere*). The third deals with the art of making correct inferences or reasoning, properly drawing conclusions from premises (*bene colligere*). The fourth deals with the art of arranging or ordering knowledge in a proper way, from the simplest to the most complex, i.e., from ideas to syllogisms (*bene ordinare*).[23] Ideas are the fundamental constituents of all knowledge, meaning all judgments or propositions. Reasoning draws a proposition as a conclusion from other propositions that serve as premises. Method (i.e. the art of ordering knowledge) is but a concatenation of syllogisms. Accordingly, all knowledge is made up of ideas, conceived as the unities of mental contents. These ideas are now described by Gassendi in the same way as he previously described preconceptions, as their origin is sensation.[24] Therefore, while in his 1636 logic Gassendi expounded the Epicurean canons by keeping those concerning sensation distinct from those concerning preconception, the two are now unified as ideas. There is no separate analysis of sensation and mental contents in the *Institutio*. In contrast, Gassendi focuses from the outset on ideas, explaining how they originate from sensation, how they are then reworked by imagination, and how judgments are but conjunctions or disjunctions of ideas.

Thus, the term 'idea' is totally absent from the 1636 manuscript. In the later Epicurean logic published in 1649, the term was added in a cursory aside of little significance. Then, in the posthumous *Institutio logica* (1658), the main topic is the analysis of ideas, their origin, and how they are the basic constituent of all knowledge. Where does this shift come from? To address this question, it is important to consider what Gassendi was involved in from 1636 to 1649. In 1641 Gassendi wrote a set of objections to René Descartes' *Meditationes de prima philosophia*. A cornerstone of Descartes' epistemology is the analysis of mental contents in terms of ideas, of which he provides a taxonomy according to their origin. In his Third Meditation, he distinguishes between those ideas that are derived from the senses (adventitious ideas), those ideas that are produced by the mind itself (factitious ideas), and finally, those that are present in the mind independently from the input of senses and are not produced by the mind (innate ideas).[25] Against this, Gassendi predictably argues that all ideas are adventitious, meaning they are derived from the senses (*De adventitia omnium idearum origine*).[26] Neither factitious ideas nor innate ideas are anything but reworkings of adventitious ideas. Well, I find it reasonable to assert that the shift we have observed not only occurred after the dispute with Descartes but also as a result of it. Consequently, Gassendi's account of ideas in the *Institutio* is an attempt to provide an alternative to Descartes'. The late formulation of the *Institutio* can be seen as a post-Cartesian logic, in which Epicurean epistemology is revived in the context of a debate over the origin and nature of ideas.

Another aspect that distinguishes the *Institutio* from Gassendi's earlier Epicurean logic is the apparent similarity of its structure to Aristotelian scholastic treatises on logic. For instance, let us compare the *Institutio* with Eustachius à Sancto Paulo's *Summa philosophiae quadripartita* (1620), a popular scholastic textbook in France at the time. According to him, the three operations of the mind are said to be 'simple apprehension' (*simplex apprehensio*), 'judgment or enunciation' (*judicium seu enunciatio*), and 'discourse or argumentation' (*discursus sive argumentatio*). The similarity in terminology is striking. Yet, behind Gassendi's perfunctory adherence to scholastic logic lies a marked resemantization of the terms involved. In brief, one could say that Gassendi adopts a scholastic form while infusing it with Epicurean content. Gassendi arranges his mature logic into canons,

reinterpreting in these canons the theories he had previously presented in his manuscript and published Epicurean logic. Consider, for instance, his account of the formation of universal concepts. There, Gassendi presents an almost direct quotation from Diogenes Laërtius, which expounds the Epicurean doctrine of preconceptions. According to this doctrine, the mind forms preconceptions/ideas by composing, by enlarging and reducing, by transferring and adapting them in proportion to the preconceptions/ideas coming from the senses.[27] In this vein, Gassendi accords epistemological preeminence to singular ideas coming directly from the senses over abstract and more general ones. Singular ideas are the more perfect or complete, the more parts and attributes they represent of the thing that cause them. General ideas are, instead, formed by aggregation and by abstraction from the singular ones. Hence, they are the more perfect or complete the more they represent without extraneous elements that in which the particular ideas convene.[28] Even in his early *Exercitationes paradoxicae adversus Aristoteleos* (1624), Gassendi has raised a series of nominalist counter-examples to the Aristotelian doctrine of universals, which are wholly consistent with his much later claims.[29] Therefore, what at first glance appears to be an adherence to Aristotelian logic should not mislead us. Arguably, Gassendi aims seeks to propagate his Epicurean epistemology under a veil of scholastic vocabulary in the definitive version of his logic, in order to make it more digestible and less controversial to the audience of the time.

Thus, the novelties of Gassendi's *Institutio logica* compared to his earlier Epicurean logic are as follows: first, a shift in focus toward ideas, resulting from the encounter with Cartesian epistemology; second, the scholastic form, which conceals Epicurean content. Now, to better understand the reception of Gassendi's epistemology, I will outline some of the main issues that arose in his criticism of Descartes. Indeed, Gassendi's objections, along with the *Institutio*, appear to be the epistemological writings that most influenced his contemporaries.

3. Gassendi against Descartes (1641-1644)

At the request of Marin Mersenne, in 1641 Gassendi wrote a set of objections published as *Objectiones quintae*, addressing Descartes' *Meditationes de prima philosophia*. Descartes' replies to these objections are particularly harsh, and Gassendi reacted to them with a long series of counter-objections or instances (*instantiae*), which his friend Samuel Sorbière published in 1644, almost against Gassendi's intentions. Here, I will focus mainly on the theory of ideas that Gassendi advocates in this polemical context.

As I have already argued, Gassendi reformulates the Epicurean doctrine of preconceptions as a result of (and in sharp contrast to) Descartes' theory of ideas to propose an alternative to it. This is particularly evident in the objections and instances to the Third Meditation, where Descartes set forth his analysis of ideas. The main objection raised by Gassendi against the Third Meditation is that the fundamental principle upon which Cartesian epistemology rests —namely, 'that everything one can perceive clearly and distinctly is true'— is flawed.[30] The reason he sees this principle as a fallacious criterion of truth is that clarity and distinction are, to him, just indicators of the evidence of the senses. But the senses inform us about the appearance of things, not about their intimate nature. Therefore, we cannot argue from sense data to assert anything about the truth of things themselves. To better explain this fallacy, let us examine the example he brings about the taste of melon. He writes:

> I perceive the taste of the melon clearly and distinctly as pleasant. So, it is true that it appears to me as such, that is, as pleasant. But how could I persuade myself that it is true that such a taste is in the melon itself, I who, when I was a child and in good health, judged differently, that is, perceiving clearly and distinctly another taste in the melon? I see that it also appears differently to different human beings, as well as to different animals. ... So, it seems possible that the truth is repugnant to the truth? Or perhaps, rather, it is not that something is true in itself because it is perceived clearly and distinctly, but, simply, it is true that it is perceived clearly and distinctly as such?[31]

This example reveals much about what ideas are for Gassendi. Our perception of the melon is a mental content, i.e., an idea. All ideas are adventitious, as he argues using Descartes' terms. This means that all ideas have an external, sensible origin and nature. Their sensible nature implies that their content is always sensible as well. Therefore, it follows that every idea has a sensible content, meaning some sensible quality (in this case, the taste of melon). In this fashion, Gassendi asserts that ideas are nothing but images of things (*rerum imagines*).[32] He defines ideas in a similar way some years later, at the very beginning of the *Institutio logica*:

> The images we have in front of us in our mind when we think of something are usually referred to by several names. The names 'idea' or '*species*' are often used, or else 'notion', 'preconception', 'anticipation' or 'anticipated notion' (since it has been acquired previously) or 'concept', or even '*phantasma*', as it has phantasy or the imaginative faculty as its seat [etc.][33]

Now, this characterization of ideas as images is the key point of disagreement between Gassendi's and Descartes' conceptions of ideas. Gassendi exploits the ambiguity of the term 'idea', which appears to exist in Descartes' account. In those same pages of the Third Meditation, Descartes writes: "Some [thoughts] are like images of things, and the term 'idea' applies in a strict sense to them alone."[34] Unsurprisingly, Gassendi quotes this statement in support of his critique.[35] Yet, this is but an argumentative passage of the Meditations, which Descartes himself later dropped. As he writes to Mersenne (July 1641), "By 'idea', I do not just mean the images depicted in the imagination. ... Instead, by the term 'idea' I mean, in general, everything that is in our mind when we conceive something, no matter how we conceive it.[36] Probably, Descartes understood very well that supporting the identification of ideas with images is a viable way to deny innatism. Consequently, he distances himself from such a view, also addressing Gassendi's objection regarding the origin of ideas by stating that the arguments he has raised against him rely on a reduction of ideas to the images depicted in the imagination he has already contested. (… *nomen ideae ad solas imagines in phantasia depictas, contra id quod expresse assumpsi, restringis*).[37]

This concern about the nature of ideas also entails a difference at the level of the cognitive faculties of the mind. More specifically, it involves the Cartesian distinction between intellect and imagination, which Gassendi does not seem inclined to accept. In the Third Meditation, Descartes relies on the distinction between intellect and imagination to account for the difference between innate ideas and adventitious or fictitious ones. He provides several examples to illustrate this distinction, including that of the sun. He argues that we may have two distinct ideas of the sun: one, which comes from the senses, describes the sun only imperfectly; and another, obtained from astronomical calculations, is much more accurate. The latter is derived from innate ideas, while the former is a deceitful adventitious idea arising from sensation.[38] Commenting on this passage, Gassendi argues that both ideas have sensation at their origin, albeit in different ways. The difference between them is only a difference in degree, but not in nature. In the same way, two ideas of the same man, one from ten steps afar and the other from a hundred or a thousand steps afar, are both true and similar to the same thing.[39] Moreover, the epistemological priority Gassendi gives to concrete ideas coming from the senses over the abstract ones reworked by the imagination leads him to argue that "whenever we wish to have a distinct knowledge of the Sun, the mind must return to the figure [*species*] received through sight."[40] Thus, Descartes pretended to distinguish the imaginative faculty from the intellectual faculty by relying on the different nature of their objects, namely ideas. Against him, Gassendi relies on their mere difference in degree to argue that the intellect and imagination are also distinguished only by degree, and not by nature.[41]

What Descartes has failed to prove, according to Gassendi, is that imagination and intellect are two truly distinct faculties and not rather a single faculty performing two functions. Gassendi accounts for these cognitive functions as follows. Firstly, the mind perceives, and thus forms anticipations by the input of the senses (*per incursione*). Secondly, it imagines, that is, it forms anticipations or ideas with these sense data. Thirdly and lastly, it reflects on its perceived and imagined contents. This reflexion is that which is usually called intellection. These three different functions (perception, imagination, and intellection) belong to the same intellective faculty of the soul.[42]

Moreover, their disagreement about the nature of intellect appears in Gassendi's objections to the Fourth Meditation, as Descartes attributes judgment to the will rather than to the intellect. According to Descartes, it is precisely because the (infinite) will has the ability to make judgments beyond the limits of the (finite) intellect's knowledge that error occurs.[43] Gassendi cannot agree with this since judgments are, to him, conjunctions or disjunctions of ideas that produce knowledge, thus pertaining to the intellect. This point gives Gassendi the opportunity to outline the construction of knowledge from its basic constituents (i.e., ideas), which he later elaborated on in the *Institutio*. Three operations pertain to intellect: simple apprehension, i.e., gaining ideas from the senses; judging, i.e., connecting ideas into propositions; and reasoning, i.e., inferring a conclusive proposition from other propositions as premises.[44] Against Descartes, Gassendi argues that "The progression of the intellect from the first operation [i.e., simple apprehension] to the second [i.e., judging], and from the second operation to the third [i.e., reasoning] […] is made by the intellect without any meddling of the will."[45] In other words, judgments and inferences are brought forth in an automatic or involuntary way by the intellect. This point, which is not explicitly addressed in the various versions of Gassendi's logic, emerges here because of the polemical emphasis he places on it in opposition to the Cartesian theory of judgment.

In relation to these anti-Cartesian claims, Gassendi offers a critique against innatism. In his objections, he uses the example of a blind man to argue against Descartes that there are no innate ideas. He so apostrophizes Descartes: "Do you want to understand that none of our ideas is innate in us?"[46] If one could look into the mind of someone born blind to the idea of a color, one would find none, given that every content in the mind is either an image of something perceived or a reworking of some of these images. To better illustrate his account of ideas, he employs the metaphor of the mirror:

> the cause of the existence of the ideas [in the mind] is not [the mind itself], but the things that are represented by these ideas, inasmuch as they emit their images into [the mind], as in a mirror; although from these things [the mind] is able, at times, to draw from them to paint chimeras.[47]

This metaphor also involves the mind's passivity towards ideas, especially towards the simple ideas produced by the senses. While the mind can rework these simple ideas, its activity always deals with data of external origin, and towards which it is passive.[48] As I will argue later, Locke will borrow from the example of the blind man and from the metaphor of the mirror, in his arguments against innatism. Likewise, Locke seems to borrows from Gassendi as he argues against the Cartesian claim that the mind always thinks. To this claim —which depends on the Cartesian view that thought is the essential attribute of mind—[49] Gassendi observed that it is hard to conceive how the mind can think while asleep or in the womb. At that moment, thought is nearly a nothing.[50] Locke will argue the same against Descartes.

4. Port-Royal Logic (1662)

The final version of Gassendi's logic was published posthumously in 1658. Four years later, the first version of the so-called Port-Royal Logic, written by Antoine Arnauld and his collaborators, was published anonimously, as *La Logique ou l'Art de Penser, contenant, outre les regles communes, plusieurs observations nouvelles, propres à former le jugement* (1662). The influence of Gassendi's logic in general and of *Institutio logica* in particular on Port-Royal Logic is quite evident. First of all, while entirely Cartesian in its contents, this work closely resembles the *Institutio* in its form. In the preface, the authors define logic as 'the art of thinking' (*l'art de penser*). This art, just as Gassendi's *ars bene cogitandi*, consists in reflecting on the four operations of the mind: first, conceiving ideas (*concevoir*); second, making judgments (*juger*);

third, reasoning (*raisonner*); fourth, ordering (*ordonner*). Accordingly, the four parts of the Port-Royal Logic are devoted to these four operations.[51] The conceptual framework that Gassendi developed in his mature logic as a result of his debate with Descartes is also present here, as Cartesian Port-Royal logic focuses on ideas. As the authors write, "reflecting on our ideas is perhaps the most important thing to do in logic, because [ideas] are the basis of everything else [meaning, of every other operation of the mind]."[52] Judgments are conjunctions or disjunctions of ideas. Reasoning is to concatenate judgments in the form of syllogism. Method is the correct way of connecting syllogisms. Thus, all knowledge is, according to Gassendi and the Port-Royal Logic, grounded on ideas.

However, a precise alignment in form goes hand in hand with a sharp contrast in content. Furthermore, the authors of Port-Royal authors have Gassendi as their explicit polemical target, as they deal with the nature and origin of ideas. Quoting Descartes almost word for word, the first chapter of the first part (*Des idées selon leur nature et leur origine*) opens with the following anti-Gassendist statement. Since the notion of 'idea' is self-evident,

> all that can be done to avoid misunderstanding is to point out the erroneous meaning that could be given to this term [idea], narrowing it down to that way of conceiving things that occurs with the application of our mind to the images that are imprinted in our brain, and which is called imagination.[53]

In the same vein, they define ideas by emphasizing that they are not merely images. Instead, ideas are mental contents, whatever they may be.[54] This point is so crucial that they go so far as to argue that there is nothing more important (*rien de plus considerable*) than the distinction between mind and body, and thus the separation between incorporeal ideas and corporeal images.[55]

Just as Gassendi formulated his conception of idea in sharp contrast with Descartes, now Arnauld and his collaborators reassess the Cartesian view against Gassendi. As it is explicitly argued, beneath this divergence on the nature of ideas lies a divergence about the powers of the human mind. For Gassendi, ideas are material images originating from the senses and reworked by the imagination, while for Descartes and the Port-Royal authors, ideas are the immaterial content of the mind (at least in part) independent from the senses. Cartesians' concern is to advocate, against Gassendi, the independence of intellection from the images of sensation and imagination, as they argue that our mind "is able to conceive a great number of things without the aid of images" and so to comprehend "the difference between imagination and pure intellection."[56]

The fact that Gassendi is the main polemical target regarding this issue is also confirmed by the extensive paraphrase of the first part of the *Institutio* found a few pages later. After restating the nature of ideas, they now address their origin:

> The fundamental issue [*toute la question*] is to establish whether or not all our ideas come from our senses, and so whether or not we can accept the common maxim: *Nihil est in intellectu quod non prius fuerit in sensu*. This is the opinion of a widely admired philosopher, who begins his logic with this proposition: *Omnis idea orsum ducit a sensibus*. He admits, however, that not all our ideas exist in the mind exactly as they were in the senses, but he claims that at least they are formed from those which passed through the senses. This happens either by composition [...]; or by amplification and diminution [...]; or by accomodation and proportion [etc.][57]

The 'well-known philosopher' (*philosophe qui est estimé dans le monde*) they refer to is Gassendi, as the quotation proves. After expounding this key feature of Gassendi's epistemology, Port-Royal's authors reaffirm Cartesian innatism. They argue that ideas are not at all produced by the sense perception but rather by the mind itself, although it is often aroused (*excitée*) to produce them by something that falls under the senses. To speak properly, no idea is produced by the senses.[58]

Hence, Port-Royal Logic fully endorses a Cartesian conception of ideas. Nevertheless, the goal of this work is to expound a comprehensive logic —something Descartes never aimed to achieve.[59] In order to do so, its authors seem to have borrowed the framework of Gassendi's *Institutio*. Still, at first glance, both Gassendi's and Port-Royal Logic resemble Aristotelian scholastic logic. Comparing these works with a scholastic text-book such as Eustachius', one can see that the terms employed to describe the first three operations of the mind (*simplex apprehensio*; *judicium seu enunciatio*; *discursus sive argumentatio*) are quite overlapping. Furthermore, the addition of a fourth part on method follows a trend initiated by Petrus Ramus.[60] However, as I have already argued in the case of Gassendi, this similarity is just superficial. What has changed is the conceptual background of these works compared to scholastic logic.

Let us look, for instance, at what 'simple apprehension of things' (*rerum simplex apprehensio*) means now. In both Gassendi's *Institutio* and Port-Royal Logic, the basic constituents of every knowledge coming from simple apprehension are ideas, and the point of disagreement between the two lies in the nature of these simple ideas. While simple apprehension is described in Gassendi's and Port-Royal's logic in terms of ideas —that is to say, in terms of mental contents— the meaning of the term in scholastic logic is slightly different. Eustachius, for instance, deals with apprehension of simple terms in the first treatise of his logic (*De terminis dialecticis*).[61] There he distinguishes the mental dimension of these simple terms from their verbal dimension and their written dimension. He describes their mental dimension as "an image of the thing in the mind, representing it."[62] Yet, his analysis proceeds only by considering these terms in their verbal and grammatical aspects. For instance, the distinctions he presents are quite traditionally categorized as univocal, equivocal, and analogous terms.[63] The products of simple apprehension are merely verbal and grammatical terms for Eustachius and scholastic logic in general. The epistemological shift initiated by Descartes, which both Gassendi's *Institutio* and the Port-Royal Logic follow, focuses no longer on the grammatical terms of which propositions are composed, but rather on mental contents or ideas. Locke's *Essay* is also a product of this shift. Similar to Gassendi, Locke will base his epistemology on an anti-Cartesian conception of idea.[64]

5. de Launay's *Essais logiques* (1673)

Besides Gassendi and Port-Royal Logic, another source for Locke must be considered. Examining the catalogue of Locke's personal library may reveal a surprising detail: he owned four copies of a work on logic by a largely unknown Gassendist author, Gilles de Launay. Very little is known about him, including his date of birth and death. In the volume edited by John Harrison and Peter Laslett on Locke's library, it is recorded:

> [Gilles de Launay:]
> *La dialectique* … 12°, Paris, 1673.
> *Essai de logique*. 8°, Paris, 1678.
> *Essais logiques*. 12°, Paris, 1657.
> *Essais logiques*. 12°, Paris, 1663.[65]

As far as I could find, only the first work reported here is, without doubt, a work by Gilles de Launay: the first one reported. Its complete title is *La Dialectique du sieur de Launay, contenant L'Art de Raisonner juste sur toute sorte de matieres avec Les Maximes necessaires pour se détromper des erreurs, & se desabuser des chicanes & des fausses subtilités des Sophistes de l'Ecole.* It was published for the first time in 1673, in Paris (*Achevé d'imprimer pour la premiere fois le 23. Fevrier 1673*).[66] However, in both the *Extrait du privilège du Roy* and within the volume, the work is referred to as *Essais logiques*. Milton convincingly argued that the second book on the list was not authored by de Launay. Instead, it was probably a book with that very title (*Essai de logique*, published in 1678) by physicist and botanist Edme Mariotte, as correctly reported elsewhere in the list of books owned by Locke.[67] Regarding the other two books on the list, it can be conjectured that Locke may have owned two additional copies of de Launay's *Dialectique*, reported as *Essais logiques*, and that the person who compiled the list reported incorrect dates. In any case, one point should be emphasized: Locke certainly owned many other books by Gilles de Launay. Almost all of them, actually. He owned a copy of his *Introduction à la philosophie* (Paris, 1675) and a copy of his *Essais physiques* (reported as *Physique universelle*). Both are nothing but a paraphrase of sections of Gassendi's *Syntagma*.[68]

Setting aside Locke's library for the moment, let us briefly analyze the extent to which de Launay endorses Gassendi's epistemology in his work on logic. Although resuming Gassendi's text less than the other works I have just mentioned, *Les Essais logiques* are a sort of paraphrase of the *Pars logica* of Gassendi's *Syntagma*. De Launay also reframes the first two books of *Syntagma*'s logic, which were drafted much earlier, in 1636, in light of the shift on ideas from the late *Institutio*. In the first dissertation (*De la logique en général*), he starts by paraphrasing the proemial chapter on the definition of logic.[69] In the third chapter, he likewise follows the distinction given by Gassendi at the very beginning of his first book of *Pars logica*.[70] However, in the second chapter, as he discusses the proper object of logic, he no longer follows the second book of *Syntagma*'s logic, *De logicae fine*. There, Gassendi argues that the object of knowledge is truth. De Launay revises this definition in light of the insights from the *Institutio*. The proper object of logic is the intellect and its operations, which logic aims to regulate (*bien régler*). [71] Broadly speaking, the object of knowledge is certainly truth. But, to speak more properly,

> The well-regulated four operations of the intellect are the formal and truthful object of logic; as well as the essential difference according to which we can distinguish it from all the other parts of philosophy.[72]

It goes without saying that these four operations are the ones Gassendi has already outlined in his later logic: conceiving, judging, reasoning, and ordering (*concevoir*, *juger*, *raisonner*, *ordonner*).[73] These operations of the intellect are the main subject of de Launay's work, accounted in detail from the second to the seventh and final Dissertation. There, he essentially replicates Gassendi's *Institutio*, further emphasizing adherence to the standard form of scholastic logic.[74] Following Gassendi, he holds that acquiring and ordering the knowledge of natural phenomena through the four operations of the intellect is what physics is all about. The main task of logic is, for de Launay just as for Gassendi, to give some rules (*règles* or *maximes*) for the correct use of these mental operations.[75] By providing these rules, logic has "at its direct aim the correctness [*rectitude*] of these mental operations, and indirectly to avoid errors and to seek after truth."[76]

The first mental operation seems to be the most important one, in de Launay's view. The plain sight of things (*simple veue des choses*) is the ground upon which all knowledge is built, and this plain sight is described as conceiving ideas or images of things produced by the senses.[77] As he argues, this same action can be referred to as the 'simple apprehension of things' (*apprehension simple de l'objet*). While this terminology is unusual in French, it is quite common in Latin.[78] The reference to Gassendi's terminology is even more pronounced here. In fact, de Launay explicitly argues that ideas or mental contents are merely images of things, following Gassendi in opposition to Descartes. He carries this identification between ideas and images so far that he describes how the intellect works with them by drawing an analogy to a painter: the mind (*esprit*) organizes the images it possesses of things from the simplest to the most complex, much like a painter does, imitating the order of things in nature. [79] Still following Gassendi against Descartes, de Launay openly reaffirms the identification of intellection with imagination. It is worth noting that he resorts here to a typically Cartesian assumption —that is, that everything we can conceive, we conceive through ideas— precisely to reaffirm the Gassendist claim regarding the sensible origin and nature of ideas. He writes:

> we cannot conceive of anything that is outside us, except by means of ideas that are within us, that represent external objects. [...] This reasoning seems to me quite convincing to condemn the error of those philosophers [i.e., the followers of Descartes] who believe that our mind knows an infinite number of things without having the need to form images of them, as if they claimed that it represented these things, without forming of them any representation or idea. I do not know how the Cartesians can get out of this labyrinth when they maintain that the mind conceives immaterial things without forming any images of them.[80]

To conceive any kind of thing means nothing more than to have a mental content or an idea of that thing. However, having an idea is merely possessing some sort of image that represents it. Thus, everything we conceive through intellect is simply something we have conceived by imagination. Clearly, the underlying premise of this argument is that ideas or mental contents are just images, that is, representations of things perceived by the senses.

As we have seen, the fundamental assumption of Gassendi's sensism —*Nihil est in intellectu quod non prius fuerit in sensu*— was critically addressed by Port-Royal Logic, explicitly referring to Gassendi. Now, de Launay reassesses it against the Cartesians. An important maxim regarding ideas, he argues, is that as long as the soul is joined to the body, it is able to know things only through sensations. In other words, every mental content stems directly or indirectly from sensation. This maxim "is particularly important because it has been recently challenged by Cartesians."[81]

The polemical context in which this work is situated is quite clear. Just as Gassendi developed an anti-, and post-, Cartesian conception of ideas in his late logic, and the authors of Port-Royal authors dealt with it to reaffirm the Cartesian theory of ideas as the foundation of their epistemology, so does de Launay, but in the opposite direction. That is, reassessing Gassendi's view against Descartes'. During these same years, Locke does almost the same thing as de Launay, as I will show in a moment. Therefore, his interest in his work is certainly not accidental.

6. Locke's 1671 Drafts for his *Essay Concerning Humane Understanding* (1690)

In order to investigate the relevance of Gassendi's epistemology to Locke's, I will now preliminarily examine the 'external evidence' of this influence. To do so, let us look at Locke's library, keeping in mind that owning a specific book does not necessarily imply its relevance for the owner, just as the absence of a book does not rule out such relevance. However, one fact should be noted: the only work by Gassendi that Locke owns is the intellectual biography of Gassendi's patron, Fabri de Peiresc (*Viri illustris Nicolai Claudii Fabricii de Peiresc vita*, 1641).[82] This work contains some interesting details about Gassendi's natural philosophy, but it offers very little epistemological discussion. Locke also owned François Bernier's *Abrégé de la philosophie de M. Gassendi*, along with his *Doutes sur quelques-uns des principaux chapitres de son Abrégé* [etc.].[83] Moreover, Locke met Bernier in person during his stay in France. However, Milton convincingly argued that Bernier's philosophical influence on Locke was minimal, if any.[84] Locke also owned two copies of the Port-Royal Logic, originally published in 1662, in two editions both published in 1674.[85] As I have already argued, Locke owned at least one copy of Gilles de Launay's *Dialectique* or *Essais logiques* published in 1673.[86] Lastly, and most importantly, Locke both owned and was very familiar with Gassendi's *Objectiones quintae* to Descartes' *Meditationes* (1641).[87] Although there is no evidence that he was also familiar with Gassendi's *Disquisitio metaphysica* (1644) that stemmed from these objections, this point should not be underestimated. Despite its polemical nature, Gassendi presents several of his epistemological claims there. From Locke's perspective, the fact that these claims were made in a polemical, anti-Cartesian context arguably makes them even more intriguing.

Locke wrote what are known as Drafts A and B of his *Essay Concerning Humane Understanding* in 1671-1672, prior to his trip to France. Draft A (entitled *Sic cogitavit de intellecto humano Jo*[*hn*] *Locke anno 1671*), in particular, reveals a striking similarity to Gassendi's logic, as I will demonstrate. Therefore, we must rule out the possibility that the indirect sources are de Launay's work and/or Port-Royal Logic, of which he only has later editions acquired in France. However, the fact that he later purchased several copies of de Launay's *Essais logiques* may, in any case, suggest his interest in Gassendi's logic. According to his notebooks, we know that, at the time, Locke had read Gassendi's objections to Descartes and (at least part of) *Syntagma philosophicum,* especially the book on void and space. It is not so unlikely that he was acquainted with Gassendi's *Institutio* as well, contained in the same volume.[88]

With this established, let us move forward with an 'internalist' or 'morphological' analysis of these 1671 drafts, in comparison to Gassendi's doctrines. Locke begins Draft A as follows:

> all knowledg is founded on and ultimately derives its self from sense, or something analogous to it & may be cald sensation which is donne by our senses conversant about particular objects which give us the simple Ideas or Images of things & thus we come to have Ideas of heat & light, hard & soft which are noe thing but the reviveing again in our mindes those imaginations which those objects when they affected our senses caused in us [etc.][89]

Not by chance, Locke begins the first version of his essay on human understanding with a statement reminiscent of Gassendi regarding the origin and nature of ideas. I have already argued that this represents a key point of disagreement between the Cartesians and the Gassendists, in those same years. In agreement with Gassendi and against Descartes, Locke asserts that ideas originate in the senses and are nothing but the images of the things from which they are produced. In other words, for him, 'idea' and 'image' are quite synonymous, at least in this initial draft. Additionally, similar to Gassendi and de Launay, Locke refers to the process of acquiring simple ideas of things through sensation 'apprehension';[90] and also refers to these ideas or images as 'simple apprehensions'.[91] From a collection of several simple ideas, understanding (or better, imagination) brings forth general and abstract ideas, such as the idea of substance. Locke states that these general ideas "are grounded upon the repeated exercise of senses."[92]

From the assertion that all ideas or images of things come from the senses, it follows that a blind man cannot have ideas of colors, nor can a deaf man have ideas of sounds. Thus, reiterating what Gassendi argued against Descartes, he writes:

> all the words in the world […] will not give a blinde man any Idea of black or white or bl[ue][,] those simple ideas being to be conveyd to the minde noe other way but by the senses. [N]or can

all the words in the world […] produce in a mans minde one new simple Idea unless it be of the sound its self.[93]

It is worth noting that Locke repeats the exact same example as Gassendi here, mentioning in the same order first the blind man, and then the deaf man deprived of sensible ideas.[94] It is well known that Locke aligns with Gassendi in opposing Cartesian innatism, to the extent that he dedicates an entire book of the *Essay* to this subject. It is no surprise, then, that he reiterates Gassendi's example of the blind and deaf men, which is suitable to support the sensible origin of all ideas against innatism.[95]

Furthermore, Locke not only shares Gassendi's *pars destruens* against Cartesianism (i.e., innatism), but also his *part construens*, as he provides a nearly identical account of how the mind reworks all the other ideas it possesses from simple ideas. He writes that, beyond simple ideas, "all the knowledg we have […] is noe thing else but the compareing uniteing compounding enlargeing & otherwise diversifying these simple Ideas one with an other."[96] According to Gassendi, the mind forms its ideas in the same way, namely by composing (*compositio*), by enlarging or reducing (*ampliatio vel imminutio*), by transferring or adapting (*traslatio et accomodatio*) ideas produced by the senses.[97] The terminological similarity is striking. While the mind is active in reworking its own compound ideas from simple ones, it is instead passive towards the simple ideas that originate from the senses. As Gassendi did, Locke illustrates the passivity of the mind with the example of the mirror:

the understanding can noe more refuse to have these [ideas] or alter them when in it or make new ones to its self & receive new ones into it any other way then by the senses […] then a mirror can refuse alter or change or produce in its self any other images or Ideas then the object set before it doe therein produce[98]

Therefore, the mind has only simple ideas derived from the senses and compound ideas formed by combining those simple ones. All knowledge, he writes, consists of ideas "simple or compounded".[99] Still aligned with Gassendi and opposing Descartes, Locke argues that evidence or clarity and distinction are proper to simple ideas, while compound ideas are evident only in a derivative way.[100] In other words, what comes from the senses, i.e., simple ideas, provides the evidence that serves as a touchstone for the evidence of every knowledge. Moreover, if the mind has no knowledge beyond simple ideas gained through the senses and those compounded by the imagination, it is evident that Locke aligns with Gassendi and opposes Descartes in denying the existence of any pure intellection independent of the imagination.

All knowledge, whose ideas are the basic constituents, is structured in propositions or judgments. This seems, at first glance, to bring Locke's epistemology back into the fold of Aristotelian scholastic logic. However, in Locke, as in Gassendi, scholastic logic is resemantized, as judgments are now just conjunctions or disjunctions of ideas, the truth of which depends on what the senses inform us of. In this respect too, Locke appears to follow Gassendi in distinguishing what the latter calls 'truth of existence' (*veritas existentiae*) of every simple idea from the 'truth of judgment' (*veritas enunciationis*) in which exclusively lies falsehood.[101] Locke describes judgment or proposition as follows:

When the minde is furnishd with the simple Ideas of things brought in by the senses [...] [it] joyne two of these Ideas [...] togeather or separate them one from another by way of affirmation or negation, which when it comes to be expressed in words is cald proposition & in this lies all truth & falshood[102]

In sum, falsehood and error, according to Locke as well as Gassendi, belong to judgments that join or disjoin ideas, not to ideas themselves. Furthermore, both agree in attributing the faculty of judgment to the intellect rather than the will, against Descartes. Locke summarizes as follows the different functions of understanding, a term which, in this draft, seems equivalent to 'intellect'. First of all, "the understanding is capable of receiving, retaining & reviveing […] a certain number of simple Ideas, gathered only by experiment [*scil*. experience] & observation."[103] In addition, "[i]t hath the power to astract", that is, to "unite, combine, enlarge, compare &c. these simple Ideas together & thereof make comple ones".[104] Furthermore, it has the power to make judgments or propositions, viz. to "knowing truth & falshood which is to be found only in uniting or separating [ideas] or in affirmation of negation which are verbal propositions".[105]

So far, the similarities between this early draft of Locke's major work and Gassendi's critique of Descartes, along with his account of knowledge, seem undeniable to me. But there is another point I want to stress about the similarity between the two: their probabilism. As we have observed, Gassendi claims that any knowledge deemed 'probable or truth-like' (*probabilis seu verisimilis*) is such insofar as it aligns with the evidence of sensation. In terms that overlap with Gassendi's, Locke defines the degrees of probability in knowledge as follows:

though most of those propositions we think […] are not evident & certain, & we cannot have undoubted knowledg of their truth yet some of them border soe near upon certainty, that we make noe doubt at all of their truth […] But there being degrees of Probability from the very neigbourhood of certainty & evidence quite downe to improbability & unlikelynesse even to the confines of impossibility. [etc.][106]

Hence, Locke's development of his theory of opinion and probable knowledge, which goes far beyond the role played in Gassendi's epistemology, seems to stem from the latter's view of probable knowledge as an approximation to the evidence of sensation.

Locke's Draft A has quite strong terminological similarities with Gassendi's epistemology, especially with the polemic against Descartes. The so-called Draft B — *De Intellecto Humano, 1671. An Essay concerning the Understanding, Knowledge, Opinion & Assent*— [107] brings Locke into different directions, at least from a terminological point of view. This second manuscript, which closely resembles the published *Essay*, shows significantly less terminological (more than conceptual, though that is another story) similarity to Gassendi. I will provide just one example of this terminological shift that makes Locke's connection to Gassendi's theory a little more difficult to discern: the definition of idea he now presents. In Draft A, the term 'idea' is used as a synonym

for 'image' of the external thing that produces it. Now, in a formulation that will be taken literally in the definitive *Essay*, he writes:

> in this following discourse I shall use the word Idea for whatsoever is the object of the understanding when a man thinks & by it expresse all that is meant by Notion[,] phantasme, species, or what ever else the minde can be imploid about in thinkeing.[108]

At first glance, the shift from 'idea' as 'image' to 'idea' as 'mental content' or "whatsoever is the object of the understanding when a man thinks" seems to bring Locke closer to Descartes than to Gassendi. The point of contention between the two was precisely whether or not to identify ideas with the images of things. Descartes, against this identification, argued that "by the term 'idea' I mean in general everything which is in our mind when we conceive something, no matter how we conceive it."[109] Well, Locke's terminological shift in no way implies a departure from Gassendi's sensist theory. Locke firmly holds the sensible origin and nature of simple ideas as the foundation of all his epistemology, and this will remain the same in the *Essay*. Likewise, all the other tenets present in Draft A that I have analyzed will also persist unchanged, without exception. The fact that, here, Locke more generically defines ideas as mental contents is due to the characterization he intends to give his work, which he appears to decide more resolutely now, in Draft B: an investigation of the limits and capacities of human knowledge. This is done in a way that does no more take into account physical considerations about how this knowledge is formed. Accordingly, he argues:

> I shall not at present meddle with the physicall consideration of the mind or trouble myself to examine […] wherein the essence of it consists or by what motion of our spirits, or what alteration of our bodys we come to have any Idea in our understanding & whether these Ideas are material or immaterial[110]

This certainly marks a departure from Gassendi, for whom the physiology of perception was pivotal in shaping his epistemology. Although Locke does not entirely disregard physical and physiological considerations in the *Essay*, contrary to what he programmatically states, and even though these considerations are quite similar to Gassendi's. As I will show in the conclusion, significant influences on Locke's understanding of Gassendi's physics and physiology included, among others, his contemporaries Robert Boyle and Thomas Willis.

In any case, even if the similarities between Locke's Draft A and Gassendi's epistemology become less pronounced in Locke's later reworkings, the influence remains since there is no significant difference in Locke's tenets between this 1671 draft and the final version of the Essay, published in 1690. Additionally, Locke seems to leverage Gassendi's epistemology as a polemical tool, drawing on the *Objectiones quintae* against Descartes.

Besides the various Gassendist views that Locke clearly advocates in Draft A, another example of their anti-Cartesian use can be found in the *Essay*. It involves Descartes' assertion that, as long as it exists, the mind thinks.[111] Against this claim, Gassendi objected:

> Those who cannot understand how you can think in the drowsiness of lethargy, or even in the womb, will not be persuaded [that the mind always thinks]. [...] I would just like you to remember how obscure, how tenuous, almost a nothing [*pene nulla*] your thought could have been at that moment [i.e. in the womb].[112]

Now in the paragraph 'The Soul thinks not always', Locke argues that the Cartesian assumption that the mind always thinks as thought is its essence is not at all self-evident, and it needs to be proved.[113] Significantly, Locke offers the same two counter-examples given by Gassendi: sleep and the fetus in the womb.[114] For Locke, the mind begins to think when it begins to perceive, that is, to have sensations. And the fetus has but a few sensations. We may suppose, he writes, that "a foetus in the mother's womb, differs not much from the state of a vegetable [and that it] passes the greatest part of its time without perception or thought."[115] Once again, Locke can find arguments that align with his own epistemology in Gassendi, Descartes' antagonist.

7. Conclusion

Therefore, both internal and external evidence concur to prove that Locke likely draws on Gassendi's epistemology. As the internal or morphological comparison shows, in Draft A (1671) of the *Essay,* Locke maintains views that were both conceptually and terminologically similar to Gassendi's. As for the external evidence, Milton has shown that Locke took notes both from Gassendi's *Syntagma* and from *Objectiones quintae*.[116] Moreover, even though the editions of de Launay's *Essais logiques* (1673) and Port-Royal Logic (1674) in Locke's library were published after 1671, their presence there remains significant. As for de Launay's work, the fact that he purchased several copies (likely three, as I have suggested) demonstrates his interest in Gassendi's logic during the 1670s. Regarding Port-Royal Logic, he could have read earlier versions during the 1660s. In any case, it is evident that Locke aligns himself with Gassendi, opposing Arnauld's reaffirmation of Cartesian views, and adopts several arguments from Gassendi's objections to challenge Descartes.

Now, to conclude, let us take a closer look at the passage from Leibniz's *Nouveaux Essais* that I quoted in the introduction. As is well known, this work is a chapter-by-chapter rebuttal of Locke's *Essay.* About ten years younger than Locke, Leibniz is an insider of the context in which Locke lived and worked and also had a deep understanding of Gassendi's *Opera omnia*.[117] Therefore, I will take seriously the passage in which Leibniz stated that Locke "is pretty much in agreement with Gassendi's system."[118] On this basis, I dispute Milton's claim that Gassendi had little influence on Locke. Who, more than one of his contemporaries, could have been aware of the proximate context of Locke's philosophy?

To conclude, I am now entering into more detail on what Leibniz wrote. Firstly, Leibniz seems well aware of the polemical use of Gassendi against Descartes on Locke's behalf, as it is said that the author of the *Essay* "seems inclined to agree with most of Gassendi's objections against Descartes."[119] Secondly, the character im-

personating Locke lists several views endorsed by Locke, which he evidently considers pivotal in Gassendi's *système*: "[1] he supports void and atoms, [2] he believes that matter could think, [3] that there are no innate ideas, [4] that our mind is a *tabula rasa*, [4] and that we do not think all the time."[120] The interconnected theses three and four are more properly epistemological. I have mainly addressed them here, and I also referenced the fifth. As I have argued, Locke endorses Gassendi's account of the sensible origin of ideas. Accordingly, he believes that the mind begins to have ideas, i.e., to think, only when it perceives external things, of which ideas are images. Moreover, in a polemical vein, he borrows from Gassendi's counter-examples against Descartes' innatism, as well as against Descartes' assumption that the mind always thinks; that is, that thought is its essence. For both Gassendi and Locke, thought is not the essence of the mind, but merely one of its operations.

Regarding the first two theses, discussing them at length exceeds the scope of the present contribution. I just point out that, unlike the other theses I have addressed here, they have explicit intermediaries: Robert Boyle for his corpuscular matter theory, and Thomas Willis for the thinking matter issue. The influence of Boyle's physics on Locke is something so well-established that it is not worth reasserting it here.[121] Less obvious, however, is that Locke's well-known hint on thinking matter comes from Gassendi and Willis. As John Wright has convincingly demonstrated, it is likely that the claim that matter arranged in a specific way is capable of thought comes from the neuro-physiological research of Willis, whose 1663-1664 Oxford lectures were copied by Locke in one of his notebooks. In turn, Willis is a follower of Gassendi on this point[122] Several tenets related to Gassendi's physics and physiology are to be found in Locke and his immediate context, especially in authors like Boyle and Willis. However, a more comprehensive study on this topic has yet to be written.

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Notes

[1] On this controversy, see: Aaron 1937 (esp. pp. 31-35); Yolton 1955; Coirault 1957; Duchesneau 1973 (esp. pp. 93-119); Kroll 1984; Michael & Michael 1990; Ayers 1991; Puster 1991; Lennon 1993 (esp. pp. 149-190); Sarasohn 1996 (esp. pp. 168–197); Specht 1997; Milton 2000. It seems that, after Milton's sharp critique, scholars have been no more inclined to discuss this subject in a relevant way.

[2] "En gros, il est assez dans le système de M. Gassendi, qui est, dans le fond, celui de Démocrite. Il est pour le vide et pour les atomes; il croit que la matière pourrait penser, qu'il n'y a point d'idées innées, que notre esprit est tabula rasa, et que nous ne pensons pas toujours; et il paraît d'humeur à approuver la plus grande partie des objections que M. Gassendi a faites à M. Descartes.": *Nouveaux essais sur l'entendement humain* I. 1 (Leibniz 1996, p. 70). Except where otherwise indicated (as in this case), all translations are mine.

[3] Milton 2000, pp. 88-91.

[4] *Ibid*. pp. 98-104.

[5] *Ibid*. pp. 91-92.

[6] At first glance, it might seem that I'm endorsing the general narrative provided by Thomas Lennon (Lennon 1993). However, I believe one should be far, for the most part, more cautious when proposing general narratives like the one that Lennon presented. By claiming that Locke uses Gassendi as a polemical weapon against Descartes, I do not endorse that the opposition between Gassendi and Descartes is paradigmatic and exhaustive of the entire spectrum of positions from the second half of the seventeenth century onward.

[7] For the timeline of Gassendi's so-called Epicurean project, see the still authoritative Rochot 1944. On Gassendi's logic and epistemology, see mainly: Bloch 1971 (esp. pp. 6-151); Messeri 1985; Fisher 2005 (esp. pp. 19-86); LoLordo 2006 (esp. pp. 60-99); Garau 2023; Paganini 2023.

[8] Gassendi 2010, pp. 228-327 (= Ms. Carpentras 1832, ff. 239r-256r).

[9] *Cf.* Gassendi 1649, pp. 120-159; OO III, pp. 4-10; OO I, pp. 52b-56a.

[10] *Cf.* OO I, pp. 91-124; Gassendi 1660; Gassendi 1668; Bernier 1992, vol. I.

[11] "est aliquid verum quod possit diiudicari et sciri": Gassendi 2010, pp. 210-211 (= Ms. Carpentras 1832, f. 236r).

[12] See Gassendi 2010, pp. 198-211 (= Ms. Carpentras 1832, ff. 234r-235v).

[13] "Sensus nunquam fallitur; ac proinde est omnis sensio, omnisque phantasiae, seu apparentiae perceptio vera": Gassendi 2010, pp. 230-231 (= Ms. Carpentras 1832, f. 239r). *Cf.* Gassendi 1649, p. 158; OO I, p. 53a; Ibid. III, p. 5a.

[14] "[…] alia cognitio est simplex quaedam adprehensio, alia vero iudicium. Et simplex quidem adprehensio est cum res nuda cognositur et nihil penitus de ea vel adfirmatur vel negatur […]. Iudicium vero est quoties res ita cognoscitur ut quidpiam de ea adfirmetur vel negetur […]. Iam quod spectat quidem ad iudicium ac opinionem potissimum dictum est supra, ut veritas aut falsitas illi conveniat. Neque hoc Epicurus negat, sed adserit potius […]. Quod spectat vero ad simplicem nudamve rei adprehensionem censet Epicurus nullam falsitatem in eam cadere, esse vero eiusmodi, ut cum veram existendi causam habeat, competat illi veritas quam existentiae diximus, cuique falsitas opponitur nulla.": Gassendi 2010, pp. 230-233 (= Ms. Carpentras 1832, f. 239v).

[15] "Opinio est consequens sensum, sensionique superadiecta, in quam veritas, aut falsitas cadit.": Gassendi 2010, pp. 256-257 (= Ms. Carpentras 1832, f. 243v). *Cf.* Gassendi 1649, p. 158; OO I, p. 53b; *Ibid*. III, p. 6a.

[16] "Opinio illa vera est, cui vel suffragatur, vel non refragatur sensus evidentia."; "Opinio illa falsa est, cui vel refragatur, vel non suffragatur sensus evidentia": Gassendi 2010 pp. 274-275, 284-285 (= Ms. Carpentras 1832, ff. 247r, 249r). *Cf.* Gassendi 1649, p. 158; OO I, p. 54a; *Ibid*. III, p. 7a-b.

[17] "[…] supponis *posse eadem non modo fieri dubia, verumetiam haberi falsa*; at hoc ipsum videtur adhuc tanto magis esse impossibile, quanto magis falsa, quam dubia opinio, in qua est probabilitas, ab ipsa veritate, ac certitudine distat": OO III, p. 280b.

[18] "[…] quatenus ad nostram cognitionem respectum habet, vel ea manifesta et evidens est, et tunc, quia parit in nobis cognitionem sui certam et indubiam […] vel occulta est et obscura, et tunc, quia sui cognitionem facit incertam et dubiam […]. Dicitur autem praeterea verisimilis et probabilis, quando maius quoddam est certitudinis quam incertitudinis argumentum.": Gassendi 2010, pp. 140-141 (= Ms. Carpentras 1832, f. 225r).

[19] "Omnis, quae in mente est anticipatio, seu praenotio, dependet a sensibus; idque vel incursione, vel proportione, vel similitudine, vel compositione.": Gassendi 2010, pp. 294-295 (= Ms. Carpentras 1832, f. 250v). Cf. Gassendi 1649, p. 158; OO I, p. 54b; *Ibid*. III, p. 8a.

[20] "Anticipatio est ipsa rei notio, et quasi definitio, sine qua quidquam quaerere, dubitare, opinari, imo et nominare non licet.": Gassendi 1649, p. 158; OO I, p. 54b; *Ibid*. III, p. 8b. The 1636 manuscript version of this canon is slightly different. It runs as follows: "Nihil quaerere, dubitare, intelligere, opinari, redarguere, edisserere sine praenotione licet.": Gassendi 2010, pp. 302-303 (= Ms. Carpentras 1832, f. 252r).

[21] See the third canon on preconception: Gassendi 1649, p. 158; OO I, p. 55a; *Ibid*. III, p. 8b. The manuscript version is quite different: *cf*. Gassendi 2010, pp. 308-309 (= Ms. Carpentras 1832, f. 253r).

[22] "v.c. idea, seu forma, atque species illa, ad quam respicientes apud nosmetipsos": Gassendi 1649, p. 27; OO I, p. 54b; *Ibid*. III, p. 8b.

[23] OO I, p. 91a-b.

[24] See *ibid*. pp. 92b-93b.

[25] AT VII, pp. 38-39.

[26] OO III, p. 318a.

[27] OO I, p. 93a. *Cf.* DL X, 32.

[28] OO I p. 95a-b.

[29] *Cf*. OO III, pp. 157a-165a. On this, see Bloch 1971, pp. 110-148.

[30] "illud omne verum est, quod valde clare et distincte percipio": OO III, p. 314b. *Cf.* AT VII, p. 35.

[31] "Ego saporem peponis gratum clare distincteque percipio: itaque verum est peponis saporem apparere mihi hujuscemodi. At quod propterea verum sit talem in ipso pepone esse, quomodo mihi persuadeam? qui, puer cum essem ac bene valerem, secus judicavi, nimirum clare distincteque alium in pepone saporem percipiens. Video et multis hominibus secus videri; video et multis animalibus, quae gustu pollent, optimeque valent. An ergo verum vero repugnat? An potius, non ex eo quod aliquid clare distincteque percipitur, id secundum se verum est, sed verum solummodo est, quod clare distincteque tale percipiatur?": OO III, p. 314b.

[32] OO III, p. 316b. See also *ibid*. p. 322a-b.

[33] "Imago porro illa, quae nobis rem quampiam cogitantibus menti obversatur, ac veluti obiicitur, plerisque etiam aliis donari nominibus solet. Dicitur enim etiam idea ac species, et […] notio, praenotio, anticipatio, seu anticipata notio (prout nempe fuit prius acquisita) ac rursus conceptus, itemque phantasma, prout sedem habet in phantasia, facultateve im-

aginatrice. Nobis idea crebrius dicetur, quod et iam vox haec familiaris, tritaque sit.": OO I, p. 92a.
[34] "Quaedam ex his tanquam rerum imagines sunt, quibus solis proprie convenit ideae nomen": AT VII, p. 37.
[35] See OO III, p. 322a-b.
[36] "Car je n'appelle pas simplement du nom d'idée les images qui font dépeintes en la fantaisie; au contraire, je ne les appelle point de ce nom, en tant qu'elles sont dans la fantaisie corporelle; mais l'appelle généralement du nom d'idée tout ce qui est dans nostre esprit, lors que nous concevons une chose, de quelque manière que nous la concevions": AT III, pp. 392-393. In the appendix to the second replies, he so defines ideas: "*Ideae* nomine intelligo cujuslibet cogitationis formam illam, per cujus immediatam perceptionem ipsius ejusdem cogitationis conscius sum; adeo ut nihil possim verbis exprimere, intelligendo id quod dico, quin ex hoc ipso certum sit, in me esse ideam ejus quod verbis illis significatur. Atque ita non solas imagines in phantasia depictas ideas voco; imo ipsas hic nullo modo voco ideas, quatenus sunt in phantasia corporea, hoc est in parte aliqua cerebri depictae, sed tantum quatenus mentem ipsam in illam cerebri partem conversam informant.": *ibid*. VII, pp. 160-161.
[37] OO III, p. 321a (=AT VII, p. 364).
[38] AT VII, p. 39.
[39] OO III, p. 320b (=AT VII, p. 363).
[40] "quoties habere distinctam de Sole cogitationem volumus, oportet mens redeat ad speciem, quam intercedente oculo accepit.": OO III, p. 321a (=AT VII, p. 364).
[41] See e.g. OO III, p. 385b (=AT VII, p. 329).
[42] OO III, p. 307a-b. See also *ibid*. pp. 318a, 367a.
[43] AT VII, p. 58.
[44] OO III, p. 367a.
[45] "Progressus intellectus a prima operatione in secundam, et ab hac in tertiam […] absque ulla actionem voluntatis intermistione": *ibidem*.
[46] «Et capere vis hujusce ideae nihil a natura esse insitum? Illam require ex caeco nato [etc.]»: OO III, p. 320b (=AT VII, p. 284). See also *ibid.* I, p. 92b.
[47] "[…] tu [mens] causa non es realitatis idearum, sed ipsaemet res per ideas repraesentatae, quatenus emittunt imagines sui in te ut in speculum; licet tu ex ipsis occasionem possis aliquando sumere chimaerarum depingendarum.": OO III, p. 332b (=AT VII, p. 291).
[48] See OO III, p. 318a (=AT VII, pp. 279-280).
[49] *Cf*. AT VII, p. 27.
[50] OO III, p. 298a (=AT VII, p. 264).
[51] Arnauld & Nicole 1965, pp. 37-38. On Gassendi and Port-Royal Logic, see Michael 1997.
[52] "les reflexions que l'on peut faire sur nos idées, sont peut-être ce qu'il y a de plus important dans la Logique, parce que c'est le fondament de tout le rest": Arnauld & Nicole 1965, p. 39.
[53] "Mais tout ce qu'on peut faire pour empêcher qu'on ne s'y trompe, est de marquer la fausse intelligence qu'on pourroit donner à ce mot [d'idée], en le restreignant à cette seule façon de concevoir les choses, qui se fait par l'application de notre esprit aux images qui sont paintes dans notre cerveau, & qui s'appelle imagination.": *ibid*. p. 40.
[54] *Ibid*. p. 41.
[55] *Ibid*. p. 30.
[56] "nous concevons un très-grand nombre de choses sans alcune de ces images, […] s'apperçoive la difference qu'il y a entre l'imagination et la pure intellection.": *ibid*. p. 40.
[57] "Toute la question est de savoir si toutes nos idées viennent de nos sens, & si on doit passer pour vraye cette maxime commune: *Nihil est in intellectu quod non prius fuerit in sensu*. C'est le sentiment d'un philosophe qui est estimé dans le monde, & qui commence sa Logique par cette proposition: *Omnis idea orsum ducit a sensibus*. *Toute idée tire son origine des sens*. Il avoue neanmoins que toutes nos idées n'ont pas été dans nos sens, telles qu'elles sont dans notre esprit; mais il prétend qu'elles ont au moins été formées de celles qui ont passé par nos sens, ou par composition, comme lorsque des images séparées de l'or, & d'une montagne, on s'en fait une montagne d'or; ou par ampliation & diminution, comme lorsque de l'image d'un homme d'une grandeur ordinaire on s'en forme un geant ou un pigmée; ou par accomodation & proportion, comme lorsque l'idée d'une maison qu'on a vûe, on s'en forme l'image d'une maison qu'on n'a pas vûe. [etc.]": *ibid*. pp. 43-44. *Cf*. OO I, pp. 92b-93a.
[58] See Arnauld & Nicole 1965, pp. 45-46.
[59] On this, see e.g. Petrescu 2018.
[60] On this, see the classical Ong 1958.
[61] See Eustachius 1620, pp. 15-25.
[62] "Res in qua significandi vis aliqua reperitur, triplex vulgo assignatur, nempe mens, vox, & scriptura. Quare Dialectici non immerito terminum […] distinguunt in mentalem, vocalem, & scriptum. Mentalis est, qui animo duntaxat concipitur, vocalis, qui voce exprimitur, scriptus, qui scriptura pingitur. […] [M]entalis terminus […] nunquam ex hominum instituta, sed a natura, rem cuius est imago, eodem modo repraesentat [etc.]": *ibid*. p. 17.
[63] *Ibid*. pp. 19-20.
[64] For a thorough analysis of this shift, see Schuurman 2004.
[65] Harrison & Laslett 1971, p. 170.
[66] See de Launay 1673, *Extrait du privilege du Roy*, unnumbered page (f. 5r). On de Launay, see Milton 1992 and Lennon 1993 (esp. pp. 66-78).
[67] See Milton 1992, p. 108.
[68] See Harrison & Laslett 1971, pp. 169-170. *Cf*. de Launay 1675 (*Introduction à la philosophie*) and OO I, pp. 1-30 (*De philosophia universe*); de Launay 1667 (*Les Essais Physiques*) and OO I, pp. 135-228 (*Pars Physica*, *Sectio Prima*, Book I: *De universo et mundo, qui complexus est, seu natura rerum*; and Book II: *De loco, et de tempore, seu spatio, et duratione rerum*).
[69] *Cf*. de Launay 1673, pp. 5-10 (*Des noms et des definitions de la Logique*); OO I, pp. 31-34 (*Qui nominetur, definiatur, ac dividatur Logica*).
[70] *Cf*. de Launay 1673, pp. 22-24; OO I, p. 35.
[71] de Launay 1673, p. 11.
[72] "Les quatre operations de l'entendement bien réglees, sont l'objet formel & veritable de la Logique, & la difference essentielle par laquelle nous la distinguerons de toutes les autres parties de la Philosophie": *ibidem*.
[73] "Il y a quatre operations de l'esprit humain, qui lui servent comme des degrez pour monter à la connaissance de toute sorte de veritez. Ces differentes actions de l'ame consistent à concevoir, à juger, à raisonner, & à ordonner. [etc.]": *ibid*. pp. 15-16. *Cf*. OO I, p. 91.
[74] See de Launay 1673, pp. 40-264.
[75] See *ibid*. pp. 17-21.
[76] "La fin prochaine de la Logique, est la rectitude des operations de l'esprit; & la fin derniere est d'éviter l'erreur, & de trouver la verité.": *ibid*. p. 21.
[77] *Ibid*. pp. 14-15, 41.
[78] *Ibid*. p. 42.
[79] *Ibid*. p. 18.
[80] "[…] nous ne pouvons rien concevoir des choses qui sont hors de nous, que par le moyen des idées qui sont en nous, pour servir de copies à representer au dedans les objets exterieurs. […] Ce raisonnement me semble assez convaincant pour condamner l'erreur de ces Philosophes qui croient que nostre ame connoit une infinité de choses sans avoir besoin d'en former les images, comme s'ils soatenoient qu'elle se les representast, sans en former la representation ou l'idée. Je ne sçay pas comment les Cartesiens se peuvent tirer de ce labirinthe, quand ils soustiennent que l'esprit connoist les choses spirituelles sans en former aucun fantôme.": *ibid*. pp. 44-45.
[81] "La quatriéme Maxime qui est très importante, parce qu'elle est contestée par les Cartesiens, consiste à tenir pour asseuré, que tant que l'ame est unie au corps, elle ne connoist aucune chose que par le ministere des sens externes & internes. Ce sont comme les portes de l'ame [etc.]": *ibid*. p. 48.
[82] Harrison & Laslett 1971, p. 140.
[83] *Ibid*. p. 84.
[84] Milton 2000, pp. 98-102.
[85] Harrison & Laslett 1971, p. 75.
[86] *Ibid*. p. 170.
[87] *Ibid*. p. 101.
[88] See e.g. Milton 2018, p. 20.
[89] Draft A, § 1 (Locke 1990, p. 1).
[90] *Ibidem*.
[91] *Ibid*. § 5 (p. 15).
[92] *Ibid*. p. 6. On the formation of abstract and general ideas, see also *ibid*. § 3 (pp. 11-12).
[93] *Ibid*. pp. 6-7.
[94] *Cf*. OO III, p. 320b.
[95] *Ibid*. pp. 320a-321a.
[96] Draft A, § 2 (Locke 1990, p. 8). See also *ibid*. § 27 (p. 42), and § 43 (pp. 74-75).
[97] OO I, p. 93a; *ibid*. III, pp.
[98] Draft A, § 5 (Locke 1990, p. 15). *Cf*. OO III, p. 332b.
[99] Draft A, § 7 (Locke 1990, p. 16).
[100] See *ibid*. §§ 5-7 (pp. 15-18).

[101] See *ibid*. § 8 (pp. 18-20).
[102] *Ibid.* § 9 (p. 20).
[103] *Ibid.* § 27 (p. 42).
[104] *Ibidem*.
[105] *Ibidem*.
[106] *Ibid.* § 32 (p. 61).
[107] Locke 1990, pp. 85-270.
[108] Draft B, § 3 (p. 103). See *Essay* I, i, 8 (Locke 1975, p. 47).
[109] AT III, pp. 392-393; *ibid*. VII, pp. 160-161.
[110] Draft B, § 2 (p. 102). See *Essay* I, i, 2 (Locke 1975, p. 43).
[111] See e.g. AT VII, p. 27.
[112] "verum ii non persuadebuntur, qui non capient quo modo possis aut per soporem lethargicum, aut in utero etiam, cogitare. […] Insinuo duntaxat, ut memineris, quam obscura, quam tenuis, quam pene nulla esse potuerit temporibus illis tua cogitatio.": OO III, p. 298a (=AT VII, p. 264).
[113] *Essay* II, i, 10 (Locke 1975, pp. 108-109).
[114] *Ibid.* II, i, 11-21 (Locke 1975, pp. 109-117).
[115] *Ibid.* II, i, 21 (Locke 1975, p. 117).
[116] Milton 2000, pp. 91-92. See *infra* p. 52.
[117] On Gassendi's impact on Leibniz, see e.g. Moll 1997, Fichant 1997, and Robinet 1997.
[118] Leibniz 1996, p. 70. See *infra* p. 52.
[119] *Ibidem*.
[120] *Ibidem*.
[121] See e.g. Anstey 2011. For a larger picture, see Clericuzio 2018 and Id. 2023.
[122] Wright 1991. For Locke's transcription of these lectures, see Dewhurst 1980.