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I VOLTI DELL'ERRORE NEL PENSIERO MODERNO. DA BACONE A LEIBNIZ

a cura di

Matteo Favaretti Camposampiero,
Mariangela Priarolo ed Emanuela Scribano

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Descartes on Error and Madness

by Emanuela Scribano*

Abstract: In the fourth Meditation, Descartes' theory of error holds bad use of free will responsible for mistaken judgment. This theory turns out to be apposite only for an adult and sound human being. In infancy and if ill, the mind cannot suspend judgment, because its brain alteration necessarily dictates a judgment, often mistaken. The most dramatic case is madness, which necessarily induces the mind to make mistaken judgments beyond correction. Madness is not just an extreme case of false representation of the world. In the *Dioptrique*, madness is a crucial experiment for understanding the physiological mechanics of perception. This claim has the consequence of making it hard to distinguish between madness and normality, and then between error and truth, as La Forge and Malebranche will realize.

Keywords: error, madness, Descartes

In the Fourth Meditation, Descartes takes a clear stance on error: error depends on free choice and is therefore always avoidable¹. This principle is essential for the metaphysical foundation of science to be complete. Basically, Descartes' task consists in building a theory to the effect that if the human mind relies only on its clear and distinct ideas, if it does not fall into the trap of precipitation, and if it frees itself from the bonds of prejudice, then the propositions to which the mind is necessitated to assent will also be true, as they will be guaranteed by divine veracity. The principle appears for the first time in all its clarity in the *Meditations* and is then reiterated in the *Principles of Philosophy*. Indeed, the formulation in this latter work is notably resolute:

But whoever turns out to have created us, and however powerful and however deceitful he may be, in the meantime we nonetheless experience within us the kind of freedom which enables us always to refrain from believing things which are not completely certain and thoroughly examined. Hence we are able to take precautions against going wrong on any occasion².

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1. Descartes, *Meditationes de prima philosophia*, AT VII, pp. 56-62, CSM II, pp. 39-43.

2. *Principia philosophiae*, I, §6.

Already in the *Meditations*, however, it is clear that the possibility of ideally always avoiding error is affirmed only insofar as the mind is considered independent from its body. Indeed, in the Sixth Meditation, the resurgence of the body after sinking due to the First Meditation's doubt immediately forces the author into a sudden about-face. As for the errors induced by the senses, Descartes does not repeat the Fourth Meditation's account, according to which it is always possible to refrain from judging. He prefers instead to rely on the practical purpose of sensibility. When we consider the mind being united with its body and the perceptions that arise from sense experience, wisdom recommends that we do not rely on these in our quest for truth, as the senses are designed for the better preservation of life and not for ascertaining how the world really is³. What is more, the same practical domain in which the senses were supposed to work as reliable guides is, in fact, where real "errors of nature" take place, when in the case of disease the bodily mechanism arouses in the mind desires that, if satisfied, are detrimental to health and life⁴.

The specific connection between body and mind sets strict limits on the Fourth Meditation's account. These limits emerge repeatedly in Descartes' reflections. The case of disease, expressly considered in the Sixth Meditation, is complemented with recurrent reflections on childhood as a condition in which the connection to the body is so close that it necessarily imposes erroneous beliefs. The child's mind, «closely tied to the body», ascribes to the external bodies «tastes, smells and so on»⁵. The stick in the water «appears to us in a way which would lead a child to judge (*ex quo infans iudicaret*) that it was bent»⁶. The Sixth Meditation also ascribes to childhood the origin of the prejudices that occupy the adult mind⁷.

Both the case of childhood and the case of disease are emblematic of a condition in which the mind has no autonomy with respect to the messages that it receives from the body. In such a condition, bodily modifications translate into beliefs and judgments in the mind, and there is no possibility of neutralising such judgments induced by sense experience itself by activating innate ideas that could determine judgments alternative to the former. In disease as well as in childhood, the body rules and the mind can only register the modifications to the body in the form of necessary – and necessarily wrong – judgments. Thus, both the theory of judgment and the theodicy developed in the Fourth Meditation pertain only to the case of adults and healthy humans. The mind's autonomy and consequently its freedom are limited to the condition of adulthood and health. Descartes explicitly states this restriction:

3. *Meditationes de prima philosophia*, AT VII, pp. 82-83, CSM II, p. 57: «For knowledge of the truth about such things seems to belong to the mind alone, not to the combination of mind and body».

4. AT VII, p. 88, CSM, pp. 60-1.

5. *Principia philosophiae*, I, §71.

6. *Sextae responsiones*, AT VII, pp. 438-439, CSM, p. 295.

7. *Meditationes de prima philosophia*, AT VII, p. 83, CSM, p. 57.

although when thriving in an adult and healthy body the mind enjoys some liberty to think of other things than those presented by the senses, we know there is not the same liberty in those who are sick or asleep or very young; and the younger they are, the less liberty they have⁸.

Descartes elaborates several times on the case of childhood and the limitation of the mind's freedom that childhood involves. As a clever and faithful disciple of Descartes' work, La Forge considers childhood as a paradigm for the limits of the mind's freedom from the body's impulses⁹.

In the letter quoted above, disease and childhood, as the conditions in which the connection to the body prevents the mind from exercising its freedom with respect to sensibility, join with dreaming, the permanent protagonist of the Cartesian doubt regarding the correspondence between mental images and external reality. Madness is not mentioned, but either by deeming it a sort of disease or by considering its recurrent association with dreams in Descartes' texts, we can easily include madness among the conditions in which the mind cannot exercise its own autonomy from the body and thus cannot refrain from judging that the sensory appearances are true, which are in fact certainly distorted.

Much ink has been dedicated to the association between dreaming and madness in the First Meditation, where both conditions are mentioned to justify the doubt regarding the correspondence between perceptions and external objects, even in the case of macroscopic and close experiences¹⁰. However, the association between dreaming and madness dates from before the First Meditation, for it already appears in the *Dioptrics*, composed in the same years Descartes was writing *Le Monde*, that is, in the early 1630s. In the *Dioptrics*, Descartes evokes the «madmen and those who are asleep»¹¹. The same association appears again in the *Recherche de la vérité*, whose date of composition is still the object of the widest range of hypotheses¹². On the other hand, the *Discourse on the Method* insists a great deal on dreaming but it does not mention madness.

In the resounding debate about madness that involved Derrida and Foucault, the *Dioptrics* passage was not considered. Against Foucault's claim affirming the marginalisation of madness in Descartes' text, Derrida maintained with full appropriateness that, far from being marginalised, madness was rather integrated by Descartes into ordinary experience precisely

8. Descartes à X***, August 1641, AT III, p. 424, CSMK, p. 190, emphasis added.

9. La Forge 1974, p. 218: «Mais cette union quoy que tres-estroite, auroit encore pû l'estre davantage, si, comme nous voyons dans les plus jeunes Enfants, Dieu avoit tellement assuiety toutes les pensées de l'Esprit aux mouvemens du Corps, qu'il n'en eût jamais aucune, qui ne luy vint des Sens [...]; mais il n'estoit pas expedient ny à l'Homme ny à son Esprit, et cela auroit porté trop de preiudice à sa liberté».

10. AT VII, pp. 18-19, CSM II, pp. 12-3.

11. *La Dioptrique*, AT VI, p. 141, CSM I, p. 172.

12. Descartes 2002, p. 11 cit. *infra*. The mad people who believe that they are vases or that a part of their body is of enormous size are termed «melancoliques».

by assimilating it to dreaming, as is explicitly done in the First Meditation. Caught up in the heat of the dispute between Foucault and Derrida, subsequent interpreters have strived to provide grist to the mill of one or the other disputant, without straying from the path traced by them and, most importantly, without broadening the scope of their investigation to include texts other than the First Meditation¹³. In this way, the physiological writings featuring – long before the First Meditation – the earliest associations between dreams and madness remained completely overlooked. Of course, Ferdinand Alquié approached the topic of madness by inquiring into Descartes' scientific analyses of this phenomenon. However, he eventually made mere speculative use of them and referred to the clinical classifications of mental disorders simply to reflect on what kind of madness should be properly termed «philosophical»¹⁴. More recently, when attention was paid to Descartes' physiological writings, it was only to determine which kind of pathology he meant to refer to in the First Meditation, thereby correctly underscoring the specificity of that mental disorder. The «black vapours» mentioned in the First Meditation, as well as the hallucinations concerning the shape, size, and nature of one's own body, point to the symptoms of what the literature of the time termed «melancholy»¹⁵. But even in this case, despite the attention devoted to the clinical aspect of madness blatantly evoked by Descartes, no attention was paid to the roles played by madness and dreams in his physiological writings. In my view, however, it is only thanks to the contribution of the physiological writings – the *Dioptrics*, in particular – that the reference to madness in association with dreaming acquires its full significance and reveals its substantial implications, thereby making it possible to qualify and progress beyond Derrida's anti-Foucaultian interpretation of the First Meditation's madness in terms of «normalisation».

In view of the recurring joint mention of madness and dreaming, it is worth pointing out first that the insane, as well as children, are in every respect true humans. Indeed, they possess a mind, as demonstrated by the experiment conducted in a well-known passage from the *Discourse on Method* concerning the feature that distinguishes humans from animals, viz. the faculty of language:

there are no men so dull-witted or stupid – and this includes even madmen – that they are incapable of arranging various words together and forming an utterance from them

13. The debate on madness in Descartes' work was opened by some brief remarks in Foucault 1961, pp. 54-57. The reply by Derrida 1967 provoked an angry retort by Foucault 1972. See the interpretation of the polemic in light of Descartes' text by Beyssade 1973. Among the few who refer to Descartes' neurophysiological writings in this respect is Kambouchner 2005, pp. 265 ff. On this issue, see also Kambouchner 2010. Rocha 2011 and Broughton 2005 are aligned with Derrida. Cook 1990 is on Foucault's side, whereas D'Amico 1994 is against him.

14. Alquié 1994.

15. Darruliat 1996. The «vapours» are also mentioned in the *Dioptrics*, AT VI, p. 141, CSM I, p. 172.

in order to make their thoughts understood; whereas there is no other animal, however perfect and well-endowed it may be, that can do the like [...] it would be incredible that a superior specimen of the monkey or parrot species should not be able to speak as well as the stupidest child – or at least as well as a child with a defective brain – if their souls were not completely different in nature from ours¹⁶.

Second, it is worth explaining the reason for the steady association between dreams and madness. On this issue, the *Search for Truth* is even more enlightening than the *Meditations*, as the First Meditation seems to suggest that dreams and madness are stronger arguments against the certainty of sense experience than the traditional cases of sense deception, simply because they make us doubt even the veracity of the perception of large and close objects¹⁷. On the contrary, in the *Search for Truth* Descartes stresses the fact that – contrary to what happens in sense errors – in both dreams and madness the perceptual deception is not recognisable as such as long as this condition persists, and this is the reason why dreams and madness represent a deeper and more unsettling level of deception than ordinary perceptual errors.

In the *Search for Truth*, when Eudoxe mentions instances of the unreliability of sense perceptions, Poliandre replies by minimising the risk of being deceived by the senses, as «such defects of the senses are all quite easy to recognize, and do not prevent me from being quite sure at present that I am seeing you, that we are walking in this garden, that the sun is shining on us, and in a word, that everything which ordinarily appears to my senses is genuine.» Eudoxe in turn replies by mentioning dreaming and madness as cases where error is not recognisable and thus not correctable:

So if I wish to make you fear that the senses are deceptive on occasions *when you are unaware of the deception*, it is not enough for me to tell you that the senses deceive you on certain occasions *when you perceive the deception*. I shall have to go further, and ask if you have never seen one of those melancholic individuals who think themselves to be vases, or take some part of their body to be enormous; they will swear that what they see and touch is just as they imagine it to be. [...] you cannot take it amiss if I ask whether you are not, like all men, liable to fall asleep, and whether you cannot think, while asleep, that you are seeing me, that you are walking in this garden, that the sun is – in brief, all the things of which now you are certain. [...] In particular, how can you be certain of this when you have learned that you were created by a superior being all-powerful, would who, being have found it no more difficult to create us as I am describing, than to create us as you think you are?¹⁸

16. *Discours de la méthode*, AT VI, pp. 57-58, CSM I, p. 140, emphasis added.

17. Cfr. *Meditationes de prima philosophia*, AT VII, p. 18, CSM II, pp. 12-13: «Yet although the senses occasionally deceive us with respect to objects which are very small or in the distance, there are many other beliefs about which doubt is quite even though they are from the senses – for example, that I am here, sitting by the fire, wearing a winter dressing-gown, holding this piece of paper in my hands, and so on. Again, how could it be denied that these hands or this whole are mine? Unless perhaps I were to liken myself to madmen...».

18. Descartes 2002, p. 11, CSM II, pp. 407-8. (emphasis added).

The features of dreaming and madness highlighted in the *Search for Truth* make these conditions similar to childhood and certain pathologies. Dreamers and mad people, as with children and diseased people, share a condition in which it is impossible to avoid the erroneous beliefs induced by sense experience¹⁹. The mad person believes that his or her body is made of glass, just as the child believes that a stick in the water is bent. In dreaming and madness, as in childhood and disease, it is the body that rules, whereas the mind cannot exercise any active influence on the beliefs induced by bodily modifications. For this reason, these conditions provide privileged observation points from which to study the physiological mechanism of perception in isolation free from disturbance due to the mind's active intervention. Thus, to assess the role of dreaming and madness in the whole of Descartes' philosophy, it is worthwhile to consider further the physiological mechanisms of sense perception.

In both the *Treatise on Man* and the *Dioptrics*, Descartes made clear that perception is actually a mental phenomenon and is caused by the mind's contact with a brain modification. On the other hand, this modification can be produced by the impetus of the animal spirits flowing through the nerves, as a nerve's extremity is stimulated either by an external object or by events taking place in some parts of one's own body. However, the same brain modification can be produced also by the motions of the animal spirits that rise from the heart to the brain²⁰. As the animal spirits act on the brain by flowing independently from any stimulation by external objects, in the mind perceptions may arise, which, according to their specific features, are called "imagination", "dreams", or even "madness", as the *Dioptrics* makes clear²¹. However, as Descartes points out in the *Passions of the Soul*, it is only their respective intensity that makes it possible to distinguish such imaginative perceptions from sensory perceptions:

It remains to be noted that everything the soul perceives by means of the nerves may also be represented to it through the fortuitous course of the spirits. The sole difference is that the impressions which come into the brain through the nerves are normally more lively and more definite than those produced there by the spirits – a fact that led me to say in article 21 that the latter are, as it were, a shadow or picture of the former. We must also note that this picture is sometimes so similar to the thing it represents that it may mislead us regarding the perceptions which refer to objects outside us, or

19. Spinoza echoes this point when he considers childhood and (not by chance) dream as the conditions in which it is evident that judgments and therefore errors are necessitated by sense data. According to Spinoza, this necessity holds always and at every stage of human development. Cf. *Ethica* II, proposition 49, scholium (Spinoza 2010, p. 140): «[...] concipiamus puerum, equum imaginantem, nec aliud quicquam percipientem. Quandoquidem haec imaginatio equi existentiam involvit [...] nec puer quicquam percipit, quod equi existentiam tollat, ille necessario equum, ut praesentem, contemplabitur [...]. Atque hoc quotidie in somnis experimur».

20. *Traité de l'Homme*, AT XI, p. 177. CSM I, p. 106; AT XI, pp. 197-198.

21. *La Dioptrique*, AT VI, p. 141, CSM I, p. 172.

even regarding those which refer to certain parts of our body [...]. Thus often when we sleep, and sometimes even when we are awake, we imagine certain things so vividly that we think we see them before us, or feel them in our body, although they are not there at all²².

Whereas in the *Treatise on Man* and in the *Passions of the Soul* Descartes focuses on what is common to sensation, imagination, and dreaming, in the *Dioptrics* he evokes dreaming and madness to confirm that the actual functioning of the perceptual mechanism corresponds to the theory formulated by him in the previous pages of this work:

But in order that you may have no doubts at all that vision works as I have explained it, I would again have you consider the reasons why it sometimes deceives us. First, it is the soul which sees, and not the eye; and it does not see directly, but only by means of the brain. That is why madmen and those who are asleep often see, or think they see, various objects which are nevertheless not before their eyes: namely, certain vapours disturb their brain and arrange those of its parts normally engaged in vision exactly as they would be if these objects were present²³.

As this passage shows, there are two features of madness to which Descartes in the *Dioptrics* attaches major importance. First, the primary cause of the hallucinations experienced in madness is not to be found in a dysfunction of the perceptual system, but precisely in its specific structure. Indeed, «the reasons why (vision) sometimes deceives us» in dreams and madness lie in the fact that, properly speaking, perception is aroused in the mind not by the external objects but by a brain trace. According to an Aristotelian tradition that had been recently revived by Gerolamo Fracastoro, what brings about perception is the external objects or the images originating from them. If this were the case, however, then madness would either not exist or it would take different forms²⁴; for in such a case, it would not be possible to perceive objects that are not present or to perceive them differently from how they really are. This is why nothing better than dreams and madness refutes the claim that perception is brought about either by the external objects themselves or by the images originating from them. This first point in the analysis of madness has an important consequence, which introduces the second role played by madness in the *Dioptrics*. As everybody agrees that in delirium or hallucinatory states one perceives objects that are not present, it is precisely these anomalous conditions and not the standard perception that

22. *Les Passions de l'âme*, I, art. 26. CSM I, p. 338.

23. *La Dioptrique*, AT VI, p. 141, CSM I, p. 172.

24. The account of representation in terms of corporeal images that detach from the object and reach the perceiving subject corresponds exactly to the theory of representation presented by Fracastoro in the First Book of *Turrius*. See Fracastoro 1574. On Fracastoro's theory of knowledge see Spruit 1995, pp. 46-49. Fracastoro's work strongly suggests revising the received view – still endorsed by Perler 1997 – that Descartes' talk of images flying through the air and travelling from the object to the perceiving subject is merely a simplified and parodic version of the scholastic theory of knowledge.

reveal that the proximate causes of sensation are not the objects but a brain trace. In the *Dioptrics*, madness is made possible by the perceptual mechanism and, at the same time, only madness reveals in an unequivocal way the functioning of that mechanism.

As madness shows that the proximate cause of perception is only a brain modification, it follows that perception in itself gives no epistemic access to its remote cause, for it provides no evidence that the remote cause of the brain modification is some external object stimulating the nervous system, rather than the "vapours" of melancholy. Thus, such vapours are to be understood as the pathological version of the "spirits" freely circulating during dreams and involuntary imaginations, the states in which the animal spirits in their "fortuitous" motions encounter and reopen traces in the brain, thereby arousing the perceptions of absent or non-existent objects.

Descartes' use of madness appears as the symmetrical opposite of Reid's later attempt to deprive madness of any testimonial value. This latter's reference to the insane who believe their bodies are made of glass is certainly reminiscent of Descartes. Reid's aim, however, is to make the experiences of these people irrelevant to understanding the phenomenon of perception:

The first exception [to the evidence of the senses] is that of some lunatics who have been persuaded of things that seem to contradict the clear testimony of their senses. It is said there have been lunatics and hypochondriacal persons, who seriously believed themselves to be made of glass [...]. All I have to say to this is, that our minds, in our present state, are, as well as our bodies, liable to strange disorders; and, as we do not judge of the natural constitution of the body from the disorders or diseases to which it is subject from accidents, so neither ought we to judge of the natural powers of the mind from its disorders, but from its sound state²⁵.

Reid appears aware that Descartes referred to disease in order to understand the perceptual mechanism that pertains to the state of health.

In the *Dioptrics*, even the amputee's case was used as a crucial experiment to unveil the mechanism of perception. The aim was, in this case, to support the brain-centred hypothesis against the view that sensibility is diffused through the various parts of the body²⁶. Obviously, in the amputee's case, the missing limb cannot produce any sensation, as in a dream, where it is not the dreamed objects that bring about the perception. Thus, the cause of the sensation must be found elsewhere, namely in the brain, and the view that locates sensation in other parts of the body must be ruled out. Even in this case, the pathological condition is caused by the perceptual mechanism and, at the same time, it reveals this mechanism. Even in this case, perception as such does not enable the perceiver to identify its remote cause.

25. Reid 1785, essay II, chap. 5, p. 108.

26. See Descartes' reply to Fromondus' objections that Plempius had transmitted to him: Descartes to Plempius, 3 October 1637, AT III, p. 420, CSMK, p. 64. Here, Descartes reports the case of a young woman whose arm had been amputated as confirming his brain-centred hypothesis about sensation.

The physiological mechanism of perception is briefly described in the Sixth Meditation to explain the origin of perceptual errors. These take place in the case of disease as a consequence of the normal invariable structure of the body. The amputee feels pain in the phantom limb because the brain modification is the same, regardless of the part of the nerve where stimulation actually originates, and the dropsical person feels thirsty even though drinking damages the body, because the brain is modified in the very same way, even when abnormal bodily conditions determine the same stimulation that in the normal dehydration of the body provokes thirst. Erroneous perceptions are thus explained by the rigidity of the nervous system. Even here, however, Descartes adds that the source of every perceptual error lies in the standard structure of perception, that is, in the fact that perception is always brought about only by a brain modification²⁷.

The heuristic value that the *Dioptrics* ascribes to madness and dreams is also what explains why these states represent in fact such formidable reasons for Cartesian doubt. The impossibility of distinguishing dreams and madness from normal perception is ultimately justified by what physiology has shown, namely that the cause of these altered or even pathological conditions is precisely the standard mechanism of perception and not some perversion of it.

With his usual intelligent fidelity, La Forge presents Descartes' unsettling theory in his *Treatise on the Human Mind* at the end of a long chapter devoted to imagination. The association between imagination and madness already highlights the affinity between involuntary imaginations caused by the animal spirits rising from the heart to the brain and mental disorders – an affinity deriving from Descartes' account of the perceptual mechanism. Furthermore, La Forge, as with Descartes, associates dreams with madness: «I shall conclude this chapter by saying in a few words what is the cause of errors in our dreams and of the delirium of melancholics»²⁸. In his detailed analysis of madness, La Forge grasps the main point of Descartes' view. The cause of madness is the standard mechanism of perception:

The general cause of all these mistakes [*erreurs*] results from the fact that all the ideas which are joined with species of the gland [...] give the mind no opportunity to beware that it only perceives the image of objects, which send nothing to the brain and gland but the effects of certain movements [*la suite de quelques mouvemens*]. On the contrary, they represent objects to the mind as if they were external to us and present to our sense, to which – or at least to our external limbs – the mind relates all the qualities which are represented to it by the ideas it has²⁹.

27. *Meditationes de prima philosophia*, AT VII, p. 86, CSM II, pp. 59-60: «the mind is not immediately affected by all parts of the body, but only by the brain, or perhaps just by one small part of the brain, namely the part which is said to contain the 'common' sense. Every time this part of the brain is in a given state, it presents the same signals to the mind, even though the other parts of the body may be in a different condition at the time. This is established by countless observations, which there is no need to review here.»

28. La Forge 1974, p. 275; La Forge 1997, p. 174.

29. La Forge 1974, pp. 275-276; La Forge 1997, p. 174.

With the utmost lucidity, La Forge appropriates the core of Descartes' view: sense perception is entirely built on a deception, which consists in perceiving as objects located outside what are in fact simply brain modifications. This is the reason why the mad person thinks that he or she perceives objects that in fact are not there. The only possibility to avoid error and distinguish the perceptions remotely caused by actual objects from dreams or imaginations lies in the respective perceptual intensity. Indeed, «the human mind will always be mistaken as long as it is unable to recognize whether the species which stimulates an idea it has comes more from the senses than from the activity of the memory or the animal spirits, or from its own will»³⁰.

Conversely, it is impossible to tell the difference between perceptions originating from the external senses and perceptions originating from the internal flow of animal spirits whenever both have the same perceptual intensity, as is the case in madness. However, the perceiving subject, be they mad or sane, is in the same situation whenever they rely on sense data; because of the intensity of their perceptions, they believe they see the external world as it really is. Fénelon strongly dramatizes this aspect of Descartes' view by evoking the feature of madness underscored by Descartes in the *Search for Truth*: «How can I be assured that I am not in this condition [i.e. of insanity]? If someone is in it, he does not think that he is; he is as sure as I am that he is not in this condition»³¹.

In light of the *Dioptrics*, Derrida's reply to Foucault is worth dramatization in a different way. Of course, assimilation to dreaming turns madness into an ordinary phenomenon, perfectly integrated into everyday life. However, the fact that both dreaming and madness have been used as paradigms to understand normality blurs or even erases the distinction between madness and normality. Thus, madness is not so much a trivial episode as a condition indiscernible from normality. The consequences thereof are made explicit by La Forge and especially Malebranche, who discusses this topic in the Sixth Elucidation of *The Search after Truth*. Here, madness comes into play through an almost literal quotation from the First Meditation's passage where Descartes tried to marginalise it: «They were mad, you will say», repeats Malebranche, with respect to the hallucinations of mad people adduced as evidence against certain knowledge of the existence of the external world³². However, contrary to what happened in Descartes' First Meditation, according to Malebranche, madness cannot be simply dismissed as an argument for the impossibility of proving the existence of the external world, nor is it necessary to assimilate it to a dream to highlight its triviality: «They were mad, you will say, and I agree; but their soul was able to be mistaken in these things, and

30. La Forge 1974, p. 276; La Forge 1997, p. 174.

31. Fénelon 1997, p. 579.

32. Malebranche 1997, p. 570. The original text («C'étoient des fous, dira-t-on»: Malebranche 1976, p. 56) clearly echoes Descartes, First Meditation, AT IX, p. 14: «Mais quoi, ce sont des fous».

hence all other men can fall into similar errors»³³. As the perceptions of both mad and sane people are determined only by brain modifications, the distinction between the former and the latter can only be a matter of statistics: «But in the final analysis, how can we be certain that those we call mad really are so? Might it not be said that they only pass for mad because their sensations [sentimens] are peculiar? For it is clear that a man passes for mad not because he sees what is not but precisely because he sees the opposite of what others see, whether they are deceived or not»³⁴.

If it is the motions in the brain that provide us with knowledge of external things, then «why need there be external bodies for these motions to be stirred up in our brain? Do not sleep, the passions, and madness produce such motions without the aid of external bodies?»³⁵ As correctly remarked, in Malebranche, madness becomes a phenomenon indiscernible from mental health³⁶. The reason for such a paradoxical equalisation of madness and mental health is to be found in the use of madness made by Cartesian physiology, as described above: here, madness has become the touchstone of normality. Thus, it is worth noting that madness, after being assimilated to dreams by Descartes in the First Meditation, is not even mentioned in the Sixth, when the doubt must be resolved regarding whether a dream can be distinguished from a wake state. Here, Descartes claims that it is easy to tell the difference between these two conditions. One could object, however, that a dream ends as one wakes up, but this is not so with madness. Of course, «sweeping madness under the comfortable carpet of dreams helps to neutralise the doubt regarding the existence of the external world. However, La Forge and Malebranche did not wait long to dig up madness and reopen in this way the sceptical problem.

After all, all the Cartesians who were originally attracted to Descartes' philosophy more by his physiology than his metaphysics agree on the impossibility of making sure via our perceptions that the external world exists. As is well known, Cordemoy relies on faith and is followed by Malebranche. Less known is that the first to rely on faith is Henricus Regius, who is also the closest to Descartes in the field of physiology. His *Philosophia naturalis* begins with the same claim that Cordemoy and Malebranche later repeat: the existence of external bodies is merely plausible and only faith can make it sure.

Natural things are those that are endowed with a nature. From the probable certainty of our intellect, that is of our senses, reminiscence, imagination, and judgment... the true existence of these things is *as plausible as possible*; but from God's infallible revelation made to us in the Bible, it is by all means indubitable³⁷.

33. Malebranche 1997, p. 570, emphasis added.

34. *Ibid.*, translation slightly modified.

35. *Ivi.*, p. 571, translation slightly modified.

36. de Buzon 2010.

37. Regius 1654, p. 1. Regius has recently aroused some interest among scholars: cf.

Regius is an early and important witness of the physiological root of the loss of the external world in the Cartesian culture.

As for the use of madness in Descartes' metaphysical path, the *Dioptrics* and Cartesian physiology in general suggest a further reflection. In the case of the mad person, who – as everybody acknowledges – perceives a non-existent reality, it would be more appropriate to say that she «thinks that she sees» things that in fact she does not see: «it is the soul which sees, and not the eye; and it does not see directly, but only by means of the brain. That is why madmen and those who are asleep often see, or *think they see*, various objects which are nevertheless not before their eyes»³⁸. As is well known, however, for every human being, it is true that «it is the soul which sees, and not the eye» and that «it does not see directly, but only by means of the brain». Thus, it has to be true for every human being that they «often see, or think they see, various objects which are nevertheless not before their eyes».

The expression used by Descartes to explain and illustrate the illusions of mad people is the same that he happens to use in the Second Meditation to reduce perception to the appearance of perceiving. What is certainly true and indubitable in my vision is that it seems to me that I am seeing: «*videre videor*»³⁹. Seeing is actually the appearance of seeing. If read in light of the physiological writings, Descartes' doubt about the existence of the external world looks like the meditative transposition of the difficulty in progressing from perceptions to the external world – a difficulty made insurmountable by the physiological theory of perception. Even the reduction of perception to consciousness, whose originality in the field of perceptual analysis has been always and rightly underscored⁴⁰, originates directly from that difficulty. But in fact, if seen in light of the physiological analysis of perception, such a reduction appears to be a sort of philosophical transposition of what only physiology makes it possible to affirm. Considering madness from the same point of view taken by Descartes in the *Search for Truth*, Fénelon happens to compare with perfect symmetry both appearances of seeing, that of the mad person and that of the meditator: «How can I be assured that I am not in this condition [i.e. of insanity]? If someone is in it, he does not think that he is; he is as sure as I am that he is not in this condition. My own belief that I am seeing *what it seems to me that I am seeing* is not stronger than his own»⁴¹.

Verbeek 1994a,b, Wilson 2000; Clarke 2010; Kolesnik-Antoine 2010; Bos 2013 and Bellis 2013.

38. *La Dioptrique*, AT VI, p. 141, CSM I, p. 172, emphasis added.

39. AT VII, p. 29, CSM II, p. 19: «I am now seeing light, hearing a noise, feeling heat. But I am asleep, so all this is false. Yet I certainly *seem* to see, to hear, and to be warmed. This cannot be false; what is called "having a sensory perception" is strictly just this, and in this restricted sense of the term it is simply thinking.» (emphasis added).

40. Among the most recent contributions see Davies 1990; Carraud 2010; Palaia (ed.) 2013; and Viano 2013.

41. Fénelon 1997, p. 579.

Considered in light of madness, Descartes' physiology suggests a way of reading his metaphysics – especially the path of doubt – that reveals its radical modernity and deep connection with scientific progress more clearly than the metaphysical writings themselves may ever do.

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