The Atheist's Bible: Diderot and the Éléments de physiologie

Caroline Warman

In offering the first book-length study of the 'Éléments de physiologie', Warman raises the stakes high: she wants to show that, far from being a long-unknown draft, it is a powerful philosophical work whose hidden presence was visible in certain circles from the Revolution on. And it works! Warman's study is original and stimulating, a historical investigation that is both rigorous and fascinating.

— François Pépin, École normale supérieure, Lyon

This is high-quality intellectual and literary history, the erudition and close argument suffused by a wit and humour Diderot himself would surely have appreciated.

— Michael Moriarty, University of Cambridge

In 'The Atheist's Bible', Caroline Warman applies deft, tenacious and often witty textual detective work to the case, as she explores the shadowy passage and influence of Diderot's materialist writings in manuscript samizdat-like form from the Revolutionary era through to the Restoration.

— Colin Jones, Queen Mary University of London

'Love is harder to explain than hunger, for a piece of fruit does not feel the desire to be eaten': Denis Diderot's Éléments de physiologie presents a world in flux, turning on the relationship between man, matter and mind. In this late work, Diderot delves playfully into the relationship between bodily sensation, emotion and perception, and asks his readers what it means to be human in the absence of a soul.

The Atheist's Bible challenges prevailing scholarly views on Diderot's Éléments, asserting its contemporary philosophical importance and prompting its readers to inspect more closely this little-known and little-studied work. This book is accompanied by a digital edition of Jacques-André Naigeon's Mémoires historiques et philosophiques sur la vie et les ouvrages de Denis Diderot (1823), a work which, Warman argues, represents the first publication of Diderot's Éléments, long before its official publication date of 1875.

The Atheist's Bible constitutes a major contribution to the field of Diderot studies, and is of further interest to scholars and students of materialist natural philosophy in the Age of Enlightenment and beyond.
The general view about the *Éléments de physiologie*, as those who have an overview of Denis Diderot’s production will know, is that they are a fragmentary series of reading notes and scattered thoughts scribbled by the ageing philosopher, and which have some form of undefined but underpinning relation to the *Rêve de d’Alembert*. This chapter will look closely at these views and try to understand where they come from, given that, as has been suggested and hopefully also demonstrated, at least to some extent, the *Éléments de physiologie* are not a fragmentary series of reading notes. However, many influential and important voices do maintain that this is the case.

Jean Mayer, authority on Diderot and science, and twice editor (1964, 1987) of the mature version of the *Éléments* brought to light in the Vandeul archive by Herbert Dieckmann in 1948, states in his book *Diderot, homme de science* (1959) that the *Éléments de physiologie* display ‘toutes les imperfections de l’inachèvement’ [all the flaws of incompletion].

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2 Mayer, *Diderot, homme de science*, p. 273. Later statements in the editions themselves show that Mayer would come to modify this early view, presumably after prolonged contact with the completed version of the *Éléments de physiologie* itself. In his DPV
1987 edition would implicitly disagree with that earlier statement, stating that ‘Diderot avait poussé le travail jusqu’à l’achèvement’ [Diderot’s work on it had got to the point of completion], although he continued to maintain that the Éléments ‘souffrent visiblement d’une documentation scientifique encombrante et mal dominée’ [visibly suffer from a cumbersome and poorly mastered amount of scientific documentation] and that we should not be unduly concerned if Diderot contradicts himself as these are only his reading notes. The preeminent historian of the eighteenth-century life sciences, Jacques Roger, did not consider this work a work at all, but rather, ‘[des] notes de travail rassemblées sous le titre d’Éléments de physiologie’ [working notes brought together under the title of Elements of physiology]. Roger goes so far as to say that he prefers to use the earlier incomplete draft which we call the Saint-Petersburg version after the archive where it is held. The reason? Because the more mature version ‘tend à masquer, sinon les grandes influences subies, du moins les chapitres où chacune d’entre elles s’est plus précisément exercée’ [tends to mask, if not its major influences, at least the areas where they have been most specifically influential]. His judgement—that the Éléments is a bundle of working notes and not a finished work—becomes the reason that he cannot use the final version, precisely because it is not just a bundle of working notes. He thereby reveals—consciously or not—that what he really values is what makes his job as a source-tracing historian of science easier, that is, early drafts in their magpie state. The issue is not that he should prefer the early draft but that he should define the completed work in relation to that preference, and thereby considerably deform it. And it would not matter

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3 DPV 286.
4 ‘Mais ce sont là des notes de lecture: Diderot ne souscrit pas à toutes les opinions qu’il rapporte’ [But there are just reading notes: Diderot doesn’t subscribe to all the opinions he records]. DPV 349n.: note starts on p. 348.
6 Roger, Les sciences de la vie, p. 672.
that he was biased and wrong in his judgement if he and Mayer hadn’t had considerable and persisting influence.

In the Pléiade volume of Diderot’s *Œuvres philosophiques* (2010), the *Éléments de physiologie* do not appear in their own right but are subordinated as an appendix of thirty pages of cherry-picked extracts connected to the *Rêve de d’Alembert*. Eminent Diderot scholars Michel Delon and Barbara de Negroni justify this decision by calling the *Éléments de physiologie* a ‘texte technique’ [technical text], and by explaining that it provides information about what medical sources Diderot was using when composing the *Rêve de d’Alembert*.7 And indeed, the thirty pages of extracts we find in the Pléiade volume of the *Œuvres philosophiques* hardly contribute to making the *Éléments* seem like a completed work in its own right; on the contrary, they sustain the myth of the *Éléments*’ fragmentary character by producing a newly fragmented version. The editors are not without precedent in only publishing extracts: Laurent Versini did the same thing in his 1994 volume of Diderot’s philosophical works. Versini’s fragments are explicitly chosen according to criteria of omission: he omits what he considers to be tiresome descriptions and lists of anatomy and physiology, which are, he says, out of place in ‘une collection d’œuvres philosophiques ou littéraires’ [a collection of philosophical or literary works].8 When Delon and Negroni call it a ‘texte technique’, therefore, they are simply confirming Versini’s view that it just does not suit our taste (or come up to our standards) as scholars of literature and thought.

Between, on the one hand, the historians of science who declare that the *Éléments* are incomplete and/or nothing more than a bundle of working notes, dismissing the completed version because it gets in the way of source-hunting, and, on the other, literary scholars who accept and relay these opinions while also adding to the general rejection of this work with further damning judgements about its tiresome technical descriptions and implied lack of literary quality, the *Éléments*

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7 Denis Diderot, *Œuvres philosophiques*, ed. by Michel Delon and Barbara de Negroni (Paris: Gallimard, 2010), p. 1253. Chronologically, this is a little misleading, given that Diderot wrote the *Éléments de physiologie* after the *Rêve*, see Chapter 1, but presumably what is meant is that the *Éléments de physiologie* tells us about Diderot’s medical knowledge more generally, which is fair enough.

de physiologie has not recently stood much chance of establishing a reputation on its own terms. In the case of this text more than any of Diderot’s others, the disciplinary specialisations and identities of the modern university system have meant that it falls between stools, failing to conform to our various expectations of style or content. The story about its fragmentary nature, however, has nothing to do with modern institutional specificities: it is a much older one.

The story about the fragments is generally traced to and substantiated by the account given by Diderot’s literary executor, Jacques-André Naigeon. In his Mémoires historiques et philosophiques sur la vie et les ouvrages de Denis Diderot, published posthumously in 1823 (although dated to 1821, like the rest of the Brière edition, of which this was the last volume), Naigeon wrote that Diderot never completed his work on physiology and only left ‘quelques matériaux épars et sans aucun ordre entre eux’ [a few scattered materials with no internal order], further alleging that these scattered materials would only make sense ‘aux yeux du philosophe assez instruit pour couver les idées neuves et fécondes dont Diderot a semé ses recherches’ [to the philosopher who is sufficiently knowledgeable to appreciate the new and fertile ideas that Diderot planted in his work].

He also emphasised Diderot’s debt to the great physiologist Albrecht von Haller, saying he had read Haller’s work on Physiologie twice through ‘la plume à la main’ [pen in hand]: this has always been understood to tell us that Diderot’s pen was ready to note down whatever he found useful in the ‘source’ text, and therefore that he is in someway subservient to it. This is despite the fact that it could just as easily be read as meaning that he considerably corrected or responded to or amplified the source text, as he famously did in the case of the Observations sur Hemsterhuis, the Réfutation d’Helvétius or just generally.

The ninth volume of the great and first Œuvres complètes edition of the 1870s, undertaken by Jules Assézat and Maurice Tourneux and based on the archive of Diderot manuscripts which had been sent to

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10 Naigeon writes that Diderot ‘avait lu deux fois, et la plume à la main, sa grande physiologie’ [read his great physiology twice, pen in hand] (Mémoires historiques et philosophiques, p. 222n).
Catherine the Great in St Petersburg after his death in 1784, contains the first print-published version of the *Éléments de physiologie* in its entirety, although as scholars would later discover, the so-called St Petersburg manuscript was a copy of a relatively early draft which Diderot would subsequently substantially reorganise and add to. In his introduction to the St Petersburg version, Jules Assézat closely paraphrases Naigeon’s description of the *Éléments*, although he does not say so. Diderot, he wrote, ‘lisait la plume à la main tous les livres qui lui parvenaient, et il en tirait ce qui pouvait l’éclairer dans ses recherches. Ce sont ces notes, intitulées Éléments de physiologie, qui forment un volume in-4° de la collection des manuscrits de la bibliothèque de l’Ermitage, que nous publions [...]’ [read all the books that he could get hold of, pen in hand, and took from them anything that helped advance his work. It is these notes, entitled *Elements of physiology*, forming a quarto volume in the manuscript collection of the Hermitage library, which we are publishing here].\(^{11}\) The fact that Assézat, without knowing it, only had access to an inferior version, adds a further complicating layer to the story, in that Naigeon’s account would have seemed more accurately to describe the manuscript he worked from, although even that is hardly fragmentary, producing a substantial 190 printed pages. The most complete version we now know of, and the one which current editions use, was rediscovered by the great Diderot scholar Herbert Dieckmann in 1948 in the collection of manuscripts which passed to Diderot’s daughter, Angélique Vandeul, at his death in 1784, and thereafter down through her family. Dieckmann himself had written an important article in 1938 examining Naigeon’s treatment of the *Rêve de d’Alembert* and the *Physiologie* in his *Mémoires historiques et philosophiques*: he was the first scholar to bring to light that those *Mémoires* in fact quote verbatim from both these works.\(^{12}\) His preference was clearly for the *Rêve*, which, given that he, like Assézat, was at that point working with the earlier version,\(^{12}\)

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\(^{11}\) Denis Diderot, *Œuvres complètes*, ed. by Jules Assézat and Maurice Tourneux (Paris: Garnier Frères, 1875), vol. 9, p. 237. He elaborates further: ‘ce caractère de notes, prises au jour le jour et rassemblées à la hâte, fait de cet ouvrage tout autre chose qu’un traité didactique’ [this note-like character it has, of having been jotted down from one day to the next, makes this work completely different from a didactic treatise], p. 238.

is perhaps not surprising. Dieckmann’s consistent assumption is that the Éléments de Physiologie was, or was planned to be, part of a longer version of the Rêve. Naigeon’s story of, on the one hand, the disordered manuscript fragments, and, on the other, the reading notes, persist in assessments of the Éléments today, as we have seen in the influential accounts of Jean Mayer and Jacques Roger quoted at the beginning of this chapter. Naigeon’s assertions about fragments and reading notes therefore come full circle, not only being repeated as authoritative evidence in every introductory presentation of the Physiologie that exists, and by every one of the critics mentioned thus far, but to some extent also used to define what the Physiologie is, and therefore what it is not, thereby dismissing the actual evidence of the text itself.

It’s an odd situation, and one in which Naigeon’s account has been decisive. Even Paolo Quintili’s and Motoichi Terada’s editions of the Éléments de physiologie (2004 and 2019 respectively), both of which forcefully argue for the importance of this late text, continue to plough the same furrow, quoting Naigeon, adding further information about Diderot’s medical sources. There are very few scholarly pages which look at this text on its own terms, as opposed to as some sort of basket containing a mish-mash of Diderot’s medical interests. This is because of what Naigeon said in his Mémoires historiques et philosophiques in 1823, and which every critic since has quoted as the gospel truth, compounded with this issue of the two very different stages of manuscript completion, their staggered publication dates, and the fact that Assézat’s confirmation of Naigeon’s story, although based on an incomplete draft, has nonetheless influenced later scholars from Dieckmann to the present, all of whom continue to relay this same account. The result is a sort of received wisdom about the Physiologie which means that when it is mentioned—if it is mentioned in non-Diderot-specific literature at all—it is as an incomplete text, a pipe dream of Diderot’s. That’s what

13 Dieckmann remarks with surprise that ‘Sometimes Naigeon seems to prefer even the Éléments: once he chooses the formulation of the Éléments, though the same passage is found in the Rêve with only minor variants’. Dieckmann, ‘J.-A. Naigeon’s Analysis’, 484. He is referring to Mémoires historiques et philosophiques, p. 260.

14 Motoichi Terada describes it as situated ‘à mi-chemin entre un composé mosaïque de notes de lecture et un discours scientifique’ [half-way between a mosaic made out of reading notes and a scientific discourse], Éléments de physiologie, ed. by Motoichi Terada (Paris: Editions Matériologiques, 2019), p. 9 [hereafter MT].
Jean Starobinski called it in passing in his otherwise inspiring study of the intellectual history of the twinned concept of *Action et Réaction*.\(^{15}\)

So if this story started with Naigeon, did he simply get it wrong? If he is the source for this story, and if the story appears to be starkly out of tune with the textual evidence, then we need to look again at his Mémoires historiques et philosophiques to see exactly what he says. He devotes 100 pages out of 416—that is, just about a quarter of the whole—to discussing Diderot’s views on physiology. Of these 100 pages, 83—presented as a description or paraphrase—are almost entirely verbatim quotation from the *Rêve* and the *Physiologie*, extremely carefully assembled and sewn together. It’s about a third *Rêve*, and two thirds *Physiologie*.\(^ {16}\) The more substantial borrowing is from the *Physiologie* not the *Rêve*, and there are fifty pages of quotation from it, which is obviously only a small part of the whole, but nonetheless, not merely a few scattered fragments. Just to be clear, in his Mémoires historiques et philosophiques, Naigeon describes Diderot’s entire production, from the texts that were print-published and known during Diderot’s lifetime such as the Lettre sur les aveugles, the Encyclopédie articles or the plays, to those with a limited manuscript circulation through the journal Correspondance littéraire such as the art criticism of the Salons, the fictional travelogue the Supplément au voyage de Bougainville or the novels *La Religieuse* and *Jacques le fataliste*, or only in

\(^{15}\) Jean Starobinski writes: ‘Diderot rêva d’une anthropologie d’inspiration médicale quand il entreprit ses Éléments de physiologie, restés inachevés’ [Diderot dreamed of writing a medically-inspired anthropological work when he undertook the Éléments de physiologie, which remained unfinished], in *Action et réaction: vie et aventures d’un couple* (Paris: Seuil, 1999), p. 146. See also the important intellectual historian Ann Thomson who mentions in passing Diderot’s ‘medical notes entitled Éléments de physiologie, the result of his medical reading [which] includ[e] vague formulations resembling La Mettrie’s’, in *Bodies of Thought: Science, Religion, and the Soul in the Early Enlightenment* (Oxford: Oxford University Press, 2008), p. 221. The ‘vague formulations’ to which she refers relate to the paragraph about the flesh pincers which we will quote in full in Chapter 4.

\(^{16}\) We shall be analysing this in Chapter 12; see also the connected digital edition of Naigeon’s Mémoires at https://naigeons-diderot.mml.ox.ac.uk/index.htm. Motoichi Terada agrees with this analysis, referencing my article: Caroline Warman, ‘Naigeon, éditeur de Diderot physiologiste’, *Diderot Studies*, 34 (2014), 283–302, MT 56, 63. It was my great good luck that while finalising this digital edition of the Mémoires, Motoiichi Terada brought out his edition of the Éléments de physiologie, which also reproduces Naigeon’s Mémoires, see his ‘Annexe: le précis du Rêve (Naigeon, Mémoires, pp. 207–91), avec des notes sur les emprunts au Rêve et aux EP’, pp. 513–93. This enabled me to check my results against his; my work as a whole has much benefitted from his.
uncirculated manuscript, such as the searing social satire of the *Neveu de Rameau*. Yet there are only two texts from which he quotes substantially, the *Rêve* and the *Physiologie*, and of those two, the *Physiologie* takes up twice as much space as the *Rêve*. Of all Diderot’s production, therefore, it is the one to which Naigeon gives most visibility, and which he must consider to be the most important. There is a stark difference therefore between the story he tells about the scattered fragments and reading notes and the way in which he prioritises this text for quotation above all others. It looks as if he’s being deliberately misleading. Why?

We only begin to get an answer to this question when we look at some of the paratexts and also at the different versions of the *Physiologie*.

From Elements to Fragments

Before returning to Paris from St Petersburg in 1774, Diderot had a new version of the *Rêve de d’Alembert* copied for Catherine II. It gave new names to the interlocutors—instead of Diderot, Jean le Rond d’Alembert, Julie de Lespinasse and Théophile de Bordeu, we have the playwright Nicolas Boindin, the grammarian César Chesneau Dumarsais, Mlle Boucher (daughter of painter François Boucher), and the *philosophe* Julien Offray de La Mettrie. The manuscript, entitled *Les deux Dialogues*, is fairly substantial (113 folios) and presents an intermediary version of the text we now know—more developed than the first drafts of the *Rêve de d’Alembert* but not yet in its final form.  

It was preceded by an ‘Avertissement’ [Foreword] in the form of a letter directly addressing Her Imperial Majesty which explained that the original *Dialogues* had had to be destroyed because the original players insisted on having their fictional counterparts eradicated. This is the first instantiation of the myth of the destruction of the *Rêve* in response to d’Alembert and Lespinasse’s supposed deep displeasure at featuring in the text.  

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17 Georges Dulac describes this manuscript in detail in *Le Rêve de d’Alembert*, DPV, vol. 17, p. 76.
18 Colas Duflo discusses the supposed destruction of the *Rêve de d’Alembert* on the orders of the supposedly embarrassed d’Alembert in the introduction to his edition: ‘Il est difficile de croire que D, qui s’est souvent vanté d’être un champion de la mystification, n’ait pas encore une fois utilisé cet art utile. Jacques Roger maintient cependant qu’on “ne peut suspecer D de mauvaise foi en la circonstance” et que Grimm a dû garder une copie, sans en avertir D, qui serait “miraculeusement”
‘avertissement’ explains that the reassembled version ‘n’est qu’une statue brisée, mais si brisée, qu’il fut presque impossible, même à l’artiste de la réparer’ [nothing but a shattered statue, so very shattered that not even the artist could put it back together] and further that there remained ‘un grand nombre de pièces dont il [l’artiste] ne put reconnaître la véritable place’ [a large number of pieces whose proper place not even [the artist] could find again]. These pieces were all gathered at the end of the Deux dialogues and presented as ready for reintegration, despite not being from the original Rêve at all.19 There are thirty pages of them, in the form of aphoristic remarks about physiology and sensation, gathered under thematic headings and entitled, in explicit echo of the ‘avertissement’, ‘Fragments dont on ne put reconnaître la véritable place’ [Fragments whose proper place could not be recognised].20 This is a recognisable early draft of the Éléments de physiologie.21

So the first instance of the Éléments de physiologie being claimed to be fragmentary comes from Diderot himself, here, in 1774. Insofar as it introduces a masked version of the Rêve, masked not least because of the fears he expresses in the ‘Avertissement’ for his peace, fortune, life, honour, and reputation should it ever be leaked or published, we can see why Diderot might want to call them ‘fragments’: it’s part of the disguise. Insofar also as these supposed Fragments are indeed a very early draft, we can see that it makes sense: they are incomplete, although the time sequence is back to front: they are not relics of what has been but seeds of what will be. But there is another game going on here réapparue après la mort de Julie de Lespinasse (Intro de l’éd GF-Flam 1965, p. 21). Jean Varloot, pour sa part, pense que Diderot “simula un autodafé du manuscrit” (Introduction de l’édition DPV, p. 27). Il n’est peut-être ni possible ni très utile de trancher la question’ [it is hard to believe that D, who had often boasted of being a champion of mystification, didn’t once again deploy this useful skill here. Jacques Roger however maintains that “on this occasion we cannot suspect Diderot of being in bad faith” and that Grimm must have kept a copy without telling D, which “miraculously” reappeared after Julie de Lespinasse died. Jean Varloot thinks that Diderot “pretended to burn the manuscript”. It is perhaps neither possible nor particularly useful to determine the truth of the matter]. Denis Diderot, Le Rêve de d’Alembert, ed. by Colas Duflo (Paris: GF Flammartion, 2002), p. 29, n. 3.

21 This early draft can be consulted in Le manuscrit de Pétersbourg/1774/Avertissement des deux dialogues/Fragments dont on n’a pu trouver la véritable place, ed. by George Dulac in DPV, vol. 17, pp. 213–60.
too, of which we begin to catch a glimpse when we discover that this specific ‘Avertissement’ exists in two further manuscript versions and is clearly therefore not an incidental but a crucial part of the text. The second version of the ‘Avertissement’, now in the Fonds Vandeul, again introduces the Rêve de d’Alembert, again alleging that ‘Ce n’est qu’une statue brisée, mais si brisée qu’il fut presque impossible à l’artiste de la réparer. Il est resté autour de lui nombre de fragments dont il n’a pu retrouver la véritable place’ [this is nothing but a shattered statue, so very shattered that not even the artist could put it back together. Around it there remain a number of fragments whose proper place not even (the artist) could find again].

A subsequent, and third, version was, like the first, sent to Catherine, this time after Diderot’s death, along with a complete set of his manuscripts, but this one did not introduce the Rêve. Instead, it directly preceded the first complete draft of the Éléments de physiologie, now known as the St Petersburg version, and first printed in the Assézat-Tourneux edition of Diderot’s complete works, as we have mentioned. By this point, these supposed fragments were 190 pages long. So there is a conscious repeated connection on the part of Diderot between this introduction with its invocation of the shattered sculpture and the ‘fragments dont [l’artiste] n’a pu reconnaître la véritable place’.

We see this conscious connection underlined even more explicitly when we set the ‘Avertissement’ alongside the opening pages of the Éléments de physiologie (in both the St Petersburg and Vandeul versions).

La chaîne des êtres n’est pas interrompue par la diversité des formes. La forme n’est souvent qu’un masque qui trompe, et le chaînon qui

22 Spelling sic. Bibliothèque nationale de France, NAF 13.731, ff3rv–4r: the quote is ff3rv. This is the manuscript known as V2, see DPV 17, pp. 213 and 83. Dulac says this ‘Préface’ is ‘écrite d’une autre main’ [written in a different hand] from the rest of the copy: in fact the handwriting is very recognisably that of copiste E (according to Paul Vernière’s system, Diderot, ses manuscrits et ses copistes (Paris: Klincksieck, 1967), the same who was responsible for the ms. of the Éléments de physiologie in the Fonds Vandeul. The wording has changed slightly: ‘fragments dont [l’auteur] n’a pu reconnaître’ [1774 version, and heading of the 1774 fragments] or ‘retrouver la véritable place’ [NAF 13.731 and AT IX 251].

23 AT IX 251.

24 See above, note 21, in Chapter 2.

25 In the St Petersburg version, it is in the second paragraph; in the Vandeul version, it is in the fifth.
parait manquer réside peut-être dans un être connu, à qui les progrès de l’anatomie comparée n’ont encore pu assigner sa véritable place.26

The chain of being is not interrupted by the diversity of its forms. Form is often nothing other than a deceptive mask, and the link which seems to be missing may perhaps be found in a known being, which the advances in comparative anatomy have not yet managed to assign to its proper place.

The textual echo between the ‘Avertissement’ s ‘fragments dont on n’a pu reconnaître la véritable place’ and the ‘chaînons’ whose place in the ‘chaîne des êtres’ the progress of research in comparative anatomy ‘n’[a] pas encore pu assigner sa véritable place’ is glaring, the repetition drawing attention to the phrasing. What is Diderot’s point?27 Might he be suggesting an implicit parallel between text and content, and emphasising replicating structures of seeming fragmentation in a context of incomplete knowledge?

In the Vandeul manuscript, the ‘Avertissement’ we have been considering in its three iterations is removed and replaced with a new one which retains the claim about the fragments but sets it within a completely different framing narrative:

Éléments de Physiologie 1778

AVERTISSEMENT

En lisant les ouvrages du Baron de Haller M*** conçut le projet de rédiger des Éléments de physiologie. Pendant plusieurs mois il recueillit ce qui lui parut propre ou essentiel à entrer dans ces Éléments. Les notes et extraits étaient sur des feuillets épars et isolés. La mort ayant empêché M*** d’exécuter le projet, dont il n’avait fait que préparer les matériaux, on a cru devoir les réunir en une seule copie. Quelque incomplets qu’ils soient, et malgré le défaut d’ordre qu’on n’a pu y mettre, on pense que le public recevra avec plaisir ces fragments, et qu’un jour quelque personne

26 DPV 295–96/PQ 108/MT 118, my bolding. SP AT IX 253 is the second paragraph; the syntax is very slightly different from the quoted text above: ‘Il ne faut pas croire que la chaîne des êtres...’—the rest is the same, apart from a slight difference in punctuation.

entreprendra d’après le plan et les idées de M*** l’ouvrage qu’il n’a fait qu’ébaucher.28

Fig. 2.1 The new ‘Avertissement’, BnF, Manuscrits, NAF 13762, f. 1v, Denis Diderot (copyist ‘E’), c. 1780, Pen and paper, Denis Diderot Éléments de physiologie, Fonds Vandeul, Bibliothèque nationale de France, CC-BY

FOREWORD

It was on reading the works of Baron Haller that M*** came up with the project of writing a book on the Elements of physiology. He spent many months gathering whatever he thought was relevant or essential to

28 DPV 293/PQ 105/MT 115. See also Herbert Dieckmann, Inventaire du fonds vandeul et inédits de Diderot (Genève: TLF Droz, 1951), pp. 76–78. NAF 17.362, Copiste E. There are two emendations on the ms. copy, neither in E’s hand: ‘mois’[months] replaces the original ‘années’ [years], and the original ‘le public les recevra’ [the public will welcome them] has become the syntactically clearer ‘le public recevra […] ces fragments’ [the public will welcome these fragments]: the correcting hand may be Vandeul’s.
include in these Elements. His notes and extracts were on scattered and separate scraps of paper. Death having prevented M*** from completing the project, for which he had only got as far as preparing the materials, it was felt they should be assembled into a single copy. However incomplete they may be, and despite the flaws in the order that has been chosen, it is hoped that the public will welcome these fragments with pleasure, and that one day somebody will undertake the work according to the plans and ideas that M*** was merely able to sketch out.

This is a new version of the story about the fragments, at once more elaborate, more specific with respect to the details, and even more strikingly at odds with the text itself, in this its most complete version, filling 152 manuscript recto-verso pages of continuous text, and between 210 and 250 printed pages in Mayer’s, Quintili’s and Terada’s annotated editions. Terada comments with surprise at the notion that this could be described as merely ‘une ébauche d’ouvrage’ [a sketch for a book] and adds that ‘il y a certainement quelque mystification dans cette notice’ [there is certainly some mystification going on in this preface]. Dieckmann and Quintili think it is so at odds with the text it purportedly introduces that it must in fact be part of the earlier St Petersburg version which, in their view, it more accurately describes. There is no evidence that this is the case: the copyist is the same, it appears on the first page of the bound manuscript notebook and is not a later insertion, and the St Petersburg version had its own ‘avertissement’, as we have seen. On the contrary, Dieckmann and Quintili’s bewilderment is further evidence of the extent to which this particular story about incompletion has been taken as the literal truth, without it ever occurring to anyone apart from Terada that the Éléments, in common with Diderot’s other works, might contain playful and mystificatory features that themselves enclose a

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29 MT 115n and MT 34 respectively.
30 Dieckmann observes ‘on est surpris de trouver l’Avertissement en tête de ce volume; il appartient plutôt au manuscrit de Leningrad’ [it is surprising to find the Notice at the beginning of this volume; it really belongs to the Leningrad manuscript], in his Inventaire, p. 77. Paolo Quintili takes this further, considering that this ‘Avertissement’ may well be posthumous precisely because it reflects the nature of the SP ms. rather than the Vandeul one (PQ 105, n. 2; see also DPV 293). Jean Mayer, in his 1987 DPV edition, appears to think that certain ‘réviseurs’ wrote this ‘Avertissement’ (DPV 17, p. 272); this seems unlikely for the reasons discussed above, and also because the same copyist, ‘E’ in Vernière’s denomination, who copied out the entire manuscript, also did the ‘Avertissement’; the hand is the same.
message in some way intimately connected with the questions the text was trying to raise.

This particular ‘avertissement’ asserts the incompleteness of the text it introduces even more insistently than the previous one, while doing so on the basis of an entirely different scenario. It retains the notion of the fragment, but integrates it into a story about long preparation interrupted by death, implicitly invoking loyal friends left behind to look after the ‘feuillets épars et isolés’ [scattered and separate scraps of paper], who have made a great effort to bring the ‘fragments’ together, who hope the public will take pleasure in them, and that one day some person will undertake to flesh out the plan and ideas Mr*** has only sketched out. Incomplete, disordered, written on scraps of paper? The Éléments de physiologie is none of these things, and nor is the manuscript notebook which contains it. Interrupted by death and advertising the date 1778, when Diderot did not die until 1784? Just a plan and some ideas, brought together in a single copy, while awaiting completion? None of this describes the Éléments de physiologie even remotely, but it does by contrast very precisely recall the fate and story of a landmark work, the posthumous so-called Pensées of the mathematician and Jansenist thinker Blaise Pascal. Is this just a coincidence?

Pascal’s project, one on which he was working during the last years of his life and despite his paralysing ill health, was to have been an apology of the Christian faith, an ‘apologia’ or ‘apologia’ and meaning ‘a written defence or justification’ (OED); Pascal’s particular aim seems to have been to convince atheists to believe in God, hence the famous ‘pari de Pascal’ [Pascal’s wager], which argues that atheists might as well believe in God as they have nothing to lose.

It was famously not written out in continuous prose but made from many separate fragments written on scraps of paper. The Pascal family and their Jansenist circle at Port-Royal worked for years to produce what they saw as the best version, now known as the Port-Royal edition, and

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31 NAF 17.362; see also Jean Mayer’s careful description of the ‘tome cartonné’ DPV 17, pp. 287–88.
in fact it was not what we would call a comprehensive or even a faithful edition, as it often ignored Pascal’s own organisation (he had many of the separate fragments carefully ordered in specific thematic folders or ‘liasses’) and set aside a vast number of fragments which were not thought to be appropriate. Their title in the first editions of 1669, 1670, and 1688 was given as *Pensées de M. Pascal sur la religion et sur quelques autres sujets, qui ont esté trouvées après sa mort parmi ses papiers* [Thoughts of Mr Pascal on religion and on various other subjects which were found after his death amongst his papers]: the notion of these ‘thoughts’ having been found after his death amongst his papers is therefore a central part of the identity of the published work. The title page of the 1688 edition advertises itself as being ‘augmentée de beaucoup de Pensées’ [augmented with many Thoughts] so the difficulty and incompleteness of the editions was a feature of the *Pensées* from the very beginning. Jean Filleau de la Chaise had even written a book entitled *Discours sur les pensées de M. Pascal où l’on essaye de faire voire quel estoit son dessein* [Discourse on the thoughts of Mr. Pascal where an attempt is made to see what his design was]. It came out in 1672, two years after the original Port-Royal edition, and in it he expressed the fear that ‘quantité de gens seront sans doute choqués d’y trouver si peu d’ordre’ [many people will no doubt be shocked at the lack of order they find in it].

Étienne Périer, Pascal’s nephew, had alluded explicitly to this lack of organisation or connective logic in his introduction to the Port-Royal edition:

> on les trouva [les papiers] tous ensemble enfilés en diverses liasses, mais sans aucun ordre et sans aucune suite.

This description is very close to what Diderot would write in the revised ‘Avertissement’ at the beginning of his *Éléments*, down to his ‘feuilllets épars et isolés’ and ‘défaut d’ordre’. The version Naigeon gave in his

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33 Jean Filleau de La Chaise, *Discours sur les pensées de M. Pascal où l’on essaye de faire voire quel estoit son dessein* (Paris: Guillaume Desprez, 1672), p. 3.

Mémoires sur la vie et les ouvrages de Denis Diderot closely echoes both Diderot’s ‘Avertissement’ and Périer’s own words:

```plaintext
il n’a laissé de l’important ouvrage qu’il projetait [...] que quelques matériaux épars et sans aucun ordre entre eux.\(^{35}\)
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of the substantial work he was planning he left nothing [...] apart from a few scattered materials that didn’t follow any order

It is difficult to deny the similarities between Diderot’s revised ‘Avertissement’ with its story about posthumous publication and disordered fragments and the story of Pascal’s Pensées, even down to the actual wording. They are very similar. This suggests two initial conclusions: firstly, that Diderot was quite specifically evoking Pascal, and secondly, that it is not with Naigeon that this story about fragments and disorder commences, but with Diderot; Naigeon merely relayed it. It is clear enough that the notion of fragments had been a crucial part of his presentation of the Éléments from the very first drafts, but it is only with the final version that it develops into a story implicitly referencing Pascal.

Do we now have enough evidence to stop calling the Éléments de physiologie fragmentary, and to say instead that it seems as if this particular story about fragments is a disguise devised by the notoriously tricksy author? If so, the question then becomes why he did it, with a subsidiary enquiry into why no one has ever noticed. Perhaps the confusion over the two drafts, along with the view that Naigeon was faithfully transcribing what really happened as opposed to just as faithfully transcribing Diderot’s mystification, explains why this has become the official account of the Éléments. In later chapters we will add more detail to the general picture of confusion surrounding this text when we look at the complex relationship between its publication history and Diderot’s reputation during the French Revolution. In the rest of this chapter, however, we will attempt to address what this Pascal parallel that Diderot sets up at the very beginning of the Éléments is supposed to do.

\(^{35}\) Naigeon, Mémoires historiques et philosophiques sur la vie et les ouvrages de Denis Diderot, p. 291.
Significantly for the argument being made here, two new editions of Pascal’s *Pensées*, the first to significantly reorder the Port-Royal version, came out while Diderot was composing his *Éléments de physiologie*, one in 1776 (with a revised version in 1778), and the other in 1779. The first was a polemical ‘more methodical’ reordering, by the philosophe and mathematician Condorcet, and the other was a serious contribution to Pascal scholarship, retrieving and making available material which had not until then been known.\textsuperscript{36} This latter edition, by Charles Bossut, which came out in 1779, thereafter dominated until well into the nineteenth century.

Condorcet was a mathematician, thinker, and protégé of D’Alembert, Diderot’s *Encyclopédie* co-editor, and he brought out his revised edition of the *Pensées*, advertising itself as being more methodical, in 1776. In 1778, this edition was republished, this time with annotations by Voltaire, who calls himself the ‘second éditeur’. Voltaire’s first annotation, relating to the title, is feistily judgmental and reductive in the normal Voltairean way, and immediately seizes on the issue of fragments, disorder, and the posthumous edition by a group of friends.

(\*) Ce n’est point ainsi que Pascal avait arrangé ses pensées; car il ne les avait point arrangés du tout, il les jeta au hasard. Ses amis après sa mort les firent dans un ordre; l’auteur de l’*Éloge* les a mises dans un autre, et ce nouvel ordre est plus méthodique. \textit{Second éditeur}. \textsuperscript{37}

(\*) This is not at all how Pascal had arranged his thoughts, as he hadn’t arranged them in the slightest, he just set them down at random. After his death, his friends put them in one order; the author of the *Éloge* [In Praise of Pascal] put them in another one, and this new order is more methodical. \textit{Second editor}.

Voltaire had of course previously engaged with Pascal’s *Pensées* in the last of his *Lettres philosophiques*, published in 1734, and the annotation above is a paraphrase from that earlier text, in whose opening paragraph he had written of the *Pensées* which Pascal ‘avait jetées au hasard sur le papier’ [had randomly set down on paper], talking of his respect for


\textsuperscript{37} \textit{Éloge et Pensées de Pascal} [Condorcet/Voltaire], p. 129.
'le génie et l’éloquence de Pascal' [the genius and eloquence of Pascal] declaring that ‘c’est en admirant son génie que je combats quelques-unes de ses idées’ [it is while admiring his genius that I contest some of his ideas]. Voltaire’s Letter 25 does indeed go on to combat Pascal’s ideas, quoting gobbets of the *Pensées* whose logic and view of Christianity and mankind he contests at every turn. For Voltaire, Pascal’s genius and eloquence—and, we should add, his engagement with reason in discussing matters of faith—make him an important reference point, while his Jansenist world view makes him an important adversary for the optimistic pro-tolerance pro-mercantilist thinker that is the Voltaire of the 1730s. What he is in 1778 when the Condorcet edition with its Voltaire amendments came out is on his deathbed, at the end of about twenty years of ceaseless campaigning against religious intolerance. The tone of his comments has therefore sharpened, as we will see.

Bossut’s multi-volume edition of Pascal’s complete works (including, of course, the *Pensées*) came out in 1779 and would have been known to Diderot, if for no other reason than that the careful description of Pascal’s calculating machine that Diderot had written for the *Encyclopédie* article MACHINE ARITHMÉTIQUE was reprinted in its fourth volume: the Pascal scholar Arnoux Straudo believes that this article and its reappearance in Pascal’s *Œuvres complètes* were responsible for the revival of Pascal’s reputation as a scientist, forming the basis of subsequent descriptions.


39 It was, apparently, the last work he published, and he was beady following up on its progress only two weeks before he died: ‘Je voudrais bien savoir si le Pascal Condorcet est fini. Je vous prie de vous en informer à Grasset de Genève’ [I would be very keen to know if the Pascal Condorcet is finished. Please be so kind as to check with Grasset in Geneva]. ‘Voltaire [François Marie Arouet] to Jean Louis Wagmère: Thursday, 14 May 1778’, in *Electronic Enlightenment Scholarly Edition of Correspondence*, ed. by Robert McNamee et al., 2018, https://doi.org/10.13051/ee:doc/volfrVF1290322a1c. With thanks to Richard Parish for this information.

Might it be the case therefore that these two new editions, with their prominent discussions of fragments and ordering and their claims to improve on previous editions, could have suggested to Diderot a new approach to his existing line about the *Éléments de physiologie*’s fragmentary nature?

One wonders therefore whether the date of 1778 on the title page of the Vandeul manuscript which we know to be erroneous and which the two editors Mayer and Quintili have found bizarre might be some form of signal to indicate proximity to the Condorcet/Voltaire edition of Pascal’s *Pensées*, or even to Voltaire’s death? Death, after all, features in the ‘avertissement’ as the obstacle to the completion of the project. In 1778, not only Voltaire but also Diderot’s erstwhile friend Jean-Jacques Rousseau died, within six weeks of each other. 1778 is a death year for the *philosophes*, a moment with which Diderot may well have chosen to associate his not-yet-happened death. However, it is no more than speculation that Diderot chose this date as a significant one, and if so, that it might have been for these reasons.

Whether or not the date given on the first page of the manuscript is a later addition, there is a temporal proximity between the ongoing composition of Diderot’s *Physiologie* and the publication of two new editions of Pascal’s *Pensées*, both of which very publicly reopen the issue of their order and incompleteness. It adds further circumstantial evidence about where this repeatedly relayed and manifestly false myth about the fragmentary nature of Diderot’s last work came from. But we may not need this very localised literary history to make the case; it just helps us to see that the case is there. After all, the ‘avertissement’ letter which Diderot wrote to Catherine II in 1774, and which was re-sent to her as the introduction to the *Éléments de physiologie* in 1785, predates these Pascal editions, and draws attention repeatedly to the notion of fragments, dispersal, and rearrangement, as we have seen.

So the notion of fragmentation and the implicit reference to Pascal are planted at the opening of Diderot’s *Physiologie*. Why is this? Why is it fundamental to the project of the *Éléments de physiologie* to first establish the Pascalian parallel? Pascal’s *Pensées* were of course, and as already mentioned, the mosaic fragments of his long-mulled-over and never-completed apology of the Christian faith, in parts conceived of as a dialogue with an atheist whom Pascal is seeking to convert.
His ‘written defence or justification’ of the Christian faith had a huge impact from the moment of its publication. His arguments constituted a crucial reference for anyone interested in debating religion and its relation to knowledge in the century after his death, which was more or less everyone engaged in any aspect of knowledge at all, Voltaire being a case in point. But the *Pensées* and their arguments were nonetheless fragmentary and their relation to the never-achieved whole a matter for public discussion, dispute, and rearrangement. Might Diderot be using this opening allusion to the incompleteness of Pascal’s *Pensées* as a way of throwing down the gauntlet, the literal *notification* or ‘avertissement’ of a challenge to religious accounts of nature and man? The carefully crafted wholeness of the *Éléments*, starting with the big picture of nature and its infinitely varied beings, moving through the properties of matter and the different life forms, subsequently focusing in on human anatomy, and then presenting an extended assessment of sensation, the brain and human consciousness and self-consciousness, ending with a reverie about death, stands in interconnected and thorough contrast to the fractured *Pensées*. The *Éléments de physiologie* looks like the atheist’s response to—and rebuttal of—the arguments of the Christian who had been trying to convert him to faith.

We know, after all, that Diderot likes to dialogue, rewrite, contest, refute: we have examples of this throughout his œuvre. We also, of course, know that he likes the aphoristic form of the ‘pensée’ which both recalls Pascal and is a sort of tribute to him: Diderot’s *Pensées philosophiques* (1746) is one of the earliest publications of the emerging writer, and, as the prominent co-editor of the *Encyclopédie*, he returns publicly to the form with the *Pensées sur l’interprétation de la nature* (1753) continuing with it in the *Additions aux pensées philosophiques* (1763).41 Indeed, he inserts a transformed version of at least one of his own *Pensées philosophiques* into the *Éléments*. In its first version it reads as follows:

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41 The ‘Additions’ were written in 1762, manuscript-published in the Correspondance littéraire in 1763, print-published in 1770 in Naigeon’s *Recueil philosophique*, and there (falsely) attributed to Vauvenargues. See David Adams, *Bibliographie des œuvres de Diderot*, 1739–1900, 2 vols (Ferney-Voltaire: Centre international d’étude du XVIIIe siècle, 2000). With thanks to Kate E. Tunstall for this detail.
Le vrai martyr attend la mort; l’enthousiaste y court.\textsuperscript{42}

The true martyr waits for death; the enthusiast runs towards it.

In the Éléments, it has become this:

L’enfant court à la mort les yeux fermés : l’homme est stationnaire ; le vieillard y arrive le dos tourné.\textsuperscript{43}

The child runs towards death with their eyes shut; the man is stationary; the old man approaches it with his back turned.

The shared scenario involves the more or less rapid movement of different sorts of people (different in terms of religious fervour or in age) towards death. Yet what was in the 1746 version an implicit criticism of the zealot who courts death has turned in the mature version into an aphorism about the growth and decline of the individual over time, and about their attitude to death according to their age. The idea and its expression are doubly materialist, being embodied (eyes closed, back turned), and also because the position of the body in space and time determines the experience and happiness of the individual. The criticism of religious enthusiasm in the first formulation gains a new edge in the context of the revision, in that being carried away by religious feelings is implicitly now presented as a youthful impulse which the older, wiser man moves beyond.

There are other such instances of Diderot incorporating his youthful Pensées into the older text: it is not my aim here, however, to focus on this particular aspect of Diderot’s auto-intertextuality but rather to show that the ‘pensée’ is a form that Diderot continuously works with and indeed (as in this case) reworks. Pascal himself is explicitly named twice in the Éléments, once as an example of someone who was supposed never to have forgotten anything he had done, read, or thought ‘depuis l’âge de raison’ [since reaching the age of reason] and once, in the conclusion, where he is cited as having said about God that ‘on ne sait ni ce qu’il est, ni s’il est’ [we are incapable of knowing either what he is or whether he


\textsuperscript{43} DPV 313/PQ 129/MT 136.
is]. So, in sum, Pascal is both an implicit and an explicit reference point in the *Éléments de physiologie*, and the ‘pensée’ form so strongly associated with him is also present throughout Diderot’s œuvre, including in this particular work. But this isn’t all. There is reason to think that Diderot is engaging with specific arguments and *pensées*, and that the two writers surprisingly share common anchoring points or questions, even if their answers radically diverge. As Diderot observes, appositely enough in his own *Pensées philosophiques*, there are ‘arsenaux communs’ for the believer and the unbeliever alike:

> C’est en cherchant des preuves que j’ai trouvé des difficultés. Les livres qui contiennent les motifs de ma croyance m’offrent en même temps les raisons de l’incrédule. Ce sont des arsenaux communs.

It is when I was looking for proofs that I found difficulties. The books which contain the motives for my belief also and at the same time give me the reasons for unbelief. They contain ammunition for both sides.

We will therefore now turn to what I have suggested might be common points of reference, or even an arsenal of tools or weapons that Diderot could use, redeploy, or even turn against their creator. The three editions of Pascal’s *Pensées* that Diderot would have had access to, that is, the Port-Royal, the Condorcet/Voltaire, and the Bossut, form the corpus of *pensées* which has been considered here. Suggestive parallels with *pensées* that were not yet available in print have been left aside, except in one case which we will come to in due course.

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44 Pascal’s prodigious memory: DPV 473/PQ 301/MT 289; Pascal on God: DPV 515/PQ 358/MT 327; Pascal in English *Pensées*, trans. by Roger Ariew (Indianapolis, IN: Hackett, 2005), p. 212. Pascal had written, ‘Nous sommes donc incapables de connaître ni ce qu’il est ni s’il est.’ In the Le Guern edition (used by DPV), this is part of composite fragment 397; in the widely-used Sellier, this is part of composite fragment 680 (p. 1210); the concordance tables in the Brunschvicg edition record this composite fragment in many different parts of the Port-Royal and Bossut editions. For Port-Royal edition, see VII 1 and 2, XXVIII.69; for Bossut, see II iii.1; II iii.4 and 5; II xvii.63. It appears in abridged form in Condorcet/Voltaire, ed. Parish, pp. 161-62, Article III §1 (with grateful thanks to Richard Parish for locating it).

Pascal and Diderot: Common Reference Points

Instinct

Both Pascal and Diderot consider instinct to be central to understanding the nature of man, both repeatedly ask about the relation of part to whole and the extent to which part is independent of or dependent on whole, and both consider that one’s outlook on the world and experience of it are determined by varying levels and emphases of perception as well as by illness.

‘Deux choses instruisent l’homme de toute sa nature: l’instinct et l’expérience’ [Two things teach man about his whole nature: instinct and experience] writes Pascal, in a fragment which appears to have been first published in Bossut’s edition and would not have been out of place in Diderot’s work. And where of course, for Pascal, nature is not an entity which excludes God, while for Diderot it is, instinct is of vital importance for both thinkers as they try to access what nature is, divested of custom. Thus, Diderot writes: ‘L’instinct guide mieux l’animal que l’homme. Dans l’animal il est pur, dans l’homme il est égaré par sa raison et ses lumières’ [Instinct guides animals better than humans. In animals it is unalloyed whereas in humans it is misled by their reason and knowledge]. When Pascal, echoing Montaigne, writes suspiciously of custom as ‘une seconde nature, qui détruit la première’ [a second nature that destroys the first], fearing that even nature may possibly be a form of custom, and therefore unnatural, he is also showing ‘l’homme égaré’—man misled, unable to

46 Op. cit., p.897, § 161 (Sellier, section VIII, ‘Contrariétés’); Bossut Liv.10 (Brunschvicg §396); Blaise Pascal, Pensées, trans. by Roger Ariew (Indianapolis, IN: Hackett, 2005), p. 34. Ariew follows Sellier’s ordering. I have used Sellier’s concordance to produce the Brunschvicg numbering, and used the Brunschvicg concordance to get to the Port-Royal and Bossut editions (it doesn’t give the Condorcet/Voltaire edition).
47 DPV 315/PQ 131/MT 138. In this section Diderot is also invisibly referencing La Mettrie’s Traité de l’âme: ‘L’instinct consiste dans des dispositions corporelles purement mécaniques, qui font agir les animaux sans nulle délibération, indépendamment de toute expérience’ [instinct consists in purely mechanical bodily dispositions which make animals act without any deliberation and independently of any experience] (Traité de l’âme, in La Mettrie, Œuvres philosophiques, ed. by Francine Markovits, 2 vols (Paris: Fayard, 1987), vol. 1, p.185, added emphasis indicating the verbatim borrowing).
access ‘real’ nature.48 In a fragment from the St Petersburg draft of the *Éléments de physiologie* which never made it into the Vandeul version, Diderot had written: ‘Nous ne pouvons connaître l’instinct parce qu’il est détruit par notre éducation. Il est plus éveillé dans le sauvage’ [We cannot understand instinct because it is destroyed by our education. It is keener in savages].49 So while they are agreed on the importance of instinct as well as its compromised nature in man, Diderot will elevate the ‘savage’ man or animal over ‘civilised’ man as the former is closer to nature, less compromised in his reactions, as we see in this comic if compressed little scenario about a worm who unites instinct and experience: ‘Expérience sur le ver: attendez qu’il sorte, piquez-le, il se détournera, il rentrera dans la terre, craingra de sortir etc’ [Experiment on a worm: wait for it to come out, prick it, it will turn away, go back into the ground, fear to come out etc].50 Out comes the worm, gets poked by the experimental human, dives back down into the earth and won’t come out again. Its instinct makes it escape, and its experience of being poked gives it fear and thereby teaches it not to come out again. The worm has learnt the lesson which natural instinct has taught it, and it has turned, wisely.51

**Pleasure, Thought, and the Definition of the Human**

Pascal sarcastically asks what it is within us that feels pleasure.52

*Qu’est-ce qui sent du plaisir en nous ? Est-ce la main, est-ce le bras, est-ce la chair, est-ce le sang? On verra qu’il faut que ce soit quelque chose d’immatériel.*53

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49 PQ 140, ‘FNR’ (Fragment non repris). DPV 325 doesn’t reference this FNR.

50 DPV 314/PQ 131/MT 138.

51 Sellier § 176 also considers the question of instinct. With thanks to Richard Parish for this addition.

52 In Sellier’s edition, this ‘pensée’ precedes the fragment entitled ‘Contre le pyrrhonisme’ (§141). ‘Pyrrhonism’ is a synonym of scepticism, the position of rational doubt which Pascal works so hard to present as untenable and even incompletely rational in itself (see Pascal’s wager, which as Parish points out is ‘more correctly the fragment *Infini: Rien* [B 233; L 418; S 680]’. Parish, ‘Blaise Pascal’, p. 543.

What feels pleasure in us? Is it our hand, our arm, flesh, blood? We will see that it must be something immaterial.

His triumphant ‘we will see that it must be something immaterial’ is blocked by Diderot, who takes this question extremely seriously and will musingly say that ‘je pense que le plaisir n’est point dans l’oeil’ [I think that the feeling of pleasure is by no means in the eye] without implying either that this is a statement of the obvious, absurd in any way, or that if pleasure isn’t located in the eye, it cannot be material. Indeed, he will flatly contradict Pascal’s position when he states that ‘chaque organe a son plaisir et sa douleur particulière’ [each organ has its own particular pleasure and pain]. When Pascal declares, this time in dialogue with René Descartes, that thought is what defines human difference from the rest of nature, Diderot again contradicts him. Pascal had written:

Je puis bien concevoir un homme sans main, pieds, tête, car ce n’est que l’expérience qui nous apprend que la tête est plus nécessaire que les pieds. Mais je ne puis concevoir l’homme sans pensée. Ce serait une pierre ou une brute.

I can certainly conceive of a man without hands, feet, head, for it is only experience that teaches us the head is more necessary than the feet. But I cannot conceive of man without thought. He would be a stone or a beast.

Diderot writes in sharp contradistinction as follows:

Dans l’état parfait de santé, où il n’y a aucune sensation prédominante qui fasse discerner une partie du corps, état que tout homme a quelque fois éprouvé, l’homme n’existe qu’en un point du cerveau: il est tout au lieu de la pensée; peut-être en examinant de fort près trouverait-on que

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54 DPV 456/PQ 281/MT 272.  
55 DPV 499/PQ 336/MT 313. See Chapter 4, particularly Bordeu-inspired vitalism.  
56 Pascal, Pensées, p. 891, §143 (Sellier, section VII, Grandeur); Port-Royal XXIII.1; Bossut I.iv.2 (Brunchsvicg §339). Pensées, trans. by Ariew, p. 31. Sellier gives an intertext from Descartes: ‘Nous connaissons manifestement que, pour être, nous n’avons pas besoin d’extension, de figure, d’être en aucun lieu, ni d’aucune autre telle chose qu’on peut attribuer au corps, et que nous sommes par cela seul que nous pensons’ [We manifestly know that, in order to be, we have no need of extension, shape, location or of any other such thing that might be attributed to a body, and that we exist solely because we think] (Descartes, Principes I, 8, in Œuvres, ed. Charles Adam and Paul Tannery (Paris : Vrin, 1964), vol. 9 : II, édition révisée, p. 28).
triste ou gai, dans la peine ou le plaisir, il est toujours tout au lieu de la sensation.57

In a perfect state of health, when no single dominant sensation draws attention to any particular part of the body, a state which everyone has experienced sometimes, then a person exists only in one point in their brain and is completely absorbed in the thought; perhaps if we looked very closely we would discover that when someone is sad or happy, in pain, or feeling pleasure, they are always completely absorbed by their sensation.

Diderot’s response to the definition of man as inevitably connected to thought is to reframe the question in bodily terms: what is the predominant sensation? If there is none, and if the person is in perfect health, then they will be entirely focused on their thought, or in Diderot’s expression, entirely ‘in the place of the thought’. He then transposes this idea onto the notion of feeling, pain and pleasure (notably absent in the previous hypothesis of the thought place), to suggest that the person when feeling would be entirely focused on the sensation, located inside it. This reframing completely displaces thought from its elevated position as ultimate, different, and essentially defining. Thought is only part of what is going on, only part of our consciousness, unless we enjoy such perfect health that we have no predominant sensation, in which case we can exist totally in our thought. He goes on to deny that humans are always thinking anyway:

Est-ce qu’on pense quand on est vivement chatouillé? est-ce qu’on pense dans la jouissance des sexes? est-ce qu’on pense quand on est vivement affecté par la poésie, par la musique ou la peinture? Est-ce qu’on pense quand on voit son enfant en péril? Est-ce qu’on pense au milieu d’un combat?58

Are we thinking when we are being intensely tickled? are we thinking when we are enjoying sexual ecstasy? are we thinking when we are intensely affected by poetry, music, or painting? Are we thinking we see our child in danger? Are we thinking in the midst of a fight?

What an array of differently intense situations! From close bodily contact whether pleasurable or painful (being tickled, having sex, fighting), to heightened emotion in response to the arts, or fear for

57 DPV 330/PQ 146/MT 151. Part 1, chapter 3 (‘Homme’), §2 (‘Pensée’).
58 DPV 330/PQ 146-47/MT 151.
a child’s safety, in none of these moments do we think, says Diderot. His definition of what is human includes these moments of strong, even violent sensation, and these moments preclude thought: logically therefore, Diderot’s definition of what is human contests Pascal’s (and Descartes’s), reasserting the dominance of sensation over thought, and here in fact limiting the primacy of thought to neutral balance, which is tantamount to the total absence of sensation.

In terms of the process of thinking, however, Diderot seems to accept Pascal’s view so totally as to quote him, albeit invisibly and possibly also unknowingly. This is Pascal’s pensée about only being able to think about one thing at a time, and we also find it in La Mettrie’s Traité de l’âme [Treatise on the soul]. It suggests that unpublished versions of Pascal’s Pensées were circulating, in this case attaining print publication via the intermediary of La Mettrie. This is the sole example in this chapter where we use a passage from Pascal which was not, so far as I can tell, available in any of the published editions, and yet it is also the only occasion on which the phrasing is so close that it seems like direct quotation. This is what Pascal had written:

Une seule pensée nous occupe. Nous ne pouvons penser à deux choses à la fois.

A single thought occupies us. We cannot think of two things at the same time.

In La Mettrie we read this:

Nous ne pensons qu’à une seule chose à la fois.

We can only think of one thing at a time.

In Diderot’s version, this becomes:

Nous ne pouvons être qu’à une seule chose à la fois.

We can only be focused on one thing at a time.

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59 We look at this trio of elsewhere, see Chapter 3.
61 La Mettrie, Traité de l’âme, pp. 212–13 and elsewhere: l’Ame ne peut avoir qu’une seule idée distincte à la fois’ [the soul can only have one distinct idea at a time] (p. 186).
62 DPV 468/PQ 294/MT 283.
Diderot—we must assume—is using La Mettrie, without necessarily knowing that Pascal is the hidden source. It remains nonetheless within the realms of possibility that whatever La Mettrie had access to in terms of circulating Pascalian manuscripts, Diderot also had access to. The filiation in any case is clear, and Diderot’s shift from a focus on thought to one which emphasises instead a more diffuse (and sensory) being is consistent with the displacement of thought from its central position that we have already been looking at.

**Limbs and Body: Subordination and Independence**

Pascal uses the reference point or example of the body again and again to make his Christian arguments about the primacy of spirit or mind over its subordinate parts; this works just as well when he is talking about the church and its members as when he is talking about thought or pleasure and whether it’s located in the body or not. In the *Pensées* (Liasse XXVII) entitled ‘Morale chrétienne’, he makes a point about how a Christian is part of a greater body, recalling the words and terms of St Paul, who had written ‘Si l’un des membres souffre, tous les autres souffrent avec lui’ [If one member suffers, all members suffer with it] (1 Corinthians 12: 26).\(^{63}\) Pascal creates an extended analogy with body parts which quite quickly acquires a fictional life of its own that is not strictly plausible:

Etre membre est n’avoir de vie, d’être et de mouvement que par l’esprit du corps et pour le corps. Le membre séparé ne voyant plus le corps auquel il appartient n’a plus qu’un être périssant et mourant. Cependant il croit être un tout et, ne se voyant point de corps dont il dépende, il croit ne dépendre que de soi et veut se faire centre et corps lui-même.\(^{64}\)

To be a member is to have life, existence, and motion only for the body and through the spirit of the body. The separated member, no longer seeing the body to which it belongs, has only a perishing and moribund existence. Yet it believes itself a whole, and, not seeing the body on which

\(^{63}\) The Bible is quoted in the Jansenist theologian Louis-Isaac Lemaistre de Sacy’s French translation of 1667; the English is from Thomas Nelson’s New King James Version of 1982.

\(^{64}\) 1022 §404 (Sellier XXVII ‘Morale chrétienne’); Port-Royal XXIX.3; Ult XXIX. 5 and 8; Bossut II.xvii.70 (Brunchsvicg §483). *Pensées*, trans. by Ariew, p. 105.
it depends, it believes it depends only on itself and wants to make itself its only center and body.

The separated limb has a being which is perishing and dying, as Pascal vividly puts it; thus far the analogy works in parallel. But this separated limb believes it has its own being, that it is complete in itself, that it relies on itself and is its own centre and body. This immediately departs from anatomical plausibility. Presumably the fact that this analogy develops in an absurd direction is part of Pascal’s point, viz, that it is absurd to contemplate such a division. Diderot, however, will produce an interestingly equivalent yet literalised version of the relationship between body and selfish member. In his version, the body and its different parts are not an analogy for anything; they are a direct description of the physiological processes of ageing. Meet the selfish old tendon:

Peu à peu le tendon s’affaisse, il se sèche, il se durcit, il cesse de vivre, du moins d’une vie commune à tout le système; peut-être ne fait-il que s’isoler, se séparer de la société dont il ne partage ni les peines, ni les plaisirs et à laquelle il ne rend plus rien.65

Bit by bit the tendon declines, dries up, hardens, and stops living, at least stops living the life common to the whole system; perhaps all it’s doing is isolating itself, separating itself from the society whose pains and pleasures it no longer shares, and to which it no longer contributes anything.

And although this depiction is not ironically absurd as Pascal’s had been, it has a certain satirical humour or detachment, and in fact Diderot maintains the notion of the importance of contributing to something beyond one’s own immediate identity. The society here is the body as a whole. Elsewhere, as we have already indicated above but will also develop further in Chapter 4, Diderot considers at length the extent to which a body part has its own identity within the larger body, and whether it can exist alone. He will say, about organs, that ‘tous ont leur vie particulière’ [they all have their own particular life], and that ‘si l’organe vit, il a donc une vie propre et séparée du reste du système’

65 DPV 311/PQ 127/MT 135 (part 1, chapter 2 ‘Animal’; subsection ‘Vie’). There’s something about this selfish old tendon that is strongly reminiscent of the sorts of hyper-realised descriptions of wicked old people that we meet in Dickens.
[if the organ is living, it follows that it has its own life separate from
the rest of the system]. An extended comparison of wooden versus
flesh pincers (that is, fingers) is part of this same discussion: it asks
us to ask what the ability to feel pain means for flesh, however small or
insignificant the piece of flesh, or sentient life, is. If it is sentient, it can
feel pain; if it can feel pain, then probably, we assume, care should be
taken not to inflict it, and probably also it should be respected as having
its own identity. This question of whether the smaller parts have their
own identity or not and whether they are subservient or not deeply
divides Pascal and Diderot. Pascal will consider the independence of
body parts almost with derision in order to reassert their subordination,
as here:

Si les pieds et les mains avaient une volonté particulière, jamais ils ne
seraient dans leur ordre qu’en soumettant cette volonté particulière à la
volonté première qui gouverne le corps entier. Hors de là, ils sont dans le
désordre et dans le malheur. Mais en ne voulant que le bien du corps ils
font leur propre bien.

If the feet and hands had a will of their own, they would never be in
their order except by submitting this particular will to the primary will
governing the whole body. Outside of this, they are in disorder and
misfortune. But in wanting only the good of the body, they accomplish
their own good.

Against which Diderot will assert (and as we quoted a few pages ago):
‘Chaque organe a son plaisir et sa douleur [...] sa volonté [...]’ [Each
organ has its pleasure, its pain [...], its will]. Although I have just
extracted the key terms in order to make the parallel with Pascal clearer,
the ellipses should not be taken as indicating that this is a passing
remark. On the contrary, the whole paragraph runs as follows:

Chaque organe a son plaisir et sa douleur particulière, sa position,
sa construction, sa chaîne, sa fonction, ses maladies accidentelles,
héréditaires, ses dégoûts, ses appétits, ses remèdes, ses sensations, sa

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66 Both quotations from DPV 498–99/PQ 335/MT 312.
67 DPV 449/PQ 274/MT 265–66, quoted in full below.
68 We will examine how this aspect of Diderot’s thought is influenced by Montpellier
vitalism in Chapter 4, ‘Major Debates in Physiology: Mechanism and Vitalism’.
70 DPV 499/PQ 336/MT 312, quoted above.
volonté, ses mouvements, sa nutrition, ses stimulants, son traitement approprié, sa naissance, son développement. Qu’a de plus un animal? 71

Each organ has its particular pleasure and pain, its position, its construction, its chain, its function, its accidental or hereditary illnesses, its dislikes, its appetites, its remedies, its sensations, its will, its movements, its nutrition, its stimulants, its appropriate treatment, its birth, its growth. What more does an animal have?

For Diderot therefore, the idea of integrity of existence of the different body parts is an important one, and not an object of derision. The question both Pascal and Diderot pose, however, is the same: does the member, limb, organ or just simply part of a body have its own separate existence, or does it not?

Illness

Where they both meet in an important way is on the distorting (Pascal) or determining (Diderot) effect of illness. Both return to it repeatedly. Pascal writes:

Nous avons un autre principe d’erreur, les maladies. Elles nous gâtent le jugement et le sens. Et si les grandes l’altèrent sensiblement, je ne doute pas que les petites n’y fassent impression à leur proportion. 72

We have another principle of error, illnesses. They impair our judgement and our senses. And if major illnesses disturb them noticeably, I do not doubt that lesser ones make a proportionate impression.

Diderot puts it differently, removing the moralising notion of ‘error’, although retaining the idea that the way illness or a bodily disorder make us behave is literally a disorder, and therefore that bodily order is preferable and can be returned to:

Effet réciproque de la sensation sur les objets et des objets sur la sensation. Je suis heureux, tout ce qui m’entoure s’embellit. Je souffre, tout ce qui m’entoure s’obscurcit. [...] 71

71 DPV 499/PQ 336/MT 313.
72 Pascal, Pensées, p. 860, §78 (following Sellier spelling and punctuation); PR XXV.11; Cond/Volt, p. 190, §XII (cf fn87); Bossut I.VI., §XIV. Pensées, trans. by Ariew, p. 15. Sellier points out that this is close to Montaigne Essais II.12, pp. 564–65: Montaigne is a common source and reference point for both Pascal and Diderot.
Un peu de bile dont la circulation dans le foie est embarrassée change toute la couleur des idées: elles deviennent noires, mélancoliques, on se déplait partout où on est. [...]

Et c’est à de pareilles causes que tient notre raison, nos goûts, nos aversions, nos désirs, notre caractère, nos actions, notre morale, nos vices, nos vertus, notre bonheur et notre malheur, le bonheur et le malheur de ceux qui nous entourent!73

Reciprocal effect of sensation on objects and of objects on sensation. I am happy, and everything around me becomes beautiful. I am in pain, and everything around me is plunged in gloom. [...] A little bile not circulating properly in the liver changes the colour of our ideas completely: they become dark, melancholy, and we are displeased wherever we are. [...] And it’s causes like this that determine our reason, our tastes, our aversions, our desires, our character, our actions, our morals, our vices, our virtues, our happiness and our unhappiness, the happiness and unhappiness of those who are close to us!

This extended passage from Diderot provides an interesting commentary on Pascal’s reflection about how nature makes us miserable in all states and that this misery is worsened by contrast with what our desires show us of a happier state; Pascal says that this contrast can never be resolved:

(§) La nature nous rendant toujours malheureux, en tous états, nos désirs nous figurent un état heureux, parce qu’ils joignent à l’état où nous sommes, les plaisirs de l’état où nous ne sommes pas; et quand nous arriverions à ces plaisirs nous ne serions pas heureux pour cela, parce que nous aurions d’autres désirs conformes à un nouvel état.74

(§) Since nature makes us constantly unhappy in every condition, our desires depict for us a happy condition, because they join to the condition in which we are, the pleasures of the condition in which we are not. And if we attained these pleasures, we would not be happy even then, because we would have other desires relating to this new condition.

The section sign (§) appears at the beginning of this paragraph in the Condorcet/Voltaire edition, and tells us that the ‘second éditeur’, that is,

73 DPV 461/PQ 287/MT 277. These are the closing paragraphs of Part 3, chapter 1, on ‘Sensation’.
74 Cond/Volt ed. Parish, p. 230 §XXIII; Parish gives the PR reference to the 1728 edition, as being p. 13 (1728); §§529; PR XXIX.15; Bossut I.vii.5; Brunschvicg §109. Pensées, trans. by Ariew, p. 165 (slightly modified).
Voltaire himself, has something to say. His interventions are normally acerbic or derisive in some way, and nor does he disappoint here:

(§) La nature ne nous rend pas toujours malheureux. Pascal parle toujours en malade qui veut que le monde entier souffre. Second éditeur.75

(§) Nature does not make us constantly unhappy. Pascal always speaks like a sick man who wants the whole world to suffer. Second editor.

What provokes Voltaire’s ire and insult here is Pascal’s a priori (and Christian Jansenist) position about nature always making us miserable. No, says Voltaire: Pascal was speaking as a sick man, and he wants everyone to suffer like him. Diderot’s position—not directed specifically at Pascal—is not about jealousy or mean-spiritedness; it is about the effect of illness on one’s outlook. As we quoted earlier, ‘Je suis heureux, tout ce qui m’entoure s’embrillit. Je souffre, tout ce qui m’entoure s’obscurcit’ [I am happy, and everything around me grows beautiful. I am in pain, and everything around me is plunged in gloom]. This is something Pascal talks about, adding a subtle relativisation on thinking about being ill when well (he subsequently develops the theme of contrasting states, and wishing for something we do not have: in Sellier these two passages are brought together in §529, but in the Condorcet/Voltaire edition they’re far apart): ‘Quand on se porte bien, on ne comprend pas comment on pourrait faire si on était malade’ [When we are well, we wonder how we could manage if we were ill].76

Change, Variation, and Monstrosity

Yet where Pascal uses these points to lambast human fallibility and weakness (even man’s grandeur lies in the recognition that he is wretched), and further, to draw attention to the instability of nature, Diderot, agreeing with the determining function of illness, fully embraces Pascal’s depiction of natural change, clearly taking on and

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75 Ibid.
arguing on behalf of the atheist. Pascal expresses the atheist point of view in order immediately afterwards to contest it. The first line is the atheist, the second the contestation:

Toutes choses changent et se succèdent.
Vous vous trompez, il y a...\(^\text{77}\)

All things change and succeed one another.
You are wrong; there is...

All things change, pass, and are replaced, says Pascal’s atheist: No, the man of faith replies, you are wrong, there is.... and the gap remains; there is no completed contestation. On the other hand, in the *Éléments de physiologie*, the statement about continuous change is continuously repeated, sometimes unchanged, ironically enough:

Nul état fixe dans le corps animal: il décroît quand il ne croît plus.\(^\text{78}\)

There is no fixed state in the animal body: it starts shrinking once it stops growing.

L’ordre général change sans cesse: au milieu de cette vicissitude la durée de l’espèce peut-elle rester la même?\(^\text{79}\)

The general order is constantly changing; in the midst of this vicissitude how can the continuation of the species stay the same?

Mais l’ordre général change sans cesse.\(^\text{80}\)

But the general order constantly changes.

Thus, for Diderot, the state of nature, whether on the level of the human or the species or at any other level, is indeed one of flux, and no one individual or species or the particular form it takes is therefore unnatural or to be rejected. Nothing can be monstrous: the term itself is without meaning. This is in stark contrast with Pascal’s dialectical moralising approach:

S’il se vante, je l’abaisse

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\(^{78}\) DPV 312/PQ 127/MT 135.

\(^{79}\) DPV 322/PQ 137/MT 144.

\(^{80}\) DPV 444/PQ 265/MT 261.
S’il s’abaisse, je le vante  
Et le contredis toujours  
Jusques à ce qu’il comprenne  
Qu’il est un monstre incompréhensible.  

If he exalts himself, I humble him.  
If he humbles himself, I exalt him.  
And I continue to contradict him  
Until he comprehends  
That he is an incomprehensible monster.  

This fragment provokes another explosion of wrath from Voltaire, as follows:  

Vrai discours de malade. Second éditeur.  

Truly the speech of a sick man. Second editor.  

Diderot addresses the question of monstrosity, without the vicious edge that characterises Voltaire’s intervention, although also without naming or invoking Pascal. What Diderot is dealing with is the notion, not the person:  

Qu’est-ce qu’un monstre ? Un être, dont la durée est incompatible avec l’ordre subsistant.  

Mais l’ordre général change sans cesse. [...] S’amender, se détériorer sont des termes relatifs aux individus d’une espèce entre eux, et aux différentes espèces entre elles.  

What is a monster? A being, whose continuing existence is incompatible with the existing order.  

But the general order changes constantly. [...] To grow better or deteriorate are terms relative to the individuals within any species, and also to the different species amongst themselves.

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81 Pascal, Pensées, p. 898, §163; PR XXI.4; Bossut II.i.4; Cond/Volt, p. 219, §3. Pensées, trans. by Ariew, p. 34.  
82 Cond/Volt, p. 219 §3.  
83 DPV 444/PQ 265/MT 261.
For Diderot, monstrosity is simply relative difference, and relative difference is in fact the norm. So the notion of rejection of one sort, type, or species, or of pronouncing one sort to be the proper version and others deformed ones, or even (or in particular) the idea that nature is monstrous at all, is directly addressed and dismissed. Monstrosity becomes instead a form of weak synonym for change, indicating the continuous variation between forms. In sum, Diderot directly and without shame employs and redirects the terms of Pascal’s condemnation, whether they refer to nature or to the position of the atheist.

Perfection/Perfectionnement

The important motif of perfection is a case in point. For Pascal, following the Biblical Book of Genesis and its account of the expulsion of Adam and Eve from the Garden of Eden, perfection is the thing we had but lost through giving in to an impulse of our own nature, specifically the desire for knowledge and the lure of power.

Mais, malheureux que nous sommes, et plus que s’il n’y avait point de grandeur dans notre condition, nous avons une idée du bonheur et ne pouvons y arriver, nous sentons une image de la vérité et ne possédons que le mensonge, incapables d’ignorer absolument et de savoir certainement, tant il est manifeste que nous avons été dans un degré de perfection dont nous sommes malheureusement déchus.

But, wretched as we are—and more so than if there had been no greatness in our condition—we have an idea of happiness and cannot reach it. We perceive an image of truth and possess only a lie. Being incapable of absolute ignorance and certain knowledge, it is obvious that we once had a degree of perfection from which we have unhappily fallen.


85 Pascal, *Pensées*, pp. 901–02, §164; PR XXI.1, 4; III.5, 6, 8; XXVIII.30; Bossut II.i.1, 4; II.V.3, 4; II.xvii.23 (Brunsčvicg §434). *Pensées*, trans. by Ariew, pp. 36–37. Sellier and Brunschvicg both have this as one pensée, Port-Royal and Bossut as many different fragments.
This passage is densely packed with overlaid binaries about greatness, abjection, misery, happiness, truth, lies, knowledge, ignorance, what is obvious or obscure, the manifest past and the unattainable future, what we feel and desire as opposed to what we actually possess and cannot avoid being aware of, what we did once have but have since lost. It is a desperate picture and a tragic situation: misery with the consciousness of its own condition and a sense not just of entrapment but that it could have been otherwise, that we could have retained perfection.

For Diderot, perfection is not a noun but a verb, a dynamic process. In this first extract, he also presents it in tension with its polar opposite, vice, although increased perfection and increased vice are paradoxically and ironically coupled together:

Je ne sais s’il n’en est pas de la morale ainsi que de la médecine qui n’a commencé à se perfectionner qu’à mesure que les vices de l’homme ont rendu les maladies plus communes, plus compliquées, et plus dangereuses.

I do not know that morals are any different from medicine which only started improving as human vices made disease more common, more complex, and more dangerous.

To paraphrase, morality and medicine, that is to say knowledge of morality and medicine, develop, advance, improve, become more perfect, as human vices produce an increase in the incidence and variety of diseases, which are now more common, complex, and dangerous than they once were. The parallel here with Pascal’s story of our lost perfection is obvious, even if the origin is located elsewhere (not in the Garden of Eden but in Nature), and even if the term ‘perfectionner’ is now an ironic process (and a verb) rather than a lost state (and a noun).

Diderot is expressing a view we also find in Rousseau’s *Discours sur l’origine de l’inégalité* (1754), written of course when he and Rousseau were still close, and where Rousseau states that:

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87 DPV 512/PQ 354/MT 325.
Most of our ills are of our own making, nearly all of which we might have avoided by preserving the simple, unchanging, and solitary way of life prescribed for us by nature. If nature has destined us to be healthy, I would almost venture to assert that the state of reflection is contrary to nature and that the man who meditates is a perverse animal.

The Éléments repeats this view: ‘Rien n’est plus contraire à la nature que la méditation habituelle ou l’état du savant’ [nothing is more contrary to nature than habitual medition or the profession of the scholar] which had also been forthrightly expressed by La Mettrie in L’Homme-machine [Man a machine] (1747) and constituted the subject of a book by the influential Swiss physician Samuel-Auguste Tissot, De la santé des gens de lettres [On the health of men of letters] (1775). La Mettrie had written that ‘La Nature nous a tous créés uniquement pour être heureux’ [Nature created us all solely to be happy] and that it is ‘par une espèce d’abus de nos facultés organiques que nous […] sommes devenus [savants]’ [we have perhaps become men of learning by a sort of misuse of our organic faculties]. We see Diderot, Rousseau, and La Mettrie reversing the causal links in Pascal’s presentation of happiness, misery, nature and knowledge, while retaining a parallel account of the descent from a prior and better state. In a form of ironic twist, Rousseau’s ‘animal dépravé’ [perverse animal] is the ‘homme qui médite’ [meditative man] which should be understood here not (just) as a form of savage self-satire but

as the complete rejection of Pascal’s position with respect to man and nature. It is in this context that Pascal, as a man of great learning who made discoveries about natural philosophy (‘science’), who was the inventor of the first calculator, a profound reasoner, and ultimately a very influential Jansenist theologian, someone whose health, some thought, suffered as a result of his intense scholarly application and self-denial, becomes the target of ad hominem attack such as we found in Voltaire’s repeated comments, quoted earlier, saying Pascal ‘parle toujours en malade’, that he has a ‘vrai discours de malade’. It is difficult not to see in Diderot’s laconic remark ‘Le génie suppose toujours quelque désordre dans la machine’ [genius always carries with it the idea of some disorder in the machine] some form of (non-exclusive) allusion to Pascal, not least because of his association with the calculator or ‘Machine arithmétique’ about which Diderot had written an important article for the Encyclopédie.

Diderot does not only use perfectionner, ‘to perfect’, in an ironic coupling with the notion of decline, he also uses it more positively, as an activity we can work at. Here he really recasts the term of ‘perfection’ with its religious association of loss and sin, propelling it instead into a process of education and improvement, particularly focusing on those erstwhile drivers of temptation and misapprehension, the senses:

Nous exerçons nos sens comme la nature nous les a donnés et que les besoins et les circonstances l’exigent: mais nous ne les perfectionnons

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91 See above.
pas; nous ne nous apprenons pas à voir, à flaire, à sentir, à écouter, à moins que notre profession nous y force.\footnote{DPV 456–57/PQ 282/MT 272.}

We use our senses as nature gave them to us and as our needs and circumstances require: but we do not perfect them; we do not teach ourselves to see, to smell, to feel, to listen, unless our profession forces us to.

Diderot here expresses real faith in the senses, if that is not too confusing a way of putting it, given that the rejection of religious faith underpins everything the *Éléments de physiologie* is about. The point of using the expression is to indicate that the senses are not presented as false portals of knowledge, as misleading or deluding, but rather in their functional and practical capacity, as the gifts of nature, and as being subject to improvement. There is real hope here, in learning to use our senses better, in perfecting them, even if this is presented as something which we do not do unless our profession forces us to. Diderot’s negative formulation (we do not improve our senses unless we have to) automatically suggests that we could and that we ought to. So the noun ‘perfection’, a place we have long left behind, is replaced with a process of learning to improve or perfect our natural senses. It’s a big shift.\footnote{The topic of ‘perfectionnement’ will be important for Garat, Cabanis, and Destutt de Tracy, as will be discussed in some detail in Chapters 8 and 9.}

This is the shift which the *Éléments de physiologie* is trying to effect. It involves rejecting notions of the soul, explaining the phenomena of nature in terms of matter, seeing a human as an individual member of a species and as determined by its body, its needs, and its capacities, and using its brain to ‘conceive clearly’ the truth and produce ‘clear ideas’.\footnote{DPV 514/PQ 356–57/MT 326.}

This is the point Diderot returns to in the conclusion of the *Éléments de physiologie*, asking how it has come to be that there is no madness that has not been said by some philosophe or other, why all these ‘auteurs, dont les ouvrages sont remplis de visions’ [authors whose works are packed with visions] despise those whose ‘accurate and firm minds only allow to be true that which can be clearly conceived’.\footnote{DPV 514/PQ 356/MT 326.} Pascal is explicitly brought into this discussion as the genius who ‘dit expressément de Dieu: on ne sait ni ce qu’il est, ni s’il est’ [specifically said about God that we do not}
know what he is or whether he is]; here Pascal is at once a representative of those who have visions and despise those who wish to be able to conceive of things clearly, and also a thinker who is way beyond them. This is the whole sentence:

Ils assurent que l’existence de Dieu est évidente et Pascal dit expressément de Dieu : on ne sait ni ce qu’il est, ni s’il est.97

They assert that the existence of God is obvious yet Pascal specifically says about God that we do not know what he is or whether he is.

‘Ils’, that is, these ‘auteurs’, are therefore lesser than Pascal: they assert that God’s existence is obvious where Pascal had specifically argued that such assertion is not possible because we do not know what he is nor whether he is. The ‘et Pascal’ carries a sense of amazement and rhetorical flourish: it’s a ‘yet Pascal says the opposite’; it’s an ‘if Pascal says this they should pay attention’, it’s also an ‘even Pascal admits we know nothing about God’, he being a visionary and a genius.98 So Pascal represents for Diderot the man of genius who is beyond the common run of stupid complacent authors and also an example of those who get caught up in their own visions and can no longer see clearly. Pascal is his ultimate interlocutor, the man whose arguments he respects, and whom he therefore has to disprove. It is interesting therefore to consider that the snippet we have just shown Diderot quoting comes from the section now known as ‘le pari de Pascal’, Pascal’s wager, in which he argues that the non-believer might as well believe in God as he has much to gain and nothing to lose. In this particular section, Pascal is looking at the idea of trying to understand God, equipped only by our ‘lumières naturelles’, that is to say, our natural intelligence, as opposed to faith. Needless to say, for Pascal, our natural illumination gets us precisely nowhere. This is the passage:

97 DPV 515/PQ 358/MT 327.
98 Diderot continues as follows: ‘L’existence de Dieu évidente ! Et l’homme de génie est arrêté par la difficulté d’un enfant; et Leibniz est obligé, pour la résoudre, de produire avec des efforts de tête incroyables, un système qui ne résout pas la difficulté et qui en fait naître milles autres!’ [The existence of God obvious ! And so the man of genius is blocked by a child’s problem; and Leibniz is obliged, in order to solve it, and with unbelievable efforts of mind, to come up with a system that does not solve the problem and gives rise to a thousand others] (DPV 515/PQ 359/MT 327). When Diderot evokes the ‘homme de génie’, therefore, he is alluding to Pascal and also transitioning to Leibniz, so he’s not only referring to Pascal.
Parlons maintenant selon les lumières naturelles.
S’il y a un Dieu, il est infiniment incompréhensible, puisque, n’ayant ni parties ni bornes, il n’a nul rapport à nous. Nous sommes donc incapables de connaître ni ce qu’il est, ni s’il est.99

Let us now speak according to our natural lights.
If there is a God, he is infinitely incomprehensible, since, having neither parts nor limits, he bears no relation to us. We are therefore incapable of knowing either what he is or whether he is.

So what Pascal really said was that if we try to understand God we will fail because we cannot apprehend him, and the argument he subsequently develops is that we must therefore go via faith. Although he does say that God cannot be understood by our natural intelligence, he is not saying that God might not therefore exist, and indeed the whole point of Pascal’s wager is that it’s a rational argument directed at those who insist on having things presented rationally, that even if we cannot understand what God is or prove his existence we might as well still believe in him, because the benefits would be worth it.

It is by no means obvious therefore that Diderot clearly scores a point over Pascal when he writes that (even) Pascal says about God that we do not know what he is nor if he is, given that Diderot selectively uses the snippet fragment he fragments from the bigger fragment. Whether he scores a point or not is irrelevant: the issue is that Pascal is a crucial interlocutor for Diderot, both explicitly and implicitly: if convincing the atheist or Pyrrhonian sceptic is Pascal’s explicit and implicit aim, then convincing the Christian is Diderot’s explicit and implicit aim. They each represent what the other is seeking to refute, and the Éléments de physiologie bears witness to the importance Diderot gave to this task. The Éléments de physiologie tries to describe nature from component parts to complete system, it tries to show how all the mechanisms fit together and relate to one another, whether in the first part which looks at nature’s building blocks and processes, in the second with the fullness of its physiological description of the human body, in the final part which tackles the thorny questions of thought, emotion, behaviour, and illness, or in the general scrupulousness with which Diderot indicates what

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99 Pascal, *Pensées*, p. 1210, §680; PR VII.1, 2; XXVIII.69; Bossut II.iii.1; II iii.4 and 5; II.xvii.63 (Brunschvicg §233); *Pensées*, trans. by Ariew, p. 212.
is or isn’t known. It is as complete and thorough an atheist materialist challenge to the Christian apologist as it was possible to write at that time.

**Fragmented Disorder**

Whether this challenge was more or less ordered than what it was trying to refute was a crucial element of Diderot’s reply, and not just because Pascal’s *Pensées* were famously fragmented. Pascal himself had insulted his subject, ‘man’, in one fragment, asserting that he would not dignify it by presenting in an ordered fashion, as he wanted to show that human nature was incapable of being ordered in the first place. This is what he wrote:

Pyrrhonism.

J’écirai ici mes pensées sans ordre, et non pas peut-être dans une confusion sans dessein. C’est le véritable ordre, et qui marquera toujours mon objet par le désordre même.

Je ferai trop d’honneur à mon sujet, si je le traitais avec ordre, puisque je veux montrer qu’il en est incapable.100

Skepticism.

I will write my thoughts here without order, but not perhaps in unplanned confusion. This is true order, and it will always indicate my aim by its very disorder.

I would be honouring my subject too much if I treated it with order, since I want to show that it is incapable of it.

This fragment does not feature in the Port-Royal edition. It does appear in the Bossut and Condorcet/Voltaire editions, although in the latter shorn of its elucidating title, such that it seems as if ‘mon sujet’ might be his own attempt to talk about the Christian faith or, as some commentators have suggested, the human condition.101 Nevertheless, his intention to demonstrate that something is incapable of order is clear, and in the Condorcet/Voltaire edition, the general title of this section, and of which this is the first fragment, is ‘De l’incertitude de nos connaissances

101 See Richard Parish’s elucidatory note, Cond/Volt, p. 185.
naturelles’. Pascal himself is throwing down the gauntlet, and making the whole issue turn on whether something (man, natural knowledge) is capable of order. The insult is that he is not going to bother ordering his own thoughts: it will be a symbolic confusion.

It is a cruel twist of fate, therefore, that Pascal was unable to finish his manuscript, and left only disordered fragments, or in any case, fragments the order of which has been disputed for centuries and probably never will be finally resolved. It’s a cruel twist of fate or an ironic moral for his tale, depending on your point of view, but it makes it even clearer why Diderot included an ‘Avertissement’ presenting his own Éléments de physiologie as a heap of fragments: Pascal hung his attempt to write an Apology for the Christian faith on his ability to prove that unbelief was a disorderly mess of degraded and deluded mind, yet he failed; his Apology was a shocking mess, shocking to some in any case. Voltaire would go so far as to call the Pensées the product of an ill mind, but Diderot never did. Instead, he evoked the famous Pensées at the very beginning of his own Apology of Atheist materialism so as to resoundingly demonstrate and prove the deep coherence and order of nature, yet he also was hoist with his own petard, and everyone ever since has blithely talked about these fragments of the great philosopher’s late, last, uncompleted magnum opus. How unfortunate! How funny!

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102 As Jean Filleau de la Chaise said, quoted above in note 33. Jean Filleau de la Chaise, Discours sur les pensées, p. 3.