



From the Atoms to the Self

by

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ABSTRACT: The volume by A. Németh [N.], *Epicurus on the Self*, in *Issues in Ancient Philosophy* (Routledge, London-New York 2017), devoted to Book 25 of Epicurus' *On Nature*, represents an important contribution to the exact definition of the problem investigated by Epicurus in this treatise. The main aim of the book is to examine the relation between Epicurus' conception of the psychological development of living beings and his ethical theory. N.'s book addresses the question from a particular perspective, that of the formation of the self. In particular, his analysis aims to illustrate how Epicurus succeeds in outlining a notion of self-awareness within the framework of his atomism which is capable of justifying his eudaimonism and ethical pragmatism. In this article I will focus on the main thesis endorsed by the author concerning Epicurus' notion of Self, the type of Epicurus' physicalism, and the function of the swerve in Epicurus' psychology. The purpose of my essay is to highlight the most relevant and original contribution made by N.'s study, while at the same time offering an alternative interpretation of certain passages from Book 25 of *On Nature* which he examines, as well as of certain aspects of Epicurean physicalism and of the context in which the philosopher developed his theory.

KEYWORDS: Epicurus, *On Nature*, Philosophy of Mind, Self, Swerve, Ethics

ABSTRACT: Il volume di A. Németh [N.], *Epicurus on the Self*, in *Issues in Ancient Philosophy*, (Routledge, London-New York 2017), dedicato al XXV libro dell'opera *Sulla natura* di Epicuro rappresenta un contributo importante per comprendere il problema indagato in questo testo: quale sia la relazione che intercorre tra la concezione dello sviluppo psicologico degli esseri viventi del filosofo e la sua teoria etica. Il libro di N. affronta la questione da una prospettiva particolare, quella della formazione del Sé. In particolare, l'analisi mira a mostrare come Epicuro riesca a delineare una nozione di autoconsapevolezza nell'ambito di una teoria atomista in grado di giustificare il proprio eudaimonismo e pragmatismo etico. Nel presente articolo ci si soffermerà sulle tesi principali sostenute da N. in relazione

alla nozione del Sé, al fisicalismo e alla funzione della deviazione atomica nella psicologia di Epicuro. Lo scopo del lavoro sarà mettere in luce i contributi più originali e rilevanti della ricerca di N., ma allo stesso tempo offrire un'interpretazione alternativa di alcuni passi del XXV libro, così come di alcuni aspetti del fisicalismo di Epicuro e del contesto in cui è stata elaborata la sua teoria della mente.

KEYWORDS: Epicuro, *Sulla natura*, filosofia della mente, Sé, *clinamen*, etica

1. Introduction

The recent volume by A. Németh, *Epicurus on the Self*, in *Issues in Ancient Philosophy*, (Routledge, London-New York 2017), numbers among the studies devoted to Book 25 of Epicurus' *On Nature*¹. It represents an important, on many issues original, contribution to the exact definition of the problem investigated by Epicurus in this treatise.

The main aim of the book is to examine the relation between Epicurus' conception of the psychological development of living beings and his ethical theory (p. XI). The issue of how to reconcile Epicurean psychology and ethics, addressed by N., can be summed up as follows.

Epicurus is a eudaimonist and a hedonist: like his predecessors, he

¹ J. Annas, *Hellenistic Philosophy of Mind*, University of California Press, Berkeley-Los Angeles 1992; J. Annas, *Epicurus on agency*, in J. Brunschwig-M. C. Nussbaum (eds.), *Passions and Perceptions: Studies on Hellenistic Philosophy of Mind, Proceedings of the Fifth Hellenistic Symposium*, Cambridge University Press, Cambridge 1993, pp. 53-71; S. Bobzien, *Did Epicurus Discover the Free Will Problem?*, «Oxford Studies in Ancient Philosophy» 19 (2000), pp. 287-337; D. Furley, *Two Studies in the Greek Atomists*, Princeton University Press, Princeton 1967; J. Hammerstaedt, *Atomismo e libertà nel XXV libro del Peri physeos di Epicuro*, «Cronache Ercolanesi» 33 (2003), pp. 151-164; S. Laursen, *The Summary of Epicurus On Nature Book 25*, «Papiri letterari greci e latini» 1 (1992), pp. 143-154; F. G. Masi, *Libertà senza clinamen*, «Cronache Ercolanesi» 36 (2006), pp. 7-41; F. G. Masi, *Epicuro e la filosofia della mente. Il XXV libro dell'opera Sulla Natura*, Academia, Sankt Augustin 2006; P.-M. Morel, *Atome et nécessité: Démocrite, Épicure, Lucrèce*, PUF, Paris 2000; T. O' Keefe, *Epicurus on Freedom*, Cambridge University Press, Cambridge 2005; J. Purinton, *Epicurus on the Degrees of Responsibility of "Things Begotten" for Their Action: A New Reading of On Nature XXV*, in G. Giannantoni-M. Gigante (eds.), *Epicureismo greco e romano*, Bibliopolis, Napoli 1993, pp. 155-168; D. N. Sedley, *Epicurus' Refutation of Determinism*, in ΣΥΖΗΤΗΣΙΣ, *Studi sull'epicureismo greco e romano offerti a M. Gigante*, Macchiaroli, Napoli 1983, pp. 11-51; cf. also D.N. Sedley, *Epicurus' Anti-Reductionism*, in J. Barnes-M. Mignucci (eds.), *Matter and Metaphysics*, Bibliopolis, Napoli 1988, pp. 295-327.

envisages the attainment of happiness as the ultimate aim of human life and identifies this condition with a particular form of pleasure, namely the absence of bodily pain and of disturbance of the soul. His ethical doctrine is partly descriptive and partly normative. On the one hand, the theory is based on the study of the psycho-physical nature of the human being and on the observation of behaviour – especially of those irrational living beings who have not yet been corrupted by the capacity for judgement (cradle argument)². From this he draws some conclusions with regard to the aim to which the human being is naturally inclined and the conditions for fulfilling it. On the other hand, the theory prescribes epistemological criteria and practical rules to be followed in order to attain happiness. For this reason, Epicurus' ethics is also based on a specific model of human agency. Human beings are capable of steadily progressing towards the attainment of the ultimate aim and of orienting their own psychological development and behaviour towards it through the acquisition of a criterion of judgement, an exact and precise understanding of the nature of things (in particular of their own nature in relation to the surroundings), a reckoning capacity allowing them in each circumstance to discern what needs and desires to satisfy – i.e. which pleasures to pursue and which to avoid – and a capacity to perform actions designed to meet that goal. Human beings, moreover, are capable of controlling the future, which is to say the effectiveness of their deliberations, at any rate to some degree. Finally, human beings are morally responsible for their own actions and hence subject to rewards and punishments, praise and reproof, dissuasion and advice, reproach and, more generally, a critical attitude.

An ethical doctrine of this sort poses a problem of consistency for Epicurus: it is unclear whether and in what way this model of human agency may be justified within the framework of his atomistic psychology³. Within the framework of an atomistic psychology, the sum of psychic properties that lie at the origin of action – which is to say of emotions, desires, dispositions and beliefs – risk being determined

² For the 'cradle argument' see Cic., *Fin.* I 30.

³ On this see F. Verde, *Monismo psicologico e dottrina dell'anima in Epicuro e Lucrezio*, in E. Canone (ed.), *Anima-corpo alla luce dell'etica. Antichi e Moderni*, Olschki, Firenze 2015, pp. 49-64. See also F. G. Masi-F. Verde, *Mind in an Atomistic World*, in J. Sisko (ed.), *Philosophy of Mind in Antiquity, The History of the Philosophy of Mind*, vol. 1, Routledge, New York 2018, pp. 236-256.

by fate: for they depend on factors over which human beings have no control, such as the properties, motions and arrangements of the atoms that compose the bodily constitution of the soul. As already noted, however, the capacity of self-determination of subjects would appear to be crucial to Epicurus' ethical doctrine. The problem of reconciling ethics and psychology seems all the more pressing considering the fact that the investigation on the ultimate aim and the conditions for attaining it constitutes the very heart and culmination of Epicurus' philosophy.

N.'s book addresses the question from a particular perspective, that of the formation of the self, by analysing some select fragments from Book 25 of *On Nature*⁴. In particular, his analysis aims to illus-

⁴ This work has reached us in a fragmentary state in three copies transmitted by Herculaneum papyri (PHerc. 1191; 419/1634/697; 1420/1056; see also A. Corti, PHerc. 454 (*Epicuro, Sulla natura XXV: Edizione, traduzione e commento*, «Rheinisches Museum für Philologie» 159 (2016), pp. 28-59). A complete edition of all the readable fragments from this text is available: it was produced by S. Laursen within the context of a project for the retrieval of all papyri pertaining to *On Nature* run by the Centro Internazionale per lo Studio dei Papiri Ercolanesi. The edition was published in *Cronache Ercolanesi* in two instalments in 1995 and 1997: cf. S. Laursen, *The Early Parts of Epicurus, On Nature, 25th Book*, «Cronache Ercolanesi» 25 (1995), pp. 5-109 [Laursen 1995]; Id., *The Later Parts of Epicurus, On Nature, 25th Book*, «Cronache Ercolanesi» 27 (1997), pp. 5-82 [Laursen 1997]. Alongside this edition, which remains the best available resource for the study of Book 25 of *On Nature*, we have some Italian and English translations and commentaries based on a more restricted portion of text than the one known to us, or on a selection of fragments (see in particular G. Arrighetti, *Epicuro, Opere*, Einaudi Torino 1973² [1960]; M. Isnardi Parente, *Opere di Epicuro*, UTET, Torino, 1974; A. A. Long-D. N. Sedley, *The Hellenistic Philosophers*, 2 voll., Cambridge University Press, Cambridge 1987). There is also an annotated French translation and various studies offering integrated or emended versions of the text (D. Sedley and J. Brunschwig's translation published in *Les Épicuriens*, édition publiée sous la direction de D. Delattre et de J. Pigeaud, Bibliothèque de la Pléiade, Gallimard, Paris 2010. For some emendations on Laursen's text see also F. G. Masi, *Epicuro e la filosofia della mente*, cit. and J. Hammersatetd, *Atomismo e libertà*, cit.). N.'s book is chiefly based on Laursen's edition. However, following what has become a common practice among interpreters, it offers an integrated version of the passages under consideration, taking proposed interpretations into account, along with a translation largely based on the most recent renditions, and a new numeration of the fragments. The classification criteria adopted for the passages are not very clear. The author has chosen to number the fragments not by order of citation, but according to the order in which they appear in Laursen's edition – as is explicitly stated in a note on p. 104. As a consequence, in N.'s book fragment 17, for instance, is quoted before fragment 16. Moreover, not all fragments are classified using ordinal numbers: some are assigned upper-case letters, reflecting the topic

trate how, in this specific work, Epicurus succeeds in outlining a notion of self-awareness within the framework of his atomism which is capable of justifying his eudaimonism and ethical pragmatism.

The study consists of an introduction, five chapters and an epilogue, followed by an appendix with a table of correspondences between the numeration of the fragments provided by the author and Laursen's classification of the passages from Book 25 of *On Nature*, along with an index of names. Each chapter ends with a reference bibliography.

In the *Introduction* (pp. xi-xix), N. explains the Epicurean notion of self and illustrates the structure of the book. Chapter 1 (pp. 1-69), entitled *Self-awareness*, consists of two parts. First, N. shows how according to Epicurus self-awareness is an essential prerequisite for the attainment of *eudaimonia*. He then explains in what way the self is formed according to Epicurus and argues that this occurs in two ways, the *pathologikos tropos* and the *aitiologikos tropos*. In Chapter 2 (pp. 70-107), *Agency and atomism*, N. sets out to show how the formation of the self can be justified within the context of an atomistic psychology and argues that this is possible within the framework of a physicalism that is both anti-reductionist and committed to multiple realizability, according to which mental states have a causal power of self-determination; they only partly depend from the physical states of the atomic constitution of the soul-body compound; the physical states they depend on are not always the same; and the atomic swerve

they deal with and their particular focus (for example, one set of fragments is quoted as text M because it deals with memory, another as text P because it deals with *prolepsis*, as N. explains at p. 65 n. 185 and n. 189), while one passage is subdivided using the lower-case letters a) and b), without being given any classification number. Besides, the author only examines certain sections of Laursen's text, those he regards as most relevant to his suggested exegesis. While preserving the distinction between the first and the second part of the text, which is adroitly exploited to interpret its overall content and its internal arrangement, the author chooses not to follow the order of the passages or combine them into larger and more unitary sections. This choice to treat the various parts of Book 25 as isolated texts, regardless of their position, and to examine them exclusively in relation to their specific content, is no doubt a matter of cautiousness, considering the uncertain and fragmentary state of the material. Nevertheless, in certain cases this approach inevitably creates breaks between passages that are clearly connected from a thematic perspective, or interrupts the flow of Epicurus' argument (this is the case, for instance, with fr. 10-14, which should be read together with fr. 15, p. 90, and 16, p. 109; the text P, pp. 45-46, is strictly connected to fr. 17, p. 91), further contributing to the frustrating impression of fragmentariness produced by the state of conservation of the work, or suggesting a speculative understanding of the passages.

has the function of avoiding that mental states be determined by physical states. In Chapter 3 (pp. 108-132), *Self-narratives*, N. explains exactly what the power of self-determination consists in, through a comparative analysis of human and animal psychology; he identifies this power with rationality or, rather, with the activity of interpreting and of practical reasoning. In Chapter 4 (pp. 133-165), *Lucretius' cosmological perspective*, N. illustrates the function of the swerve within Epicurean cosmology and how this cosmology is conceived in such a way as to justify human freedom. Finally, in the last chapter (pp. 166-189), *The pleasures of friendship*, N. clarifies in what way our relations with others, and in particular with friends, contributes to the formation of the self.

Here I cannot offer a detailed account of all five chapters. I will instead focus on those that are most relevant for the main thesis endorsed by the author, namely Ch. 1, on Epicurus' notion of Self, Ch. 2, on the type of Epicurus' physicalism, and Ch. 4, on the function of the swerve in Epicurus' psychology.

The purpose of my essay is to highlight the most relevant and original contribution made by N.'s study, while at the same time offering an alternative interpretation of certain passages from Book 25 of *On Nature* which he examines, as well as of certain aspects of Epicurean physicalism and of the context in which the philosopher developed his theory.

2. Epicurus' Notion of Self

As already eloquently enunciated in the *Introduction* to the book, N.'s aim is to show that Epicurean ethics presupposes the notion of self, and that the surviving fragments of Book 25 of *On Nature* are intended to explain how, according to Epicurus, the self is formed in the light of the atomistic nature of the soul-body compound (pp. vi-vii). N.'s thesis is that the self develops either according to the *pathologikos tropos*, namely the subject's introspection of his own mental states through a consideration of his own affective states of pleasure and pain, or according to the *aitiologikos tropos*, which is to say the subject's evaluation of himself and of his own causal power through a consideration of his own cultural and social interactions. According to N., the self is «the subject of awareness of an individual psychophysical being», a «self-reflecting thinking» based on one's own peculiar char-

acteristics, such as awareness of oneself through one's affections, the conception of oneself as a unity of body and soul, and personal identity based on experience and memory, in short the notion of oneself, that one develops on the basis of the aforementioned characteristics. Although Epicurus never openly explains what he means by self, this conception has been inferred by the author from the use of the reflexive pronoun ἑαυτόν combined with the verb διανοεῖσθαι (p. xvii).

The first chapter, entitled *Self-awareness*, is the most relevant one for an interpretation of Epicurean ethics and psychology. Its aim is to illustrate the ethical context in which the Epicurean notion of self-knowledge emerged and to show how Epicurus argues for the centrality of this notion in the context of his ethical doctrine. N. interprets Epicurean eudaimonism in the light of Socratic ethical intellectualism (pp. 1-2). Based on this comparison, he contends that for Epicurus too self-knowledge is relevant for the subject's understanding and attainment of a condition of happiness. Based on an in-depth reading of the *Letter to Menoeceus*, N. persuasively illustrates the various steps that led Epicurus to regard self-awareness as an essential requisite for the attainment of pleasure, viewed as the ultimate aim of human conduct. According to Epicurus, the starting point to ensure the attainment of the ultimate aim, understood as the absence of pain and disturbance, is to be found in the observation and knowledge of desires, which is to say in their classification into natural and necessary, natural and non-necessary, and non-natural and non-necessary. Given this articulation of the taxonomy of desire, what permits a rational adult to satisfy the first class of desires, which are required for mental and bodily health, is pleasure. Pleasure operates at a non-rational level both as an internal criterion of one's own psychophysical state and as a criterion of action for what is to be pursued or avoided. Indeed, in principle all that is pleasurable is good and all that is painful evil. However, whereas on the basis of the criterion of pleasure and pain irrational living beings are naturally inclined to satisfy only natural and necessary pleasures, adult rational beings, driven by urges of a different sort, need an empirical calculation based on their own inner affects and on knowledge of the various kinds of desire and of the nature of the ultimate aim, so as to distinguish in each circumstance which pleasure to pursue and which to avoid, which pain to avoid and which to endure, in view of the good. In order for this calculation to be made, a rational adult subject must be aware of his overall psycho-physical condition. Self-

awareness, then, is crucial for attaining happiness even in the context of Epicurean ethics (pp. 2-8).

The rest of Chapter 1 is designed to show that in Book 25 of *On Nature* Epicurus addressed the problem of how this self-awareness comes about. One of N.'s greatest contributions is to have provided a highly original interpretation of the last lines of the treatise, in which Epicurus sums up the results of his enquiry and illustrates the method he used to carry it out. Indeed, N. has used these lines to redefine the aim and content of the book.

The philosopher claims to have two methods of explanation: the *pathologikos* and the *aitiologikos tropos*. Rightly, according to N., what this means is not that the two methods of explanation correspond to two successive levels of enquiry (as Sedley would have it)⁵, but rather that the questions tackled in Epicurus' book (mental development, the mind, self-reflective thought, appropriate behaviour, the aim of life etc.) were discussed simultaneously according to these two modes of explanation⁶. In particular, Epicurus would have discussed the topic of character, which is to say of mental development, in two manners: according to the *pathologikos tropos*, as a concept of self developed through the affections of pleasure and pain, and according to the *aitiologikos tropos*, as the awareness of one's own self as a responsible agent that is achieved through an engagement with others and the *prolepsis* of the cause (p. 10).

N.'s attempt to connect the two *tropoi* is certainly admirable. As will become clearer later on, N. also has the unquestionable merit of having brought to the attention of Epicurus' readers a very neglected topic, namely the function of *pathe* in the construction of the subject's identity and self-awareness. Nevertheless, N.'s interpretation has its limits. First of all, it is not quite clear how N. interprets the notion of *tropos*. He seems to understand the expression both as a way of describing a method of explanation adopted by Epicurus to interpret the formation of character (p. 10: «At the end of book XXV, Epicurus says that he has given an account of two manners of explanation, the *pathologikos tropos* and the *aitiologikos tropos*») and as a way to indicate the mode of development of character (*ibidem*: «Epicurus, at least, seems to have been concerned with one's character in relation to one's mental development in both manners, the *pathologikos tropos*, as

⁵ Cf. D. N. Sedley, *Epicurus' Refutation of Determinism*, cit., p. 17.

⁶ On this see also F. G. Masi, *Epicuro e la filosofia della mente*, cit., pp. 52-57.

one's self-conception through one's own affections or *pathe*, and the *aitiologikos tropos*, as the awareness of one's responsible self by means of one's *prolepsis* of the cause»). However, I believe that although, according to Epicurus, the method of explanation must be strictly consonant with the reality under consideration in each particular case, in this book, as in other works⁷, the philosopher more specifically understands the term as a method of explanation and not as a mode of being – or, in this case, a mode of development of a being.

Secondly, I do not believe that either in this text or in any other work Epicurus exclusively applies the term *pathos* to pleasure and pain, but rather that the expression is often used to indicate the modifications occurring in the soul-body compound at the atomic level and underlying processes and properties that manifest themselves on the psychological level⁸.

⁷ Epicur., *Pyth.* 87.

⁸ On at least two occasions in Book 25 of *On Nature*, Epicurus speaks of «recollection or affection analogous to recollection» (cf. Laursen 1995, p. 92, 1420, corn. 2, z. 3 = [35.11] Arr. [Arrighetti] and Laursen 1997, pp. 16-17, 1191, corn. 4, pz. 2, z. 1 = - 24 inf./1191, corn. 7, pz. 1, z. 2-3 = - 23 sup. ll. -5/-3). On one of these occasions, he also speaks of «recollection or movement (*kinesis*) analogous to recollection». In doing so, Epicurus provides two clues: the first is that for him, at least in this field of enquiry, the term *pathos* is interchangeable with *kinesis*, and thus describes a process or activity. The second clue is that *pathos* can be a kind of activity akin to recollection, which is to say a function clearly different from pleasure and pain. As is widely known, moreover, in the Epicurean lexicon ἀναλογία and related terms indicate either the similarity between phenomenal data (Epicur., *Nat.* 11, Sedley 1976 [D. N. Sedley, *Epicurus and the Mathematicians of Cyzicus*, «Cronache Ercolanesi» 6 (1976), pp. 23-54], p. 32 col. III a, 5 = [26.39] Arr.) or, more often, the similarity between experiential data and aspects of reality that cannot directly be observed (Epicur., *Hrdt.* 40, 58, 59). In particular, in Book 25 of *On Nature*, Epicurus uses the noun ἀναλογία (Epicur., *Nat.* 25, Laursen 1995, p. 104, 1056, 3, 2 ll. 9-10 = [34.14] Arr.) and the adverb ἀναλόγως (Epicur., *Nat.* 25, Laursen 1995, p. 104, 1056, 3, 1 l. 8 = [34.13] Arr.) to establish a relation between the experiential data taken as a basis for enquiry and the underlying physical processes (E. Asmis, *Epicurus' Scientific Method*, Cornell University Press, Ithaca-London 1984, p. 177). For a deeper analysis of the meaning of the term πάθη, see F. G. Masi, *Epicuro e la filosofia della mente*, cit., pp. 52-56. For this very same interpretation of the term, see also M. H. Koenen, *Lucretius' Olfactory Theory in De rerum natura IV*, in K. A. Algra-M. H. Koenen-P. H. Schrijvers (eds.), *Lucretius and his Intellectual Background*, North Holland, Amsterdam 1997, pp. 163-177; D. Konstan, *Lucrezio e la psicologia epicurea*, *Vita e Pensiero*, Milano 2007, p. 24 ff.; G. Leone, *Il PHerc. 1811/335. Epicuro*, *Sulla natura, libro III?*, «Cronache Ercolanesi» 48 (2018), pp. 5-24, focused on «visual affection». For a different interpretation of the term, more similar to the one suggested by Nemeth, see also P. Lautner, *Das Verhältnis von pathos und aisthesis bei Epikur*, «Acta

In the light of this, it might be possible to define the focus of Book 25 in a slightly different way from N. Epicurus' aim would be to explain the nature and genesis of those mental states that contribute to determining the individual self, according to two methods: the study of underlying atomic alterations and that of their causes.

The need to come up with a method of explanation of this sort for the development of the self ought to be identified in the polemical and dialectical nature of the book as a whole, which aims to counter the attempts made by some people both within and without the Epicurean circle to analyse the properties of the mind in terms of properties and unchangeable and necessary atomic motions. Immediately after mentioning the two *tropoi*, Epicurus addresses some interlocutors in the second person plural, recalling their arguments. This is not the only passage in the book where the philosopher addresses someone directly. Elsewhere he accuses his interlocutors of having reached foolish theses on account of their naivety, criticising their arguments⁹. On the basis of these references, therefore, it is possible first of all to hypothesise that the research emerged within the framework of a critical engagement with some pupils who had questioned the inner consistency of the system. Moreover, it is likely that this exchange offered Epicurus the opportunity to distance himself both from philosophical views he did not share and from the attempts made by some opponents of his to work out the fatalistic implications of Epicurean atomistic psychology. Throughout the book, or at least its surviving parts, Epicurus is clearly bent on fighting someone outside his school circle, someone whose identity is impossible to determine. This person sought to show that human beings' psychological development and moral progress is the inevitable outcome of the unchangeable properties and motions of the individual atoms constituting the human organism, the specific nature of its atomic constitution, and people's mechanical and passive interaction with the environment¹⁰.

This allows us to clearly posit a dialectical origin for the research conducted in Book 25: the enquiry on the psycho-physical alterations

Classica Universitatis Scientiarum Debreceniensis» 25 (1989), pp. 23-27; F. Verde, *I pathe di Epicuro tra epistemologia ed etica*, «Elenchos» 39 (2018), pp. 205-230.

⁹ Cf. again Epicur., *Nat.* 25, Laursen 1995, p. 92, 1420, corn. 2, z. 3 = [35.11] Arr.

¹⁰ On the polemical nature of this book, see F. G. Masi, *Epicuro e la filosofia della mente*, cit., pp. 62-157 and F. G. Masi-F. Verde, *Mind in an Atomistic World*, cit., pp. 246-248.

behind the formation of the self and their causes is key to defending the consistency of Epicurean atomism against the attacks levelled by some opponents. Epicurus may thus have felt the need to establish the correctness of the method of analysis adopted for these changes and the conditions in which they occur.

As I will later argue, N. often recalls this polemic, although he does not always adequately exploit it to interpret the more constructive and positive aspects of Epicurus' exposition. For instance, following Sedley, N. refers to this polemic as to a digression from the main line of argument (p. 45). But in fact Epicurus' need to oppose to rivals' criticism a revised and more worked out version of atomistic philosophy of mind pervades all the book, from the fragments belonging to the early part of the treatise to the ones belonging to the later part.

Let's take a closer look at how N. bases his interpretation of the *pathologikos tropos* on an original reading of some fragments from the first part of the book, the one least preserved and most overlooked by commentators.

2.1 *The pathologikos tropos*

In order to explain how, according to Epicurus, a subject becomes aware of himself on the basis of the *pathologikos tropos*, N. focuses his attention on four fragments that are particularly interesting and relevant for the sake of his argument. They come from the first part of the book and have indeed been overlooked by scholars because they are particularly uncertain and difficult. The first of these fragments consists of just a few letters, on the basis of which it seems possible to reconstruct the expression $\acute{\epsilon}\alpha\upsilon\tau\acute{\omega}\iota\ \acute{\epsilon}\alpha\upsilon\tau\acute{\omicron}\nu\ \delta\iota\alpha\nu\omicron\epsilon\iota\sigma\theta\alpha\iota$ and identify self-reflective thought as the topic under consideration:

Fr. 1

+/- 10/12]υ[...]οι[+/- 6/7] μοι ῥη[τέον ἑαυτῶι ἑά]υτὸν λέγεσθαί
δ[ιανοεῖσ]θαί.* τ' ούτωι μ[...].+/-5/6] ..ρμω[...]ρος α[

[...] I must say that he is said to think of himself by means of himself. By means of this [...]¹¹

¹¹ Fr. 1 = Epicur., *Nat.* 25, Laursen 1995, p. 104, 1191, corn. 4, pz. 1, z. 2, col. 4. From here onwards I will follow N.'s classification of the passages and his translation, if not differently indicated.

The second fragment is a complicated one, not only because – owing both to its state of conservation and to Epicurus’ succinct and technical style – it leaves many references unspecified, but also because the topic is treated from a twofold perspective: at once epistemological and physical. It is worth quoting it, because some of the doubts raised by N. may possibly be resolved by better contextualising the passage in relation to Epicurean psychology, on the one hand, and, on the other, to the kind of polemic that pervades Book 25.

The passage is the following one:

Fr. 2

ἐξ ὄγκων [[ων]] εἶναι σωματικῶν πεπονημένον, εἶτα τὸ κοινὸν
 ἑαυτῆς ἐπεθεώρησε [[ν]] πάθος ὡς οὐδὲ διανοηθῆναι ἄλλα
 δύναται παρέ[κ] τού[τ]ων, ἂν τε σώματα [+3/4].ν ἂν τε κα[ί]
 τὸν τό[π]ον πρὸς ἀναλογία[ν..] καὶ γὰ[ρ] τοῖς [..].[+/- 6/7]υμ[.]
 π[+/- 12/14]...[[ν[.]]][+/- 8/10]οὐν[+/- 10/12]ἰθε[-]πο[-]

[...] made out of corporeal entities, then it studied the common affect of itself in addition, since it cannot even think of anything else besides these, whether we <think> of bodies, or even of place by analogy [...]¹²

N. clearly identifies the reasons that make it difficult to interpret the passage: it is unclear a) what is made out (πεπονημένον) of corporeal entities; b) what the subject of ἐπεθεώρησε is; c) what a common affect of itself is; and d) what τούτων refers to at the beginning of the third line. As regards the solutions N. suggests, it is possible to advance the following considerations. a) It is certainly plausible to assume that the subject of πεπονημένον is πάθος, which is mentioned in the following line. If this is the case, however, it is necessary to more clearly explain the difference between what is made out of corporeal entities and the common affect of itself. Hence, it is necessary to resolve the subsequent questions. b) With regard to the second question, N. vacillates between two possible solutions. On the one hand, he tends to agree with Laursen that the subject of ἐπεθεώρησε is διάνοια, which is to say the rational part of the soul that is responsible for noetic and dianoetic functions; on the other hand, the affect of oneself would suggest that ψυχή is the most suitable subject, insofar as it is the soul that shares

¹² Epicur., *Nat.* 25, Laursen 1995, pp. 104-105, 1056, cor. 3, z. 2 = 5 II = 9 N = 889 O = [34.14] Arr.

the same affect as the body through sensation. N. thus resolves this ambiguity by suggesting that it is *διάνοια* which studies the affect common to body and soul. With respect to this solution, however, it is worth bearing in mind that Epicurus considers the distinction between soul and mind in functional and not ontological terms. Mind and soul have the same atomic nature. What distinguishes the two is their different location within the organism: one is concentrated in the chest, while the other is distributed throughout the channels, pathways, and pores left empty by the atoms forming corporeal structures – blood, viscera, organs, and bones – which vary in terms of consistency. By virtue of their different surrounding conditions, mind and soul can perform different activities¹³. Precisely because mind and soul are the same from a constitutive point of view, in this book – like Lucretius in his poem – Epicurus also uses the term *ψυχή* to specifically refer to *διάνοια* alone¹⁴. It is misleading, therefore, to ask whether the unexpressed subject is to be identified as *διάνοια* rather than *ψυχή*. Moreover, when it comes to the interpretation of this passage, it may be helpful to note that *εἶτα* is used to mark a new phase of study, evidently with respect to the one previously discussed: a phase that concerns precisely the kind of affect produced by corporeal masses. c) It is a matter, then, of understanding what it means to say that the mind first studied the affect as something produced by corporeal masses and then as the common affect of itself. N. interprets what is made out of corporeal entities as the object of thought and as the common affect in the sense of the affect, pleasure or pain, which soul and body experience together via sensation by virtue of their *συμπάθεια* (cf. Epicur. *Hrdt.* 63-64 e Lucret., *DRN* III 168-176). However to solve this problem, it may be helpful to recall that, in some fragments from the first part of the book that precede this text, Epicurus seeks to foil the attempt made by some opponents to reduce the overall condition of the mind to that of its individual components, evidently in order to demonstrate that the mind is unchangeable or at any rate dependent upon factors that escape all retro-action or control¹⁵. Within this context,

¹³ On this see F. Verde, *Monismo psicologico e dottrina dell'anima in Epicuro e Lucrezio*, cit. See also F. G. Masi-F. Verde, *Mind in an Atomistic World*, cit.

¹⁴ Fr. 15, p. 90 = Epicur., *Nat.* 25, Laursen 1997, p. 28, 1191, corn. 7, pz. 2, z. 3 = - 16 inf./1191, corn. 8, pz. 1, z. 2 = - 15 sup. = [34.34] Arr.; 697, corn. 3, pz. 2, z. 3; 1056, corn. 6, z. 1; Lucret., *DRN* III 421-424.

¹⁵ Cf. Epicur., *Nat.* 25, Laursen 1995, p. 93, 1420, 2, 4, = [35.12] Arr.; p. 101, 1056, 2, 1 = [34.10] Arr.; p. 102, 1056, 2, 2 = [34.11] Arr.

the passage under consideration might be designed to explain that the mind contemplates its own affective condition first at the physical level, as something produced by corporeal masses, which is to say by aggregations of atoms as opposed to individual atoms, and then, from a psychological and epistemological perspective, as the overall condition of affection of itself which – as will become clearer later on – has a different and further causal efficacy compared to that of its individual components. The rest of the passage, from ὡς onwards, explains why the mind must contemplate its condition of affection in such a way. d) Straining the text, N. refers the plural pronoun τούτων to the unexpressed subject of the singular neutral participle πεποιημένον. In the light of this and the previous interpretations, N. takes the passage to mean that the mind is not «able to think anything besides these, that is what is made out of corporeal entities, presumably the object of thought, and its resulting affection which the body and the soul suffer as a common affection. Accordingly this passage is about how the διάνοια functions in perception or thinking after the body and the soul have been affected» (p. 12). As N. rightly notes, when understood in such terms, the passage «suits the context of self reflective thinking very well» (p. 12). However, from a grammatical point of view, it is more likely that this participle refers to ἐξ ὄγκων σωματικῶν and has a proleptic function with respect to σώματα and τόπον. The explanation, therefore, would be that the mind cannot think of an affect as something other than the corporeal masses producing it, which in turn are made up of bodies and space, meaning occupied void conceived as the precondition for the interrelation between bodies. When understood in such terms, within the context of the aforementioned polemic, the passage might be taken to explain the affect which the mind has of itself based on its physical components. Like other fragments that N. does not take into consideration, this passage might be seen to highlight the fact that any mental condition, including self-reflecting thinking, while being an atomic product, depends on the mutual relation between bodies and not on the motions and the properties of the singular atoms from which it comes about, and hence not only that it cannot be eliminated in favour of its individual components, but also that it is not necessitated, which is to say it is not unchangeable.

The third fragment considered by N. is particularly interesting:

Fr. 3

[ἐ]αυτῶι κατὰ τὸ ὅμοιον καὶ ἀδιάφορον ἑαυτὸν ῥηθήσεται

διανοεῖσθαι οἷον ἑνός τινος ταύτη τοῦ νοουμένου[[ν]]υ ὄντος
 ἀλλὰ καὶ ἐφ' ἑαυτ[ὸ]ν ἑαυτῶι ἐξ [τῶν] ἄλλων, καθότι δ' ἐν [πά]θει
 τινι ἑαυτὸν λέ[γεται διαν]οε[ῖσθ]αι ηδ[+/- 5/6] ερεωστ.[.]σ.[+/-
 7/8]δ[.]ο.[] η κα[] μν[.]σ[+/- 7/8]ν[]σιον[

[...] it will <not> be said <only> that he thinks of himself by means of himself in accordance with the similar and non-different, as if the thought is some unity with this, but also towards himself from other things [i. e. what are caused by other things] by means of himself [i. e. by his *pathos/pathe*], as he is said to think of himself in some affection [...]¹⁶

N. provides a partly emended and improved text compared to the one edited by Laursen, along with a new reading (p. 13, 24-25, 47-48). According to this passage Epicurus claims that a subject is capable of thinking of himself by means of himself. N. maintains that, in the light of the expression ἐν πάθει τινι used at the end of the passage, this statement can be taken to mean that a subject is capable of thinking himself through the affection of pleasure or pain occurring concomitantly with sensory experience.

What is less clear about this text is the difference that Epicurus appears to be establishing between «thinking of himself by means of himself in accordance with the similar and non-different» and «thinking towards himself from other things [i. e. what are caused by other things] by means of himself [i. e. by his *pathos/pathe*], as he is said to think of himself in some affection». According to N. the matter under consideration is always the same, namely self-reflective thinking, but it is discussed in two ways. The first way in which a subject thinks of himself is according to the criteria of similarity and non-difference. To explain the meaning of “similar” and “non-difference”, N. draws upon the *First Alcibiades* and other passages from the second part of Book 25, in which Epicurus discusses memory and suggests that self-thinking is possible through the subject’s recollection of agents similar to himself and the engagement with different causal factors. But in order to grasp the meaning of the criteria of ὁμοιον and ἀδιάφορον, it might be possible to clarify the exemplification (οἷον) provided by Epicurus in a different way. The content of thought can be regarded as the same thing as the mind (for this is how we

¹⁶ Fr. 3 = Epicur., *Nat.* 25, Laursen 1995, pp. 104-105; 1056, corn. 3, z. 3 = 5 III = 10 N = 890 O = [34.15] Arr.

can interpret the female pronoun τούτη, as already suggested by Laursen and done by N. at p. 24), probably insofar as what is thought about (i. e. the object) coincides with the state of the mind at a given moment, with a particular physical arrangement of it¹⁷. However, by making Epicurus' extremely succinct phrasing a little more explicit, the content of thought can also be distinguished from the mind, as the content that is thought vis-à-vis that which thinks. Thus the mind might be capable of thinking itself as it thinks. If what has been suggested is plausible, the first way of thinking of oneself would involve both a recognition of likeness (since in fact the thinking subject is also the object) and a recognition of distinction (since there is a difference between subject and object, even though in this case they coincide).

The second way in which a subject thinks himself is identified by N. in the following way: a subject directs his attention to himself by means of himself, which is to say through *pathos*, i.e. the state of pleasure or pain he finds himself in, starting from the perception of external elements, which always goes hand in hand with an affective condition. N.'s interpretation of *pathos* in the sense of pleasure and pain, and of its function related to the development of self-reflecting thinking within the context of this specific passage, is certainly possible. As is widely known, according to Epicurus, by directly or indirectly influencing the sense organ, the object of corporeal sensation engenders an affection of pleasure or pain in the body. For the subject, pleasure and pain constitute the inner sign of the experiencing of external objects. Via pleasure and pain, therefore, the subject is capable of shifting his attention from the object perceived to himself.

This second mode helps clarify the meaning of a fourth fragment taken into account by N. (confusingly numbered as fr. 5)¹⁸. In this text Epicurus argues that if a living creature were incapable of thinking of itself through itself, which is to say – on the bases of what we have learned from the last section of fr. 3 – if it were incapable of being aware of itself in virtue of its own affects, it would also be incapable of perceiving itself and of engaging in rational calculation about affects in relation to the ultimate aim.

Notwithstanding the unavoidable uncertainties, partly caused, of course, by the nature of the texts under scrutiny, by focusing the reader's attention on these four fragments, N. has had the merit not just of

¹⁷ On this, see J. Annas, *Hellenistic Philosophy of Mind*, cit., pp. 157-175.

¹⁸ N. reports fr. 4 = Epicur., *Nat.* 25, Laursen 1995, pp. 105-106, 1191, 4, 1, 2, 6 at p. 56, n. 56.

noting the importance of *pathe* for the psychological development of the subject, and in particular for the development of self-awareness, but also of distinguishing and clarifying the various aspects of the perceptual-sensory experience. In this respect, N.'s analysis of *epaisthesis* seems absolutely convincing (pp. 18-21). The author here takes up and further develops Long-Sedley's interpretation of the term: whereas sensation represents the effect on the sensory organ of its contact with a stimulus coming from an external object, *epaisthesis* constitutes the irrational soul's sensory recognition of the external object perceived. This involves *pathos*, which is to say the recognition on the part of the perceiving subject of his own inner physical condition, as opposed to the perception of the object itself.

Let's see now how N. explains awareness on the basis of the *aitiologikos tropos*.

2.2 *Aitiologikos tropos*

In the case of the *aitiologikos tropos* too, the author sets out from a text that is little known among scholars (pp. 25-27):

Fr. (a)

.]ητι τή[ν] ψυχὴν κ[αὶ] τή[ν] λοιπ[ὴ]ν φύσιν [ἀ]π[ο]ποιῆσαι τὸ ζῶ[ιον] καὶ τὸ νοουμένην [ἐ]νότητι μηθέν ἢ [τὸ] ἕτερον νοεῖν τή[ν] [ψυχ]ικήν καὶ τή[ν] λοιπή[ν] φύσιν ἐξ ἧς εἶ[ναι εἰρή]καμεν.
(* εἰσμ.[.] μὴ κατ' ὀφθαλ[μ...]υσκρα[+/- 2/3]ασπ[+/- 3/4]καί[

[...] that the soul and the rest of the nature make the living being, and which we said to consist of the rational and remaining nature – which is thought to be a unity – thinks nothing but the other [...] not in the eye [...] ¹⁹.

According to N., this text, when compared with fr. 3, corroborates the hypothesis that the self-reflecting thinking of Epicurus is to be interpreted in the light of the originally Socratic idea of knowing oneself through others. On the basis of fr. (a), the opening part of fr. 3 might be taken to suggest that a person thinks of himself through himself, which is probably to say through the memorising of the visual perceptual experience of other living beings both similar to and different from him, whose corporeal appearance is found to be a

¹⁹ Epicur., *Nat.* 25, Laursen 1995, p. 72, 419 fr. 7.

unitary compound of soul and body. In the light of fr. 3, fr. (a) might mean that in perceiving itself as a unity of soul and body, and in seeing and thinking others as living beings that act, a living being forms a concept of itself as a responsible agent. Leaving aside the doubts already expressed with regard to the interpretation of fr. 3, it seems that the only conclusion that can safely be drawn from fragment (a) is that according to Epicurus a living being is a unitary organism – as already established in *Hrdt.* 63-66 – which interacts with what is other than itself, in terms of thought and sensation, as such. The need for Epicurus to once again confirm this aspect of his anthropology can be explained in the context of the book as an attempt to respond to those seeking to reduce an animal's activity to that of its atomic components, and to outline a systematic conception of the living being within the framework of an atomistic theory.

2.2.1. *Prolepsis*

However, in support of his interpretation, the author carries out a complex analysis designed to explain in what the *prolepsis* of one's own causal responsibility consists (pp. 27-48). To start with, he provides thorough and persuasive explanation of what *prolepsis* is. As is widely known, *prolepsis* is a difficult notion to interpret. Although the most informative source we have on the matter, Diog. Laert. X 33, lists it among the criteria of truth adopted by the Epicureans, the term rarely occurs in Epicurus' writings and no explicit definition of it is ever provided. Not only that, but Diogenes Laertius describes it by resorting to terms that suggest very different mental conditions and operations, namely something akin to apprehension, to right opinion, and to a general concept or notion that has been absorbed. N. provides an explanation of Epicurean *prolepsis* that is meant to be consistent with the way in which the philosopher conceives the experience of perception in general, and which fully takes into account the distinction between rational and irrational soul.

In brief, according to N. *prolepsis* can be understood as a process, which, on the one hand, collects, recomposes and translates into a general mental representation, *typos*, the many different aspects of the experience of sense-perception, and which occurs at the level of the irrational soul, in forms that vary according to the sense organ. On the other hand, through *epaisthesis*, or the irrational awareness of an external object, this process is capable of recalling the representa-

tion in question and of tracing it back to the perceived object, in such a way as to bring about a rational recognition of it too, on the basis of which the subject can form a right opinion on the nature of the object. N.'s solution is certainly noteworthy and largely persuasive. However, in support of this interpretation N. invokes, among other sources, a passage from Book 25 of *On Nature* which in my view does not provide sufficient evidence to confirm it (pp. 38-39). The passage in N.'s translation²⁰ runs as follows:

Fr. (b)

ἦττον, τοῖς δ' ὅλως ἐπὶ βρα[χύ] τι καὶ οὐκ ἐντυπῶν πάλιν
τινων καὶ πρὸς τὴν διανοητικὴν σύγκρισιν ὁμοιοσχημόνων
τοῖς πρὸς τάδε τὰ αἰσθητήρια παρεμπιπτόντων ἐκ τοῦ ἐκεῖθεν
προοδοποι[[η]]θηθῆναι τὰ γε δὴ πολλὰ ἐχούσης μὲν καὶ αὐτῆς
τῆς συστάσεως τῆς διὰ τῶν στοιχείων αἰτίας παρὰ τὴν τῶν
ἀτ[ό]μων διαφορὰν καὶ τῶν προυπαρχόντων πόρων, ** οὐ μὴν
[ἀ]λλ[ἀ] καὶ τοῦ ἀπογεγεν[νημέ]ν[ο]υ νοηθέντος[ς]...

[...] less, but moulding impressions on some to a very small extent and on some not at all, and [the *eidola*] similar in shape to those [*eidola*] which [impact] these sense-organs fall into the rational aggregate as the way has been prepared for them from over there, for in the most cases the same constitution has the cause through the elements operating on the difference between the atoms and the pre-existing pores [...] but the thought content of the product [i. e. of the occurrent mental state] also [...]²¹

With regard to this text, N. relies on my interpretation, based on a comparison with fr. 9 Smith of Diogenes of Oinoanda and a passage from Lucretius' *DRN* (IV 962-983), a part from an important point, which is worth highlighting²². I will therefore briefly recall my interpretation of the passage in order to then better illustrate the original contribution provided by N. and my reservations concerning his proposal.

²⁰ In F. G. Masi, *Epicuro e la filosofia della mente*, cit., pp. 49-50 I offer a different translation. In any case, on this passage, see now A. Gigandet, *Diogène, Lucrèce et la théorie épicurienne de l'imaginaire. Fragment 9 – De rerum natura IV 971-993*, in J. Hammerstaedt-P.-M. Morel-R. Güremen (eds.), *Diogenes of Oinoanda: Epicureanism and Philosophical Debates*, Leuven University Press, Leuven 2017, pp. 207-220, who provides a revised and improved text by Hammerstaedt.

²¹ Epicur., *Nat.* 25, Laursen 1995, p. 91, 1191, corn. 6, pz. 2, z. 2, col. 3; 1420, corn. 2, z. 2 = [35.10] Arr.

²² F. G. Masi, *Epicuro e la filosofia della mente*, cit., p. 50 n. 144.

Epicurus here would appear to be explaining that a mental aggregate is capable of receiving to different extents the simulacra that flow into the eyes, once they have opened a path for themselves through the sensory organ itself. In other words, the mind would appear to receive a perceptual residue from the eyes that preserves a structural and typological homogeneity with the external objects it originates from owing to the winding route it follows through the organism to reach the mental aggregate. The causes of the different degrees of impressionability of the mind across different subjects or different times would be, on the one hand, the atomic constitution of the individual, which despite its compactness, by virtue of the atoms and pores it comprises can be more or less suited to undergoing this process, and, on the other, what the mind thinks, which is to say that on which it concentrates and towards which it extends itself.

N. argues that this interpretation is limited by the fact that it describes the process of transformation of a sensory perception into a mental representation in purely physiological terms. In his view, in the second part of the passage Epicurus would be drawing a clear-cut distinction between the formation of representation on the non-rational level and the formation of representation on the rational level. In particular, Epicurus would initially be explaining that the simulacra which have interacted with the eyes leave an impression upon the rational aggregate; but then, through the use of the verb *προοδοποιηθῆναι* the philosopher would not merely be describing the physical process paving the way for the flow of simulacra towards the mind, but would rather be explicitly referring to the proleptic process of translating the *εἶδωλα* into *τύποι*. The representations of sensory organs would not be enough for the mind to carry out its activity of opining and reasoning, precisely because sensory representations are non-rational, whereas thought requires the rational recognition of the perceived object and the surroundings, and self-awareness. The use of the adjective *ὁμοιοσχημῶν* would indicate that the simulacra which the mind receives are only similar to those that leave an impression on sensory organs, which suggests that they have undergone a proleptic process of generalisation.

The suggestion that we keep together the epistemological level of the explanation of mental representations and the psycho-physical one is certainly interesting and acceptable, and I myself believe that for the Epicureans reality comprised two different layers: the mental level, made up of the sum of properties we perceive and are aware

of, and the physical level, represented by the underlying atomic processes – where the higher level cannot fully be reduced to, or identified with, the lower one. The verb προοδοποιηθῆναι was probably borrowed from Aristotle's *Parva naturalia*, where it is used within the context of an analysis of dreams (*De div.* 1 463a 26), and is recalled in the aforementioned passages by Lucretius and Diogenes, within the framework of a physiological description of the process by which images reach the mind. Personally, I still think that this verb has a chiefly physical meaning and that at this stage in Epicurus' exposition it reflects his concern to illustrate mental processes in atomistic terms, so as to show the adequateness of his theory of nature and account for more complex phenomena²³. The adjective ὁμοιοσχῆμων – like ὁμοιόμορφος, a term which Epicurus uses in other contexts of his work *On Nature* – points to the physical aspect of representations. In particular, the scheme represents the sum of the structural and stable properties of an object – for example, its magnitude and shape/structure. The *morphe* represents instead the external and transient properties of an object – for example its shape/appearance and colour (Epicur., *Hrdt.* 55). The homogeneity of the scheme, then, points to a correspondence between the simulacrum and the object which concerns structural and stable properties; the morphological homogeneity to a correspondence which also concerns external and transient properties. To argue that the simulacrum which reaches the mind is structurally homogeneous with that which has left an impression on the eyes thus means that, according to Epicurus, the simulacrum impressing itself on the *dianoia* preserves the structural properties of the simulacrum which has impacted the eyes, and hence those of the external object it originates from, yet not necessary all its morphological properties. Therefore, the simulacrum that reaches the *dianoia* gives rise to a typological representation of the external object, which does not reproduce all its external details²⁴.

²³ In itself, this does not rule out that Epicurus is an anti-reductionist or anti-determinist. In this book Epicurus pursues a twofold aim: to show that the atomistic theory is capable of furnishing an explanation of psychic phenomena and, at the same time, to assign the acting subject a power of self-determination that cannot be reduced to factors over which he has no control. These two aims are not always jointly pursued in the surviving passages, as the author may have one or the other goal in mind, depending on the polemical context or the issue addressed.

²⁴ On this point see G. Leone (ed.), *Epicuro, Sulla natura: Libro II*, Bibliopolis, Napoli 2012, pp. 536-537; A. Corti, Ὅμοιοσχῆμων ε ὁμοιόμορφος. *Alcune riflessioni sulle pro-*

Finally, it seems to me that in general the whole description of the way in which the mental aggregate is imprinted with the same εἶδωλα that penetrate the eyes is designed to emphasise – like other sections of Epicurus’ work – the physiological continuity between the process of sense-perception and the dianoetic process of representation, which according to Epicurus is crucial in order to ensure the veracity of φαντασία. Hence, I do not share N.’s idea of identifying two stages and levels of explanation in this passage, one devoted to the physiological formation of visual representations and the other to the mental formation of dianoetic representations. Epicurus is describing a single process, the process whereby a simulacrum, starting from the eyes, makes its way into the atomic constitution through any areas of the organism it encounters along its path, and impresses itself on the *dianoia*, giving rise to a representation of the external object.

2.2.2. *The prolepsis of causal responsibility*

After having described *prolepsis*, N. moves on to consider the way in which a subject develops a *prolepsis* of himself as a causally responsible agent (pp. 45-48). For this purpose, he turns to a widely discussed passage²⁵:

Text P

(o) [...] by which we never cease to be affected, the fact that we rebuke, oppose and reform each other as if the responsibility lay also in ourselves, and not just in our original constitution and in the accidental necessity of that which surrounds and penetrate us. (1) For if someone were to attribute to the very process of rebuking and being rebuked the accidental necessity of whatever happens to be present to oneself at the time, I

prietà degli εἶδωλα nella dottrina di Epicuro, in F. G. Masi-S. Maso (eds.), *Epicurus on eidola. Peri physeos Book II, Update, Proposals and Discussions*, Hakkert, Amsterdam 2015; F. G. Masi, *Dagli occhi alla mente: il percorso tortuoso degli eidola*, in F. G. Masi-S. Maso (eds.), *Epicurus on eidola*, cit., pp. 118-119.

²⁵ D. N. Sedley, *Epicurus’ Refutation of Determinism*, cit.; S. Laursen, *Epicurus On Nature XXV (Long-Sedley 20 B, C, and j)*, «Cronache Ercolanesi» 18 (1988), pp. 7-18; J. Annas, *Hellenistic Philosophy of Mind*, cit.; J. Annas, *Epicurus on Agency*, cit.; R. W. Sharples, *Epicurus, Carneades and the Atomic Swerve*, «Bulletin of the Institute of Classical Studies» 38 (1991-1993), pp. 174-190; S. Bobzien, *Did Epicurus Discover the Free Will problem?*, cit.; P.-M. Morel, *Atome et nécessité: Démocrite, Épicure, Lucrèce*, cit.; T. O’Keefe, *Epicurus on Freedom*, cit.; F. G. Masi, *Epicuro e la filosofia della mente*, cit.

am afraid he can never in this way understand <his own behaviour in continuing the debate...> (2) <He may simply choose to maintain his thesis while in practice continuing to> blame or praise. But if he were to act in this way he would be living intact the very same behaviour which we have in mind in the case of ourselves in accordance with our *prolepsis* of the cause, and he would have changed the name only. (3) <...> such error. For this sort of account is self-refuting and can never prove that everything is of the kind call 'necessitated'; but he debates this very question on the assumption that his opponent is himself responsible for talking nonsense. (4) And even if he goes on to infinity saying that this action of his is in turn necessitated, always appealing to argument, he is not reasoning it empirically so long as he goes on imputing to himself the responsibility for having reasoned correctly and to his opponent that for having reasoned incorrectly. (5) But unless he were to stop attributing his action to himself and to pin it on necessity instead, he would not even <...> (6) refute ... [by calling] what is said [to be done] by ourselves by the name of necessity, it is only the name that is changed. But it is necessary for him to demonstrate [instead] that the proleptic outlines <attached> to this thing we call the cause by ourselves are defective. (7) But even to call necessitation empty as a result of your claim. If someone will not explain this, and has not auxiliary element or impulse in us to dissuade us from those actions which we perform, calling the cause for them 'thorough us ourselves' but if for everything which we desire to do and we call the cause 'through us ourselves' he is giving the name of foolish necessity, he will merely be changing a name; (8) he will not be modifying any of our actions in the way in which in some cases the man who sees what sort of actions are of necessity regularly dissuades those who desire to do something in the face of compulsion. (9) And the mind will be inquisitive to learn what sort of action it should then consider that one to be which perform in some way 'because of ourselves' by desiring to perform it²⁶.

This is the section from the second part of the book in which the philosopher refutes the attempt made by some opponents of his to reduce the psychological development of man to the necessary out-

²⁶ Nemeth follows the integrated text I have provided in F. G. Masi, *Epicuro e la filosofia della mente*, cit., p. 95-96. As he notes (p. 64 n. 185) the text has received a lot of attention. I will provide only N.'s translation. Cf. Epicur., *Nat.* 25, Laursen 1997, pp. 34-40, [34.27-30] Arr., Long-Sedley 20C.

come of the mechanical interaction between nature and the environment. Epicurus criticises his opponents because they claim that all human dispositions and actions are necessitated, and yet continue to adopt reactive practices, such as praise and reproof, as though causal responsibility lay in the agents and not merely in the mechanical necessity of what surrounds and penetrates them. In doing so, the champions of necessity first of all prove their ineffectiveness, insofar as they are unable to change the way in which agents envisage their behaviour in the light of the *prolepsis* of causal responsibility. Secondly, they run into self-contradiction on the performative level since, when discussing the issue with other people, they affirm an absolute kind of necessity yet treat themselves as the authors of a correct reasoning and others as being responsible for their own fallacious arguments. In behaving in such a way, the champions of necessity are merely changing a name and calling “necessity” that which the subject conceives as his own causal responsibility. In order to avoid similar consequences, they ought to show that proleptic representations of causal responsibility are faulty and, conversely, that their own notion of necessity has an empirical foundation.

N. focuses his attention on this *prolepsis* of causal responsibility, seeking to explain how it is formed and how it contributes to the development of self-awareness on the subject’s part:

it is our behaviour which makes us connect our *prolepsis* of the cause with ourselves. Accordingly, if the Epicurean *prolepseis* are built from recurrent experiences, that is, if they are the result of repeated encounters with things through sense perception, the *prolepsis* of our own responsible self must have primarily come from frequent observations of people behaving in ways that are in harmony with explicit causal processes. The memories of such actions, in turn, give rise to the conception of responsible agency, since we also start reflecting on our own behaviour, as it is represented in our repeated and immediate sense perception of ourselves. (pp. 46-47)

N. then nicely explains in what way the development of awareness of oneself as a causally responsible subject is connected with self-reflective thinking through affection. The concept of one’s own causal responsibility could not emerge in a subject simply on the basis of the observation of a causal link between his own actions or those of other people and their effects, because even in a completely neces-

sitated world it would be possible to find causal connections of this sort. In order for the subject to have a notion of himself of this kind, he must experience the fact that his own actions are *causa sui*, caused by himself, in agreement with his desires. The *pathologikos tropos* thus subserves to the *aitiologikos tropos*, which is to say that the way in which the concept of self develops in a subject through his inner affects is the precondition for the development of the concept of the self as a responsible cause.

The discussion of the concept of self via *prolepsis* is further related to a broader discussion of the function of memory.

2.2.3. Memory

N. recalls a passage in which Epicurus explains the generation of the memory of one of the criteria of truth and provides a new reading of it.

Text M

[μ]νήμη ἢ τὸ τῆι [μνή]μηι πάθος ἀνάλογον ὧν ἔδει μᾶλλον ἐνεγείνεται πρὸς τὸ ὠρισμένον καὶ τὰ πάντα ἐξελέγχον τῆς ἀναφορᾶς γινομένης καὶ οὐ πρὸς ἀόριστα καὶ κρίσεως προσδεόμενα.* αὕτη δ' αὐ πάλιν ἢ τούτου μνήμη ἢ ἀνάλογος μνήμηι κίνησις τὰ μὲν συνεγεγέν[νη]το εὐθύς, τὰ δ' ἠϋξήτο τὴν ἀρχὴν ἔχουσα καὶ τὴν αἰτίαν ἢ μὲν τῆι πρώτῃ συστάσει τῶν τε ἀτόμων ἅμα καὶ τοῦ ἀπογεννηθέντ[ο]ς, ἢ δὲ τῆι ἐ[παυ]-ξομένει, ε[ἰ] π[άν]τα δρῶ[με]ν, τ[ῶ]ν ἀτόμων ἅμα καὶ αὐτοῦ τοῦ ἀπογε[γεν]νημένου ἐ[ξ] ἄ[νά]γκ[η]ς ἀντιξοῦν ἐπ' ἐνίων [τοῖς] ἀπ[ο]γεγνήσασιν ...

[...] the memory or the *affection* (*pathos*) analogous to the memory of the more necessary things came to be/exist within in reference to the well-defined and that is used to test all things and not in accordance with things that cannot be defined but need judgment. This memory of that, or the movement analogous to memory, was again in one aspect cogenerated immediately, and under another it had grown, being the beginning and the cause for, in the first case, the first of both the atoms and what is produced [i. e. the occurrent mental state], in the other case, for the on-growing [constitution], by means of which we perform all our actions, of the atoms and the product itself [i. e. the occurrent mental state itself] that in some cases is necessarily opposed to what produced [...]²⁷.

²⁷ Epicur., *Nat.* 25, Laursen 1997, p. 16 ff., 1191, corn. 4, pz. 2, z. 1/1191, corn. 7, pz. 1, z. 2-3

The most interesting aspect of N.'s analysis lies in his interpretation of the expression «memory or the affection analogous to memory», which Epicurus regards as equivalent to the expression «memory or the movement analogous to memory». According to N. these expressions mean that memory implies the recollection of a past perceptual experience and that it is capable of reconstructing the affection associated with this experience. In brief, according to N.

a memory is either immediately present and in this case is constitutive of both the arrangement of the atoms and the arrangements of a given mental state, or recalling a memory requires some time during which the developing arrangement of the atoms as well as the emergence of a particular mental state takes place; in this latter case, the memory has a causal aspect in the structured formation of the occurrent mental state. The immediate co-generation seems to. (p. 49)

This is certainly one way of interpreting Epicurus' text. However, three difficulties emerge. The first difficulty is that – as N. himself acknowledges later on – the adjective “analogous” suggests that memory is the mental state that corresponds to an affection or to an atomic movement which occurs at the physical level. If this is true, memory and affection are not two states occurring on the same level: the former occurs on the mental level, while the latter is an alteration occurring at the atomic level. A subject will be aware of the mental state of recollection, yet not of the underlying atomic motion. The second difficulty is that, contrary to what N. suggests, from this expression it can hardly be inferred that memory belongs to the irrational part of the soul. Clearly, there is an active part of memory which consists, on the one hand, in being able to recall a past perceptual experience and, on the other, in being able to judge the recalled object, whether it is still perceivable or not. Perhaps, in order to better support his interpretation, the author might have perhaps referred to Lucretius and Diogenes' testimonies regarding the capacity of images in general to reactivate memories of past perceptual experiences and, at the same time, of the affects of pleasure and pain associated with them²⁸.

Finally, N's reading of the passage, without any preliminary clarification of some fundamental concepts, such as the notion of

= -23 sup.; 697, corn. 2, pz. 2, z. 4; 1056, corn. 5, z. 1 = [34.20] Arr.

²⁸ Cf. Lucret., *DRN* IV 1011-1036; Diog. Oen. fr. 10 Smith.

σύστασις and of pair of terms ἀπογεννηθέν/ἀπογεγεννημένον, risks coming across as purely conjectural and speculative, not to mention largely incomprehensible. Indeed, I do not believe that the on-growing atomic constitution can be interpreted in the sense of the atomic arrangement momentarily produced by memory. For, while the text is notoriously difficult, it is clear that the direction of the causal relation which Epicurus wishes to establish is from the constitution to memory, and not vice-versa, as N. seems to suggest. Furthermore, to clarify the meaning of the passage, N. ought to have addressed two questions: the first is what the relation might be between memory and ἀπογεννηθέν, on the one hand, and memory and ἀπογεγεννημένον, on the other. In a passage from the first part of the book, Epicurus seems to include memories among the *apogegegnemena*. It is a matter of understanding what these two participles – one in the aorist, the other in the pluperfect – describe, namely whether they refer to the same thing or not; and whether memory can be taken to exemplify them. The second question is what relation exists between the original constitution and ἀπογεννηθέν, on the one hand, and between the augmented constitution and ἀπογεγεννημένον, on the other. Many passages concern the contrast between the original or first constitution and the ἀπογεγεννημένον, whereas here the notion of original constitution is set in relation to that of ἀπογεννηθέν. I shall be returning to these issues in greater detail later on. For the time being, I will only suggest an alternative reading of this passage to that provided by N.: the phenomenon of recollection is the outcome of the full functioning of memory, which is to say the capacity to retain traces of past experiences and recall them, if need be, through a series of appropriate operations. The fact that every individual has the power to receive and retain given imprints from birth (this is the way I intend the fact that there is a cogenerated aspect of memory) is explained by his/her first atomic constitution, which is to say the particular composition of his/her mind and the disposition it has it has acquired within the organism as a whole. The fact that a person will exercise such faculty in relation to certain *typoi* rather than others (this is the way I intend the fact that memory on another respect had grown) instead depends on his/her grown constitution, which is to say the way in which the composition and disposition of his/her mind have changed over time. If this interpretation is correct, we may therefore conclude that Epicurus is here providing a twofold description of memory. On the psychological level, active memory is described in

relation to its relation to its causal links with other mental states (i.e., the congenital faculty of receiving and retaining imprints from outside, the reference to the well-defined, namely the criteria of knowledge etc.). On the physical level, memory is described in relation to the specific state of the organism that is implementing it. We will consider later how Epicurus succeeds in reconciling this explanation with the idea that mind is capable of self-determination.

Aside from the problematic aspects I have sought to highlight, in the first chapter of his book N. has succeeded in providing an interesting new interpretative key to Book 25: on the basis of an in-depth analysis of little-known fragments, he has shown how the focus of Epicurus' attention is the question of the self – understood as self-awareness – and of its formation. N. has contributed to clarify how the *pathologikos tropos* and *aitiologikos tropos* are interconnected. In a convincing way, he has shed light on the close link that Epicurus establishes between the affection of oneself, the prolepsis of one's own causal power, and memory, highlighting the content of the treatise and its structure. It is now a matter of understanding how Epicurus acknowledges the development of self-awareness within the framework of an atomistic theory of the soul.

3. Epicurus' Physicalism

Text M is a crucial passage within the context of the argument developed in Book 25, because it bears witness to Epicurus' commitment to justify mental properties, in their various stages of development, within a physicalist framework in which higher ontological levels depend on lower ones. This will become clearer later on, in the context of an examination of mental development which assigns to *διάνοια* and its more complex functions a power of self-determination irreducible to that of other causal factors, such as the individual atoms composing it, its original nature or constitution – understood as the initial soul-body atomic compound – and the environment. The question raised by this passage, as it has been anticipated in the previous paragraph, is how Epicurus is able to reconcile these two requirements: to assign the mental level a degree of independence from the atomistic physical level without denying the dependence of the properties belonging to the higher levels on those belonging to the lower ones, since this would undermine his whole system.

N. explores this problem especially in Chapter 2, entitled *Agency and atomism*. The author's interpretation falls within the context of the lively critical debate which has developed since the 1980s, when D. Sedley published his pioneering and widely discussed landmark study *Epicurus' Refutation of Determinism*²⁹. In this work Sedley argued that – against the attempts made by some philosophers from Nausiphanes' circle to derive determinist implications in the psychological and practical sphere from Democritean atomism – Epicurus sought to attribute a power of causal self-determination to agents and to ground this power within the framework of an emergentist theory according to which matter, at a certain level of complexity, acquires properties that are causally independent of it and capable of retroacting upon its physical states. Since then, numerous attempts have been made to reinterpret Epicurus' philosophy of mind, for two chief purposes. The first is to safeguard the consistency of his atomistic system, where higher and more complex ontological levels must causally depend on, namely produced by, lower and simpler ones – or can entirely be reduced to them (according to a reductionist theory) – and where it is impossible for the former to causally affect the latter. The second purpose is to credit the philosopher with an attempt to assign the mind a capacity for self-determination and autonomy with respect to certain causal factors over which it cannot exercise any control. The author takes this literature only partially into account. For N. claims:

it is very useful to present the general outline of the two most influential readings of Epicurus's theory as reductionist and anti-reductionist and the ideas of their strongest advocates, Tim O'Keefe and David Sedley, respectively before introducing any textual evidence. Presenting these interpretations at such level of generality will clearly show the assumptions with which these interpretations at such a level of generality will clearly show the assumptions with which these modern commentators approach the later fragments of book 25, and the introduction through their antithetical interpretations will provide the best insight into the key philosophical difficulties of these fragments. Furthermore, such a procedure allows me to reflect on them more easily during my subsequent, textual analysis on the strength of which I will evaluate the competing interpretations and put forward my own understanding of Epicurus' theory. (p. 71)

²⁹ D. N. Sedley, *Epicurus' Refutation of Determinism*, cit.

Clearly, however, as will become clear later on, the implicit risk in a procedure of this kind is to present an anti-reductionist middle solution already attested in the literature – a solution half way between Sedley’s emergentist interpretation and O’Keefe’s one – as something utterly original, rather than as an only partially different version of solutions already put forward by other scholars.

N. has shown that the *pathologikos tropos* and the *aitiologikos tropos*, intended as ways of developing of the self, are closely interconnected and functional to the emergence of self-awareness in the agent: the former indicates the way in which the subject thinks of himself through his own inner affections, the latter the way in which the subject develops a concept of himself as a causally responsible agent. The author then focuses on fragments from the second part of the book, in which Epicurus further explores the *aitiologikos tropos*, explaining what the causal agency of the subject consists in. N.’s aim is to clarify in what way the causal power of man is grounded within the framework of an atomistic theory. To do so, he first clarifies what is meant by emergentism and reductionism (pp. 72-75). Then, by analysing some fragments traditionally regarded as central to this debate, he outlines an anti-reductionist solution (pp. 75-86). To confirm this solution, he analyses the fundamental notion on which the whole Epicurean treatment of the subject hinges, namely the notion of τὰ ἀπογεγεννημένα (pp. 86-92). Finally, N. explains how the notion of swerve was used to ensure the causal autonomy of mental states from physical states (pp. 92-98). The chapter has a clearly articulated structure.

In the following pages, we will be examining in greater detail the issues addressed by N. in the second chapter of his book. However, since a preliminary clarification of the notions on which Book 25 hinges and of the grounds for the polemic with his opponents might help better explain Epicurus’ peculiar solution and its limits, before examining the interpretation suggested by N., it may be useful to spend a few words on such matters.

3.1. *Atoms, Nature/Constitution, and Products*

Most of Book 25 is devoted to an analysis of the kind of relationship that exists between products (or mental states) and atoms, on the one side, and their products and constitution, or nature, on the other. Epicurus’ attempt to justify human causal responsibility and to explain the origin and the development of mental states essentially relies on

the use of these technical notions. In order to refer to mental states, Epicurus uses the participles τὸ ἀπογεννηθέν, τὸ ἀπογεννώμενον, τὸ ἀπογεγεννημένον and the plural ones τὰ ἀπογεννηθέντα, τὰ ἀπογεννώμενα and τὰ ἀπογεγεννημένα. N. does not overlook the fact that Epicurus employs the participle of the verb with different tenses, in order to refer to different phases of a given mental states (pp. 51 e 89), yet he does not believe this to be particularly significant for the translation of the term, which he simply renders as ‘the products’, following other interpreters.

But in fact, Epicurus makes sure to use the aorist participle for products at their original stage, the present participle for products in their stage of development, and the past participle for the stage at which they are developed. Here I will only be presenting what I regard as some particularly significant examples. In the above-quoted text on memory (M), Epicurus distinguishes between two aspects of memory, a congenital aspect, and an on-growing one. He traces the first aspect back to «the first atomic constitution both of the atoms and, at the same time, of the ἀπογεννηθέν», and the second aspect back to the «on-growing constitution [...] of the atoms and, at the same time, of the ἀπογεννημένον itself», thereby clearly associating the substantivised aorist participle τὸ ἀπογεννηθέν with the first atomic constitution and the congenital aspect of memory, and the substantivised perfect participle τὸ ἀπογεννημένον with the on-growing structure itself and the memory derived from it. The tenses of the two participles would thus appear to be used to refer to two different stages in the development of the atomic structure and of memory. In particular, the aorist participle would appear to refer to an initial stage, and the perfect participle to a phase of completion of the process. Similar conclusions can be drawn from other fragments. In this regard, among the various texts quoted by N., it is worth focusing on what he classifies as fr. 10:

Fr. 10

...[ἀ]ποβαινόντων κατὰ [τ]ὰς συνωσθείσας ἀλλ[λ]ὰ καὶ αἱ
συνωσθεῖσαι δηλόνως ὁμοίως. φύ[σ]ιν γὰρ εἶχον συνωσ[θ]εῖσαι
τοιαῦτα ἀπογ[ενν]ᾶν καὶ τοιούτο[υ] ἐ[ν]άρ[χ]εσθαι αἱ αὐ[ταῖ]
κα[τὰ] τὸν [ἀ]π[ὸ] τοῦ ἀύτ[ο]ῦ δ[ια]στήματος τρόπον. [κ]αὶ τ[ὰ]
ἀπ[ὸ]γεν[νηθ]έντα ... (lacuna of a few letters)

[...] not only coming about in accordance with the [atoms]
thrust together, but also the [atoms] trust together, clearly in

the same way. For if thrust together in an homogeneous way, the same atoms have the nature to produce such things and to start such a process [...] in accordance with the manner ‘from the same distance’ [...] And the ἀπογεννηθέντα [...] ³⁰.

According to this reconstruction of the text (p. 76), it would seem as though Epicurus is using the active present infinitive ἀπογεννᾶν, coordinated with the verb ἐνάρχεσθαι, to mean “to produce” in the sense of ‘engendering’, to describe the new formation of something starting from a combination of atoms. The substantivised present participle τὰ ἀπογεννηθέντα would instead appear to be used to describe the outcomes of this process, namely the things engendered. These original products, moreover, appear to be the unexpressed subject of the following passage, which N. classifies as fr. II-12 (*ibidem*):

FR. II-12

[τοιαῦτα γί]νεσθαι κατὰ τὸν πρ[ο]ειρημένον τρόπον καὶ τῶν αὐτῶν ἀπεργαστικά εἶναι. πολλὰ δὲ καὶ τῶνδε καὶ τῶνδε φύσιν ἔχοντα ἀπεργαστικά γίνεσθαι δι’ ἑαυτὰ οὐ γίνεται ἀ[πε]-ργαστικά (οὐ διὰ τὴν αὐτὴν αἰτίαν τῶν τε ἀτόμων καὶ ἑαυτῶν), οἷς δὴ καὶ μάλιστα μαχόμεθα καὶ ἐπιτιμῶμεν, .[.]οὔντες κατὰ τὴν ἐξ ἀρχῆς ταραχώδη φύσιν ἔχοντα, κα[θ]άπερ ἐπὶ τῶν πάντων ζώων. οὐθὲν γὰρ αὐτοῖς συνήργηκεν εἰς ἓνα ἔργα τε καὶ μεγέθη ἔργων καὶ διαθέσεων ἢ τῶν ἀτόμων φύσις, ἀλλ’ αὐτὰ τὰ ἀπογεγεννημένα τὴν πᾶσα[ν ἢ] τὴν πλε[ί]στην κέ[κτ]ητ[αι] αἰτί<α>ν τῶνδὲ τ[ι]νων, ἐκ δ’ ἐκ[ε]ίνης [ἔ]νιαι τῶν [ἀ]τόμων [κ]ινήσεις ταραχώδε[ι]ς κ[ι]ν[ο]ῦνται, οὐχὶ διὰ τὰ[ς] ἀτόμου[ς] πάντως [δ]ι[ὰ] δὲ τῶν [παρεμ]π[ι]πτόν[των] κατ’ ἀνάγκην ἐκ τοῦ περιέχοντος [εἰς] τὴμ φυσικῆ[ν +/- 5/6] η[+/-1/2]τω[...].τεστ[- ο]υ πάσης κε[ι]μ[εν]. [- αιτι]ας [ο]ύσης κα[ι] αὐτῆς τῆς τῶν ἀτόμ[ων] ἐξ ἀρ[χ]ῆς συ[στάσεω]ς κα[ι] [-]ω.[- ἀθ]ροί[σ]εως [- ἐ]ξ αὐτοῦ τοῦ ἀ[πογενν]ηθέντος εἶπερ [-]... [.]ἀπαντων ... (lacuna of roughly 30 letters)

such [*scil.* ἀπογεννηθέντα] come to be in the way described and are able to become apt to engender the same [*scil.* actions and dispositions]. But many [ἀπογεννηθέντα], though by their nature, are able to become creative of these and those [results], because of themselves do not become so (not because of the same

³⁰ Epicur., *Nat.* 25, Laursen 1997, p. 18, 697, corn. 3, pz. 1, z. 1 = [34.4] Arr. N. adopts some of the textual changes I have proposed in F. G. Masi, *Epicuro e la filosofia della mente*, cit., p. 82.

cause of atoms and themselves). And with these we especially do battle, and rebuke them, [...] behaving in accordance with the original nature which is chaotic, just as in the case of every living being. For the nature of their atoms has not contributed anything to some of their actions or to the extent of actions or dispositions, but the ἀπογεγεννημένα possess all or most of the responsibility for certain things. It is a result of that nature [i. e. the disordered congenital nature they have] that some of their atoms move with disordered motions, but it is not, however, entirely on these atoms [because of the things necessarily] entering [from the] environment [into] the natural [...] that all the causal responsibility should be placed, [and on the atoms of the original constitution and of the compound, but] out of what is produced himself [...] (*lacuna of roughly 30 letters*)³¹.

In the light of the above passage, it is conceivable that these ἀπογεννηθέντα, which at the time of their creation have the capacity to become apt to engender certain actions or dispositions, probably conducive to moral progress and the attainment of happiness, do not become so at a subsequent stage of their development – namely, when they are ἀπογεγεννημένα – because of themselves. This would seem to confirm the idea that the ἀπογεννηθέντα representing the original products of suitable atomic arrangements are susceptible to further evolution.

The modes of this development will be examined in the following passages.

The first is classified as fr. 7 by N.:

Fr. 7
δ' [ἀ]π[οτ]ελεῖται τὰ μὲν κατ' ἐπίσοδόν τι[[τ]]`ν' ὧν ἀπο{γε}-
γεννώμενα τὰ δὲ καθ' ὁμοῦρησιν (καὶ που καὶ τὸ μὴ αἰωρούμενον
τῆς φύσεως ἀλλὰ τοῦ ἐν [ἐ]αυτῷ τ[έ]λους [μ]νήμησιν καὶ [ἀνα]-
λογ[ισ]μὸν λαμβά[νον] κατὰ [π]λέ[ο]ν ἢ ἔλατ[τον]), ἔτι δε.[+/-
4/5]οντ[.] τι[.].[+/- 5/6]ι[.] τ[α]ι[.] περ[+/- 4/5].τ.τ[.] εν [+/- /8]κ[

[...] some are brought about by being produced in accordance with external influx, others in accordance with vicinity – in a way also that part of our nature that is not held in abeyance, but remembers, and determines, to a greater and smaller degree,

³¹ Laursen 1997, p. 19, 1191, corn. 4, pz. 2, z. 3 = - 22 inf./1191, corn. 7, pz. 1, z. 3 = - 21 sup. = [34.21] Arr. 1056, corn. 5, z. 2; p. 20, 1191, corn. 4, pz. 2, z. 3 = - 21 inf./1191, 7, 1, 4 = - 20 sup.; 697, corn. 3, pz. 1, z. 2.

what is our inner and also [...] ³².

Here the present participle – coordinated with the verb ἀποτελεῖται, which indicates the completion of an ongoing process – would appear to describe the development of certain states through the penetration of some external elements or the contiguity of body and soul.

The second passage, which has already been mentioned and is classified as fr. 15 by N., is most important to understand how psychological development unfolds according to Epicurus:

Fr. 15

.... κατηγοροθμένης φύσεως καὶ οὐ κατ'αὐτὸ ἢ καὶ αὐτὸς προσαγορευ[ο]μένης. Κἂν κατὰ διάνοιαν δε [τ]ι ἐκβιάζηται ἢ πρώτη σύστασις τοῦ ἀπογεννωμένου, μὴ ἐξ ἀνάγκης μέχρι τῶνδὶ τινῶν τοιοῦδε ἀπογεννωμένου ἀλλὰ μέχρι μὲν τοῦ ψυχὴν γενέσθαι ἢ καὶ τοσαυτηνὴν διάθεσιν καὶ κίνησιν ἔχουσιν ψυχὴν ἐξ ἀνάγκης τοιοῦδε ἀπογεννωμένου ἐκ τῶν τοιούτων μὴ μέχρι δὲ τοῦ τοιανδὶ [ψ]υχὴν ἢ τ[οι]ανδὶ οὐκ ἐξ ἀνάγκης τοιοῦδε ἀπογεννωμένου ἢ οὐκ ἐπειδὴν προβῆι γε τῆι ἡλικίαι τοιοῦδε ἀπογενν[ω]μένου κατ'ἀνάγκην, ἀλλ' ἐξ ἑαυ[ο]ῦ δυ[να]μένου καὶ τ[ῆς] ἐξ ἑαυ[τοῦ] αἰτ[ίας] καὶ ἄλλο ... ἐκβ[ί]αζητ[α]...

[...] a certain nature predicated, and not referred to as 'it' or even 'he'. And even if the first constitution of the ἀπογεννωμένου exerts some compulsion in the mind, this sort of thing is not being produced by necessity all the way to certain specific things, but on the one hand, as far as a soul or rather a soul with a disposition and movement of this particular size comes about, a thing of such kind [is] being produced from things of this kind [from the atoms?] by necessity, and on the other hand, as far as a soul of this or that kind comes about, it is not by necessity that this sort of thing [is] being produced or at least as one proceeds in age it is not by necessity that one has this sort of thing produced, but as a result of oneself and as a result of the cause out of oneself one [is] able to exert some power [...] [producing] something else [...]. ³³

Here the participle ἀπογεννωμένου describes a process that necessarily take place starting from something, possibly atoms, and continues

³² Epicur., *Nat.* 25, Laursen 1995, pp. 8-9, 1056, corn. 4, z. 2.

³³ Epicur., *Nat.* 25, Laursen 1997, pp. 28-29, 1191, corn. 7, pz. 2, z. 3 = - 16 inf./1191, corn. 8, pz. 1, z. 2 = -15 sup. = [24.34] Arr., 697, corn. 3, pz. 2, z. 3; 1056, corn. 6, z. 1.

up to a specific point, namely the formation of the soul, with its initial disposition and motion, and then unfolds over time in a different way, namely no longer by necessity, but autonomously. The explicit reference to age is crucial, as it shows that the process of development of the product occurs diachronically. Moreover, Epicurus specifies that this evolution also takes place through an intrinsic power of self-determination of the product (ἐξ ἑαυτοῦ δυναμένου καὶ τῆς ἐξ ἑαυτοῦ αἰτίας).

Finally, the outcome of the process of development of the product is clearly marked by the perfect participle in the following text, classified as fr. 17 by N.:

Fr. 17

ἀπ[ὸ τῆς πρώτης ἀρχῆς σπέρμ[ατά ἐστιν ἀγ]ωγά, τὰ μὲν εἰς ταδ[έι], τὰ δ' εἰς ταδει, τὰ δ' εἰς ἄμφ[ω ταῦ]τά [ἐ]στιν αἰεῖ [κα]ὶ πράξεων κ[αί] διανοήσεων καὶ διαθέ[σε]ων καὶ πλεί[ω] καὶ ἐλάττωι. ὥστε παρ' ἡμᾶς π[ροθ'] ἀπλῶς τὸ ἀπογεγεννημένον ἤδη γίνεσθαι τοῖα ἢ τοῖα καὶ τὰ ἐκ τοῦ περιέχοντος κ[α]τ' ἀνάγκην διὰ τοὺς πό[ρο]υς εἰσρέοντα παρ' ἡμᾶς π[ρο]τε γείνεσθαι καὶ παρὰ τὰς ἡμετέρας [ἐ]ξ ἡμῶν αὐτῶν δόξ[ας]. Καὶ εἰ παρὰ τὴν φύσι[ν]...

From the first beginning [there are] seeds directing, some to these, others to those, other to both-in every case seeds, which may be many or few, of actions, thoughts and dispositions. Consequently, at some time it is precisely because of us that the ἀπογεγεννημένον becomes such or such, and it is because of us or rather because of the beliefs of our, which are from ourselves that the things which of necessity flow through our passages from that which surrounds us at some point of time become (such or such). And if again nature [...] ³⁴.

Here the term ἀπογεγεννημένον clearly indicates the fulfilment of certain initial potentialities. Epicurus introduces the idea that the ἀπογεγεννημένον becomes of one sort or another as a consequence (ὥστε) of the fact that from its very origin, which is to say from its birth or even its conception, the seeds of specific mental, ethical, and behavioural traits are to be found. Epicurus further explains that this development is chiefly the outcome of the opinions by which we filter external impressions. We will be returning to this passage later on, as

³⁴ Epicur., *Nat.* 25, Laursen 1997, pp. 32 f., 1191, corn. 8, pz. 1, z. 5; 697, corn. 4, pz. 1, z. 1; 1056, corn. 6, z. 3 = [34.26] Arr. = 20C 1 Long-Sedley.

it is crucial in order to identify the mind's power of self-determination.

In the light of what has been argued so far, the singular and plural participles can respectively be translated as “original product [*scil. that which has just been originated*]”, “developing product” and “developed product”, and “original products”, “developing products” and “developed products”³⁵.

N., who in his translation of the various passages does not preserve this distinction, in some cases ends up confusing Epicurus' references and treating products – which is to say, mental states – at an early stage of their formation as fully developed products. Inevitably, this has certain repercussions on N.'s interpretation of passages featuring the various terms. For example, as already noted, at the beginning of his fr. 11, on p. 76, πολλά refers to τὰ ἀπογεννηθέντα of fr. 10, which is to say those products that have just been generated, not those which have become fully developed under the influence of different factors. The meaning of the sentence, then, must be that many mental states at the early stage of development have the possibility to engender certain kinds of morally appropriate dispositions and actions, yet are incapable of doing so at a later stage; and this, not because of their nature, i.e. the perturbed atomic constitution from which they derive, but by their own fault. The reason why it is important to keep the reference to the original products is that – as will become clearer later on – fully developed products no longer have the same possibility of evolving and progressing. In other cases, it is useful to distinguish between the causal power of a product just engendered and that of the individual atoms it comprises, on the one hand, and between the power of a developing or already fully developed product and that of the original atomic constitution of the mind, on the other hand³⁶.

Moreover, as regards the interpretation of the term, N. believes that in general it refers to occurrent mental states, by which he means volitions or causal powers which are generated by virtue not just of the atomic structure of the mind, but also of other psychological factors, such as desires, memories, beliefs, etc., and which can change and rearrange the atomic constitution of the mind with a downward causation, which is to say an action exerted by mental states on the

³⁵ I will refer in particular to F. G. Masi, *La nozione epicurea di ἀπογεννημένα*, «Cronache Ercolanesi» 35 (2005), pp. 27-51. The solution I put forward was later taken up by D. Sedley and J. Brunschwig in their French translation.

³⁶ This will become clearer when we examine fr. 13 in the following pages.

physical states of the atomic constitution (p. 85). N. believes that τὰ ἀπογεγεννημένα must refer not to stable dispositions, but rather to what generates actions and dispositions. N. provides a very clear and effective example to illustrate his interpretation of the term:

If I wish to drink a coffee, my desire is a kind of structured result of many factors, such as feeling sleeping and having a belief that my condition can be changed by drinking a coffee, as well as perhaps also the result of thinking of some relevant images or bringing out some memory of similar case. In other words, once someone wants something, the volition cannot be described as the mere outcome of the underlying pattern of atomic motions. What a particular volition is, is not only determined by some atomic motions, but it is further specified by various mental factors, because for the constituted causal capacity to gain its independence needs to mean that it is further defined independently of the atoms. (pp. 85-86)

It is certainly true that in certain passages of Book 25 the ἀπογεγεννημένα are presented as the causal factors directly responsible for actions and dispositions. For instance, as already noted, in fr. 11, the ἀπογεγεννημένα have the major causal responsibility for actions and dispositions. In this respect, N.'s solution fits perfectly. However, it is equally true that in other passages Epicurus seems to refer the expression to the overall state of the mind at different stages of its development – for example in fr. 15 – and to those mental properties that contribute to defining the character and the intellectual capacities of human beings and which develop over time, such as thoughts, memories, beliefs, and dispositions. Thus in fr. 17 the term refers to the complete development of moral and behavioural traits, while in text M. the term is used in relation to memory at its various stages of development. Moreover, Epicurus apparently also maintains that once products, or at any rate some products, have reached a certain stage of development, they become consolidated and can no longer be changed. In a fr. which N. does not take into account, Epicurus suggests the possibility that ἀπογεγεννημένα – the implicit subject of the discussion – at one point become so rigid that they can no longer be altered:

αυν[±6/7]ς μαχόμεθα τοῖς ἔ[θ]ισμα[ι] κα[ὶ] οὐ τὴν ἀτογ[ί]-
αν ἔχουσ[ιν ἀλλ'] οὐ[δ]ὲ παρακαλεῖν ἐπιχειροῦμεν καὶ
παροξύνειν ἐπὶ τὰ κ[α]λ[ί]ρι[ώ]τατα ὡς ἤδη πέπηγεν ἀ[πὸ] τῆς

φύσεως τῆς αὐτῆς κακηθρο[ί]σμένης οὐχ ἑτέρως τινὶ τὴν
[αἰτία]ν ἀναψούσης τὴν πῆξιν τὴν ὁμοίαν τ[ῆ]! κ[.]αγ[ι] καὶ
μ[.]αατωντοιαβ[---] τὴν αἰτίαν προσέ[ροντες] οὐ[δ'] ὅσοι[ς
προσφ]έρομε[ν ---]

we do not oppose those [*scil.* developed products] which have a stable character and lack elasticity, but nor do we attempt to urge and push them towards the most opportune things, for by now they have grown rigid on the basis of their very nature, which is ill-disposed and does not allow one to connect the cause to someone in a different way, a rigidity similar to that [...] and [...] bringing the cause back and not to those [...]³⁷.

This indication seems to stand in contrast with the possibility of considering these products to be temporary mental states, as N. suggests.

Finally, we should not forget that the verb ἀπογεννᾶν is also used in Book 34 to refer to the development of irrational movements, such as pleasure and pain, but also vain desires and fears, which emerge because of the false opinion which the subjects independently develop about the nature and origin of their own mental representations³⁸.

For this reason, a more generic interpretation of the term ἀπογεγεννημένα, as mental states, rather than volitions, seems more suitable for all occurrences.

The second notion worth focusing on is that of atoms. In this book of the *Peri physeos*, as in other writings of his, Epicurus uses the plural feminine adjective in two different ways: (i) a distributive one, to refer to the different, individual and indivisible natures that compose an aggregate, and (ii) a collective one, to refer to the cluster of elements of a compound. According to this second usage, the term “atoms” is synonymous with “constitution” and “nature”³⁹. N. does not distin-

³⁷ Epicur., *Nat.* 25, Laursen 1997, p. 25, 1191, corn. 7, pz. 2, z. 2 = -18 inf./1191, corn. 7, pz. 1, z. 6 = -17 sup.; 697, corn. 3, pz. 2, z. 1 = [34.23] Arr. 1056, 5, 4; τοῖς ἔχουσιν can be interpreted as a male participle more generically referring to human beings, as Arrighetti has suggested. The reason why I refer the participle to the ἀπογεγεννημένα is that Epicurus then uses the singular verb πέπηγεν, which suggests that what we have here is a neuter plural. Moreover, in fr. 11, which occurs shortly before this text, blame is directed towards ἀπογεγεννημένα that have not developed the best dispositions and actions, and which have confirmed to their original atomic nature, disturbed because of them.

³⁸ Epicur., *Nat.* 34 col. XV Leone.

³⁹ The collective use of the term is generally marked by expressions indicating that the atoms are being discussed as a whole rather than individually. In the *Letter to*

guish between the two usages and contends that, when Epicurus uses the term “atoms” or alternative expressions such as “prime nature”, he is always referring to the second meaning of the word. As already anticipated, however, the distinction is relevant for understanding both what kind of problem the philosopher finds himself dealing with in his engagement with his opponents and the way in which he conceives the retroaction of products or mental states on atoms.

The third key term used by Epicurus is “atomic constitution”, which refers to the whole mind-body complex. This may be inferred from various clues in the text. First of all, when speaking of the atomic constitution, Epicurus refers to a difference between atoms and *poroi*. *Poroi* are plausibly to be identified here with the intervals, passages and holes scattered throughout the body and containing the psychic atoms responsible for sensory motions⁴⁰. Secondly, in another fragment, which deals with the atomic constitution and the elements it comprises, we find an explicit reference to flesh, which clearly evokes the bodily dimension⁴¹.

Epicurus, moreover, distinguishes between “original constitution” or “first constitution”, on the one hand, and on-growing constitution, on the other.

The original or first constitution indicates the nature of the living being, which is to say its overall atomic arrangement at the time of

Herodotus, for example, the philosopher mentions the atoms *of or in the solid body* (48; 50) and the *quantity* of atoms which contributes to the formation of the soul (65); in the *Letter to Pythocles*, atoms *united to one another* (99), the atoms which *produce the image of lightning* (102), the atoms *in the air* (110), and the *aggregation* of atoms (115). When the term ἄτομοι is not accompanied by expressions such as these, Epicurus is using it to refer to *individual atoms* (cf. Epicur. *Hrdt.* 43; 44; 54; 55; 56; 61; 62). In Book 25 we find two passages (Epicur., *Nat.* 25, Laursen 1995, p. 101, 1056, 2, 1 = [34.10] Arr., p. 102, 1056, 2, 2 = [34.11] Arr.) in which Epicurus distinguishes between those atoms which move downwards, which is to say atoms taken individually, from atoms which move in a variety of ways, which is to say those atoms which move inside an aggregate by colliding with one another. Epicurus’ aim is to show that the properties of the mind cannot be reduced to the properties of their individual atoms, which are unchangeable. Rather, if anything, these mental properties – at least until they acquire a power of self-determination – can be reduced to the properties of atomic compounds, which are changeable, insofar as they depend on atomic relations which are themselves changeable. On this point, I will refer to F. G. Masi, *Epicuro e la filosofia della mente*, cit., pp. 76-82.

⁴⁰ Cf. Lucret., *DRN* II 951, 957; III 255, 586, 702, 707; IV 344, 351, 620, 621, 940.

⁴¹ Epicur., *Nat.* 25, Laursen 1997, p. 26, 1191, corn. 7, pz. 2, z. 3 = -17inf./1191, corn. 8, pz. 1, z. 1 = -16 sup.; 697, 3, 2, 2.

birth, if not before: that which determines its psychic faculties, as well as its character disposition, and which grows in stages that are partly biologically predefined. This may be inferred from a passage in which Epicurus specifies that the development of the ‘product’, which is to say of the mind, does not fulfil the necessary causality proper to the original/primary constitution and does not necessarily proceed in its direction. This passage, of which N. provides a new translation based on Hammerstaedt’s emendations to Laursen’s text⁴², is numbered as fr. 16 and examined within the framework of a comparison of animal and human behaviour:

Fr. 16

...τῆι ἐξ ἀρχῆς συστάσει τὸ ἀπογεγεννημένον καὶ μὴ ἦ δυνατόν ἄλλα τὸ ἀπογεγεννη[μέ]νον ποιῆσαι μη[δ’] ἐπ[ί] τοῦ παρόντος μη[δὲν] ἕτερον ἢ ἃ ἡ πρώτη σύ[σ]τασις ἀτηργάσατο [μηδ’] ἔνια κατὰ βραχὺ τι μηδὲ βιαζόμενον καὶ ἀντιτεῖνον [± 0/1]ω τι πράττει, ἀλλὰ τὰ αὐτὰ πάντ’ ἔχον, οὐκ ἐξαιρούμεθα τῆς αἰτίας τὸ ἀπ[ο]γεγεννημένον, ἀλλ’ ἐν τι ποιοῦντες αὐτὸ καὶ τὴν σύστασιν ὁμ[ο]ίως κ[α]θαίρομεν τὸ δ’ οὐ νο[υ]θετοῦμέν γε, πολλὰ δὲ οὐδὲ κατὰ τινὰς ἐθισμ[ο]υ[ς] ἄνευ νοῦ λέξεως μετακ[ο]σ[μ]οῦμεν. [τὸ γ]ὰρ ἐξαιρούμεν[ο]ν τῆς αἰτ[ί]ας κατ’ ἀνάγκη[ν]. [.]ν δεῖ ὑπ[.] τῆς ἐξ ἀρχῆς συ[σ]τάσεως ἐξαιρεῖσθαι, οὐ τὴν αὐτ[ῆ]ν ἐκείνη ἰπεραῖνον. ἂν δὲ κ[α]ὶ βαδίζη διὰ τὴν ἐξ αὐτοῦ ἤδη αἰτίαν εἰς τὸ ὅμοιον τῆι ἐξ[.] ἀρχῆς συστάσει φαύλει οὐσ[η]ι ἔτι μᾶλλον ἐ[ν]ίοτε κακίζομεν, ἐν νουθετητικῶι μέντοι μᾶλλον τρόπω[ι], καὶ οὐχ ὥσπερ τὰ ἄγρια τῶν ζῶων [καθ]αίρομεν μὲν ὁμοίως αὐ[τ]ὰ τὰ ἀπογεγε[ν]νημένα [κ]αὶ τῆ[ν] σύστασιν εἰς ἓν τι συμπλέκοντες, οὐ μὴν ο[ὔ]τε τῶι νοῦθε[τ]ητικῶι τρόπωι καὶ ἐπανορθω[τ]ικῶι οὔτε τῶι ἀπλῶς ἀ[ντι]ποητικῶι χρώμεθα [±2/3]αμ[ι] [±1/2]. καθαίρομεν...

[...] for the original constitution the product, and if the product is not able to create other things, neither at present, nor something else than what the first constitution would do and if it does not do some things somehow within a short time either by exerting some force and resisting, but it has all the same [characteristics of the first constitution], we [still] do not exempt the product from the cause, but we make it and the constitution one, similarly clearing that which we do not even admonish [i. e. the wild animals]. Many we do rearrange in accordance with some meaningful manner of speaking. For that

⁴² J. Hammerstaedt, *Atomismo e libertà*, cit.

which is exempted from necessary causality must be exempted from it [scil. necessary causality] that derives from the original constitution, because it does not fulfil the same cause as this. And if, precisely because of the cause which comes from oneself, one goes in the direction of what is similar to the original constitution and this is a bad one, then at times we censure him even more in an admonitory way, and not as we do indeed cleanse the living beings of what is wild in a similar case, by waving their products [i. e. their current mental states] themselves and the constitution into one thing. We do not use [in their case] either the admonitory and corrective manner nor the simply retaliatory one [...] purify [...] [*italics mine*]⁴³

I shall get back to the general meaning of this passage later on. For the time meaning, I will only note that the use of the verbs “to continue” (περαίνειν) and “to proceed” (βαδίζειν), as well as the idea of an aim towards which the development of both the product and the constitution is directed, suggest that the action necessitating the primary or original constitution is to be identified with a process of preordained growth leading to a determined outcome.

If this is true, the “on-growing constitution” will refer to the soul-body atomic complex which has evolved on account of different biological and environmental factors, but also – as I have already noted and as we shall see in greater detail later on – because of the rational capacity of the subject himself, who through his beliefs can influence the impact of external impressions on his own atomic structure.

The analysis of the notion of constitution suggested by N. is misleading, insofar as it is exclusively based on a far from clear interpretation of the aforementioned passage on memory. As anticipated, according to N., the expressions «the primary constitution both of the atoms and of the original product» and «the on-growing constitution both of the atoms and of the developed product» may be taken to imply that the constitution represents both the atoms and the mental states, which is to say the atomic arrangement that is specifically constitutive of a particular mental state at a certain phase of its development:

when the memory is immediately cogenerated with the first constitution of an occurrent mental state, there is further processing of this mental state, the growing constitution. It is this

⁴³ Epicur., *Nat.* 25, Laursen 1997, pp. 29 ff., 1191, corn. 7, pz. 2, z. 4 = - 15 inf./ 1191, corn. 8, pz. 1, z. 3 = - 14 sup.; 697, corn. 3, pz. 2, z. 4 = [34.24] Arr.; 1056, corn. 6, z. 2 = [34.35] Arr.

further processed mental state, the on growing constitution – which in the sense of the literal translation of ἐπαυξομένη [...] ‘grows onto’ the first constitution of the atoms and the (occurrent) mental state, by which we perform most of our actions. For example, let us imagine a situation in which I am sitting under the sun and I remember the fact that staying under the sun for too long made me dizzy last time in a similar situation – a painful memory – and, therefore, my memory causes me to develop a desire, first of all, to change my current position. But simultaneously I am also affected by many other things, e.g. seeing a shadow over there and, consequently, it is my memory and other factors which constitute my on growing, causally efficacious desire to move under the shadow, which eventually result in an ἀπογεγεννημένον to move under some shade. (p. 89)

Several objections can be raised against this solution. One first objection is that in N.’s interpretation the notions of constitution, atoms, and product designate one and the same thing, namely the atomic arrangement of a particular mental state. However, this stands in contrast with the effort to distinguish the meaning of the three notions which pervades the whole of Book 25. A second objection is that N. seems to discuss the first constitution as something different from the nature of the human being, namely as the atomic arrangement of any occurrent mental state which will subsequently emerge, when in fact the expression “first constitution” is used in the book as a synonym for nature. A third objection is that, judging from the other, above-quoted passages of the book featuring the term, the expression “atomic constitution” would seem to apply not merely to the atomic arrangement of a particular mental state, but more generally to the soul-body atomic complex that makes up the living organism and which, across different stages of evolution, implements mental properties of a certain kind. Finally, one last objection (already anticipated) is that N. apparently takes the growth of the atomic constitution to be causally dependant on the mental state, when in fact Epicurus clearly wishes to identify the atomic constitution at various stages of its evolution as the principle and cause of a certain mental state – in this case, memory at different stages of its development.

For these reasons, we can think of a different interpretation of the two expressions. Epicurus distinguishes two kinds of atomic constitution: the primary constitution and the on-growing one. He then relates the primary constitution to the original product and

the on-growing constitution to the developed product. Secondly, the genitive may be taken to express pertinence. The expression «the primary constitution proper to both atoms and the original product» may therefore be interpreted to mean that the original constitution of the soul-body compound, which is to say the one inherited from birth, is such – despite the specific variety and arrangement of its atoms – as to immediately engender a certain kind of product: for example, the mind understood as a sum of faculties, including memory. The expression «the increased constitution proper to both the atoms and the developed product» may be interpreted to mean that the constitution of the soul-body compound – by virtue of the variety of atoms composing it and of the way in which it has developed through the combined influence of different biological, environmental and rational factors (as we shall see more clearly later on) – is the cause of that same product, only in a developed form, which is to say: of the mind that has acquired certain stable dispositions and exercises its cognitive faculties – for instance, of the recollecting mind. Based on this interpretation, then, the notions of constitution, atoms, and product remain distinct; there is no need to draw an artificial distinction between primary constitution and nature; and – consistently with the other passages evoking the corporeal dimension – the constitution refers to the atomic complex of the living organism as a whole, respecting the causal direction established by Epicurus, i.e. from the constitution to memory.

Given the meaning of these expressions, it is also possible to better define the kind of issue that Epicurus was tackling. In the course of his exposition, the philosopher must face two problems. The first is clarifying what kind of relation exists between the product in general, which is to say the overall state of the mind, and the individual components of the soul-body compound. The second is explaining what kind of relation exists between the developed product, which is to say the mind that has evolved over time and operates by fully exercising its functions, and the original and primary nature or constitution. Epicurus' aim is to assign the mind a power of self-determination which is neither reducible to the causal power of the individual components of the constitution, nor reducible to the original constitution or nature – that is to say, a power which is not the necessary outcome of the causal influence of factors that cannot be controlled in any way.

3.2. *The Nature of the Product Causal Power*

Now that we have clarified this point, it is easier to understand the fragment which constitutes a special focus of analysis for N. and which, in the wake of Sedley's article, has become the centre focus of the critical debate:

Fr. 13

οὕτως, ἐπειδὴν ἀπογεννηθῆ [τ]ι λαμβάνον τινὰ ἑτερότητ[α τῶ]ν ἀτόμων κατὰ τινὰ τρόπον διαληπτικόν, οὐ τὸν ὡς ἀφ' ἑτέρου διαστήματος, ἰσχάνει[ι] τὴν ἐξ [ἐ]αυτοῦ αἰτίαν, εἶτα ἀναδίδωσιν εὐθὺς μέχρι τῶν πρώτων φύσεων καὶ μίαν πῶς ἄπασαν αὐτῆ[ν] ποιεῖ.

Thus, whenever something is produced that takes on some otherness from the atoms according to some differentiating mode, not in the way from another distance, it gets the cause out of itself; then it immediately gives it on to the first natures and somehow makes the whole of it one⁴⁴.

The text occurs within a broader section of the book, which is intended to explain how mental states are generated and develop starting from a first aggregation of homogeneous atoms that are suited to becoming mutually interrelated. In particular, the text is directly connected to fragments 10-12 quoted above. In this section of Book 25, Epicurus pauses to consider the case of those mental states that over time have developed, consolidated themselves and become entrenched owing to an ill-arranged or chaotic original nature or atomic constitution, and which lie at the origin of evil and perturbed dispositions and behaviours. This example would appear to have been adduced by Epicurus' opponents to show that nature exerts a constrictive influence on the psychological and moral progress of individual agents. By contrast, Epicurus' aim is to show that, even in the presence of an originally perturbed nature or original constitution, the mind has a causal power of self-determination whereby, at a given stage of development of the psycho-physical compound, it will chiefly develop on its own, in such a way as to produce results which are not the nec-

⁴⁴ Epicur., *Nat.* 25, Laursen 1997, p. 19, 1191, corn. 4, pz. 2, z. 3 = - 22 inf./1191, corn. 7, pz. 1, z. 3 = - 21 sup. = [34.21] Arr.; 1056, corn. 5, z. 2; p. 20, 1191, corn. 4, pz. 2, z. 3 = -21 inf./1191, corn. 7, pz. 1, z. 4 = -20 sup.; 697, corn. 3, pz. 1, z. 2.

essary consequences of the original constitution and its causal power and, to this extent, bring about a genuine break in its biological history. This power of self-determination should not be confused with that of other causal factors at play, such as the individual atoms composing the constitution, the original atomic constitution or nature, and what mechanically and inevitably penetrates the mind from the environment. Along with the above-quoted fr. 15 and 17, fr. 13 contributes to better describing the nature of this causal power.

In particular in fr. 13, Epicurus indicates the moment in which the product acquires a causal power of its own. The passage raises two crucial questions, the first being: in what sense does the product acquire a causal power distinct from that of atoms? This question leads us back to the problem of understanding the difference between the two ways in which two objects can be distinguished, that is the *τρόπος διαληπτικός* and the way 'as from another distance'. The second question is: what does it mean that as soon as the product has acquired a causal power of its own, it transmits it to the primary natures?

N. addresses the first question through a sound critical analysis of Purinton's and O'Keefe's arguments, designed to refute Sedley's emergentist interpretation (pp. 79-82)⁴⁵. Both scholars have attempted to refute the idea of an ontological distinction between the product and the atoms. Purinton has sought to make them one and the same thing, by interpreting the expression "not in the way as from another distance" as a way of denying that there is any special distance between the two⁴⁶. As the author rightly notes, however, «Epicurus does not say in fr. 13 that the atoms and the product are spatially co-extended, only that they do not differ from each other in the way two spatially distinct objects do» (p. 79). O'Keefe has instead interpreted the *τρόπος διαληπτικός* as a conceptual, yet not ontological, difference⁴⁷. With regard to this suggestion, N. rightly notes that the passage is meant to assign the product a different causal efficacy from that of the primary nature or atoms, and therefore that the distinction between the product and the atoms is to be understood as an ontological distinction not just as a conceptual one, as product, original

⁴⁵ Cf. D. N. Sedley, *Epicurus' Refutation of Determinism*, cit.; J. Purinton, *Epicurus on 'Free Volition' and the Atomic Swerve*, «Phronesis» 44 (1999), pp. 253-299; T. O'Keefe, *Epicurus on Freedom*, cit.

⁴⁶ J. Purinton, *Epicurus on 'Free Volition' and the Atomic Swerve*, cit., p. 293.

⁴⁷ T. O'Keefe, *Epicurus on Freedom*, cit., p. 98.

constitution and atoms have *real* different causal power (pp. 79-80).

N.'s solution to the second problem is similar to Sedley's⁴⁸, except in one crucial respect:

if a product, that is, an occurrent mental state is constituted by mind atoms, that fact does not exclude the possibility that the occurrent mental state in question allows one to possess causal powers that the constituent atoms of one's mental state do not have. The fact that the product makes space for one's independent causal power amounts to no more than saying that one possesses one's own causal power by having a certain occurrent mental state, e.g. volition, which can have a causal influence on one's action, and in the light of Fr. 13 that influence is exercised through the atoms. Through the atoms, because the product gives its causal power back immediately to the first natures, i.e. the atoms, making the whole of the cause, the mental and the physical aspects [...] *somehow* one at once. Consequently, whatever sort of influence a particular volition can have on my action, that effect is executed through some particular, atomic motion of my mind. (p. 83)

The problem is that neither here nor elsewhere⁴⁹ does N. explain in what way the causal power of the mental state, which is ontologically distinct from that of atoms, can actually interact with the latter. To solve this difficulty, Sedley had resorted to the *clinamen*, hypothesising that according to Epicurus the mind can exploit this atomic motion, which is indeterminate in itself, so as to give rise to a new course of action based on its own volition through the atomic motions of the constitution. In N.'s solution, by contrast, it remains a mystery how a mental state that is ontologically distinct from the underlying physical state can determine future atomic motions and their arrangements.

However, there is also a different way of understanding the effect of the product on atoms that safeguards the ontological distinction between their respective causal powers, yet without assuming any actual downward causation of the mental state with respect to the physical state of the constitution. If we understand "prime nature" to mean atoms – as rightly N. himself does – and interpret "atoms"

⁴⁸ D. N. Sedley, *Epicurus' Refutation of Determinism*, cit., p. 37 ff.

⁴⁹ The author gets back to this point on p. 145, where he explains how his view differs from Sedley's one.

as the individual components of the composition, according to the distributive meaning of the term, then the passage may be understood as follows: the soul or mind (the product) is generated from a homogeneous aggregation of atoms suited to realising certain kinds of mental properties (the original products). Moreover, as soon as it has been generated, the mind (the original product) acquires a causal power that is autonomous from the causal power of its single constituents and can influence their behaviour. The mind, like any other stable atomic interrelation, has the capacity to effect its components in virtue of its systematic and organic character.

N. says something about this later on in relation to the concept of κρᾶσις arguing that the human soul is an original unity with a causal power that combines and merges the powers of its components (p. 96 ff.).

Be that as it may, in order to better understand the nature of the influence exercised by the product on the atoms, it is useful to further clarify the nature of the power of self-determination in virtue of which the mind is causally responsible for its own development and in what way this causal power is justified within the framework of Epicurus' physicalism, according to which mental states nonetheless depend on the underlying atomic states and the atoms forming the atomic constitution have unchangeable properties and necessitated motions. N. investigates the first question in greater detail in the following chapter, entitled *Self-narratives*.

3.3. *Self-determination*

Like other interpreters of Book 25, N. identifies the subject's power of self-determination with the capacity to interpret the perceptual experiences external objects produce in us. The author reaches this conclusion through a comparative analysis of human and animal behaviour, as well as of the different causal functions exercised by the ἀπογεγεννημένα in either case. N. focuses on the already quoted fr. 16. As already mentioned, in this passage Epicurus discusses the case of people who turn out badly, arguing that, in the case of human beings, the products cannot be exonerated from the responsibility of having developed in such a way, by reducing them to the perturbed original constitution, as one might do in the case of wild animals. N. rightly notes that the difference between human beings and animals lies in the different degrees of causal efficacy of their mental states:

there needs to be a reason which prevents animal ἀπογεγεννημένα from having the same causal power. [...] this reason is simply the force of their original constitution: animals do not develop their own individual selves the way we do because they have a different nature from the beginning, naturally exhibiting a different kind of causal efficacy. This does not exclude an understanding of the animal ἀπογεγεννημένα as a causal faculty, but only that animal causal power is always or at least largely in accord with the original constitution of animal minds. (p. III)

As Hermarchus and Polystratus explain⁵⁰, this difference between human nature and the nature of other animals lies in the fact that human beings develop *logos* and possess ἐπιλογισμός which is to say the capacity to determine what is useful for them in their interactions with the environment and social relations.

In the light of these testimonies, N. claims that:

animal ἀπογεγεννημένα is not the same kind of causal faculty of the self as human ἀπογεγεννημένα because animals do not have the capacity to interpret external influences in the same way we do and because their selves are not reflected upon, as a consequence of which, they have a different kind of agency from ours. That is to say their ἀπογεγεννημένα as the causal faculty of their selves is causally operative, but it exhibits an instinctive kind of response because animals do not behave in rationally active but rather in reactive ways based on their natural instincts. (p. III)

The reference to the testimonies from Hermarchus and Polystratus certainly helps better define the power of self-determination of the subject examined in Book 25. At this level of the analysis, however, it is useful to recall two previously mentioned passages in which Epicurus illustrates the nature of this power in detail, and which N. examines correctly yet in different contexts.

The first passage, fr. 17, explains that the soul, at a certain stage of its progress, is capable of self-determining its own dispositions and activities when the mind begins to form beliefs by itself, that is,

⁵⁰ For the testimony from Hermarchus, the author refers to J. Annas, *Epicurus on Agency*, cit., pp. 67-71; for Polystratus, he generically refers to G. Indelli, *Polystrato: Sul disprezzo irrazionale delle opinioni popolari*, Bibliopolis, Napoli 1978, without providing any detailed reference to the passage.

when it starts to form opinions of its own, which is to say to exercise an autonomous critical and interpretative attitude towards what it has passively apprehended until that moment. Indeed, the mind can select, by means of its beliefs, the impressions and sensory stimuli coming from the environment and has the power to control what interacts with human beings' atomic constitution⁵¹. This explanation is important because it also helps explain exactly what kind of influence the causal power of the mind exercises on the atomic constitution: the mind influences the development of the atomic constitution by filtering what can have an impact on it.

The second passage, fr. 15, explains that the specific causal contribution which agents can make to their own moral progress is given by the apprehension and irrational recognition of a criterion of judgement by which to evaluate perceptual and affective experiences⁵².

What emerges from Book 25 of *On Nature*, then, are two ideas. The first is that the mind is capable of determining its own development, by virtue of its capacity to evaluate things and opine. The second is that the mind is capable of doing so in an appropriate manner to its moral progress, if it is supported by philosophy. What is crucial for self-development, therefore, is the cultural milieu in which the agent lives and his social ties, intellectual relations and bonds of friendship. This aspect – which cannot be examined here – is studied by the author in order to round off his analysis in the fifth chapter of the book, entitled *The pleasure of friendship*.

3.4. *The swerve and the theory of multiple realizability*

Finally, it is a matter of understanding how the activity of reasoning and interpreting may be conceived as an effective causal power that is autonomous from the influence of other causal factors, namely distinct from that of the atomic constitution from which it derives and on which it partly depends, and how it can constitute a genuine causal break in the subject's psychological history. We have seen how,

⁵¹ This is the text numbered as fr. 17, and corresponding to Epicur., *Nat.* 25, Laursen 1997, pp. 32 f., 1191, corn. 8, pz. 1, z. 5; 697, corn. 4, pz. 1, z. 1; 1056, corn. 6, z. 3 = [34.26] Arr. = 20C I Long-Sedley, examined by the author on p. 92.

⁵² This is the passage numbered as fr. 18 and corresponding to Epicur., *Nat.* 25, Laursen 1997, pp. 43 ff., 1191, corn. 9, pz. 2, z. 4 = - 5 inf./1191, corn. 9, pz. 1, z. 1 = - 4 sup. = [34.31] Arr.; 697, corn. 4, pz. 2, z. 2; 1056, corn. 8, pz. 1; 1191, corn. 9, pz. 2, z. 5 = - 4 inf./1191, corn. 9, pz. 1, z. 2 = - 3 sup., examined by the N. on pp. 120-122.

according to Epicurus, the fact of being able to acquire correct beliefs and to interpret the content of perceptual experience in the light of them can change the course of the subject's psychological development and moral progress compared to what it would have been based exclusively on his original constitution and nature. We have also seen how, according to the philosopher, the exercising of this power leads to a genuine causal break since, by acquiring this property, the mind comes to determine itself, and is no longer determined by necessity. However, while, on the one hand, rational activity seems to depend on the natural biological development of the human being, on the other hand, it seems to imply an underlying causal structure. Similarly, the outcomes of this rational activity appear to depend both on the mind and on the underlying atomic constitution. In other words, it seems as though there are two limits to the Epicurean theory of agent causation. The first limit is that Epicurus' explanatory model provided for mental states is exposed to the danger of causal over-determination. Each mental state, at any given time, appears to be the effect both of a mental cause, i.e. something deriving from other mental states, and of a physical cause, i.e. something which depends on the particular atomic arrangement of the constitution. For example, memory – as we have seen – is the outcome both of mental operations and of the on-growing atomic constitution. Yet, within the framework of a physicalist theory such as that of Epicurus, the underlying atomic arrangement ought to be sufficient to bring about the mental state at a higher level⁵³. The second limit lies in the fact that, from a diachronic point of view, the postulation of a causal power of self-determination and the identification of this power in the rational activity of the mind is sufficient to prevent agents' dispositions and actions from being exclusively dependent on genetic and environmental causal factors. Indeed, we have seen how rational activity allows the subject to control the impact of external influences on his own atomic constitution and to shape the course of his own development. However, from a synchronic point of view, the postulation of a causal power of self-determination and the identification of this power in the rational activity of the mind are not sufficient to prevent the determination of rational activity by the necessitated atomic interactions⁵⁴.

⁵³ J. Kim, *Mind in a Physical World*, MIT Press, Cambridge, Mass. 1998, pp. 39 ff.

⁵⁴ On the limits of the theory of mind outlined by Epicurus in Book 25 of *On Nature*, I will refer to F. G. Masi, *Epicuro e la filosofia della mente*, cit., pp. 211-217.

The author carefully deals with this problem, in all of its complexity, at the end of Chapter 2:

how could Epicurus substantiate his claim that there are mental states for which the atoms are not causally comprehensive? I think through the introduction of the atomic swerve. Our sources testify that Epicurus conceived of the swerve as the necessary condition for the causal efficacy of the self and [...] he thought he had secured this causality by refuting causal determinism with the swerve. (p. 93)

The author, then, suggests that the atomic swerve was introduced in order to justify, on the one hand, the causal break in the physical and biological history of an agent and, on the other, the possibility of a further mental causality in addition to the physical one, and hence to prevent this causality from being vertically determined by the necessitated atomic interactions and reducible to them. This in itself is not an original idea⁵⁵. What is new, interesting and noteworthy in N.'s analysis is the overall physical theory that this conclusion implies in his view, namely the theory of multiple realizability:

if Epicurus wished to maintain that one's mental state M does not change as a result of an atomic swerve S, he must have admitted that the same mental state can be realized in different patterns of atomic motions, otherwise undetermined swerves would result in the change of mental states (p. 94).

Now, although in Book 25 of *On Nature* we find no traces of a theory of this sort, and although the treatise – which apparently makes no mention of the *clinamen*⁵⁶ – seems to be presenting a not yet fully developed theory, it might indeed be possible to argue that Epicurus came to outline a physical theory of multiple realizability. In support of this solution, N. refers to the notion of *κράσις* used to describe the

⁵⁵ On the interpretation of the atomic swerve as a break in the biological history of a subject and of his mechanical interaction with his environment, see the contributions by D. Furley, *Two Studies in the Greek Atomists*, *op. cit.*, and S. Bobzien, *Did Epicurus Discover the Free Will Problem?*, *cit.*; on the function of the *clinamen* as an interruption of the causal determinism of the mental element on the part of the physical one, see P. Mitsis, *Epicurus' Ethical Theory*, Cornell University Press, Ithaca, N.Y. 1988, pp. 165 ff.; F. G. Masi, *Epicuro e la filosofia della mente*, *cit.*, pp. 254-255.

⁵⁶ With regard to this point, however, D. Sedley and J. Hammerstaedt are of a different opinion.

composition of the soul in the *Letter to Herodotus*, § 63. As already mentioned, this notion suggests the mixing of different elements, broken down into their original constituents and reassembled into an original whole possessing different causal powers from those of its components⁵⁷. If to some extent this kind of mixture varies from individual to individual, while being such as to engender psychic properties common to all human beings, then it is possible to conclude that for Epicurus mental states can be engendered by different atomic arrangements. In support of the thesis that «Epicurus held a physicalist theory in which the causal efficacy of the mental cannot be reduced exhaustively to the atoms» (p. 97), N. puts forward the following argument:

- (1) The capacities of the soul are realized in a mixture of atoms, in which the atomic powers are fused.
- (2) Atomic powers are the outcome of definite patterns of atomic motions determined by the interaction of some type of atoms.
- (3) If the atoms of certain elemental powers are fused in a mixture in such a way that a unity is to emerge with its own, new capacities, namely the soul, then there can be no exhaustive correspondence made between the capacities of the soul and the atomic powers fused in the mixture.
- (4) On the strength of (2) and (3), the capacities of the soul cannot be allocated to define atomic patterns of motions.
- (5) Therefore, the capacities of the soul, though they are realized in something atomic, are non-reductive. (p. 97)

In support of N.'s thesis, it may also be recalled that in the *Letter to Pythocles*, which outlines the famous doctrine of multiple explanations, Epicurus mentions the possibility that the same heavenly phenomena be caused by different atomic arrangements, given that, within certain limits, homogeneous and suitable aggregations can be formed starting from different components⁵⁸.

However, as N. rightly notes, the fact that the soul stems from a min-

⁵⁷ On the Epicurean notion of *κράσις* see Alex. Aphr., *De mixt.* 214 28-215 8 = 290 Usener; on this doctrine see G. B. Kerferd, *Epicurus' Doctrine of the Soul*, «Phronesis» 16 (1971), pp. 80-96.

⁵⁸ With regard to this point, I will refer to F. G. Masi, *The Method of Multiple Explanations: Epicurus and the Notion of Causal Possibility*, in C. Natali-C. Viano (eds.), *Aitia II: Avec ou sans Aristote*, Peeters, Louvain-la-Neuve 2014, pp. 37-63; F. Verde, *Cause epicuree*, «Antiquorum philosophia» 7 (2013), pp. 127-142.

gling of atoms, and that its emergent properties cannot be reduced to those of its individual components or to a single kind of atomic pattern, does not in itself rule out that such properties are reducible to – which is to say, determined by – atomic interactions.

According to N., it was precisely in order to avoid this eventuality – that is, the possibility of a strictly reductionist interpretation of the mind – that Epicurus introduce the atomic swerve (p. 98)⁵⁹.

4. *The Function of the Swerve*

In support of his interpretation, and following a well-established procedure among interpreters, in the fourth chapter, entitled *Lucretius' cosmological perspective*, N. offers an analysis of the secondary sources bearing witness to the theory of the *clinamen* – in particular, of the testimonies from Lucretius and Cicero. N. tacitly assumes the Epicurean authorship of the doctrine, yet does not take a stand with regard to its origin – i.e. whether it was already present in Epicurus' writings and traces of it may be found in surviving sections of *On Nature*, or whether it was introduced after the drafting of Book 25, to deal with the criticism from some opponents and the limits of the theory outlined in the treatise. Rather, N.'s aim is to show that the picture emerging from the secondary sources is compatible with the one he has outlined through his analysis of Book 25 (p. 133).

The analysis of Lucretius' verses is structured in two parts: the first part is devoted to an examination of the cosmological argument in support of the existence of the *clinamen* (pp. 134-141); the second part is devoted to the so-called libertarian argument (pp. 141-157). In the first part N. essentially draws upon the interpretation of the cosmological argument in support of the existence of the *clinamen* provided by O'Keefe. This interpretation is designed to solve the tension between what Epicurus argues in the *Letter to Herodotus*, namely that the motion of collision and fall of atoms is eternal, with what Lucretius argues in Book 2 of *DRN*, namely that the *clinamen* is the motion sparking the collisions that give rise to the cosmos. According to O'Keefe, the swerve should not be understood as the temporal beginning of atomic collisions, but as an explanatory principle for atomic motion already introduced by Epicurus in response to Aristotle's criticism of Democritus' theory.

⁵⁹ On this see also F. G. Masi, *Epicuro e la filosofia mente*, cit., pp. 254-255.

With regard to the solution accepted by N., two considerations can be advanced. The first concern the reason invoked by the author for rejecting Sedley's explanation of the tension between the *Letter to Herodotus* and Lucretius' testimony, and for searching for an alternative explanation in O'Keefe's solution. As is widely known, according to Sedley, the letter is to be regarded as an *epitome* that the young Epicurus produced in order to sum up the first 13 books of *On Nature*, and which provided an economical explanation of atomic motion. Only later, after developing his ethical theory, would the philosopher have felt the need to introduce the notion of the atomic swerve and to integrate it within his cosmology⁶⁰. Against this explanation, N. essentially puts forward three arguments: first, he argues that the epistle cannot be regarded as a work offering beginners an overview of Epicurean physics because its chief addressee, Herodotus, is to be ranked among Epicurus' most advanced pupils. The second argument is that in the introductory section of the *Epistle* Epicurus refers to his *Great Epitome* as a work intended for a less expert public, which would suggest that the *Letter to Herodotus* is instead ideally addressed to a more specialised readership. The third argument is that the style of the letter is unsuitable for a public of neophytes. Leaving aside the problem of the relation between the two epitomes and the stylistic aspects, I will only note that the question of what kind of public the work is intended for is unrelated to that of its date of composition and is not enough to refute Sedley's hypothesis.

Secondly, in order for Epicurus' response to Aristotle's criticism to work, it is not enough to state that the swerve, as a principle of motion, is a logical principle or an explanation of motion; rather, one ought to add that it is the efficient cause of collisions: that which sparks κίνησις (cf. Aristot., *EE* II 6, 1222b 20-21).

What is more interesting and original is N.'s analysis of the libertarian argument (*DRN* II 251-293) in support of the existence of the *clinamen*. Generally speaking, N.'s suggestion falls among those interpretations that have attempted to show how, in Lucretius' testimony, the *clinamen* at most emerges as the precondition for justifying the *libera voluntas* of living beings at an atomic level, which is to say their faculty of self-determination, which is taken for granted, and not as

⁶⁰ D. N. Sedley, *Epicurus' Refutation of Determinism*, cit., pp. 13-14; Id., *Lucretius and the Transformation of Greek Wisdom*, Cambridge University Press, Cambridge 1998, pp. 109-133.

the precondition for any act of volition⁶¹. The author offers two major innovations. The first is that he analyses the argument by subdividing it into two *Modus Tollendo Tollens* (MTT): the first, formulated in vv. 251-57, is intended to deny causal determinism, and therefore to solve the problem of the causal determination of the mental level by the physical one; the second MTT, presented in vv. 257-260, is intended to deny fatalism and, according to the author, can be interpreted in the light of Cicero's *De fato* and in particular of the position assigned to Carneades therein. Like Epicurus, Carneades apparently regarded the causal capacity of the mind – described using the expression *in nostra potestate*⁶² – as being incompatible with causal determinism. However, differently from Epicurus, it seems as though Carneades felt no need to introduce an indeterminate motion at the physical level to justify the mind's capacity to give rise to voluntary motions. Cicero's testimony is helpful here, because it explains precisely the function of the atomic swerve in Epicurean psychology. On the other hand, the differences between Carneades and Epicurus can easily be explained on the basis of their contrasting psychological theories. N.'s interpretation is noteworthy, although his idea that Lucretius sought to refute both causal determinism and logical determinism is not entirely convincing. Certainly, within the framework of Cicero's conception of fate, these two forms of determinism are closely interconnected. However, Lucretius only seems interested in the physical aspects of the question and, when he speaks of *fatum*, he exclusively seems to refer to the preordained and certain interlinking of atomic motions, and not also to the question of the truthfulness of individual statements on future events, which lies at the centre of the debate between Stoics, Epicureans and Academics outlined by Cicero.

N. focuses on the two examples used by Lucretius: the example of race horses reacting at the opening of the gates (Lucret., *DRN* II 263-271) and that of the agent who, caught in a crowd, is driven by an external force yet is able to resist it and does not fall (272-276). N. argues – and this is his second innovation – that these examples not only point to a difference between natural and forced motion, on the one hand, and voluntary motion, on the other, which is con-

⁶¹ The author's analysis here is inevitably dependant on S. Bobzien, *Did Epicurus Discover the Free Will Problem?*, cit.

⁶² On this point, see F. G. Masi, *La natura del moto volontario: ut sit in nostra potestate*, «Lexis» 25 (2007), pp. 151-162.

firmed by the difference between the motion of falling atoms and the motion deriving from their collisions, on the one hand, and the atomic swerve, on the other; but that they are also consistent with the Epicurean conception of the behaviour of animals and human beings, of their respective causal faculties, and of their differences. Both examples would be designed to illustrate the functioning of *voluntas*. The first, in particular, would illustrate the way in which the mind of animals is capable of giving rise to the atomic motions of the basis of an instinctive desire; in this respect, it would clearly exemplify the mind's downward causation with respect to atoms, as theorised by Epicurus in fr. 13. The second example would illustrate the way in which the mind is capable of moving the body independently of any internal or external constrictions, based on a well-reasoned assessment of what is most expedient.

In addition to having the merit of clearly explaining the meaning of two notoriously difficult examples that cannot easily be set within the context of the libertarian argument, this solution has the unquestionable advantage of better highlighting the close dependence between Lucretius' treatment of the *clinamen* and that which we find in Book 25 of Epicurus' *On Nature*.

5. Conclusion

My criticism raised so far essentially concerns N.'s interpretation of certain technical notions and of the passages in which they occur and that are relevant for understanding Epicurus' psychology; his failure to always suitably interpret the more constructive and philosophically stimulating part of the treatise in the light of its polemical nature; the somewhat too casual use he makes of particularly fragmentary and uncertain textual material, which he subdivides into pre-established interpretative frameworks. However, this criticism in no way undermines the worth of N.'s book, which is destined to find a prominent place in studies on Epicureanism and to liven up the critical debate surrounding the Epicurean philosophy of mind. Among the many qualities of the study, I might mention the following: it brings to the public's attention a topic which is often implicit to the major contributions on the subject, yet had never received adequate treatment before, namely the formation of the self; it explains in greater detail Epicurus' anti-reductionist physicalist theory in the light of the

notion of multiple realizability and of the doctrine of the swerve; it develops an original interpretation of Epicurean psychology and ethics, based on a bold yet at the same time in-depth analysis of largely neglected, difficult and wonderful texts; it elucidates the inner structure of Book 25 of *On Nature*, setting it in a more fruitful relation with the intellectual and cultural context in which it was conceived, as well as with secondary Epicurean sources.

N.'s book thus has the unquestionable merit of bringing to the attention of the public – including a non-specialist public – Book 25 of *On Nature*, a text which is often overlooked on account of its state of conservation, but which is certainly fascinating and crucial for understanding Epicurus' philosophy of mind, certain key notions in his epistemology, his theory of moral progress, and the theoretical challenges faced by atomism. Most importantly, the publication of N.'s volume offers scholars of Epicurus, and of ancient philosophy in general, an opportunity to newly affirm the need for an integrated edition of the text with a classification of the various passages: an edition that might serve as a clear point of reference for the scholarly community and include a complete translation enabling us to finally conceive and develop a continuous and exhaustive philosophical commentary.

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