Back to the substance: Interpreting Aristotle for a radical anthropology

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Abstract: This article is presented as a reading of Aristotle, in particular his *Metaphysics*. It is not a philosophical or philological commentary. Written by an anthropologist on the basis of Aristotle's propositions, it is a plea for observation of the human being as a substantial unit. It proposes a radical change of scale for social and cultural anthropology, which is accustomed to observing social and cultural facts. By drawing on Aristotelian lexicon (substance, substratum, movement, predicate), the article attempts to clarify some possible points of observation of a human being in his singularity.

Keywords: Aristotle, anthropology, existential anthropology, substance, individual, human being, motion, stability

Aristotle: The new founder of anthropology?

For more than a century, in scientific institutions, the word 'anthropology' has been inseparable from at least two qualifications: social and cultural. This meaning has been reflected in its reconstructed history and in the choice of one of its founding fathers, Herodotus, known for his "Inquiries", a compilation of accounts based on his travels around Greece, in Egypt as well as in Asia Minor. Historians of anthropology rarely fail to recall the portrait of Herodotus as an ethnographer, characterising him as being close to the attitude of "anthropologists today": "curiosity", "a taste for the variety of customs and manners", the "respect" which refuses to rank (Weber 2015, 26-35) - this does not mean that he does not group them together as Greeks, Barbarians, Persians, and so on. Then, during the Renaissance, there were the travellers, missionaries and colonisers. Later came Gérando's methodological text in 1800: learn the language of the natives, understand them, don't judge, don't look at isolated

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individuals, etc. (Gérando 1969). And so the history of anthropology continued. "Anthropological theories are distinctive in that they are typically about social relationships", an anthropologist noted (Gell 1988, 11). Most anthropologists would agree with such a definition.

Another history is possible. It would be the study of the human being, not as a social, cultural or relational being, but as existing as a human being. And it is indeed another story, with another founding father: Aristotle. Isn't it said that Aristotle invented and organised all the sciences? What about anthropology? He was born in 384 BC. Herodotus was born in 485.

In his *Anthropologie philosophique*, Bernard Groethuysen contrasts the anthropology of Plato and Aristotle. While Plato does not make man the starting point of his anthropology, Aristotle "starts solely from the fact of man, from the psycho-physical construction of man". Plato's man would be like a foreigner in that "his soul would be out of place" (Groethuysen 1980, 49). "We could say, writes Groethuysen, that in Aristotle, the phrase 'I am a man' is given its full meaning for the first time", whereas in Plato's philosophy, the human condition is "a diminution of the soul" (Ibid, 51). With Aristotle, "normal man loses the negative meaning" that he had in Plato (Ibid, 58).

This is not, of course, a literal commentary on Aristotle's work, but a free reading, without entering into a debate with the many commentaries, such as might have arisen a long time ago, if it had been possible to give birth to an anthropological science. Today I call it existential anthropology, an anthropology of existents as separate substances[1].

The separate substance

Alongside metaphysics, which, according to Aristotle, studies being as being, the various "departmental disciplines" cut out "some section of what is" (Aristotle 2004, 1003a)[2]. In mathematics, for example, it is quantitative being; in physics, it is being in motion; in biology, it is being insofar as it lives. Why should not anthropology study being as a human being? It would answer, or at least seek to answer, the

[1] For this project, the reader can refer to another text of *Agathos*, in debate with Greek philosophy (Piette 2024). This present paper is a in-depth focus on Aristotle. I have left a few repetitions so that the two texts can be read independently of each other.

[2] For the translations of Aristotle, I have used Jonahan Barnes's edition, except for *Metaphysics*, *Politics* and *The Nicomachean Ethics*.

following question: why are humans what they are? Aristotle insisted on the classification of the sciences and the disciplinary attribution of a topic to be studied. More often than not, researchers in one discipline do not bother to know what their topic is, and do not think about the division into which they fit and work, as things are taken for granted. This is understandable when there is relative clarity about what the discipline is about.

One of the merits of the Aristotelian discourse, then, is to encourage this reflection, which seems to me to be all the more relevant given that it is possible to question the 'liquefaction' of human beings in anthropology, which is interested in the being insofar as it is social or cultural, from the outset in its relations with others, and not insofar as it exists, that it continues as such. This is all the more relevant given that sociologies share this characteristic, and above all, as Francis Wolff has so clearly put it, that the principle of 'insofar as' certainly constitutes a filter, but it is also a way of 'saturating' the object, as if in this case the human being were only sociocultural-relational, were totally sociocultural-relational (Wolff 2010, 85-86).

Here is what Aristotle wrote when querying Heraclitus:

> Every realm of nature is marvellous: and as Heraclitus, when the strangers who came to visit him found him warming himself at the furnace in the kitchen and hesitated to go in, is reported to have bidden them not to be afraid to enter, as even in that kitchen divinities were present, so we should venture on the study of every kind of animal without distaste; for each and all will reveal to us something natural and something beautiful. [...] If any person thinks the examination of the rest of the animal kingdom an unworthy task, he must hold in like disesteem the study of man. For no one can look at the elements of the human frame-blood, flesh, bones, vessels, and the like-without much repugnance. (Aristotle. In Barnes, Ed., 1984, *Parts of Animals,* 645a)

The astonishment that things are what they are, said Aristotle: so why are humans what they are? Why should they cease to exist in order to become of scientific interest (Wolff 2010, 85)? This would be the challenge of anthropology: to study human beings insofar as they exist[3]?

[3] On Aristotle's anthropology, I refer to a collection of selected texts by Fraisse (1976). I will not necessarily follow Weil's analysis (Weil 2000). Cf. also Loux (2006). There is also Clark (1975) and more recently Keill and Kreft (2019).

It is with this in mind that Aristotle's lexicon is certainly provocative in relation to contemporary discourse, but it is also fruitful. One of Aristotle's central concepts is 'substance'. "The clearest case where substance is present is that of bodies", he notes (Aristotle 2004, 1028b). It is not a fixed and immutable entity, nor is it dissociated from "the primary underlying matter of things which have in themselves a principle of motion or change" (Aristotle. In Barnes, Ed., 1984, *Physics*, 193a) Of course, Aristotle uses the word "substance" with different meanings (Pellegrin 2009). But first let us consider this: Substance concerns "simple bodies" (Aristotle 2004, 1017b). Here I find the notion of "volume of being" that I recently proposed (Piette 2019; 2023). The volume of being, like substance, would be the reference point to be grasped, observed and followed, one at a time, as separate from other substances or volumes of being. "Given that there are some things that are separate and some that are not separate, it is the latter that are substances", wrote Aristotle (2004, 1071a). He even adds this, specifying the limit or enclosure of each substance: "the extreme point of a particular, the first point outside which no part of the thing can be found and inside which all parts of the thing can be found" (Ibid, 1022a). With their reality to be known, these substances are separated from each other and from the observer who wishes to observe them. Like the biologist who follows a distinct molecule with fluorescent markers from a sophisticated microscope to observe its fluctuations, the anthropologist can follow and observe human volumes.

Aristotle says that substances are such "because, far from their being predicated of some subject, the other things are predicated of them" (Aristotle 2004, 1017b). He asks: "Are walking and being healthy and sitting each a thing-that-is or not [...]? For none of them is either something that can exist per se or that can be separated from substance; rather is it the case that if there is anything here that is a thing-that-is it is that which is doing the walking, the sitting or the being healthy. It is things that are doing something in this way that it would seem more plausible to consider things-that-are, and for the following reason. There is, in their case, *something defined that underlies* and it is this which is their substance and particular. Its presence is clearly revealed by the very structure of a predication of this type": the good or the sitting is not said without there being an underlying subject (Ibid, 1028a). A substance is thus characterised by various qualities, actions, relational capacities or affections, at such

and such a time, in such and such a place, integrated and combined *into itself*, in the volume itself.

Bertrand Russell is probably not wrong to see the obvious in this text:

> Suppose I say 'there is such a thing as the game of football,' most people would regard the remark as a truism. But if I were to infer that football could exist without football players, I should be rightly held to be talking nonsense. Similarly, it would be held, there is such a thing as parenthood, but only because there are parents; there is such a thing as sweetness, but only because there are sweet things; and there is redness, but only because there are red things. And this dependence is thought to be not reciprocal: the men who play football would still exist even if they never played football; things which are usually sweet may turn sour; and my face, which is usually red, may turn pale without ceasing to be my face. (Russell 1995, 176)

Not to mention the fact that the same people who play football also do other things, before, after and to some extent during the game. It is this seemingly obvious fact - but what an obvious fact! –, which would the topic of anthropology, which would leave the study of collective systems such as football or kinship to other sciences.

Anthropological difference: Continuity and discontinuity

It is not just humans who are substances. But also, in particular, other living things (Aristotle. In Barnes, Ed., 1984, *Physics* 192b). We then discover that a substance is a unit associated with a "principle", a "form" that expresses itself in its apparent configuration but also organises it (Aristotle 2004, 1029a and 1041b). So, when faced with a substance, there is no doubt about answering the question "What is it?": "It is not a non-human, a dog or a tulip".

Let's go back to Aristotle's reasoning. "Man is born from man but not bed from bed", he wrote (Aristotle. In Barnes, Ed. 1984, *Physics*, 193b). The human being is first and foremost a living being**.** Aristotle says it again: the term life "has more than one sense, and provided any one alone of these is found in a thing we say that thing is living-viz. thinking or perception or local movement and rest, or movement in the sense of nutrition, decay and growth" (Aristotle. In Barnes, Ed., 1984, *On the Soul*, 413a). And Aristotle goes on to say that what characterises natural beings is "the principle of process" (Aristotle 2004, 1015a). In fact, there are two "sources of movement: appetite and thought" (Aristotle. In Barnes, Ed., 1984, *On the Soul,* 433a). At

the end of his reasoning, Aristotle establishes "the faculty of appetite" alone as the ultimate principle of life (Ibid.).

Then there's another question: What does it mean for a human being to be alive? What are the characteristics of the human being as a living being (Wolff 2010, 28ff)[4]? There are a number of them, proposed in several places in Aristotle's work. In it, the human being is a rational, talking, political animal, capable of hoping, of expecting the future, of counting, of understanding, of thinking, of perceiving good and evil, of having the largest brain, of standing up straight, of being bipedal, of being the only animal with hands, of being ticklish. I therefore consider that the question of a "common differentia" from which "specifically distinct animals would fall into the same division" (Aristotle. In Barnes, Ed., 1984, *Parts of Animals*, 643a) that the comparison between humans and other living beings, and the search for anthropological difference, belong to the work of the anthropologist. It is the properties that are identical to *homo sapiens* - the form, as Aristotle would say - that we should always be looking for, specifying the continuities and discontinuities that can be identified between living beings. To this end, Aristotle wanted to obtain "a clear notion of their actual differences and common properties" (Aristotle. In Barnes, Ed., 1984, *History of Animals*, 491a). Setting the human being as the privileged object of comparison (Ibid, 491a). Aristotle mentions the subtlety of the differences - always minimal - between beings (Ibid, 588b), specifying, for example, that "some of these qualities in man, as compared with the corresponding qualities in animals, differ only quantitatively: that is to say, a man has more of this quality, and an animal has more of some other" (Ibid, 588b).

From this interplay of continuities and discontinuities between living beings[5], here is a long quotation - which today may seem banal, but not necessarily, since the exercise of comparison deserves to be repeated over and over again with regard to the varied activities of humans and, for example, great apes in terms of their gestures, actions and modes of action:

> And if perception is present in them [animals], in some animals retention of the percept comes about, but in others it does not come about. Now for those in which it does not come about, there is no

[4] See also Aristotle (2004, VII, chapter 4).
[5] See the recent debate in Keill and Kreft (2019).

> knowledge outside perceiving (either none at all, or none with regard to that of which there is no retention); but for some perceivers, it is possible to grasp it in their minds. And when many such things come about, then a difference comes about, so that some come to have an account from the retention of such things, and others do not. So from perception there comes memory, as we call it, and from memory (when it occurs often in connection with the same thing), experience; for memories that are many in number from a single experience. And from experience [...] there comes a principle of skill and of understanding-of skill if it deals with how things come about, of understanding if it deals with what is the case. (Aristotle. In Barnes, Ed., 1984, *Posterior Analytics*, 99b-100a)

Aristotle leads the debate on three elements that are often discussed when it comes to 'anthropological difference': language, the rules and the tool, all of them imbued with the finalism characteristic of his work. In fact, language and the hand appear to be the central elements of hominization as seen by Aristotle. According to Aristotle (*History of Animals,* 488a. In Barnes, Ed., 1984), human beings possess a social instinct like certain animals, such as bees, wasps, ants and cranes, acting with a common goal in mind. Hence his well-known comment: "a human being is by nature a political animal". He adds: "For it is peculiar to human beings, in comparison to the other animals, that they alone have perception of what is good or bad, just or unjust" (Aristotle 1998, 1253a). In the same context of reasoning, Aristotle states that "no animal has speech except a human being", in order to express what is just and unjust, whereas other animals have a voice that expresses what is painful or pleasant (Ibid.). Aristotle distinguishes between sound, voice and speech. He explains that the voice emanates from the larynx because of the air inspired against the windpipe. It is present in many land animals, whereas sound is more characteristic of insects and fish. Speech, which is possessed only by humans, differs from voice in that the tongue is particularly mobile and loose, and is therefore capable of emitting articulated sounds. Aristotle wrote:

> It is in man that the tongue attains its greatest degree of freedom, of softness, and of breadth; the object of this being to render it suitable for its double function-both for the perception of savours (for man is the most sensitive of animals, and a soft tongue is most adapted to sensation, being most impressionable by touch, of which sense taste is but a variety), and its softness again, together with its breadth, adapts it for the articulation of letters and for speech." (Aristotle. In Barnes, Ed., 1984, *Part of Animals,* 660a)

What about the tool? Aristotle points to the upright posture of men and the liberation of the hand: “In man the forelegs and forefeet are replaced by arms and by what we call hands”. According to Aristotle, sitting upright develops understanding and thought because “the burden of a heavy body” obstructs “the intellect and of the general sense” (Ibid, 686a). And also: “the hands are instruments, and the invariable plan of nature in distributing the organs is to give each to such animal as can make use of it.” (Ibid, 687a) Whereas other animals have only one means of defence, “to man numerous modes of defence are open, and these, moreover, he may change at will; as also he may adopt such weapon as he pleases, and at such places as suit him; as also he may adopt such weapon as he pleases, and at such places as suit him. For the hand is talon, hoof, and horn, at will. So too it is spear, and sword, and whatsoever other weapon or instrument you please” (Ibid, 687a). And Darwin himself wrote: “Linnaeus and Cuvier have been my two gods, though in very different ways, but there were mere school-boys to old Aristotle” (quoted in Ross 1959, 112).

Thus, it is not so much the human in relation to such and such a non-human, as if both were only in relation - such a reading misses both the human and the non-human - that should interest the anthropologist, but rather the comparative characteristics of humans and various non-humans, in particular other living beings, in relation and outside the relation. This is “anthropocentrement”, with the human being remaining the standard of comparison.

With regard to anthropologists’ current great interest in non-humans, my criticism is aimed at 1) the strictly relationalist reading (centred on the ‘between’) of the relations between humans and non-humans, which misses out on both humans and non-humans, 2) the risk of equating one with the other, 3) the small number of works (in anthropology) that compare and contrast humans and non-humans (especially living beings) in terms of their modes of presence - an essential point in anthropology in the strict sense - in order to better understand humans. We would be doing too much or too little with non-humans. Too much, because of this equivalence; not enough because we do not have enough varied empirical data to make the comparison.

This objective of comparison seems to me to be essential for an anthropologist, as Buffon notes: “if there were no animals, the nature of man would be even more incomprehensible” (quoted in Gusdorf 1972, 373). It is not so much the answer - although it is not

insignificant - that I want to point out as important as the principle of the exercise, which remains very rare. If we are to describe animals in the continuity of their lives, then it is important not to be satisfied with philosophical notions of 'points of view' or 'subjectivity', and the anthropologist will need the skills of ethology, cognitive ethology and animal psychology. For the purposes of comparison set out here, it is important to describe the animal, including when it is not with humans, when it is not acting with humans, in relation to humans. But, I repeat, this focus on the animal, complementary to the focus on the human, can only be achieved in anthropology with a view to comparing beings and better defining the specificity of humans. In the spirit of comparison between species, what we should be looking for are properties that are common to individuals, thought of as results that are never fixed - even if the changes take place at a very slow pace.

"Why, we might be asking, is this thing here a man? This shows that the cause that is the object of inquiry is that by virtue of which the matter is in the state that it is in. And this cause is the form, and the form" (Aristotle 2004, 1041b). "For - writes Aristotle (in Barnes, Ed., 1984, *Part of Animals,* 640a) - man is generated from man; and thus it is because the parent is such and such that the generation of the child is thus and so." He himself specifies this formal principle, which has become very concrete, the reproductive seed: "For a given seed does not give rise to any chance living being, nor spring from any chance one; but each springs from a definite parent. And thus it is that from which the seed comes which is the origin and fabricator of its offspring." (Ibid, 641b) It would undoubtedly be open to criticism today to remain strictly Aristotelian, to insist on the idea of "germinative plasma" and to associate the germ cell with a rigid genetic programme, even though it is already linked to its microenvironment (Kupiec 2009, 81). Jean-Jacques Kupiec notes, however, that the concept of specificity remains a pillar of the current ontology of biology (Ibid, 270). Not so long ago Jacques Monod posited the "reproductive invariance" as the principle of living things, and variation or mutation as a mere accident of this "invariant form" (Ibid, 195).

A substance: Motion and stability

Anthropology as I see it is concerned with two figures: the figure of the human being in general, as we have just seen, but also, first and foremost, the singular figure of this individual. We have a substance: a

substrate infiltrated by a form. With a view to such an anthropology, Aristotle makes a clarification that refers not only to the reproduction of humans in general, but also to the reproduction of each individual in particular. "The substance of each thing is something that is peculiar to each thing is something that is peculiar to each thing", says Aristotle (2004, 1038b), who goes on to explain, with regard to the individuality of substances, that "particular things have different causes. For instance, your matter, form and motive cause are all different from mine" (Ibid, 1071a). On this subject, Pierre Aubenque's comments are very important: "Aristotle is not content with universal discourses and generic definitions: since things are singular, it is in their singularity that they must be grasped" (Aubenque 2009, 463). Aristotle himself notes: "For a principle of particular things must itself be a particular thing. It is true that man is a principle of man at the universal level, but there is no man in reality. Rather it is Peleus that is the motive cause of Achilles and your father that is yours." (Aristotle 2004, 1071a) Once again, we have an organising principle of a substance, the "form" that gives it structure and unity.

What question is being asked now? Not "what is it", or "what is man", but "*ti hèn einai*", and with a different meaning from that mentioned above: not "what was it to be, to live, to be alive for man", but "what was it to live for so-and-so", for Socrates for example? In Aristotle's formula, the use of the imperfect tense is a challenge, as Aubenque points out. What was it to be for Socrates, or for any other individual? We are faced with the question of the singularity of individuals.

The principle of motion makes every human being a being in time, with, adds Aristotle in *The Nichomachean Ethics* (Aristotle 2009, 1169a), the duty to love oneself. He adds: "For each of them [things constituted by nature] has within itself a principle of motion and of stationariness (in respect of place, or of growth and decrease, or by way of alteration)." (Aristotle. In Barnes, Ed., 1984, *Physics*, 192a) Let us note that Heidegger (2001) draws a connection between this principle of movement on the one hand and "factical life" and its temporal deployment on the other. He adds that on this point – "movedness" and what happens to each person – Aristotle's analyses have not been understood nor surpassed.

Each substance will thus move, grow, transform and take on characteristics that will be definitive or leave variable traces. According to Aristotle (2004, 1025a), an accident is "what pertains to

something and what it is true to assert of it, but neither necessarily nor for the most part". From the live observation of a volume of being, it is sometimes difficult, if not impossible, to distinguish, for each of the qualities and each of the acts, what might be relevant, necessary or accidental. Let us take an example from Aristotle: "someone is digging a trench for a plant and finds treasure. This finding of the treasure is an accident for the man who digs the trench. It is not the case that finding treasure necessarily comes from or after digging a trench, nor would one for the most part in doing some planting find treasure." (Ibid, 1025a) But as a result of this chance, this individual has become rich, started new actions and acquired new characteristics that now define him. Any insignificant gesture can have far-reaching consequences, and we wouldn't know until afterwards.

And it is here that Aubenque's interpretation of the use of the imperfect tense of the Aristotelian interrogation is interesting: it is when the individual is dead that it would be possible, once we have observed his deeds and actions, to better identify those that remained without consequences, those that had consequences (and what kind of consequences) and that we would determine his singularity, his "quiddity" to use the lexicon of commentaries on Aristotle. If we are talking about Socrates, we say socrateity, of Demosthenes demostheneity, and so on. "Only death, writes Pierre Aubenque (2009, 469), can, in the case of the living, halt the unpredictable course of life, transmute contingency into retrospective necessity, separate the accidental from what really belongs per se to the subject who is no longer." But it is also in the modalities of the act - speaking, eating, walking, digging, reacting to an event, in the details of actions - that a singularity, a socrateity or a demostheneity, is revealed. And these reactions and details are often predictable, or at least not so surprising if you know so-and-so. So you do not have to wait until death to analyse a mode of being[6]. "It's him", you might say. To describe substance in the process of existing, thoughts, gestures and words, the distinction proposed by Aristotle (*Posterior Analytics*, 73a-b. In Barnes, Ed., 1984) can regain some relevance: "what belongs to something because of itself belongs to it in itself", its "humanity" and also, more particularly, its socrateity or demostheneity, attributes that are neither necessary nor constant (Aristotle 2004, 1025a) but that

[6] On this point and its application to an observation of my own actions, see Piette (2017).

most often occur and accident by chance (Ibid, 1027a). What is at stake here is the singularity of continuity: a kind of core, parts of which are actualised in a situation, while others remain dormant, as moments go by. These parts of the core are found in the different roles and actions played by each individual. It is also these parts of the core that give each person a style of existing, which is found from situation to situation, in different actions. Never totally fixed, this core retains a certain stability.

In any case, Aristotle leaves an anthropological field, let's say, to be cleared. I do not mean to say that Aristotle would have given concrete form to anthropology as I claim from his *Metaphysics*, but it is conceivable that empiricists who had read Aristotle, had they existed in his time or just after, might have made similar choices, in order to develop anthropo-logy[7]. This is what still needs to be clarified.

Observing a substance

"Who, except the philosopher, is going to ask whether Socrates and Socrates seated is the same thing? If that is not the philosopher's job, who is going to ask whether 'Socrates' is the same as 'Socrates seated'?" (Aristotle 2004, 1004b) This would be precisely the job of the anthropologist, who would set out to observe the substance and its qualifications, modalising it, modulating it, spotting what remains identical, what changes, affections, the traces of what happens. The anthropologist would meticulously search moment by moment for what remains the same and what changes. Lalande (2006, 1048) defined substance as "that which is modified by change while remaining the same". If the opportunities in the human and social sciences had been different, and if this anthropological investigation had not been constantly postponed, philosophy might have spilled less ink on these questions of substance and predicates. It would have been up to empirical anthropology to play this role, which it has never taken on.

The substance cannot be missed, this volume thus identified and followed with a view to observing it: "The man remains a man and is such even when he becomes musical, whereas what is not musical or is unmusical does not survive, either simply or combined with the subject. [...]. one can gather from surveying the various cases of

[7] I would like to thank Olivier Renaut for having raised this question: what would Aristotle's empirical anthropology have been like if it had taken place?

becoming in the way we are describing that there must always be an underlying something, namely that which becomes." (Aubenque 2009, 430) When an individual A becomes b (cultivated, for example), it is only a modality of A that appears, more or less important, which does not transform all of A, which was undoubtedly non-b (but not completely) and many other things. In fact, this does not necessarily modify these other elements (a, c, d, etc.) and we can think that a set of elements of A were in fact preparing this modification b: its "potentiality", as Aristotle might say, who is trying to avoid thinking of change in terms of discontinuities of existence. "Potentialities as a whole we can divide into the in-born, such as the senses, the acquired by practice, such as that for flute-playing, and the acquired by learning, such as that for skills." (Aristotle 2004, 1047b) The anthropologist is forced to make a detailed observation of the continuous existence of the substance in order to identify what is maintained, what continues and what is modified. It is in what may appear to be details and a succession of contingencies, in the interweaving of words and actions, that the quiddity of Socrates or Demosthenes will gradually be revealed. This would be a way of sorting out the relevant details from the irrelevant ones. We find again a human being, this one, with a core made up of properties that necessarily characterise him or her not only as a human being in general but also as a particular one. Studying this quiddity of a being (Ibid, 1031b), which appears under, not under Socrates, but under Socrates standing, sitting, crouching, involves these meticulous observations of acts and their modes. I will say it again, it is important, in this perspective, to consider the volume of being, each substance, as the reference point for observation, in the monitoring of its continuous movement, revealing what is maintained, the stakes of a situation and of a moment motivating only a part of the volume, this part itself being infiltrated by elements (gestures, words, thoughts, etc.) that do not concern them but also by a style, this core that has already permeated other acts.

Questions emerge on a micrological scale: where do increases, decreases, displacements, alterations, generations or corruptions - in Aristotle's (2004, 1067b) words - come from? Are they partial? Do they concern the whole substance? Which parts? Where do they infiltrate? Little by little? Suddenly? Into the body? Into the mind? And with what kind of consequences? Beyond successive acts and qualities, it is the continuity of a potentiality that Aristotle wants to show, "without which being would lose all unity, at every moving

moment, at every new moment" (Aubenque 2009, 452). What then is or becomes essential, and what remains accidental? How can we distinguish between what remains and what has changed? Black hair today will be white in fifty years' time, or red in ten minutes' time after being dyed. He has gone from being single to married. He changes profession. But in all these cases, he remains tall or short, intelligent or stupid, with his own style. He moves to a new place, but he remains this or that. In his distinction between the different types of change, Aristotle (*On Generation and Corruption,* 319b. In Barnes, Ed., 1984) states that "there is alteration when the substratum is perceptible and persists, but changes in its own properties". And when a quality disappears, where does it go? Does it remain as power, as potential, in the volume of being? How does it leave traces? And what traces will an action or a gesture leave?

From a materialist ontology, I would find an invitation to think about the links between the fine descriptions of substance, in movement, and the very life of the neurons, cells and molecules present in the human body, those that remain while others disappear. The horizon is a form of neuroscientific anthropology, tending to follow the translation of acts and thoughts in the brain, the areas and neuronal circuits that are called upon each time. The continuity evoked by Aristotle's texts could provide empirical confirmation of the progressive origin of neuronal and muscular fixations, so that, for example, a given gesture occurs in the same way in a given individual. Let's take the example of walking and allow ourselves some hypotheses. Everyone has a particular gait, a particular walking speed, which varies from moment to moment, but certain characteristics are always present. There are several levels at which walking is constructed: the muscles (and bones) of the lower limbs and also the brain. A genetic component is present in both muscle cells and motor neurons. So, on the one hand, it could be a question of an individual's own control of the expression of genes leading, in the case of walking, to a greater or lesser concentration of molecules favouring a particular shape (long and stretched, or rather shortened) of muscle cells. Of course, these cells die and are replaced by others, but their location within the tissue and the expression of the genes are identical, thanks to the signals transmitted between these cells which ensure the integrity of the shape of the tissue. On the other hand, motor neurons, which order leg movement over time through a series of electrical activities, have been subject to plasticity during the development of the

individual. In the long term, this has led to a stable favouring of certain connections between motor neurons controlling particular regions of the muscle, with certain frequencies of 'switching on' of these neurons leading to greater or lesser speeds and intensities of contraction of the associated muscle cells. Let's not go into too much detail here, but there is a potential for empirical collaboration between anthropologists of substance and neuroscientists, even if the methodological framework for observation at different scales is not straightforward. It seems to me that anthropology will have acquired true disciplinary and scientific status when it thinks such research is possible and carries it out. Empirically, I say again, it is a challenge for the anthropologist to see from day to day what continues, what joins with what continues, what has effects, what is accidental and what remains.

Would such an anthropology have been a miracle in the ancient Greece of the philosophers? On the one hand, Herodotus, considered to be the founder of ethnography, set out to observe customs and rites. On the other hand, philosophical works present a major debate on what reality is and a questioning of the human being. It would have taken this miracle for an observer to be inspired by philosophical debates, to confront the philosophical debate with reality, not to find cultural curiosities, and to systematise his observations and research on the human being himself. The miracle did not happen. It could have. But it has not happened yet.

And so would this anthropology be a science? We know Aristotle does not believe that a "science of accidents" is possible (Aristotle 2004, 1027a). But he also values the spirit of discovery based on perception and experience (Aristotle. In Barnes, Ed., 1984, *On the Soul,* 402b). Aristotle keeps repeating that "all science is either of that which is always" but also "that which is for the most part" (Aristotle 2004, 1027a). And precisely, when Aristotle (*Posterior Analytics*, 87a. In Barnes, Ed., 1984) is looking for a kind of stability of the ideal scientific object separated from the variations of matter, he can find this stability in the continuous existence of a human being, in its continuous core, before comparing each one and looking for invariants in the structuring of volumes of beings. It could also be recalled that: "the account of certain things is based on the mode of combination of their matter, which some (e.g. honey-drink) being combined by blending, some (e.g. a besom) by binding, some (e.g. a book) by gluing, some (e.g. a chest) by nailing and some by a combination of combinations" (Aristotle 2004, 1042b). The desire to know (Ibid,

980a) could legitimately focus on human beings as they are in time, with their modes of internal structuring.

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From all the points developed in this text, rather than a return to the past, what can be interpreted as an Aristotelian programme seems to me to be a reversal of anthropology, or at any rate the foundations of a new departure. Allow me three more references: Paul Valéry, Francis Ponge, and the mathematician René Thom (who makes no secret of his Aristotelian filiation):

> Like a pure sound or a melodic system of pure sounds in the midst of noises, so a crystal, a flower, a sea shell stand out from the common disorder of perceptible things. (Valéry 1977, 112)

> Ah, you think the shapes (of the smallest objects, the shapes that surround and separate them, their contours) are unimportant? Come on! Let's leave this joke behind! They are of the utmost importance. [...] What we have learned about atomic disintegration should help us to form a sufficient idea of the formidable atomic restraining force constituted (or signified) by shapes, by the slightest contours. The centripetal effort represented by gears and bolts, locks, keys, chains, hooks, rivets and grappling hooks, and cements, and speeding movements that counteract each other, and electrified defence networks that balance each other out, their speeds offsetting each other - the smallest fragment of the smallest pebble, the smallest speck of dust, wisp of a match, breadcrumb or coelenterate hair. (Ponge 1965, 75)

> Tear up a painting, mutilate a sculpture, and the beauty disappears from the remaining fragments. One might ask what is the source of such unity. A naïve morphologist might say: 'It is the edge that limits the work that makes its unity: there can be no painting without a frame, no dance without a stage that delimits the dancers' lovemaking' [...]. But this condition, necessary though it is, is not sufficient.
> [There are also] various forms whose dynamic interaction will constitute a field, limited by this framework, and whose evolution will be governed by an extremely complex and refined organising singularity. (Thom 1990, 128)

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