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## Being opposite

### On the translation of *antikeimena* in Aristotle's *De anima*

Pietro Giuffrida

The enquirer who approaches this subject must ascertain what each of these faculties is before he proceeds to investigate the questions next in order and so forth. But if we are asked to state what each of these is; that is to say, what the cognitive, sensitive and nutritive faculties respectively are, we must begin by stating what the act of thinking is and what the act of sensation is. For activities and functions are logically prior to faculties. But, if so, and if a study of the *correlative objects* should have preceded, these *objects* will for the same reason have to be defined first: I mean, nutriment and the sensible and the intelligible. Consequently we have to treat of nutriment and generation.<sup>1</sup>

The main concern of this article is the interpretation of this passage, and the particular way by which it is generally translated by modern editors. Almost all modern translations adopt the two locutions that I emphasize in the text: *objects* and *correlative objects*, to translate the Greek word *antikeimena*.<sup>2</sup> But this choice is not neutral, nor it is without consequences for the understanding of the text. Rather, I suggest it is affected by three problems:

1. *De anima* 402b11-17 and 415a14-23 are the only two cases in the whole Aristotelian *corpus* where the word *antikeimena* is translated with 'objects' or 'correlative objects';
2. this translation is nesting in the earth of Aristotelian psychology the modern opposition between subject and object;
3. it implies that *antikeimena* in *De anima* is not used as a technical term, and that its presence in this text has not theoretical consequences.

Arguing that the word *antikeimena* plays a specific role in *De anima*, I will propose some arguments for the inadequacy of the standard translation,

<sup>1</sup>Tr. HICKS 1907, 63 (italics mine), *De anima* II.4 415a14-23: 'Αναγκαῖον δὲ τὸν μέλλοντα περὶ τούτων σκέψιν ποιῆσθαι λαβεῖν ἕκαστον αὐτῶν τί ἐστίν, εἴθ' οὕτως περὶ τῶν ἐχομένων καὶ περὶ τῶν ἄλλων ἐπιζητεῖν. εἰ δὲ χρὴ λέγειν τί ἕκαστον αὐτῶν, οἷον τί τὸ νοητικὸν ἢ τὸ αἰσθητικὸν ἢ τὸ θρεπτικόν, πρότερον ἔτι λεκτέον τί τὸ νοεῖν καὶ τί τὸ αἰσθάνεσθαι· πρότερα γάρ εἰσι τῶν δυνάμεων αἱ ἐνέργειαι καὶ αἱ πράξεις κατὰ τὸν λόγον. εἰ δ' οὕτως, τούτων δ' ἔτι πρότερα τὰ ἀντικείμενα δεῖ θεωρηκέναι, περὶ ἐκείνων πρῶτον ἂν δεοί διορίσαι διὰ τὴν αὐτὴν αἰτίαν, οἷον περὶ τροφῆς καὶ αἰσθητοῦ καὶ νοητοῦ. ὥστε πρῶτον περὶ τροφῆς καὶ γεννήσεως λεκτέον. See the similar passage in I.1 402b11-17.

<sup>2</sup>All the English and Italian translation, and two of the French, adopt the locution "relative" or "correlative objects". See HICKS 1907, 63; HAMLIN 1993, 17; BARNES 1984, 26; MOVIA 2005, 133; LAURENTI 2007, 136; BARBOTIN 1966, 38; BODÉÛS 1993, 150. The only exception seems to be TRICOT 2003, 25, that uses the word "opposées". For some remarks about the adoption of this translation see BODÉÛS 1993, 80 n.5; MOVIA 1991, 296 n.2; HICKS 1907, 189-90; and RODIER 1985, 21 e 225.

and I will suggest that the Aristotelian explicit theory of opposite terms, as developed in *Categories* and *Metaphysics*, is the appropriate ground for the usage of the word *antikeimena* in *De anima*.

### 1 Dewan on the historical introduction of the term ‘*obiectum*’

Let start the analysis of the problems involved in the translation of *antikeimena* by referring to Lawrence Dewan’s article “*Obiectum*”. *Notes on the invention of a word*.<sup>3</sup> In this article Dewan presents an interesting discover: the first philosophical usages of the Latin word ‘*obiectum*’ appears in the XIII d.C. in two commentaries on the powers of the soul: the *De anima* attributed to Roberto Grossatesta, and the anonymous *De potentiis animae et obiectis*. Both these texts paraphrase the Aristotelian nexus *dynameis-energeiai-antikeimena*, that originally appears in *De anima* I.1 and II.4. They both adopt the word ‘*obiecta*’ instead of ‘*opposita*’, despite the latter was the word normally used in the Latin translation of this passages.<sup>4</sup> Therefore, the introduction of the word ‘*obiectum*’ in the history of philosophy is the outcome of an interpretation of Aristotle’s *De anima*, that, for some specific (medieval) theoretical issues, modifies the ordinary Latin translation, replacing the word *opposita* with the new philosophical term *obiecta*.<sup>5</sup>

The historical reasons that explain this *substitution* are not in view of this article,<sup>6</sup> but I think it is really important to remind Dewan’s arguments about such transformation of the text, which seems to be not legitimate from a strictly Aristotelian point of view. If I correctly understand Dewan’s arguments, he explains *De anima* usage of *antikeimena* with reference to the theory of opposite terms developed in *Categories* and detailed in *Metaphysics*. With this word Aristotle refers in *De anima* to a special kind of opposites, i.e. the relative terms, generally exemplified by the

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<sup>3</sup>DEWAN 2008.

<sup>4</sup>See DEWAN 2008, 427 ff. Dewan shows that in the *vetera translatio*, the only one available when the two commentaries were written, James of Venice renders *antikeimena* with *opposita*, as well as in translation from Arabic by Michael Scot. Only in the later revision of James of Venice’ translation by William of Moerbeke the first of the two occurrences is rendered by *obiecta*. Dewan’s conclusion is that «the word “*obiectum*” is found in the translations only after its invention by teachers (as distinct from translators). Around 1268, by which date the word is already well established, William of Moerbeke is still prone to write “*opposita*”» (DEWAN 2008, 427).

<sup>5</sup>See DEWAN 2008, 428.

<sup>6</sup>See DEWAN 2008, 405-19. The author connects the adoption of Aristotle’s nexus *dynameis-energeiai-antikeimena* to the explanation of several functions of human soul by maintaining its unity. In this sense, the ultimate responsible for the multiplicity of the *energeiai* are the various types of *antikeimena* from which and to which the movement starts. «[...] the essence of the soul being itself simple or lacking diversity, if there is a diversity among the powers of the soul, it must be explained [...] by some other factor in the situation, that is, either by the organs and instruments or by the *obiecta*» (DEWAN 2008, 412).

couples double/half, larger/taller and so on. Notably, this usage is especially related to the case of relatives analyzed in *Metaphysics* V.15, where Aristotle addresses the relation between knowledge and the knowable, and between sensation and the sensible. These couples are characterized by lack of reciprocity (*antistrephein*), which is the quality that normally identifies the relatives. Paraphrasing *Metaphysics* V.15, Dewan explains that:

In the *Metaphysics*, Aristotle distinguish carefully between the case of relatives based on number and power, on one hand, and that of relatives of the type measurable-measure, knowable-knowledge, on the other hand. [...] In the latter case, the measurable and the knowable is so called not because it, by virtue of its very self, is said of something else, but rather because something else (the measure, knowledge) is said of it. The knowable, in its own being, is not essentially a “knowable”. What this means is that the knowable is not, according to its own being, a *pros ti*, and so neither is it an *antikeimenon*. Thus, the trend of this doctrine of *Metaphysics* is toward the conclusion that it is primarily the knowledge or perception that the term “*to antikeimenon*” fits. The knowable would be so called with less appropriateness.<sup>7</sup>

In other words, the relation between terms like ‘sensation’ and ‘sensible’ is not bidirectional, such as that between ‘double’ and ‘half’. Therefore in such cases can be recognized an independent term (the sensible) and a dependent one, properly regarded as relative (the sensation). But if it is true, the direction implied in the Aristotelian concept of ‘relatives’ is exactly the contrary of the direction implied by the concept of *obiectum*. The term *obiectum* appropriately indicates the knowable, while the *oppositum* rather indicates the knowledge. For this reason only sensibles, intelligibles and nutriment can properly be said *obiecta* of their respective faculty. On the contrary the Aristotelian notion of relative terms, especially when applied in knowing contexts, properly denote the faculty, and not what normally we would call their ‘objects’.

Although, from this argument, which undermines the parallel between the two concepts of *antikeimena* and *obiecta*, another consequence can be drawn. If we accept that only the knowledge, instead of the knowable, can properly be considered an *antikeimenon*, also Aristotle’s usage of this term in *De anima* is not quiet coherent. Indeed, in this treatise Aristotle is pointing out as opposite and relative terms the «nutriment and the sensible and the intelligible»,<sup>8</sup> whereas, according to *Metaphysics* V.15, only the faculties can be described as such. Therefore Dewan can draw the conclusion:

From all this, it looks as though Aristotle, when uses the term “*ta antikeimena*” for food, the sensible, and the knowable, is using a term with a

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<sup>7</sup>DEWAN 2008, 421.

<sup>8</sup>See *De anima* II.4 415a14-23.

well-determined sense, but not a term tailored to that set of items as such. It is not a technical term for those items.<sup>9</sup>

### 1.1 Effects of the substitution of *opposita* with *obiecta*

Dewan's article has the merit of showing an historical *short-circuit*, that produces some consequences in the contemporaneous reception of *De anima*. The usage of the expression 'relative objects' to translate *antikeimena* in *De anima* can determine a misinterpretation of the Aristotelian text. However, in the following paragraphs I propose another evaluation of the role played by the notion of *antikeimena*. In fact, I do not agree with Dewan's claim that *antikeimena* in *De anima* is not used as a technical term, and I am not sure that the role of the term in this context is to characterize as relatives each faculty (*threptikon*, *aisthetikon*, *noētikon*) and their respective opposites (*trophē*, *aisthēta*, *noēta*).<sup>10</sup> Then, in order to verify the meaning of the five occurrences of *antikeimenon* in *De anima*, I will refer to the explicit theory of opposite terms developed in *Categories* and in *Metaphysics*. If, as I think, the notion of opposites plays a specific role in Aristotle's philosophy, the ultimate reason to reject the translation of *antikeimena* as 'correlative objects' is that it overshadows the technical role played by this term in *De anima*.

In order to prove this claim, I propose to go through three stages. In the first, I examine some passages from *Categories* and *Metaphysics* where Aristotle delineates an explicit theory of opposite terms. In the second, I point out a coherent usage of this theory in *Physics* V, where the notion of opposition plays a central role in the theory of motion and change. Then in the third, I analyze the five occurrences of *antikeimenon* in *De anima* to argue that they are understandable only on the base of the technical meaning of this term.

## 2 Aristotelian explicit theory of *antikeimena*

Aristotle speaks about *antikeimena* in some parts of his *corpus*. One extensive description is provided in *Categories* 10, but it is necessary to compare it with *Metaphysics* V 10, and with some other texts. The general schema of the four kinds of opposite terms is drawn in *Categories* 10:

Things are said to be opposed to one another in four ways: as relatives or as contraries or as privation and possession or as affirmation and negation.<sup>11</sup>

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<sup>9</sup>DEWAN 2008, 421.

<sup>10</sup>See *De anima* II.4 415a14-23.

<sup>11</sup>Tr. ACKRILL 1963, 31, *Categories* 10, 11b17-8: Λέγεται δὲ ἕτερον ἑτέρῳ ἀντικεῖσθαι τετραχῶς, ἢ ὡς τὰ πρὸς τι, ἢ ὡς τὰ ἐναντία, ἢ ὡς στέρησις καὶ ἕξις, ἢ ὡς κατάφασις καὶ ἀπόφασις.

Also other texts agree with this initial account of the opposites,<sup>12</sup> and on this basis it is possible to point out some general features of this notion. The four kinds of opposites seem independent and irreducible (*Categories* 10 broadly emphasize their respective character). Furthermore, the list of the possible kinds of opposition seems complete: Aristotle does not mention other cases of opposite terms.<sup>13</sup> The first consequence of this account is that the term *antikeimena* - as an equivocal term - has not simply one meaning, so that each case of opposition can always be explained by referring it to one of the four kind. Then, when *antikeimena* is used without any other specifications, it should be regarded as generally pointing to all the four meanings, as a general or weak term.

## 2.1 Opposites as relatives

A general account of relative terms is found in *Categories* 7, but a further analysis is located in *Metaphysics* V.15.<sup>14</sup>

We call *relatives* all such things as are said to be just what they are, *of* or *than* other things, or in some other way *in relation to* something else. For example, what is larger is called what it is *than* something else (it is called larger than something); and what is double is called what it is *of* something else (it is called double of something); similarly with all other such cases. The following, too, and their like, are among relatives: state, condition, perception, knowledge, position.<sup>15</sup>

To define terms like ‘slave’ and ‘master’, or ‘double’ and ‘half’, it is necessary to refer to their relation with another terms. Each slave is called the slave of his master, like the master is called ‘master of his slave’.

This mutual dependence of relatives permits to point out two essential features of this term. They have to be reciprocal and simultaneous. Reciprocity implies that both terms involved in the relation require in its own definition the reference to the other one.<sup>16</sup> Simultaneity requires that both

<sup>12</sup>See *Metaphysics* V.10 and X.4.

<sup>13</sup>In *Metaphysics* V.10 1018a20-3 Aristotle also includes in the list of the kinds of opposites «the extremes from which and into which generation and dissolution take place; and the attributes that cannot be present at the same time in that which is receptive of both» (tr. BARNES 1984, 70). But it is highly probable that they are respectively synonyms of the contradictories, usually intended as principles of generation and corruption, and of contraries. For the former see *Metaphysics* X 4; for the latter see *Categories* 11. On this argument see ROSSITTO 1977, 44 ff.

<sup>14</sup>See also *Categories* 10 11b31 ff. and 12b16 ff. For a general account see MIGNUCCI 1986 and MORALES 1994. Also useful the notes to the text in BODÉÛS 2002.

<sup>15</sup>Tr. BARNES 1984, 11, *Categories* 7 6a36-b6: Πρὸς τι δὲ τὰ τοιαῦτα λέγεται, ὅσα αὐτὰ ἄπερ ἐστὶν ἐτέρων εἶναι λέγεται ἢ ὅπως οὖν ἄλλως πρὸς ἕτερον· οἷον τὸ μείζον τοῦθ' ὅπερ ἐστὶν ἐτέρου λέγεται, – τινὸς γὰρ μείζον λέγεται, – καὶ τὸ διπλάσιον ἐτέρου λέγεται τοῦθ' ὅπερ ἐστὶν, – τινὸς γὰρ διπλάσιον λέγεται· – ὡσαύτως δὲ καὶ ὅσα ἄλλα τοιαῦτα. ἔστι δὲ καὶ τὰ τοιαῦτα τῶν πρὸς τι οἷον ἕξις, διάθεσις, αἴσθησις, ἐπιστήμη, θέσις.

<sup>16</sup>See *Categories* 7 6b27 ff.: Πάντα δὲ τὰ πρὸς τι πρὸς ἀντιστρέφοντα λέγεται...

terms exist at the same time: in absence of a master, the man just called slave no longer is a slave.<sup>17</sup>

Nevertheless, these features are not verified by relative terms as a whole. This is particularly clear about simultaneity, that is involved only in some relatives, and explicitly excluded by relations such as *epistēmē/epistēton* and *aisthēsis/aisthēton*. Indeed these cases require that the second term already exists when the relation is established. But the same couples of relatives lack the first and more important feature, i.e. reciprocity. Only the first term of these couples - respectively the *aisthēsis* and the *epistēmē* - requires for its own existence an actual relation to the other one, whereas the second one exists before and independently of the relation. In such case it is possible to regard a term as absolute, and the other one as dependent, because its existence requires the relation with the first one. This problem is already focused in *Categories* 7 7b15 ff., but in *Metaphysics* it receives a more detailed examination, by distinguishing three kinds of relatives.

Things called numerical relatives or relatives in respect of capacity are all relatives from being called just what they are of something else, not from the other thing being relatives to them. But the measurable and the knowable and the thinkable are called relatives from something else being called [what it is] relative to them. For 'thinkable' signifies that there exists thought of it, but the thought is not relative to that of which it is a thought (for then we should have said the same thing twice). Similarly sight is the sight of something, not of that of which it is the sight (though of course it is true to say this); in fact it is relative to colour or to something else of the sort. But according to the other way of speaking the same thing would be said twice, - 'it is the sight of that which is the object of sight'.<sup>18</sup>

## 2.2 Opposites as contraries

Aristotle makes an extensive usage of the concept of contraries (*enantia*) in *Categories*, in the context of the analysis of *predicamenta*. This notion is analyzed in the chapter devoted to the opposites, and further in a distinct chapter, the XI. The distinctive feature that characterize two terms as contraries is identified in their reference to the same reality (one species or genus, one category...) and, conversely, in the impossibility of belonging to the same thing at the same time. The terms white and black, for example, belong to the same qualitative range, and the subject of which they are predicates cannot be said, at the same time, both black and white.

It is clearly the nature of contraries to belong to the same thing (the same either in species or in genus) - sickness and health in an animal's body, but whiteness and blackness in a body simply, and justice and injustice in a soul.

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<sup>17</sup>See *Categories* 7 7b15 ff.: Δοκεῖ δὲ τὰ πρὸς τι ἅμα τῇ φύσει εἶναι...

<sup>18</sup>*Metaphysics* V.15 1021a27-30, tr. KIRWAN 1993, 52.

All contraries must either be in the same genus or in contrary genera, or be themselves genera. For white and black are in the same genus (since colour is their genus), but justice and injustice are in contrary genera (since the genus of one is virtue, of the other vice), while good and bad are not in a genus but are themselves actually genera of certain things.<sup>19</sup>

### 2.3 Opposites as ‘form and privation’

The account of privation in *Categories* explicitly focuses only on the ‘natural privation’, i.e. the privation of whatever a subject is naturally endowed of.<sup>20</sup>

We say that anything capable of receiving a possession is deprived of it when it is entirely absent from that which naturally has it, at the time when it is natural for it to have it. For it is not what has not teeth that we call toothless, or what has not sight blind, but what has not got them at the time when it is natural for it to have them. For some things from birth have neither sight nor teeth yet are not called toothless or blind.<sup>21</sup>

### 2.4 Opposites as contradictories

In *Categories* the contradiction is identified by two features: (1) one of the two contradictory propositions must always be true, and the other one must always be false; (2) there is not any possible intermediate between them. Then, for two propositions to be opposed, they must respectively affirm and denies the same thing about the same subject. To build a contradiction it is not enough to predicate two contraries, like ‘healthy’ and ‘sick’, nor a disposition and its privation, because in these cases the true proposition cannot always be distinguished.

But with an affirmation and negation one will always be false and the other true whether he exists or not. For take ‘Socrates is sick’ and ‘Socrates is not sick’: if he exists it is clear that one or the other of them will be true or false, and equally if he does not; for if he does not exist ‘he is sick’ is false but ‘he is not sick’ true. Thus it would be distinctive of these alone–opposed affirmations and negations–that always one or the other of them is true or false.<sup>22</sup>

## 3 Aristotle’s usage of *antikeimena* in *Physics V*

I analyze *Physics V* as a relevant context of usage of *antikeimena*, perhaps also useful for understanding the role that this term plays in *De anima*. I select this book from *Physics* because it contains eight of the 31 *antikeimena*

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<sup>19</sup> *Categories* 11 14a15-26, tr. BARNES 1984, 24.

<sup>20</sup> Other kind of privation is identified in *Metaphysics V.22*.

<sup>21</sup> *Categories* 12a28-34, tr. BARNES 1984, 21.

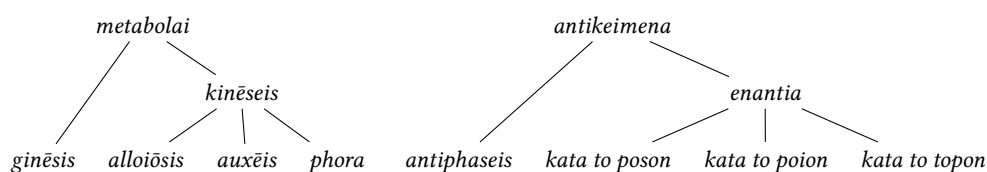
<sup>22</sup> *Categories* 10 13b-36, tr. BARNES 1984, 23.



occurrences of the whole treatise, and because these occurrences play a great role in the Aristotelian theory of motion and change. As a matter of fact, in this book Aristotle draws a sort of schema involving four kinds of change, relying for this purpose on the general case of change (*metabolē*) of a substrat (*upokeimenon*) between two opposite terms (*antikeimena*). The aim is to include in a single theoretical framework the generation (*genesis*), the qualitative alteration (*alloiōsis*), the quantitative augmentation (*auxēis*), the local movement (*phora*), and their respective contraries. This is possible by distinguishing the two cases of *antikeimena* among which any change can take place: the contraries (*enantia*) and the contradictories (*antiphaseis*).

Change which is not accidental on the other hand is not to be found in everything, but only in contraries, in things intermediate between contraries, and in contradictories, as may be proved by induction.<sup>23</sup>

The final scheme of change includes the generation (*genesis*) - as the only kind of *metabolē* that takes place between two *antiphaseis* - and three cases of motion (*kinēsis*), i.e. alteration (*alloiōsis*), augmentation (*auxēis*), and local movement (*phora*), that require *enantia* as their starting point. This achievement requires the application of the categorial scheme, and contradiction and contrariety as relevant kinds of *antikeimena*. Contradiction grounds the analysis of generation and corruption. These are logically and ontologically problematic because they require that a substance comes from being to not-being and *vice versa*. Contrariety allows the identification of the terms *a quo* and *ad quem* of three kinds of change, that respectively belong to the quality (*poton*), the quantity (*poson*), and the place (*topos*).<sup>24</sup>



### 3.1 The change model and the interpretation of *De anima*

In the brief summary of Aristotle's theory of opposites I pointed out that the word *antikeimena* is not usually associated with a singular meaning. It

<sup>23</sup>Tr. HARDIE and GAYE 1984, *Physics* V.1 224b28-9: ἡ δὲ μὴ κατὰ συμβεβηκός οὐκ ἐν ἅπασι, ἀλλ' ἐν τοῖς ἐναντίοις καὶ τοῖς μεταξύ καὶ ἐν ἀντιφάσει. See also *Physics* VIII.7 261a32-6: «Every other motion and change is from an opposite to an opposite: thus for the processes of becoming and perishing the limits are what is and what is not, for alteration the contrary affections, and for increase and decrease either greatness and smallness or perfection and imperfection of magnitude; and changes to contraries are contrary changes».

<sup>24</sup>See *Physics* V.1. I found the same schema of the four *metabolai* in ZANATTA 1999, 4 n. 4 and in TRICOT 1990, 260, n. 13. A more recent account, but with different purpose, in ROSEN 2012, 82 ff.

is rather used with reference to all its four kinds. This hypothesis does not exclude that in some contexts Aristotle uses the same term as synonym of a particular kind of opposition, like contraries or relatives, but affirms that *antikeimena* is normally used as a general and equivocal term, as denoting not one but many kinds of opposition.<sup>25</sup>

Such general character is shared by another concept: the concept of change. With *metabolē* Aristotle does not denote a particular kind of change, but all the four cases established in *Physics*, that is the generation, and the three kinds of motion: qualitative (*kata to poion*), quantitative (*kata to poson*) and local (*kata topon*).<sup>26</sup>

The two concepts of change and of opposition are developed by Aristotle with mutual reference. The generic term *metabolē* corresponds to the other generic term *antikeimena*, as well as each kind of *metabolē* requires a special meaning of *antikeimena*.<sup>27</sup>

This correspondence between *antikeimena* and *metabolē*, as two generic and plurivocal terms, produces the ground for the usage of *antikeimena* in *De anima*. In other words, I think that the concept of opposition as found in *Categories* and as applied in *Physics* to the model of change, could be an adequate background for the interpretation of the usage of *antikeimena* in *De anima* as a technical term.

#### 4 Aristotle's use of *antikeimena* in *De anima*

In *De anima* the word *antikeimena* occurs used five times, but two of this occurrences - I.1 402b11-17 and II.4 415a14-23 - are almost specular: in the first one Aristotle proposes in a problematic and aporetic way a procedure for the inquire of the soul, whereas in the second one he accepts and confirms this same procedure. Before analysing these two parallel occurrences, that are the most problematics and the only two where *antikeimena* is normally translated as "correlative objects", I will examine the other three passages to check if there is a coherent and unitary use of the questioned term.

##### 4.1 *De anima* I.5 411a2-7

And if the soul is to be construed out of elements, there is no need to employ them all, *the one of a pair of contraries being sufficient to discern both itself*

<sup>25</sup>This hypothesis seems confirmed by the text quoted from *Physics* VIII.7 and from its use in the book V..

<sup>26</sup>See *Physics* V.2 266a25-33 and VIII.7 260a26-9.

<sup>27</sup>The relevant exception is that only two of the four kinds of opposite terms are regarded as principles of change. Aristotle explicitly exclude that relatives and privation can provide cases of change. See *Physics* V.2 225b10 ff.

*and its opposite.* For by that which is straight we discern both straight and the crooked, the carpenter's rule being the test of both.<sup>28</sup>

This text is located in the part of the treatise devoted to the discussion of Aristotle's predecessors theories on the soul. It belongs to a polemical context, where is not always easy to distinguish Aristotle's own position. In this case Aristotle is engaged with the gnoseological theory grounded on the assumption that "like is known by like",<sup>29</sup> from which several aporetic consequences follow. Adopting this theory the predecessors did not clearly distinguish the sensation from the intellection. The cognition in general is therefore seen as a material interaction between the knower and what is known. Hence the knowledge is explained on the basis of the similarity between the elementary structure of the things and of the soul. In this context, the quoted text submits a minor criticism: the thesis of the similarity of the elementary structure of the soul and the knowable is unnecessary and redundant, since the four elements are organized in two couple of contraries, and the possession of only one element for each couple is sufficient to explain also the discrimination of the other terms.

In this text the word *antikeimenon* is strictly associated with the notion of contrariety, and it seems to be used like a synonym of *enantion* to denote the other term of a couple of contraries. In my opinion that the polemical context of the quoted text undermines the importance of this occurrence in order to explain the role of the word *antikeimena* in the two problematic cases of I.1 402b11-17 and II.4 415a14-23. However, this text too contributes to show a complex as well as on important context for the notions of contrariety and opposition.

#### 4.2 *De anima* II.4 416a29-34

But there is a difficult here; for some say that the like is fed by like, as is the case with the growth, while others, as we said, think the reverse, that one thing is fed by its contrary, since the like is unaffected by like whereas food changes and is digested; *and in all cases changes is to the opposite or to an intermediate state.*<sup>30</sup>

Located in the chapter devoted to the nutritive and reproductive faculty, also this text discusses predecessors' theory on the relation between two

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<sup>28</sup>Tr. HICKS 1907, 42 (italics mine), *De anima* I.5 411a2-7: εἰ δὲ δεῖ τὴν ψυχὴν ἐκ τῶν στοιχείων ποιεῖν, οὐθὲν δεῖ ἐξ ἀπάντων· ἰκανὸν γὰρ θάτερον μέρος τῆς ἐναντιώσεως ἑαυτὸ τε κρίνειν καὶ τὸ ἀντικείμενον. καὶ γὰρ τῶ εὐθεῖ καὶ αὐτὸ καὶ τὸ καμπύλον γινώσκωμεν· κριτῆς γὰρ ἄμφοιν ὁ κανὼν, τὸ δὲ καμπύλον οὐθ' ἑαυτοῦ οὔτε τοῦ εὐθέος.

<sup>29</sup>See *De anima* I.5 409b20-410b22.

<sup>30</sup>Tr. HAMLIN 1993, 20 (italics mine), *De anima* II.4 416a29-34: ἀπορίαν δ' ἔχει· φασὶ γὰρ οἱ μὲν τὸ ὅμοιον τῶ ὁμοίῳ τρέφεσθαι, καθάπερ καὶ αὐξάνεσθαι, τοῖς δ' ὡσπερ εἴπομεν τοῦμπαλιν δοκεῖ, τὸ ἐναντίον τῶ ἑνα ἰῶ, ὡς ἀπαθοῦς ὄντος τοῦ ὁμοίου ὑπὸ τοῦ ὁμοίου, τὴν δὲ τροφήν δεῖν μεταβάλλειν κα πέττεσθαι· ἢ δὲ μεταβολὴ πᾶσιν εἰς τὸ ἀντικείμενον ἢ τὸ μεταξύ..

similar terms: in this case the food and the living beings. Here Aristotle opposes those who explain growing through the similarity of the terms involved in the relation, and those who consider this terms as necessarily unsimilar. The solution later proposed by Aristotle consists in synthesizing this two claims, putting them as two stages of the same process. In the first stage the nourishment and the living being are contraries and unsimilar, whereas in the second stage, at the end of the digestion, the food is made actually similar to the living beings.

The whole examination of the process of digestion is built on a continuous usage of the notion of contrariety. But, unlike the case of I.5, here the word *antikeimenon* is not used as a synonym of *enantia*. In my opinion the concise, elliptical sentence: «in all cases changes (*metabolē*) is to the opposite (*antikeimenon*) or to an intermediate state (*metaxu*)» can be considered as Aristotelian claim, even if interposed in the discussion with the predecessors. One evidence can be provided for this reading. This sentence is similar to some other texts frequently found in some other texts, where Aristotle establishes a connection between *metabolē* and *antikeimenon*. One relevant example can be found in *Metaphysics* IV.7:

For there is not change except into opposites and things in the middle.<sup>31</sup>

In this context there is a similar use of the word *antikeimenon* as a technical but generic term, denoting several kinds of opposites among which the change - several kinds of change - can take place. The occurrence of the same sentence in some other treatises would allow to regard the passage quoted from *De anima* as a link to the change model developed in *Physics* and its peculiar use of the word *antikeimena*.

### 4.3 *De anima* II.11 424a10-6

Again, just as sight was in a way of both the visible and the invisible, and just as the other senses too were similarly concerned with opposites, so too touch is of the tangible and the intangible; and the intangible is that which has to a very small degree the distinguishing characteristic of things which are

<sup>31</sup>Tr. KIRWAN 1993, 24 (partially modified), *Metaphysics* IV.7 1011b34-5: οὐ γὰρ ἔστι μεταβολή ἀλλ' ἢ εἰς τὰ ἀντικείμενα καὶ μεταξύ. Three other similar passages in *Physics* V.1: «Change which is not accidental on the other hand is not to be found in everything, but only in contraries, in things intermediate between contraries, and in contradictories, as may be proved by induction» (tr. HARDIE and GAYE 1984, 224b28-9: ἢ δὲ μὴ κατὰ συμβεβηκός οὐκ ἐν ἅπασιν, ἀλλ' ἐν τοῖς ἐναντίοις καὶ τοῖς μεταξύ καὶ ἐν ἀντιφάσει); and V.2: «Now every change implies a pair of opposites, and opposites may be either contraries or contradictories; since then contradiction admits of no mean term, it is obvious that 'between' must imply a pair of contraries» (tr. HARDIE and GAYE 1984, 227a7-10: ἐπεὶ δὲ πᾶσα μεταβολή ἐν τοῖς ἀντικειμένοις, τὰ δ' ἀντικείμενα τὰ τε ἐναντία καὶ τὰ κατὰ ἀντίφασιν, ἀντιφάσεως δ' οὐδὲν ἀνά μέσον, φανερόν ὅτι ἐν τοῖς ἐναντίοις ἔσται τὸ μεταξύ); and the text from *Physics* VIII quoted at p. 34, n. 23.

tangible, as is the case with air, and also those tangible which are in excess, as are those which are destructive.<sup>32</sup>

In my opinion it is possible to read this text as denoting not one but two couples of opposite terms. Surely, it is possible that the opposition here involves the sight and the visible, the touch and the tangible. So, in a first sense, this text would confirm that Aristotle uses *ta antikeimena* as synonym of *ta pros ti*, to denote terms like knowledge and knowable as relatives. But I would like to propose another interpretation of the same text. The terms identified as opposites are respectively the visible and the invisible, and the tangible and the intangible. In this sense the sight and the touch are relative terms, because this relation is expressed by the grammatical construction of the phrase with the genitive *tōn antikeimenōn*. Yet the second term of this relation, the *antikeimena* related to each sense, is not identified with a single *object*, but rather with a range of contraries, that are perceptible qualities.

Such interpretation, requiring that *ta antikeimena* is used as synonym of *ta enantia* (instead of *ta pros ti*), is grounded on the account of *aisthēsis* developed by Aristotle in book II of *De anima*. Here Aristotle tries to explain the somatic level of sensation as an alteration (*alloiōsis*) of an initial state, through the stimulus of a sensible object. This initial stage is qualified as an indeterminate or an intermediate one. Then, the action of a sensible quality on a sensory organ causes a sort of break of this equilibrium, an alteration that properly constitutes the somatic ground of perception.<sup>33</sup>

Therefore, this occurrence firstly contains a confirmation that the sensation and the sensible are relative terms. However, this relation is not designated by the word *antikeimena*, but by the grammatical construction of the phrase, and particularly by the genitive *tōn antikeimenōn*. The proper target of Aristotle's usage of *antikeimena* in this context is not this relation, but the contrariety involved in the sensible qualities as responsible for the somatic alteration. If it is true, this passage, and the relation here established between an activity of the living beings and its specific couple of opposite terms, can provide a decisive contribution to the interpretation of the two problematic occurrences we are concerned with. Then, I propose to read *antikeimena* as indicating not the *objects* of each faculty *qua* relative to the faculty, but the contrary terms required for the changes of the living beings.

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<sup>32</sup>Tr. HAMLYN 1993, 42 (italics mine), *De anima* II.11 424a10-6: ἔτι δ' ὡσπερ ὄρατου καὶ ἀοράτου ἦν πῶς ἢ ὄψις, ὁμοίως δὲ καὶ αἱ λοιπαὶ τῶν ἀντικειμένων, οὕτω καὶ ἡ ἀφή τοῦ ἀπτοῦ καὶ ἀνάπτου· ἀνάπτου δ' ἐστὶ τό τε μικρὰν ἔχον ἀάπτου διαφοράν τῶν ἀπτῶν, οἷον πέπονθεν ὁ ἀήρ, καὶ τῶν ἀπτῶν αἱ ὑπερβολαί, ὡσπερ τὰ φθαρτικά..

<sup>33</sup>For an extensive reconstruction of the somatic process involved in Aristotle's psychology, see MOSS 2012, chapter 2. For a review of the debate on the kind of *alloiōsis* involved in sensation, see SHIELDS 1993 and BERTI 1998. Recent contributions in ROSEN 2012 and BOWIN 2012.

#### 4.4 The problematic occurrences of *antikeimena*

The review of the three less problematic occurrences of *antikeimemon* provides us with two selected evidences for the interpretation of the problematic occurrences.

1 In II.4 416a29-34 Aristotle uses *antikeimemon* in the singular form in a short sentence, frequently attested in some other parts of the *corpus*:

[...] and in all cases changes is to the opposite or to an intermediate state [...]

In my opinion, the presence of this passage in *De anima* can be read as a first connection with Aristotle's usage of the term *antikeimemon* in *Physics*. In this sense I suggest to read this word not as a synonym of *enantia* (as the context of the phrase could suggest), but as broad and general notion of being opposites, without reference to or exclusion of anyone of the four kinds of opposition.

2 The case of II.11 424a10-6 is as important as complex. Saying that all the senses are «concerned with opposites» Aristotle is meaning that each sense is *relative to the opposites*. But if it is correct, this passage can be decisive for a different interpretation of the two problematic occurrences of *antikeimemon*. It suggests that sensation is not simply relative to its proper *object*, but that it is relative to a range of contrary or opposite terms. In this sense, I propose to understand the relation between each activity and its opposite terms as a triadic model, that corresponds to the *Physics* model *upokeimemon-antikeimena*.<sup>34</sup>

##### 4.4.1 *De anima* II.4 415a14-23

The enquirer who approaches this subject [i.e. the soul] must ascertain what each of these faculties is before he proceeds to investigate the questions next in order and so forth. But if we are asked to state what each of these is; that is to say, what the cognitive, sensitive and nutritive faculties respectively are, we must begin by stating what *the act of thinking* is and what *the act of sensation* is. For activities and functions are logically prior to faculties. But, if so, and if a study of the *correlative objects* should have preceded, these *objects* will for the same reason have to be defined first: I mean, *nutriment and the sensible and the intelligible*. Consequently we have to treat of nutriment and generation.<sup>35</sup>

<sup>34</sup>In the following paragraphs I will analyze only II.4, because this contains the definitive version of the nexus *dynamis-energeiai-antikeimena*, which overcomes the precedent aporetic version of I.1 402b11-17.

<sup>35</sup>Tr. Hicks 1907, 63 (italics mine), *De anima* II.4 415a14-23: 'Αναγκαῖον δὲ τὸν μέλλοντα περὶ τούτων σκέψιν ποιῆσθαι λαβεῖν ἕκαστον αὐτῶν τί ἐστίν, εἴθ' οὕτως περὶ τῶν ἐχομένων καὶ περὶ τῶν ἄλλων ἐπιζητεῖν. εἰ δὲ χρὴ λέγειν τί ἕκαστον αὐτῶν, οἷον τί τὸ νοητικὸν ἢ τὸ αἰσθητικόν

In this text Aristotle identifies two levels for the analysis of the soul faculties: for each faculty the enquiry will start from the analysis of its activity or function. In turn, this analysis depends on the description of the opposite terms of each activity, that is the starting point of the movements of the living beings. This opposite terms are designated as the starting point of the enquiry of the faculties, that Aristotle often calls the *first for us*.

Adopting the traditional translation of *antikeimena* as “correlative objects” the Aristotelian schema of the relation between the faculties, the activities and the environment is identified with the subject/object relation. Yet another interpretation is possible by comparing this passage to II.11. According to the latter, the term *antikeimena* is not be used to denote the relation between each faculty and its respective *terminus a quo*, but rather to identify the range of terms from which and to which several cases of change can take place. Unlike II.11, in II.4 we not find the genitive *tōn antikeimenōn*, that permits to put in a different logical level (1) the relation between the faculty and its *antikeimena* and (2) the proper opposition of the opposites terms. Still, despite this difference, it seems to me that the parallel between the two passages can be helpful for the interpretation of II.4.

Another relevant difference between the two passages is that only in II.11 the context suggests *antikeimena* as synonym of *enantia*. But in my opinion this does not indicate an incoherence. This difference rather permits to explain the relation between the two passages. As a matter of fact, II.11 is only devoted to the sensible faculty that, as a qualitative alteration, requires a relation to qualitative contraries (*enantia kata to poton*). Otherwise, II.4 concerns the whole of the three faculties, with their respective peculiarities. Yet, the *antikeimena* involved by the sensation is not the same required for the growing and the generation, not for the intellect or the local movement. Then, in II.4 is more appropriate the reference to a weak and general concept *antikeimena*, that would include more than one kind of opposition.

In this view, a more adequate translation would not emphasise the relation between each faculty and its *objects*, nor the contrariety required by the sensation, but the more general concept of opposition. Since the changes involved in life belong not to one but to several kinds, It seems to me more effective to leave the meaning of *antikeimena* undetermined. Indeed the explain of the alteration involved in sensation and intellection requires qualitative contraries (*enantia kata to poton*), whereas the analysis

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ἢ τὸ θρεπτικόν, πρότερον ἔτι λεκτέον τί τὸ νοεῖν καὶ τί τὸ αἰσθάνεσθαι· πρότεροι γάρ εἰσι τῶν δυνάμεων αἱ ἐνέργειαι καὶ αἱ πράξεις κατὰ τὸν λόγον. εἰ δ' οὕτως, τούτων δ' ἔτι πρότερα τὰ ἀντικείμενα δεῖ τεθεωρηκέναι, περὶ ἐκείνων πρῶτον ἂν δεοί διορίσαι διὰ τὴν αὐτὴν αἰτίαν, οἷον περὶ τροφῆς καὶ αἰσθητοῦ καὶ νοητοῦ. ὥστε πρῶτον περὶ τροφῆς καὶ γεννήσεως λεκτέον.

of the first faculty, responsible for growth and generation, requires quantitative contrariety (*enantia kata to poson*) and contradiction (*antiphrasis*). The reference to the relation between each faculty and its object on the other hand does not provide the connection with the change model.

## 5 Conclusions

Dewan arguments against an unnoticed substitution of *opposita* with *obiecta* relies on the incompatibility between the two concept of *opposita* and *obiecta*. In his view, the Aristotelian opposites as analyzed in *Categories* and *Metaphysics* is primarily used to point out the activities rather than their objects. Nevertheless, the usage of *antikeimena* in *De anima* does not seem consistent with this theory. In the treatise on the soul this word is mainly used to denote the *objects* instead of the activities. Then, if Dewan's first conclusion is the inadequacy of the current translation, the second is that the Aristotelian usage of *antikeimena* in *De anima* does not rely on the technical meaning of this term.

I suggested some arguments against this second conclusion, looking for evidence of a proper technical usage of *antikeimena* in *De anima*. In this sense, I suggested as appropriate context for this usage some parts of *Categories* and *Metaphysics* where Aristotle explicitly elaborates a theory of opposite terms, and *Physics* V as an application of this theory. The role played by the opposites in the construction of the change model is in fact useful for the interpretation of the treatise on the soul. Here the analysis of four kinds of change that characterize living beings (the generation, the qualitative alteration, the growing, and the local movement) requires the reference to two kind of opposition: the contraries and the contradictories.

I tried to prove that the relation between *De anima* and the change model has great influence both on the method and the target of the treatise. In this sense, the most relevant evidence that I can indicate is found in *De anima* II.11, where the relation between the senses and the sensibles can be seen as an application of the *Physic's* triadic model *upokeimenon-antikeimena*. Considering this text as a context for the two problematic occurrences we are concerned with (I.1 and II.4), we will have to avoid the translation of *antikeimena* as "correlative objects". Translating this word simply as 'opposites' makes clear the peculiar application of the triadic change model in *De anima*, and allows to recognize the activities due to each faculty as special cases of change that respectively require two contraries or two contradictories.



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