

Degrees and Opposites in Ancient Philosophy

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Now that we have seen the transition problem and exposed some positions, I consider it is necessary to refer to a few pertinent ancient doctrines concerning being and non being, and the opposites in general, so that the contrast between contradictorial gradualism and its rival is contemplated in its historical roots. Limitations of space, on this occasion, do not allow me to go into exegetical analyses. My only purpose here is to briefly revisit conceptions of Heraclitus, Parmenides, Anaxagoras, Plato and Aristotle, which, suitably interpreted, can be taken as the forerunners of contemporary positions. This I hope will serve to establish links between schools that share the same spirit, and bring into focus relevant ontological theories that are too easily forgotten in discussions of the subject.

Heraclitus

First of all, I would like to mention Heraclitus' view of the relation among the opposites. We discern at least two sorts of relations: a) unity and sameness, and b) harmony or agreement.

In fact, in some passages, he holds that the bond between the contraries is elevated to the level of unity or sameness. For instance, in his fragment: B57: «...day and night... are one», and B60: «The path up and down is one and the same». B88 adds a gloss: «...the same thing is... living and dead, awake and asleep, young and old; for the latter change and are the former, and again the former change and are the latter» (Barnes 1988: 103, 120). Thus, we may contend that it is in the course of a change that the opposites get merged (*Id.* 1979/1: 72; Kirk, pp. 109, 142-44, 152, 154). But in what sense are they one and the same? We may interpret Heraclitus as trying to give a picture diametrically opposed to a dualist vision: the progression from day to night is not without intermediary stages: there is a twilight zone (*Ib.*, p. 174, n. 1). From the moment the sun begins to set until it gets very dark, there is a period of decreasing brightness and increasing darkness (Kahn, p. 109-10). Dusk constitutes a seamless transition, where day and night are fused. Again, the opposites are not separated (Kirk, Raven and Schofield, p. 191, n. 1), but in a melange; instead of driving a wedge among the opposites, Heraclitus integrates or amalgamates them. As soon as one introduces something in common among the opposites, like a bridge closing a gap, they are –in a sense– no longer two, but one and the same (Kahn, p. 205). Insofar as they cannot be told apart, they are one.

Beside this strong link among the opposites, there is another kind of soft tie. Let us read Fragment 8, whose second part, though classified as genuine by Diels-Kranz, most probably is a paraphrasis of a truly Heraclitean idea (*Ib.*, p. 193; Kirk, pp. 219-20): «What is in opposition is in agreement, and the most beautiful harmony comes out of things in conflict...» (Sweet, p. 5). We can alternatively translate the verb of the opening sentence, «τὸ ἀντίξουν συμφέρον» as: «what is opposite coincides» (Pabón, p. 556, *sub voce*). This fragment clearly indicates that whatever tension there is among the opposites is only partial, that their contrariety is not absolute so that there is room for a compatibility between them, a “harmonious strife” (Barnes 1979/1: 80; Kirk, pp. 205, 216-17, 402; Kahn, pp. 197, 199-200, 204, 284; Guthrie 1971: 43-7; Vlastos 1955: 137; Stokes, in Graham, p. 4). That is, one opposite does not exclude the other: they can be present in the same subject at the same time (Vlastos 1955: 143; Plutarch, in Barnes 1979/1: 319, n. 24; Guthrie 1971: 436; Zeller, in Kahn, p. 323, n. 239), in the same respect. Precisely, the soritical series may be seen as a nice embodiment of this *coincidentia oppositorum*. Remember the series with which we are working consists of 101 elements. Of these, the extensions of both opposites have an intersection of 99 members, from a_1 to a_{99} . But if two sets, X and Y, have an intersection to which at most one element in each set does not belong, this may be seen as ground to affirm that X and Y are (largely) coincident.

So there is a way to construe Heraclitus' sayings that tries to respect the letter of his texts, acknowledging the contradictoriness of his thought but without charging him with incoherence or absurdity. For Heraclitus, the entities of this moving and impermanent world are

contradictory; the contradictory properties can beautifully coexist in the same subject. Heraclitus brings together what for dualism stands worlds apart. The opposites coalesce.

Parmenides

Let us continue our historical overview by passing review to a conception of reality that is better known for its rejection of change, the thought of Parmenides. Perhaps his denial of movement is the logical result of his refusal of non being (Curd, pp. 122-24), contradiction and ultimately of degrees of being. Be that as it may, the only aspect which I want to emphasize is his opposition to degrees and the immediate consequences of that. In fragment VIII of his Poem (Burnet, p. 187, [lines 106-8]; and p. 186, lines 79-80), he explicitly says:

Lines 46-7: For there is nothing which is not that could keep it from reaching out equally, nor is it possible that there should be more of what is in this place and less in that...

Lines 22-4: ...there is no more of it in one place than in another, to hinder it from holding together, nor less of it, but everything is full of what is.

Thus Parmenides has rejected degrees of existence, or so he has been commonly interpreted (Guthrie 1969: 31-33, 43-46; Coxon, pp. 203, 215-16). It is important to realize the grounds for his denial. One of the reasons mentioned is that there is no non-being inside being which could hinder what is from being homogeneous. And the other reason can be taken as more general, that there is nothing that could be an obstacle to the fullness of being.

Hence, if there are no degrees of being, the only alternatives remaining are the extremes, as stated in line 11: Therefore what is «...must... either be altogether or be not at all» (Burnet, p. 186). Notice that the intensifying adverbs are in the original Greek. Perhaps we have here the very first formulation in the history of philosophy of the principle of excluded middle; but since the particular version given is a maximalist one, it is better to name it *Principle of Exclusion of Intermediary Situations*. Of course, the Parmenidean reasoning proceeds to show that the second disjunct in no way is. But what matters to us is that the alternatives are not simply to be or not to be, but the more radical to be *fully* or not to be *at all*. Undoubtedly, this is an all or nothing ontology, without more or less, and without non being. (Curd -pp. 5, 76-7, 81-2, 88, 93- emphasizes the absolutistic terms of the Eleatic concept of being, though she construes the 'is' as predicational rather than as existential). In this manner antigradualism made its first appearance.

Anaxagoras

Now that we have attended the inauguration of one of the greatest currents in the history of philosophy, let us return to its antagonist. There is one formulation of our transition problem whose author most likely is Anaxagoras. In effect, fragment 10 asks: «How can hair come from what is not hair, or flesh from what is not flesh?» (Burnet, p. 259). The difficulty of the question can be highlighted if we remind ourselves of one Parmenidean presupposition operative here, namely, that it is impossible for being to come to be from non being. Anaxagoras' answer is partly based on the observed fact that when we eat vegetables or bread, the food stuff is transformed into our flesh and bones. It seems that this observation prompted his most important claim that as it happened at the beginning of the world, so too now, all things are necessarily together, not completely separated (Schofield, pp. 93, 110-12); and this blending is so profound that in each thing there is a portion of everything (Guthrie 1969: 276, 286-88; Barnes 1979/2: 28-32). This last thesis has been called the "principle of universal mixture", (PUM). Let me intercalate one quotation. Fragment 6 declares that «...all things will be in everything; nor can they exist separately, but all share a portion of everything. ...none of them could be separated, nor come to be on its own; but as in the beginning so too now all things must be together» (Schofield, p. 105). But the problem is that PUM cannot be taken in its full generality for it seems to

command the admission that, if everything is everything, then the person with zero hairs on her scalp would also be hairy. So it appears that, if we want to avoid the trivialization of the theory, we need to exclude the entities superlatively exemplifying a property from the scope of application of PUM. What is important and needs to be insisted on is Anaxagoras' response to the problem of change, which is that the effect or the result of the change, i.e., what is to be explained, preexisted already in the origin, but in an imperceptible manner (Cfr. Barnes 1979/2: 38), due to the mixture of everything, or because of its very small size, as Fragments 1 and 4 (second half) affirm. Furthermore, the opposites are not an exception to this general law: they too are mixed. Thus in Fragment 8 we read: «The things in the one world-order have not been separated apart from each other, not yet chopped apart with an axe, neither the hot from the cold nor the cold from the hot» (Schofield, p. 105). And this is confirmed by Aristotle's (1999: 187a, 32-33) testimony: «...since the opposites come from each other, they must have been present in each other» (Kirk, Raven, and Schofield, p. 370).

From Anaxagoras we can retain the following ideas: 1) that the entities of the world, opposites included, are not separated, but, on the contrary, are somehow intimately united; 2) that, consequently, they share their own being with all others –with the restriction mentioned above; 3) that the end product of the change is at the onset of the change, but in a small degree. Thus Anaxagoras too presents us a vision of reality in which all things, and not only the opposites, are mingled or blended.

Plato

Continuing in the same contradictorial gradualist tradition, we have to review Plato. First, there is textual evidence that Plato spoke literally of degrees of existence. He held that things are more existent the more self-identical and unchanging they are. For example, in the *Republic* IX (585b-e), he affirms that an intellectual entity may «have a greater share of pure existence» whereas a sensual one «participates in less real being». Something «has more existence», «has a more pure being», «has a more real existence» the less invariable it is (Plato 1892: 297-8). So a particular entity may participate in the Form of Being in degrees in exactly the same way as it may gradually participate in any other Form. Existence is gradual (Runciman, pp. 21-3, 66; Cross and Woosley, pp. 145, 160, 175, 177-8, 184-5; Guthrie 1975: 495-97; pace Vlastos 1965, 1966. For a criticism of Vlastos see Code).

Second, there are correlative degrees of non being. The multiple inexistent objects are not reduced to a pure nothing; what does not exist is not the same as what does not exist at all. Plato knows very well the crucial difference between two kinds of negation: one thing is to deny weakly, and another is to deny something totally. This is evident at the end of the *Republic* V (475e-480a), concerning the object of opinion, where the simple οὐκ and μή are distinguished from the strong μηδ'αμή, and παντως μή.

Still more clearly the distinction plays a protagonist role in the *Parmenides* contrasting hypotheses V and VI. From the same hypothesis "if a One (one thing) does not exist" different consequences follow according to whether the negation is taken in a soft or in its fullest possible sense. Thus in the former case (160 c-e), from "a One does not exist", it follows that it is knowable, has a different character, and must have being (Plato 1996: 95). But in the latter case (163c - 164b), we have that: «The words 'is not' mean simply the absence of being from anything that we say is not. ... The words mean without any qualification that the thing which is not in no sense or manner is, and does not possess being in any way» (163c, Cornford's translation, pp. 231-32). So an absolute non being cannot be knowable, nor can it be the subject of a discourse, and it cannot have a name, nor any character whatsoever. And the same duality of non being reappears in the *Sophist*. Besides the Eleatic non being (237b) identified with nothing, Plato wants to posit another sort of non being, but only partial, one which does not preclude the inexistent entity from having some properties (Owen, pp. 113, 118, 122, albeit this author reads the 'is' as copulative rather than as existential). That this partial non being is identical with the

Form of Difference -as the majority of interpreters have held- is a disputable question, but we cannot enter in the debate here.

Third, between the "two" extremes of pure being and absolute non being, there lies a large set of intermediary objects, the beautiful things which are ugly, the just things that are also unjust, etc., all of which are and are not, partaking of the characteristics of both extremes. The objects of opinion in the *Republic* «occupy a midway position on a scale between being and not being...» (Seligman, p. 19, though this author denies degrees of reality in the *Sophist*). Plato's ontology is gradational, recognizing «a third intermediate region of things that are neither wholly real nor utterly non-existent» (Cornford, in Bluck, p. 66). So, what is intermediate is contradictory.

Let me finish with a passage from the *Republic V* (477a, 479a-b, d, Jowett's translation):

...if there be anything which is of such a nature as to be and not to be, that will have a place intermediate between pure being and the absolute negation of being?

Yes, between them. ...

Will you... tell us whether, of all these beautiful things, there is one which will not be found ugly; or of the just, which will not be found unjust; or of the holy, which will not also be unholy?

No, he replied; the beautiful will in some point of view be found ugly; and the same is true of the rest. ...

Thus then we seem to have discovered that the many ideas which the multitude entertain about the beautiful and about all other things are tossing about in some region which is half-way between pure being and pure not-being?

We have.

Aristotle

Finally let us take a look at Aristotle, who traditionally is regarded as supporting the line inaugurated by Parmenides, as long as they both deny degrees of being, and hence defend a maximalist ontology. However, there are some passages in the Aristotelian corpus expressing gradualist ideas (Morrison). Thus concerning a thing which is changing from white to non white, he says:

the fact that it is not *wholly* in either condition will not preclude us from calling it white or not-white. We call a thing white or not white not necessarily because it is wholly either one or the other, but because most of its parts or the most essential parts of it are so: not being in a certain condition is different from not being wholly in that condition (*Phys.* VI, 9: 240a, 21-26).

Here Aristotle advocates that a thing can be *F* even if it is not completely *F*, hence he opposes the maximalist demand. Notice also his explicit distinction among two sorts of non being, where the difference appears to be gradual. Similarly, he unequivocally defends a version of what we called the Acquiescence Rule: «...any predicate of which we can speak of greater or less degrees belongs also absolutely...» (*Top.* II, 10: 115b3). In other words, what is more or less *F* is *F* (without qualification). He explains why this is so: a quality *F* will not be attributed in some extent to an object which is not *F*. So, if we put the two foregoing passages together, what the Stagirite is asserting is that in order for a thing to be *F*, it is not necessary that it be totally *F*, since to be so in a considerable degree suffices.

Next consider what the status of the intermediates between contraries is.

There are differences of degree in hot and cold. ...when neither exists in the full completeness of its being, but both by combining destroy one another's excesses

so that there exist instead a hot which (for a 'hot') is cold and a cold which (for a 'cold') is hot; then what results from these two contraries will be... ..an 'intermediate': and this 'intermediate', according as it is potentially more hot than cold or *vice versa*, will possess a power-of-heating that is double or triple its power-of-cooling... (*Gen. et Cor.* II, 7: 334b8-16).

The text begins by establishing the existence of degrees whenever we depart from the extremes and enter into the combination of both. The case at hand is one in which the intermediate possesses one opposite more than the other. Now, if we apply here the rule for comparatives quoted above from the *Topics* (II, 10), it follows that the intermediate has both opposites, and this explains its having both a power of heating and of cooling, but not in the same intensity. The importance of this third quotation lies in that it makes a connexion between degrees and overlap of opposites. Corroboration of the mingling theory of intermediates comes from the following two cites:

...things exhibit such and such a character in a greater degree if more free from admixture with their contraries; e.g. that is whiter which is more free from admixture with black (*Top.* III, 5: 119a27-28).

...a thing's possessing a quality in a greater or in a lesser degree means the presence or absence in it of more or less of the opposite quality (*Phys.* V, 2: 226b8-9).

A law of covariance of opposites is stated here: the more an object is *F*, the less non *F* it is. The hotter *x* is, the less cold it is. But again, by the rule for comparatives, *x* is both hot and cold. Therefore, the intermediates are somehow, or somewhat, both contraries. (*Phys.* V, 1: 224b31-34; *Met.* X, 7: 1057b24-27). Again we discover here that there where there are degrees, we are bound to find a mixture of contrary properties.

Within this context, nothing is more natural than to expect a gradual theory of change. In fact, «that which is losing a quality has something of that which is being lost, and of that which is coming to be, something must already be» (*Met.* IV, 5: 1010a18-19; Aristotle 1971: 109, Kirwan's note at 1010a15; Irwin, p. 551, n. 27).

Does all this mean that Aristotle accepted the actual compresence of opposites in the same subject? Of course not. His main thrust is the antipode of Heraclitus, Anaxagoras and Plato. His championing defence of the principle of non contradiction forces him to do away with any road leading to actual contradictions. Most probably then, Aristotle renounces the blending conception of intermediates: these are a *tertium quid* with respect to the extremes; the intermediate is the negation of both contraries (*Cat.* 10: 12a19-24; *Top.* IV, 3: 123b23; *Gen. et Cor.* II, 7: 334b27; *Soph. Ref.* 5: 167a16-20). Thus Aristotle ends up rejecting the coalescence of opposites: they do not mix. Indeed, in the final analysis, Aristotle gets rid of degrees altogether, since, though it would be blindness not to acknowledge them, their full admittance would land us in contradictions. Thus, substances do not admit of degrees within themselves (*Cat.* V: 3b32-4a9). Therefore, he replaces the gradational appearance and disappearance of entities by the dichotomy of act and potency, the plurivocity of being (*Gen. et Cor.* I, 3: 317b16-18).

A summary is presented in the following two columns, each line representing two contrasting modes of conceiving being, the relations among the opposites, and the transition from one to the other. The left column shows how reality is like according to the friend of gradual contradictions, while the right column depicts the dichotomist framework. These are the main options.

	FUZZY REALITY	DISCONTINUIST THINKING
BEING	degrees univocism more or less intermediaries	modes or kinds plurivocism all or nothing extremes only
OPPOSITES	overlap contradiction both conciliation coexistence compresence harmony homogeneity union	total exclusion sharp division either... or absolute incompatibility separation disjointness clash dichotomy duality
TRANSITION	gradual smooth bridge continuity	discontinuous abrupt abyss cut

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