

I am most grateful to Klaus Corcilius for engaging in discussion with me on many of the topics of my monograph on *Aristotle on Perceiving Objects*, and I cannot think of any better way to express my gratitude but by offering a reply to some of his philosophical points he raises. I selected such points (among the many interesting ones he raises) on account of their relevance to their central theses my book argues for.

Corcilius finds my argument to the effect that powers are the fundamental items in Aristotle's metaphysics of nature a *non sequitur* (pp. 295-6), on two counts. The first is an ambiguity he finds in my use of 'built out of', which Corcilius thinks means different things when applied to material constituents and when applied to the qualities or properties of something (p. 296). The second is the move I make from 'having essential properties that are powers' to 'being powers' (p. 297).

Concerning the first ambiguity: Corcilius says of the parts of material objects: 'Such material constituents can at least potentially exist separately from the whole of which they are parts' (p. 296). This is not correct. Aristotle says that a material object can be divided into parts which are potentially in the object. These parts are *not* the material constituents of the object; they are new, derived from the undivided material constituents of the object. This is the meaning of the Homonymy Principle. This explains why Corcilius could not follow the line of reasoning in my argument for the thesis that powers are the fundamental items in Aristotle's metaphysics. Corcilius does not realise that the components of a material object are as *dependent* on the object as the properties of the elementary bodies from which they are built. Parts and properties of Aristotelian substances are identity-dependent on the substances they belong to. This is what is common to these two ways of individuating substances; the respective components out of which each individuation account builds up a substance are identity dependent on the substance. Of these two types of individuation accounts of substances, the one in terms of powers is more *fundamental* because parts of substances can be individuated in terms of the powers of substances, but not powers of substances in terms of the parts of substances. (We are concerned here with full individuation of a substance rather than merely at a functional level.)

Concerning the second ambiguity: Corcilius does not see a reason for the move I make from, e.g. this water *having* powers to this water *being* a power. Here I understand Corcilius' uneasiness, because at the time I wrote the book, I did believe that substantial forms are powers, but I had not yet developed a metaphysical account of this concept. Hence, it was not clear in the book why substances are activated substantial powers, which I hold they are. Nor was there a conception of power in the power literature that could show substantial forms to be powers. I have since developed the account of substantial forms as powers; they are *structural powers* (unpublished manuscript).

Corcilius finds '[t]he thought that powers can *themselves* engage in transitions, even if only from one metaphysical status [potentiality] to another [actuality] ... worrisome ... Non-metaphorical talk of powers that undergo changes creates the impression that there is an unobservable parallel world of changes that somehow mirrors the world of physical change' (p. 298).

That the potential and the actual are numerically the same property is explicitly stated by Aristotle in saying that actualisation is the transition of a power from first actuality to second actuality (*DA* II.1, 412a10-11, 21-27; cf. II.5 417a22-29, 417b2-16). It was a significant moment in the history of metaphysics, I submit, when Aristotle realised that

change in objects is to be explained by a different type of change of their power constituents. His account avoids any regress of change presupposing change, and it avoids constant *ex nihilo* creation of properties in the changing object. Rather, it allows for physical continuity in the object, because both types of ways in which powers become other than they are presuppose *continuity* of the same powers, with either *activation* of the power or change of *intensity* of the power. Still, transformations involve ceasing to be of substantial forms, which are power in my understanding of Aristotle; but again, here, it is not that fundamental powers are lost into or arise from nothingness, but it is only their *structure* that is lost or gained, namely, organisation is lost or gained, not power. In this way Aristotle explains change in objects through change in powers, where the latter is of a different kind so that it does not go into regress, nor involve nothingness, but rather physical continuity, thereby offering a buttressed response to Parmenides' denial of change – not merely through the traditionally thought macro-phenomenon of matter, but through the micro-phenomenon of power evolution. Powers are not material objects, nor are they ghostly shadows of things, or abstract entities accessible only by the mind. Powers are *physical* entities. Substances change because of changes of their powers. For example, a pot becomes hotter because its power of heat increases in intensity. What is *not* the case is that the change powers suffer is to be explained in the same way as the change in things – this would lead to a regress of changes. This takes us to the heart of (one of the) differences between a property ontology and a power ontology. It is as follows: change in power ontology is not explained only by the occurrence or non-occurrence of powers, as it is explained by the occurrence or no-occurrence of properties in such an ontology. This is what makes Aristotle's power ontology fundamentally different and much more sophisticated than a property ontology. Each power can change, importantly not in the sense in which objects change, but in the sense of *becoming other than it is*. There are two ways in which powers can become other than they are. One is by the transition of a power from potentiality to activation; the second is the suffering of a power the impact of its partner power, e.g. the heat of the pot suffers increase. Both presuppose physical continuity of a power.

Corcilius asks 'In what sense can a faculty that actively bestows its own unity on the diverse input of the special sense still be described as receptive of perceptual forms? Or, approaching the matter from the other side, one may ask how the common sense is supposed to be different from the intellect [...]' (p. 314).

The precise answer to the initial question above is that there must be a kind of evolutionary route in the cognitive development of a human being throughout which the common sense, interdependently, *receives* perceptual forms and *unifies* perceptual forms. Here my interpretation is guided by Aristotle's empiricism. He holds that we build up concepts from repeated perceptions and memory (*APo* 100a3-9). This already establishes a dependence of the conceptual on the perceptual. Hence, the unity the common sense bestows could not ultimately depend on the unity of concepts, since the formation of the concepts depends on the common sense. At the same time, mere recognitional tasks of the common sense do depend on already developed concepts, e.g. recognising that this is a dog. Aristotle does allow for some collaboration of the common sense with the intellect, where *phantasia* plays a role, too, but there is very limited textual evidence to build a full account of the operation and collaboration between the common sense and concepts. Undoubtedly the common sense is not a passive receiver; there seem to be different types of 'loops' in the perceptual-

conceptual processes that contribute reciprocally to the formation of the conceptual and the unification of the perceptual manifold. This is my reply to Corcilius' question quoted at the opening of this paragraph.

Corcilius finds problematic my claim that '[i]n the case of complex perceptual content ... A. shifts from an external to an 'intensional criterion' of individuation (her term – a misprint?): from now on, he individuates the relevant capacity by what it is aware of... i.e. by its content' (p. 310). He finds this a 'rather drastic change in methodology' that I attribute to Aristotle. He asks: 'Does the claim that Aristotle shifts methodology in individuating the common sense amount to a suspension only of the one-to-one correspondence model of causal assimilation? Or does it mean that the causal assimilation model does not apply altogether? One might think that the solution eventually adopted by Marmodoro (objects are perceived through the *direct* perception of common sensibles by the common sense) requires rejecting only the one-to-one correspondence model; but her claim that the common sense actively bestows its own unity on its contents seems to suggest otherwise' (p. 315).

My reply is that it doesn't suggest otherwise, i.e. it doesn't suggest that the causal assimilation model does not apply altogether, for the reasons explained in other sections of the present reply, that it is not the case that the common sense's 'own unity' is its *own* unity altogether. The unity the common sense can bestow emerges from a constant reciprocal evolutionary cognitive process between the reception of perceptual content and formation of concepts that unify that content. Aristotle does not mention this, but it follows from his account that, as the organism develops cognitively, it will be able to perceive *additional* types of common sensibles than it did in its early cognitive stages. The reason is that if number is one of the common sensibles, and since oneness is grounded on types of being (which we learn in the *Categories*), the cognitive development of the agent in the recognition of new forms of being inevitably involves the direct perception of new forms of oneness – new common sensibles. Hence, the unification powers of the common sense evolve with the cognitive development of the agent.

Corcilius finds perplexing that I 'conceive of *all* Aristotelian *dunameis* as powers for change' (p. 293). He notes that Aristotle distinguishes powers for change and powers for being, or on another way of drawing the distinction, diachronic and synchronic powers; e.g. becoming hot and being a horse (pp. 293-4). Corcilius expresses scepticism about my way of capturing the distinction: 'is it correct to say that Aristotle conceives of the activity of, for example, seeing as a change in which an existing constitutional makeup is put to work, whereas ordinary change alters the constitutional make up of the changing thing?' (p. 294). Corcilius provides what he takes to be difficulties cases for my interpretation. One such case is change in place (p. 295) which on my proposed distinction ought to count as an alteration of the constitutional make up of the thing that moves but where Corcilius thinks there not such alteration.

Place is one of the forms of being in the *Categories*. Hence changes in place are changes of being. Changes in being may be external to the object; internal to the object; intrinsic; extrinsic; constitutional; relational; etc. as per the terminological distinctions introduced by Ari or the commentators; but it is change of being. When I say that *dunameis* are powers for change, I think of change in the widest sense that would pay justice to the Eleatic Principle of being. The transition from potentiality to actuality is not a *kinesis* according to Aristotle

because it is not a change of properties. But it is a change of state of the *same property*. As such it is a type of change, although not strictly a *kinesis*.

I hope the replies offered above will help advancing the discussion of Aristotle's views on causal powers and perception, and I am grateful to Corcilius for having prompted to think and write more about them.

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