Anna Marmodoro. *Aristotle on Perceiving Objects*. Oxford University Press 2014. 304 pp. \$78.00 USD (Hardcover ISBN 9780199326006).

Many years ago the scientist Isaac Newton said that 'If I have seen further, it is by standing on the shoulders of giants'; in the history of philosophical and scientific thought the Greek philosopher Aristotle is one of these giants and the objects of his thought are numerous: metaphysics, physics, logic, rhetoric, politics, economy, and so on. The bibliography on Aristotle is never-ending and his writings continue to stimulate scholars all over the world, and Anna Marmodoro, Fellow in Philosophy of Corpus Christi College at University of Oxford, is one of those scholars who never stopped studying the writings of the Stagirite.

In her latest book, *Aristotle on Perceiving Objects*, she focuses her attention on the perceptual faculty as conceived by Aristotle, and the reason why she wrote this book is because Aristotelian metaphysics of perception hasn't received the attention it deserves—because most scholars focused their attention on Aristotelian metaphysics of substance. In fact, Marmodoro says in her introduction: 'For generations scholars attempted to fit Aristotle's metaphysics of perception to his metaphysics of substance. Yet, for precisely this reason, his models of complex perceptual content are unexplored territory' (2).

According to Marmodoro, the basic principles of Aristotle's metaphysics of perception are completely different from his metaphysics of substance and that's the main reason why she turned her gaze to this unexplored aspect of Aristotelian thought.

As it is well known, Aristotle distinguishes the special sensibles from the common sensibles: while the former are qualities that can be perceived via a single sense only, the latter are qualities that are perceptible by more than one sense at once. Aristotle said that each organ is sensitive to only its own special sensible and in this case, according to Marmodoro, it is very challenging to explain how we perceive these common sensibles which are perceptible by more than one sense at once.

A possible solution can be found in postulating the existence of extra perceptual powers for the senses, but before we turn to deal with this solution let's see how Marmodoro examines Aristotle's metaphysical foundations of perception in her first chapter.

Aristotelian metaphysics of perception is obviously linked to the dyad potentiality/actuality and Marmodoro analyzes this topic in first chapter entitled 'The Metaphysical Foundations of Perception'. According to Marmodoro, Aristotle's theory of perception 'is aligned with one of his most fundamental positions in metaphysics, namely that all properties are causal powers ($\delta \nu \kappa \alpha \mu \epsilon \iota \zeta$, potentialities), and that causation is to be accounted for in terms of powers and their activation ($\epsilon \nu \epsilon \nu \epsilon \rho \gamma \epsilon i \alpha$ or $\epsilon \nu \epsilon \rho \gamma \epsilon i \alpha$, actuality)' (3).

Marmodoro translates the word $\delta v \dot{\alpha} \mu \epsilon \zeta$ as 'potentiality' because this term, in effect, can refer both to causal powers and the state causal powers are in when not activated; that's why she proposes to translate the term $\delta \dot{v} \alpha \mu \iota \zeta$ as 'power'. Given that 'the relation between a power and its actuality is *intrinsic* to the power itself, in the way that, for example, the relation of a girl to the woman she becomes is intrinsic to that person' (20), powers are not *relational* but rather *relatives*, because according to Aristotelian ontology, as Marmodoro writes, 'a power is not defined in terms of its relation to the other powers. Rather, a power is defined in terms of its own state of activation, which is an intrinsic state of power itself' (21).

In the second chapter, entitled 'Aristotle's Causal Powers Theory of Perception', Marmodoro analyzes the various interpretations on Aristotle's theory of perception, since there is an ongoing debate on this topic; in fact the author takes into account interpretations like the ones of Alan Silverman, Justin Broackes, Aryeh Kosman, Thomas Johansen, Victor Caston, and so on.

In the third chapter, entitled 'Aristotle's Subtle Perceptual realism', Marmodoro analyzes the so-called 'subtle' form of perceptual realism and how it seems to answer to this following question, that is to say: what is it what we perceive? As Marmodoro says 'Aristotle takes perceptible qualities to be real intrinsic properties of the objects they belong to; like all properties for Aristotle, they are causal powers. This conception of perceptible properties as real causal powers commits Aristotle to a very interesting type of perceptual realism' (125). What does Aristotle's interesting type of perceptual realism consists of? According to Marmodoro's interpretation of Aristotle, 'the perceptible quality makes the sense organ be like the perceptible is in actuality' (135) and this means that 'the perceptible always makes the sense organ like it' (ibidem).

Even though the first three chapters of Marmodoro's book are really interesting, the fourth chapter entitled 'The Problem of Complex Perceptual Content' seems to me more important and challenging. This chapter, in fact, tries to answer to the main question posed by Marmodoro: how do we perceive these common sensibles which are perceptible by more than one sense at once?

As we have already seen, according to Aristotle the five senses 'enable us to perceive the real colors, sounds, fragrances, etc., that qualify the worldly objects of our experience. We perceive such qualities *as they are*, for, in a sense, by perceiving them *we make them* they are' (156, emphasis original) but, continues Marmodoro, 'Our perceptual experience of the world would be however extremely limited if relied only on the operation of the five senses as described thus far' (ibidem). That's why, in this respect, Marmodoro postulates the existence of extra perceptual powers for the senses. This is the so-called metaphysically 'robust' interpretation of the common senses that can be summarised as follows: 'the common sense is the perceptual *system* as a whole, comprising the five senses but *empowered with extra perceptual capacities*, which enable the perceiver to handle complex perceptual content' (157, emphasis original). The complex perceptual content Marmodoro refers to is characterized by a variety of operations: simultaneous perception, perceptual discrimination, cross-modal binding and also the perception of common sensibles which are, as Aristotle says, multimodal composed perceptible qualities.

In the fifth chapter, entitled 'Unity of Subject, Operation, Content, and Time', Marmodoro analyzes the nature of complex perceptual content, since according to Aristotle 'there are a number of perceptual operations that are essential for a full grasp of the world and "its" furniture, but cannot be performed by the special senses in isolation' (189).

In brief, as it is explained more in details in chapter six entitled 'Mixing the Many and Partitioning the One', according to Aristotle the common sense is not an additional sixth sense but rather 'the perceptual system as constituted by the five senses, but not metaphysically reducible to them' (213); common sense is not reducible to the five special senses because of the existence of these additional perceptual powers that these five special senses don't have.

That is the reason why it is possible for the perceiver 'to have awareness of, for example, sweet and white in the complex perceptual content, via the operation of a single unified multimodal sense, the common sense' (229).

This issue is further investigated by Marmodoro in the last chapter, entitled 'One and Many Perceptual Faculties'. As Marmodoro writes, Aristotle is committed to a 'unified common sense with unified complex perceptual content' (237, emphasis original). In his De Anima Aristotle tried to explain how this is possible. According to Marmodoro, he followed two paths: 'starting from many... and trying to unify them into one; and starting from the one...and partitioning it into many' (ibidem). Aristotle used different models to present his theory of perception, for instance, the Mixed Contents Models, the Ratio Model, the Multiple Sensors Model and so on, but according to Marmodoro, none of them contributed to a final solution about the metaphysics of the common sense. In this last chapter she analyzes the so-called Relative Identity Model, that in conclusion can provide a solution to the metaphysics of the common sense (even though she doesn't consider this model fully adequate to account for the metaphysics of the common sense, because it doesn't account 'for the operations of the common sense on the perceptual inputs it gathers via the special sensibles' (238, emphasis original).Nonetheless, according to Marmodoro, this model provides a real metaphysical breakthrough because it introduces the idea of *relative identity*. In his De Anima Aristotle tries to give an answer to the following question: how a sense can at one and the same time be affected by different sensibles? The answer is that 'it is being one in number and many in being' (239, emphasis original). This means that 'the common sense is already by its very nature many beings at the same time, while being numerically one' (ibidem).

In conclusion, this book offers a well detailed and original analysis of the metaphysical foundations of the Aristotelian conception of perception, and the content is very clear and very useful for those who want to examine in depth this important aspect of Aristotelian thought.

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