

Plotinus on Perception

Anna Marmodoro

It is difficult to imagine that there is an account of the interaction of the physical with the mental that has not yet been mapped out in the existing (vast!) philosophical literature on the mind-body problem, and that would be new to us. Yet, this is what I will argue is the case with Plotinus' account of perception. He develops his innovative metaphysical position to explain the possibility of causal interaction between entities that he recognises to be categorically different, and causally inert towards each other – the soul and the body – and then applies his original account to solve the problem of how our soul can perceive external objects. In this essay, I will focus on Plotinus' account as given in *Ennead IV*; from a detailed textual analysis of some sections of this book I will draw more general conclusions concerning his theory of perception.

The soul and the objects of perception

In *Ennead IV.4.23*, Plotinus states his theory's explanandum: in perception, our soul becomes aware of the sensible qualities of physical objects in the world. The question that exercises Plotinus is: *how* does the soul do so? He develops a complex argumentation which shows that the soul needs to be embodied, if it is to be able to perceive items in the natural world: 'it is clear that sense-perception belongs to the soul in the body and working through the body' (*IV.4.23.48-49*). Plato too had assumed, in the *Theaetetus*, that perception takes place through the body, but did not develop any metaphysical argument to show why this has to be so. I submit that Plotinus sees himself as supplying such an argument.

Interestingly, he begins his investigation into how the soul perceives the qualities of external objects without presupposing the necessity of the soul's embodiment:

We must suppose that the perception of sense-objects is for the soul, or for the living being an act of apprehension, in which the soul comes to know the quality attaching to bodies and takes the impression of their forms (IV.4.23.1-4, translation modified).

There are two explanatory challenges stated in this passage. The first concerns how the soul can interact with physical objects; the second, how the soul can identify the objects it interacts with, thus becoming aware of them. To address these challenges, Plotinus begins by examining the state of the soul. He introduces a dichotomy concerning the soul: 'the soul will either apprehend alone by itself, or in company with something else' (IV.4.23.4-5). The argument that follows aims to address this question – which of the two states the soul needs to be in, in order to be able to perceive the world. First, Plotinus considers the possibility that the soul is by itself, when it perceives objects, and denies it:

But how can it do this [perceptual apprehension of objects] when it is alone and by itself? For when it is by itself it apprehends what is in itself, and is pure thought (IV.2.23.4-6).

Why would this be the case? Why would the soul, when by itself, apprehend only what is in itself, pure thought, and not the external world?

The thought might be that the soul, when by itself, cannot turn its attention to anything other, just like Aristotle's 'divine soul', the unmoved mover. The unmoved mover is essentially a self-thinker; namely, it is incapable of thinking about anything other than its own particular act of thinking, which comprises it, as we know from *Metaphysics* XII. Given that Aristotle's account of the unmoved mover was known to Plotinus, his questioning in disbelief whether a soul, by itself, could apprehend other objects, seems to make sense. But upon scrutiny, his claim cannot stand on its own as self-evident, as if in need of no further justification; for example, why can the soul not think¹ of the One, which is not

contained in the soul?² Plotinus does consider, as a next step in his argument, the possibility that even a soul that is by itself could turn its attention to things other than itself, *if certain conditions are satisfied*:

If it [the soul] also apprehends other things, it must first have taken possession of them as well, either by becoming similar to them, or by conjoining with something which has become similar (IV.4.23.6-7 translation modified).

So we find out that the Plotinian soul is not so Aristotelian as to be incapable of other-thinking. It is capable of self-thinking, just as Aristotle's unmoved mover is; but it may also satisfy one of the conditions for becoming able to think of other entities, too. Plotinus posits two conditions for other-thinking, the second of which will require our close scrutiny for its metaphysical interest. (We will come to it in the section 'The ontological intermediary: the sense organs'). The first condition, the obtaining of which allows the soul to become aware of things other than itself, is that the soul become similar to them. Becoming similar to the object of perception, e.g. this chair, is presented by Plotinus as a necessary condition for perception, and appears in both requirements stated in the passage here above for perceiving to be possible. The reason must be that becoming similar to the objects of awareness is the soul's mechanism for, in Plotinus' words, 'taking possession' of them. I take Plotinus to mean that this is how the soul 'grasps' the objects that it perceives. It is a cognitive grasping that secures that a perceptual awareness is about the object that causes it, by having something of the object, its form, present in the content of the awareness.

The idea of positing this condition must derive from Aristotle, who famously defined perception as the reception by the sense organ of the form of the object, which, then, grounds the identification of the external object in perception.³ Thus, receiving in perception the form of the chair in the room enables one to identify the chair. Can the soul for Plotinus become similar to external physical objects, when the question is to be

understood in the light of Aristotle's view, as: can the soul receive in some way their forms, i.e. their qualities? Plotinus' argumentation concerning this issue becomes complex if not convoluted, and we need to tread carefully, step by step. He (ex-)claims:

But it [the soul] cannot become similar to them [to the external objects of perception] while it remains by itself (IV.4.23.8-9).

That is, the soul cannot become similar to physical objects, if it is by itself, even if it can turn its attention to something other than itself. Plotinus then proceeds to provide a justification of this claim, in terms of the categorical difference between the soul and the external objects. To this issue I turn in the next section.

Categorical difference

How does Plotinus understand categorical difference? To begin, we need to note that Plotinus alludes to categorical difference in order to show that the soul cannot become similar to a physical object. Hence, we would expect that one of the defining differences between different categories of being would be for him that the items of one category cannot resemble the items of another category. This expectation is enhanced by the justification that Plotinus provides in the passage that immediately follows, to support the claim that the soul cannot come to resemble physical objects, while it remains by itself. Plotinus explains:

For how could a point be assimilated to a line? (IV.4.23.9-10).

This is right; the point, *qua* dimensionless, is a categorically different entity from a line, which is a one-dimensional entity, and something dimensionless cannot resemble a one-dimensional entity.

This is a powerful justification (by example) of the claim that categorically different entities cannot resemble one another. Yet, Plotinus' second example comes as surprise:

For even the intelligible line would not fit the sensible one, nor would the intelligible fire or man fit the sense-perceived fire or man (IV.4.23.10-12).

Here we encounter a problem: the intelligible line *does* resemble the sensible one, because they are both one-dimensional; however, they are also categorically different, the one being mental and the other physical. Hence, Plotinus *cannot* use this example as evidence to show that categorically different items cannot resemble one another, and hence to show that the soul, by itself, cannot perceive external objects by becoming similar to them, as would be required for perception. Unravelling the puzzle generated by this incongruous example will give us an important insight into what categorical difference is for Plotinus.

Although Plotinus has been claiming until this point in the argument that categorically different items *cannot resemble* one another, giving the point and the line example and then the mental and the physical lines example, it is hard to imagine that he did not realise that the two lines in his second example *do resemble* one another by both being one-dimensional. There is evidence that Plotinus did indeed realize this difference in his examples, because, although throughout this argument he has been using the term ‘resembling’ (ὁμοιωθεῖναι), he suddenly changes verbs in the example of the mental and physical lines, telling us, not that they cannot *resemble* one another, but that they cannot *fit with* (ἐφαρμόζειν) one another. This is a surprising switch in terminology, which changes the criterion so far given for categorical difference, from the impossibility of resembling to the impossibility of fitting together. The same verb is to be understood as repeated in the subsequent example in the same sentence, that of the Forms of Man or Fire versus the sensible man and fire. Working out what it means for the the Form of Fire not to fit with a physical fire leads us to see that Plotinus focuses now on the categorial difference between being and not being in space-time: what is in space-time belongs to one category, and what

is not, to a different category.⁴ Can this be generalised into a criterion of categorical difference? Is the difference between the items of distinct categories always a difference concerning the 'spaces' they are in, so that they cannot fit with each other? What of the difference between, for example, fire and honesty? Even if they were per hypothesis both conceived of empirically, their mutual fit would not never be a factor that accounts for their categorical difference.

I will not consider whether location in space is a factor that accounts for the categorical difference between soul and body for Plotinus since he never mentions it explicitly in his arguments concerning the difference between soul and body, as we will see in what follows. I have nevertheless a speculative explanation to offer for why Plotinus switches from the possibility of resembling to that of fitting with, as a criterion for categorical sameness. His thought might be that, if two things cannot fit with each other because they are not in the same space, they cannot be in contact, which Aristotle had thought to be necessary for causal interaction (*Physics* 202a5-9). So Plotinus might be talking of fit, in his second and third example of categorically different items, to anticipate propedeutically the question of which conditions do enable causal interaction. The impossibility of direct causal interaction between the soul and its objects of perception is the next theme in Plotinus' argument.

So far, the argument has explored certain impossibilities concerning the interaction between categorially different items. It appears that the soul cannot become similar to external objects; or, that its nature is incongruous enough with the natures of the external objects that the soul cannot possess something of them, through which it would apprehend (ἀντιλήψεται, IV.4.23.6) these objects. The argument now changes direction, without warning to the reader: it began as a search for the means by which the soul could grasp

external objects (e.g. by coming to resemble them), and now turns into an investigation of whether the soul can communicate *at all* with external objects, which seemed to have been previously assumed as possible by Plotinus. The assumption that the soul cannot perceive without grasping the external objects in some way or other, for identification purposes, remains in place all along. So, along with exploring the possibility of communication between the soul and the objects, Plotinus continues investigating how such communication would also facilitate alternative ways in which the soul could 'grasp' external objects, without becoming similar to them.

At this point, Plotinus leaves the examples and returns to the argument with a further explication of the problem:

But when the soul is alone, even if it is possible for it to direct its attention to the world of sense [as per hypothesis], it will end with an understanding of the intelligible; what is perceived by sense will escape it, as it has nothing with which to grasp it (IV.4.23.14-15).

This is a clear statement of the issue: the soul lacks the means by which to become sensitive to the presence and characteristics of physical objects. The problem as stated here is not turning the soul's attention away from its own thinking activity towards the objects in the world (as it would be with a soul like the Aristotelian unmoved mover, which can think only of its own thinking). The Plotinian soul, alone by itself, could turn its attention away from itself, but its effort would be frustrated in relation to external objects, because it has no means of accessing them and registering them. This is the problem. What does this tell us about the essential nature of the soul, as Plotinus conceives of it? The soul can cognise objects of thought other than itself; specifically, it can think about items in the intelligible realm, and comprehend them. What the soul does not possess is a 'mechanism' for attending to anything outside the intelligible realm. The problem at this point is not the nature of such objects and their suitability for being objects of cognition. Plotinus allows for

the possibility that the soul directs its attention to the sensible objects; but the problem is that the soul lacks the capacity to register their presence and their qualities. When Plotinus writes, in the passage here above, that 'what is perceived by sense will escape it', he means that physical stimulations of the body from the environment would leave the soul unaffected.

So, finally Plotinus tells us why the soul, alone by itself, cannot perceive physical objects, even if can turn its attention to physical objects:

There cannot, then, be nothing but these two things, the external object and the soul: since then the soul would not be affected (IV.4.23.19-20).

This leaves us with two problems, due to the categorical gap between soul and objects: the soul is too different from objects; and the soul is impervious to objects. Firstly, the soul cannot 'grasp' or 'contact' the external objects, either by becoming similar to them and thereby having something of them, or by being congruous enough with them for such contact to take place. Secondly, the soul has no 'mechanism' for being causally affected in any way by these objects when it is by itself. Importantly, Plotinus does not tell us that the soul cannot be affected by external objects. Neither its categorical difference from objects, nor its causal imperviousness to objects, entail that the soul cannot be affected, and hence cannot perceive objects. Rather, I submit, what the qualifications Plotinus has made throughout the argument show is that the causal route from external object to the soul is not a 'proper' one. Therefore, the quest for an account of perception becomes a quest for how a 'proper' causal route from external object to soul can be established, which becomes at the same time a quest for how to overcome their categorical difference.

The ontological intermediary: the sense organs

As we saw, there cannot be only the soul and the external objects; if perception is to take place there has to be a 'proper' causal link between them. Plotinus abandons the supposition that the soul can perceive alone by itself and begins exploring alternative routes through which the soul could establish appropriate connections with external objects that would overcome their categorical difference such as to deliver perception of them. The only viable alternative for Plotinus, given that soul and objects cannot interact directly with each other, appears to be that the soul and the objects interact in perception through an intermediary:

There cannot, then, be nothing but these two things, the external object and the soul: since then the soul would not be affected; but there must be a third thing which will be affected, and this is that which will receive the form (IV.4.23.19-21).

This brings us to Plotinus' metaphysical innovation.

The challenge is formidable. The soul cannot be affected directly by physical objects and so perceive them in this way. The blocking factor is that the soul and the physical objects are categorically different, which does not allow for a direct causal interaction between them. What Plotinus has argued so far is that categorically different items cannot resemble one another; and they cannot be fitted to each other; and they cannot interact causally with each other. So his innovation will be to *reduce the categorical gap by half*, positing a type of entity which is, primitively, ontologically intermediate between categorically different entities. The intermediaries are assumed to facilitate causal interaction between the extremes, thus bridging the categorical gap, and they are the sense organs:

For since it is the organ of a kind of knowledge, it must not be the same either as the knower or what is going to be known, but suitable to be assimilated [ὁμοιωθεῖναι] to each, to the external object by being affected, and to the internal knower by the fact that its affection becomes form (IV.4.23.29-32).

The concept of 'ontological intermediary' is unfamiliar to us, modern thinkers.

Nevertheless, the notion was first introduced by Plato, with the ontological status of numbers. Aristotle reports that for Plato:

Besides sensible things and Forms he [Plato] says there are the objects of mathematics, which occupy an intermediate position, differing from sensible things in being eternal and unchangeable, from Forms in that there are many alike, while a Form itself is in each case unique (*Metaphysics* I.6, 987b).

The passage explains the sense in which the objects of mathematics, say numbers, are intermediate entities for Plato. They are intermediate between the Forms and the physical objects, insofar as they share some of their features with the Forms, e.g. being eternal, and some of their features with the objects, e.g. there being many of a kind, by contrast to Forms which are unique per kind. This seems to be a conception of intermediate, as we will see, which Plotinus employs in his account of perception.

In the *Phaedo*, Plato does describe an intermediate entity between body and soul – the desiderative part of the soul – thus anticipating Plotinus' move but with a more naïve conception:

"But it [i.e. the soul] will be interpenetrated, I suppose, with the corporeal which intercourse and communion with the body have made a [desiderative] part of its nature, because the body has been its constant companion and the object of its care?"
"Certainly" (81c).⁵

For Plato, the intermediate desiderative part of the soul is generated by interpenetration, intercourse, and communion of the soul and the body. This does require causal interaction between them (which shows that Plato reified the soul as a causal agent and did not hesitate to posit causal interaction between the soul and body); but it is unclear what their combination is, ontologically: whether they are only intimately compresent, or whether some type of fusion is achieved. In what follows, I will argue that Plotinus' position actually requires a more sophisticated conception of 'ontological intermediate' than Plato's one.

For Plotinus the intermediary between the soul and the objects is not, constitutionally, an amalgam, such as e.g. the amalgam of a ferromagnetic metal and aluminium, which makes their combination, the alloy, magnetic. The alloy is magnetic because a constituent of it is magnetic. The aluminium is not magnetic, and it survives along with the ferromagnetic metal in the alloy. So when the alloy responds magnetically to another magnet, its aluminium component does not respond to that magnet. This is *not* how the intermediary between the soul and the objects is constituted, for Plotinus. The sense organs must be a *mean*, whose nature is in-between being a 'receptor' in relation to the physical and being a 'transmitter' in relation to the intelligible. But how is this possible?

As the text above shows, Plotinus assumes that the causal intermediary has to be *similar* to both the soul and the external objects, in order to allow interaction between them. So, Plotinus reasons:

It [the sense organ] must be this which is affected and the other principle [i.e. the soul] which knows [what affected it]; and its affection must be of such a kind that it retains something [physical] of that which produced it, but is not the same as it (IV.4.23.22-25).

To be similar to the categorically different beings of which it is the intermediary, the intermediary has to bear properties that make it similar to both:⁶ sensible and intelligible properties. Thus, the intermediary is in a midway condition between the two. This condition is described by Plotinus thus:

But as it is between the producer of the affection and the soul, it must have an affection which lies between the sensible and the intelligible, a proportional mean somehow linking the extremes to each other, with the capacity both of receiving and of transmitting [form], suitable to be assimilated to each of the extremes (IV.4.23.25-29).

Eyjólfur Kjalar Emilsson, among the contemporary scholars of Plotinus, has suggested that the intermediate affection mentioned in the text above is to be understood as 'the phenomenal appearance of colors in the visual field' (2008: 28-29, but see also 1988 and

1996). This is a sound redescription of what Plotinus says; but it only clarifies the explanandum, rather than providing the explanans. To understand Plotinus' position, we need to investigate the ontology of the sense organs. Emilsson describes the affection which is intermediate between the sensible and the intelligible as follows: '[....] the quality the sense organ takes on is the quality of the object but in a hybrid mode of being in between the corporeal and the intelligible, having some features in common with each' (1996: 219).

As we will see, this leaves open, in Plotinus, the question of the nature of the hybrid mode of the quality (to use Emilsson's term). I will argue that Plotinus develops a *sui generis* metaphysical conception of the constitution of a sense organ, which enables the sense organ to be an intermediary substratum of two activities: receiving the form of a physical object, and conveying of the form to the soul. I will explain, from Plotinus' own prospective, the metaphysical model that he must be implying here, which I submit combines elements from Plato's theory of intermediate types of entity, Aristotle's theory of perception, and Aristotle's theory of mixture.

Plato's Influence on Plotinus's Account of Perception

We saw that the claim that the intermediary exhibits some properties of each of the extremes is found in Plato's treatment of mathematical objects, such as numbers. However, this claim alone is not sufficient to resolve the problem; consider a mixture of barley and lentil, or the alloy discussed before: such mixtures exhibit some properties of each of the ingredients, but are not intermediate between them,⁷ in the sense that Plotinus needs for his argument: if Plotinus' intermediary were like such mixtures, the categorical difference between the extremes would be retained and replicated in it. It takes more than the compresence of the two kinds to generate an intermediary between the two. This is why I find Emilsson's suggestion of 'a hybrid mode of being between the corporeal and the

intelligible, having some features in common with each' wanting, in so far as it does not tell us how a hybrid would achieve intermediacy rather than mere compresence of 'features in common with each' of the extremes.

Plotinus expresses his metaphysical view extremely briefly. He writes:

This [third thing, the intermediary] must be able to assume the modifications [of the physical object] so as to resemble it, and it must be of one matter (IV.4.23.22-23; translation modified).⁸

Before discussing his position, I should note that Plotinus' language at this point becomes very Aristotelian. He says of this third thing that it receives the form (μορφήν δεξόμενον) of the object; he talks of its matter (ύλη); he describes the affection (πάθος) as a proportional mean linking the extremes (μέσον ανάλογον, συνάπτον τὰ ἄκρα ἀλλήλοις); and so forth. I will argue that Plotinus' ontology, too, is built on the Aristotelian metaphysics of mixture.

We saw that Plotinus tells us in the texts above that the intermediary must be able to be causally *affected* by the sensible properties of objects in the world; to be qualitatively *similar* to both the objects and to the soul; and to be *of one matter*. I take it (by inference to the best explanation) that the latter requirement is what *explains* how the intermediary is intermediate between the two. Plotinus' thought, I submit, is that the type of matter of which the intermediary is constituted enables it to bear properties that make it like the soul and like the sensible objects, *because* the matter that makes up the intermediary can take on both intelligible and sensible forms – forms of the soul and forms of physical objects (e.g., phenomenal blue). However, the intermediary is *of one matter*. Which kind of matter can serve as the substratum of categorically different properties? The passage quoted above, where Plotinus talks of the intermediary in terms of being a proportional mean, gives us a clue from which we can reconstruct Plotinus' thinking. The matter in question, I submit,

is conceived by Plotinus as a special type of mixture of the sensible and the intelligible. What type of mixture can this be?

We have seen that the intermediary is not of one matter in the sense of being a heterogeneous mixture constituted (literally, containing) two categorically different elements, analogous to our examples of a mixture of barley and lentils, or an alloy. This would be mixture by juxtaposition only, and although it would have qualities of both mixants, it would do so only by virtue of containing parts of both of the extremes. Plotinus does not consider explicitly in the text the possibility of mixture by juxtaposition, but he does reject the identity of the sense organ to either of the extremes. Furthermore, there are evident reasons why such a compound would not deliver the solution Plotinus wants. A heterogeneous mixture of intelligible-stuff and physical-stuff would replicate the categorical problem that such a mixture was posited to solve. No progress is made towards bridging the categorical divide by building a bridge juxtaposing (unbridgeable) categorically different building-blocks. I therefore take ὅλης μιᾶς to refer to matter *of one kind*, that is, a homogeneous mixture, which is a *tertium quid* in relation to physical stuff and mental stuff, but intermediate and assimilable to both. The advantage of this is that Plotinus can keep the body and the soul as categorically different types of entity, which he wants, as we see at IV.7.8[2] (Chiaradonna 2005). He wants this so that the nature of soul is not compromised⁹ when in a human. Instead, he ingeniously makes *only* the intermediary intermediate in nature, inbetween the two types of substance, body and soul, without positing that either the soul or the body change when the soul is embodied.

The mechanism of perception

Plotinus states that this intermediate third thing between the object and the soul has ‘the capacity both of receiving and transmitting [form]’ (IV.4.23.26-27). How is this possible?

How does the sense organ achieve this metaphysical feat of receiving from the physical and transmitting to the mental? Plotinus offers an explanation which is itself in need of a metaphysical account. He writes that the sense organ is:

[A] proportional mean somehow linking the extremes to each other [...] suitable to be assimilated to each of the extremes (IV.4.23.25-28).

The extremes are the soul and the external objects. However I wish to note that a proportional mean, “ $2/3$ ” for instance, links the extremes, not only by expressing the relation between them; it links the extremes by being able to reproduce them. Thus, $2/3$ links 10 and 15 by expressing their ratio, $10/15$; but also, by being able to reproduce $10/15$ by multiplying $2/3$ by 5. This is how a proportional mean links the extremes while being apt to assimilation to each. Plotinus proceeds to explicate what he means by ‘assimilation’ in the case of the sense organs; they are:

[S]uitable to be assimilated to each, to the external object by being affected, and to the internal knower by the fact that its affection becomes form (IV.4.23. 29-31).

I take it that Plotinus’ point is that the form of the physical object is proportionately reproduced in the perceptual process as a form that it transmitted to and is ineligible to the soul.

We have examined Plotinus’ explanation of the function of the sense organ and the nature of its affection in terms of the notions of the ‘proportional mean’ and of the ‘assimilation to the extremes’. Although this has been informative regarding what Plotinus considers the function of the sense organ to be, it still does not tell us *how* the organ achieves the ‘assimilation to the extremes’.¹⁰ By which mechanism is the physical form of the external object, which affects the sense organ, converted into information which is transmitted to the soul by the sense? I turn now to describe what I take to be such

mechanism, which I reconstruct from Plotinus' stipulation that the sense organ is of 'one matter'.

Plotinus' Perceptual Intermediary

Let us begin with the challenge facing Plotinus' account of perception. From the start, he stated that perception of an external object can be achieved if the perceiver gains access to something of the object, namely, 'grasps' the object (so that the perceptual content is about *this* object). As we saw, he writes:

If it [the soul] also apprehends other things [than itself], it must first have taken possession of them as well, either by becoming similar to them, or by conjoining with something which has become similar (IV.4.23.6-7, translation modified).¹¹

Either way, the requisite input for perception of external objects is the soul's grasping something of the external object by becoming similar to it. The problem is that the object cannot make the soul similar to it because of the categorical difference. Plotinus suggests that the soul relies on some special relation to an item that *can* become similar to the external object. Whatever this relation may be, it cannot be a replication of the relation of the soul to the object, since this is the categorical gap problem that Plotinus is trying to solve. Plotinus addresses the soul and body problem by conceiving of a mixture of the mental and the physical, namely, of soul-stuff and physical-stuff, which is of *uniform* constitution ('of one matter'). The sense organs are *not* half-physical and half-mental in the way in which (by analogy) a marble cake is half vanilla and half chocolate; but rather in the way in which (by analogy) a mixture of hot and cold water is lukewarm, although the analogy is stretched here, because of the categorical difference between the mental and the physical. Their matter is uniform in the sense that every part of it is of the *same* type, but also, the type is *simple* in the sense of not being a compound of many, even if it is made out of of many (and yet it is not the causal result of a process of composition).

It is such matter's oneness and lack of internal complexity that makes it possible for the soul, via the sense organs, to respond to the external object's affections and perceive them. (Plotinus is assuming that the mental and the physical can be found in nature fused or blended together, in the sense organs, even if they cannot interact causally between them. This fusion must be (ontologically) a primitive in nature, in Plotinus' world, since there is no causal interaction between them to generate it, and yet they are not (like) an alloy, but a fusion or blend of elements.)¹² Through the fusion of soul-stuff and physical-stuff, a communication route opens between the soul and the external objects, which allows for mind-body mediated interactions. The question for us is this: can we understand such cross-categorical blending?

I am not interested here in the plausibility of the idea that such blend is possible in the case of the mental and the physical, but in whether Plotinus' conception is comprehensible or not. In favour of Plotinus, I will only mention that, if we can make sense of the mental having supervenience relations to the physical; or, on different theories, of the mental being physical; or of the mental not being physical; or of both being aspects of one and the same thing, why could we not make sense of other types of cohesion between the mental and the physical, such as Plotinus conceived? If there is something that makes such a mixture incomprehensible, it would be valuable as well as interesting to find out what it is.

Positing an intermediary type of entity, such as the sense organs, is a significant theoretical development on the part of Plotinus. He uses it to explain fundamental cognitive phenomena that otherwise remain puzzling. His solution rests on the metaphysics of intermediary entities, which he only briefly sketches. It is therefore reasonable to try to understand his claims in the light of Platonic and Aristotelian metaphysical positions that

could possibly support Plotinus' conception of an intermediary type of entity. I have already mentioned which ideas of Plato's seem to be in the background. I now turn to Aristotle to introduce three different metaphysical positions of his, and examine how they could each contribute towards our understanding of Plotinus' innovation. I will argue that Plotinus' assumption that the blend of different types of entities can be uniform can be understood in the light of Aristotle's account of mixing.

Intermediate uniformity: Lessons from Aristotle?

Whence and how can such an intermediate blend be – not in terms of the causal history of its production, but of its metaphysics, even if it is an ontological primitive? Plotinus does not make any explicit reference to Aristotle's theory of mixture, but in absence of any account of his own, for the oneness of the matter in a sense organ, I submit that Aristotle's theory is a helpful model to introduce to us how Plotinus conceives of his mixture of sensible and intelligible stuff.¹³

In the *De Generation et Corruptione*, Aristotle undertakes to explain the metaphysics of mixing elements; he innovates metaphysically, by showing that there is a way in which the mixed elements can be both present in, as well as absent from a mixture. Aristotle writes:

[W]hen the two [elements] are more or less equal in strength [i.e. in power of influence], then each changes from its own nature in the direction of the dominant one, though it does not become the other but something in between and common to both (GC 328a28–31).

Importantly, when the elements mix, they 'survive' mixing; the items that are mixed are not destroyed in the mixture. Aristotle makes the point thus:

Since some things that are, are potential, and some actual, it is possible for things after they have been mixed in some way *to be and not to be*. Some other thing [the mixture] which comes to be from them is actually, while each of the things which were, before

they were mixed, still is, but potentially, and has not been destroyed (GC 327b23–25, my emphasis).

In other words, although the mixture becomes like a mixture of hot and cold which becomes warm, the difference here is that Aristotle additionally assumes that the original mixants survive in potentiality. In general terms, mixtures of this kind are constitutionally uniform, but are also complex compounds. They are uniform as mixtures, but complex compounds in that they literally consist of the mixed elements (which are of different natures and are not destroyed, but survive in the mixture *in potentiality*).¹⁴ The uniformity of mixtures is the crux of Aristotle's theory of mixing, which makes his account an apt starting point for how Plotinus conceives the matter of the sense organs—their matter is uniform, just as the matter of Aristotle's mixtures. However, in Aristotle's mixtures the two mixants, which are of different types, are somehow present in it (in potentiality, and can be retrieved). For Plotinus, the two extremes are not present in the intermediate in potentiality, as in Aristotle's mixtures. Rather, they are present, not as parts, but as aspects of a uniform stuff of the sense organ.¹⁵ These aspects are both of the same ontological level – there is no constitution or supervenience relation between the physical and the mental properties of the uniform stuff.

Aristotle does provide a metaphysical account of how uniformity is possible in his mixtures, which rests on the assumption that the properties of the two mixants can affect and compromise each other – e.g. the sweetness of honey and the sharpness of wine compromise each other into half-sweet/half-sharp. This capacity to compromise each other, crucially, is what is called into question when the properties of the mixants do not belong to the same category of being, e.g. temperature or weight, as they do not in the case of the physical and the mental properties. This difficulty is not raised or addressed by Plotinus.

Yet, Aristotle's theory of mixing aids our understanding of Plotinus' views, and gives us a way to comprehend how he may have thought of the fusion of the mental and the physical, as if they were opposites, having degrees of difference in-between.¹⁶

Other speculative interpretations of what may underpin Plotinus's thinking of the uniform matter of the sense organs are also possible. Clues in Plotinus' text point to other areas of Aristotle's metaphysics. Plotinus' explicit stance is that a single type of (uniform) stuff is sensitive and responsive to two (categorially different) types of being (the physical and the mental). Can the relation of constitution, as developed in Aristotle's metaphysics, explain how Plotinus' sense organs bear both physical and mental properties?¹⁷ If Plotinus adopted this model, the challenge for him would be to account for how a single type of uniform matter can constitute two categorially different beings (properties).

One could be inclined, and possibly Plotinus was, to look for a solution in Aristotle's account of what is 'one in number and two in being' as given in the *De Anima* and in the *Physics*. Aristotle writes about sounding and hearing the sound:

The actuality of the perceptible and of the perceptual experience is *one and the same, although their being is not the same*. I mean, for example, the sound in actuality and hearing in actuality; [...] when that which can hear is hearing and that which can produce sound is producing it, then hearing in actuality and sounding in actuality come to be at the same time, and might call the one hearing and the other sounding (*DA* 425b26-246a1, my translation and emphasis).¹⁸

Is this an instance of a single type of uniform substratum underlying two different types of being – sounding and hearing? It isn't, as far as Aristotle tells us. The activity between patient and agent of change is numerically one, but it is not assumed to be uniform any more than asymmetric relations are uniform (e.g. the relation of motherhood: *a* being *b*'s mother). So, we conclude that Aristotle's account of one in number and two in being cannot

provide the oneness that Plotinus needs, namely uniformity, so as to offer metaphysical underpinning to his view of the operation of the sense organ.

Among contemporary scholars, Sara Magrin (2010) reaches a different conclusion. It will be helpful to explicate my argument in contrast with hers. She claims that Plotinus:

appropriates one of the main conclusions of *Physics* 3.3, viz. the thesis that the activity of the agent is the same as the activity of the patient, and in the light of it he argues that the external activity of the agent is the same as the effect produced by the activity of the agent ... [which Plotinus applies] to explain colour transmission in vision (2010: 275).

The reasoning here is incorrect. Magrin believes that Aristotle holds that, in her words, ‘the activity of the agent is the same as the activity of the patient’. Her statement is ambiguous, and could be read as claiming either that the activity of the agent is the same in some respect as the activity of the patient, or that they are identical. The first reading would be true of what Aristotle says, but the second false, contradicting the major metaphysical breakthrough of Aristotle’s in this passage, as I will show below. The statement read in the first way, however, does not support the conclusion that Magrin derives directly from it: if the activity of the agent is the same in some respect as the activity of the patient, it does not follow that ‘*in the light of it* he [Plotinus] argues that the external activity of the agent is the same as the *effect* produced by the activity of the agent’ (2010: 275, my emphasis). It is clear that Magrin thinks that Plotinus is justified in drawing this conclusion ‘in the light of’ the position she thinks Aristotle reaches in *Physics* III.3. It is as if Aristotle had said (using his own example of the *De Anima* we mentioned above) that sounding is the same as hearing (since, per Magrin, ‘the external activity of the agent [the sounding of a bell] is the same as the effect [hearing the sound] produced by the activity of the agent’). Did Aristotle make such a surprising claim?

Before explaining what Aristotle claimed, we should remind ourselves of his own statement in *Physics* III 3 that, “it is nonsense that two things different in essence, e.g. the agent’s acting and the patient’s being acted upon, have one and the same actuality (202a36-b2).” Their oneness cannot be identity. However, their oneness can be *in number*, without oneness in being; rather, Aristotle tells us, they are two in being. I mentioned above Aristotle’s position concerning being one in number and two in being, which he uses in his account of perception developed in the *De Anima*.¹⁹ During any causal interaction, the mover moves in actuality, and the movable is actually moved. These two actualities are not identical, but, Aristotle argues, there is a special relation of ontological dependence between them; the occurrence of either requires the occurrence of the other. Metaphysically, this is realized in a single activity, which, as Aristotle tells us, is one activity which is two in essence (*aka* in being). While explaining how the sameness of the activity of the agent (e.g. teaching) and of the activity of the patient (learning) does not produce nonsensical results, Aristotle writes:

Nor is it necessary that the teacher should learn, even if to act and to be acted on are one and the same, provided they are not the same in respect of the account which states their essence ... but in respect of that to which they belong (ὃ ὑπάρχει ταῦτα), the motion (202b5-21, translation slightly modified).

So it is the underlying causal activity that is a common substratum for the teaching and the learning, or the sounding and the hearing; but the constituted activities of teaching and learning, or of sounding and hearing, which the common underlying activity grounds, are different in essence (*aka* in being). This Aristotelian position might have possibly motivated Plotinus to argue that there is a single matter in the sense organ, underlying the sensible physical form received by the sense organ from the object, and also underlying the mental form the organ transmits to the soul with the information about the physical form. This

would be so only if Plotinus failed to realize that Aristotle is here talking of the matter being one in number only, a model that would not entail the uniformity of matter that Plotinus needs to resolve the categorial problem.

Finally, a third model that Plotinus might have drawn on, also from Aristotle's metaphysics, is that of a single point on a line; the point is at once two distinct limits: it is the end-point for each of the two half-lines it divides. Thus, the point is one, but it constitutes two limits. In the *De Anima*, Aristotle puts forward this model and explores its applicability in addressing the question of how a sense can at one and the same time be causally affected by different sensibles, such as sweet and bitter, or sweet and white, simultaneously. (Aristotle will conclude the model is not applicable):

Just as what is called a 'point' is, being at once one [point] and two [limits], properly said to be divisible, so here, that which discriminates [i.e. the sense organ] is *qua* undivided one, and active in a single moment of time, while *qua* divisible [perceiving two different qualities] it twice over *uses* the same dot at one and the same time. So far then as it twice over uses the limit, it discriminates two separate objects [e.g. sweet and bitter] with what in a sense is separated: while so far as it uses it as one [sense content], it does so with what is one and occupies in its activity a single moment of time (*DA* 427a10-14; my emphasis; translation slightly modified).

In this example, the point, *qua* simple, can be assumed to be uniform, and this fits well with Plotinus's *desideratum* that the matter of the sense organs is homogeneous stuff (even if made out of both mental and physical stuffs). However, an important disanalogy between Aristotle's and Plotinus' cases remains: the two limits which the point grounds are the same in kind, even if numerically different; whilst in Plotinus' theory of perception, there is a single substratum that supposedly grounds beings that are categorially different.²⁰ The disanalogy is significant if we take Aristotle's model to presuppose a constitution relation between the point and the two limits because Plotinus' account assumes that the same substratum can constitute categorially different beings.

In conclusion, I submit that Aristotle's theory of mixture, the first of the three models above, remains the best candidate to serve as the metaphysical account that underpins Plotinus' theory of the constitution of sense organs, even if we can only speculate on the basis of textual clues that this is how Plotinus was thinking. In the preceding sections, we have examined what Plotinus sets out to account for, in his theory of perception, and which difficulties he encounters; how he comes to his proposed solution; and what metaphysics might underpin it. I turn now to the question of whether Plotinus has delivered a philosophically sound solution.

Has Plotinus solved the categorical gap problem?

Plotinus' solution to the categorical gap problem between the external physical objects and the perceiver's soul is to posit a causal intermediary that can resemble the physical object and can also inform the soul. This is made possible by a substratum, which is, I have argued, a *uniform* mixture of mental and physical stuff that can interact with both, the object and the soul, thereby grounding physical properties and mental content. Has Plotinus thus solved the categorical gap problem that he set out to address in this theory of perception? He believes he has:

'it is clear that sense-perception belongs to the soul in the body and working through the body' (IV.4.23.48-49).

There are, however, some outstanding philosophical issues with Plotinus' account of perception of objects that I want to raise. The first is that the substratum that Plotinus posits for the sense organ comes with the cost of an additional primitive in his ontology. Since, as he says, the soul cannot by itself interact with physical objects in the world,²¹ the intermediate mixture of mental and physical in the sense-organ cannot be a product of soul-object interaction. It must be primitively existent in nature. Yet, how is this intermediate

mental-physical mixture constituted? Are we to understand its composition in accordance with Aristotle's principle, that opposite properties can compromise each other in mixtures, which, though, does not apply to categorially different properties – or does it? We can only expect suchlike 'tensions' in accounts of the mental and tge physical that attempt to somehow bridge the categorial gap.

Further, Plotinus assumes that positing an intermediary whose matter is in-between mental and physical stuff somehow 'reduces' the existing categorial gap between the soul and physical objects. It is as if these are conceived of as extremes on a spectrum, where the intermediary blend is midway between the extremes. As mentioned above, this presupposes that the intermediary differs from the categorially different extremes only by degrees. The question that remains open is how can two categorially different beings be extremes on a spectrum – a spectrum of what; degrees of what? Are all these theoretical costs that Plotinus' theory incurs, or promises of a novel understanding of the mind-body problem, one of the hardest problems in philosophy?

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¹ In fact, this is what Plotinus does, by introducing a further cognitive state of awareness, other than apprehending what is in itself, to explain how the soul is aware of the One: ‘...awareness of this Principle comes neither by knowing nor by the Intellection that discovers the Intellectual Beings, but by a presence overpassing all knowledge’ (6.9.4). Thus the soul is aware of the One, but does not apprehend the One or know it, which would divide the soul into subject and object of its apprehension.

² Even if self-awareness is introduced here, it is left unaccounted for. The mechanism of becoming aware of external objects, which Plotinus is about to outline for us, cannot apply to the soul by itself thinking itself as pure thought; for, if mechanism of self-awareness involved becoming similar to the object of awareness, this would result in a regress.

³ This point is debated in the relevant scholarly literature, but such debate is not relevant for present purposes.

⁴ The Form of Fire is of course three dimensional, but it is not in space; namely, it’s not in the space where physical fires are.

⁵ In the original: διελημμένην [τὴν ψυχὴν] γε οἶμαι ὑπὸ τοῦ σωματοειδοῦς, ὃ αὐτῇ ἡ ὁμιλία τε καὶ συνουσία τοῦ σώματος [...] ἐνεποίησε σύμφυτον.

⁶ I talk of similarity on the basis of Plotinus’ use of the term ‘ὁμοιωθεῖναι’ (IV.4.23.30), although his explanation in that passage, IV.4.23.29-32, may suggest talk of fit: ‘suitable to be assimilated [ὁμοιωθεῖναι] to each, to the external object by being affected, and to the internal knower by the fact that its affection becomes form’ (IV.4.23.29-32).

⁷ Intermediate, in the sense of a property ‘which lies *between* the sensible and the intelligible’ (IV.4.23, my emphasis) rather than having some properties from both kinds.

⁸ The key sentence in the original is: Συμπαθὲς ἄρα καὶ ὁμοιοπαθὲς δεῖ εἶναι καὶ ὕλης μᾶς.

⁹ By this I mean what Plotinus describes e.g. in IV.7.8b.2-7.

¹⁰ Plotinus clarifies that *assimilation to the extremes* is not *identity with the extremes*. He writes that the organ ‘must not be the same either as the knower or what is going to be known (IV.23.4.28-29). Assimilation should be understood as similarity or congruity.

¹¹ In the original: εἰ δὲ καὶ ἄλλων, δεῖ πρότερον καὶ ταῦτα ἐσχηκέναι ἥτοι ὁμοιωθεῖσαν ἢ τῷ ὁμοιωθέντι συνοῦσαν.

¹² A clarification is in place here: in contemporary philosophy Dual Aspect Monism posits the mental and the physical as aspects of a single type of entity; but Plotinus was not a monist. He is a dualist, who thought that the mental and the physical can also mingle into a uniform stuff. See also footnote *** below.

¹³ The thought here is not that Plotinus makes use of entire metaphysics of mixture developed by Aristotle, but rather that Aristotle’s theory gives us a model for interpreting Plotinus. On Aristotle on mixture, including an analysis of alternative interpretations to the one I endorse here, see Scaltsas (2009).

¹⁴ Aristotle explores in the *De Sensu* whether his theory of mixtures as introduced in the *De Generatione et Corruptione* might offer a solution to the problem of the complex perceptual content, that is, how multimodal inputs is unified in a single content of perception; but he concludes in the negative. For further discussion of this topic, see Marmodoro (2014: 216-220 and 268-270).

¹⁵ In this respect, the account resembles Dual Aspect Monism, although if Plotinus is following Aristotle’s account of mixture, the nature of the mental and the physical in the matter of the sense organs is ‘compromised’, so that there cannot be a ‘purely’ mental and a ‘purely’ physical aspect in it. Additionally as we saw in footnote *** above Plotinus is not a monist but a dualist.

¹⁶ Brian Greeny suggested a further possibility; that of an intermediate analogous to the case of hot oil and cold water, which when combined do not mix, but still do produce a warm liquid.

¹⁷ On the previous model of mixture, there was no relation of constitution in play.

¹⁸ Aristotle’s puts forward this view in the *De Anima* III 2 and in *Physics* III 3; for in-depth discussion of the relevant texts and alternative interpretations, see Marmodoro (2007; 2014, chapters 1 and 2).

¹⁹ The relevant passage in the *De Anima* is in fact a direct application of the metaphysical account Aristotle introduces in order to explain causal interaction in *Physics* III.3. Aristotle develops there a complex argument framed as a dilemma which I called elsewhere *The Actualities of Motion Dilemma* (2014: 47). His goal there is to investigate the metaphysical relations holding between the actuality of the activity of the mover and the actuality of the activity of the moved in any causal interaction.

²⁰ Aristotle explains this in the context of discussing the unity of multimodal content (e.g. when perceiving a white and sweet cube of sugar). The question is how a sense can at one and the same time be affected by different sensibles; (one of) the model(s) Aristotle puts forward to address it (even if he ultimately rejects it as an adequate account of the unity of complex perceptual content); on this topic, see Marmodoro (2014: 238-246).

²¹ See IV.4.23.1-8 and 14-15, and in particular the claim that, 'there is something more here than the external thing and the soul; for the soul is immune from experience [with the external object]' (6-7).