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Visual Space, Space Representation, and the Spatial Properties of Visual Objects

Resumo

O presente artigo discorda de certa imagem da percepção visual espacial às vezes atribuída a Wittgenstein (1975) pela recente pesquisa – notadamente, por Schwenkler (2009, 2012) – sobre a consciência espacial. Trata-se da imagem segundo a qual a percepção das propriedades espaciais (monádicas ou relacionais) dos objetos visuais não esgota a percepção visual espacial, pois a última requer além disso a percepção do próprio espaço. Argumenta-se aqui que as interpretações metafísica e epistemológica, às quais essa imagem dá origem, não estão de acordo com a maneira com que o próprio Wittgenstein interpreta a significação filosófica das suas observações sobre o caráter absoluto das propriedades espaciais da experiência visual. Defende-se ainda que tais interpretações são enganosas, pois se apoiam na suposição não wittgensteiniana de que há como dizer se tal e tal característica pertence essencialmente à experiência visual independentemente daquilo que é estabelecido pela lógica (pela "gramática", na terminologia de Wittgenstein do fim do anos vinte e do início dos anos trinta do século XX) como capacidade expressiva genuína.

Palavras-chave: Wittgenstein . Percepção espacial . Espaço visual . Substância . Tese de aprioricidade . Argumentos transcendentais . Gramática (lógica)

Abstract

This paper takes issue with a certain picture of visual spatial perception sometimes ascribed to Wittgenstein (1975) by recent research – notably, Schwenkler (2009, 2012) – on spatial awareness. On this picture, the perception of the spatial (monadic or relational) properties of the visual objects does not exhaust visual spatial perception for the latter requires in addition the perception of (visual) space itself. I argue that both the metaphysical and the epistemological

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understandings it gives rise to are at odds with Wittgenstein's own appraisal of the philosophical significance of his remarks on the absoluteness of the spatial properties of visual experience. These understandings, I go on to argue, are misguided as they rely on the typically un-Wittgensteinian assumption that there is a way to tell whether such and such feature belongs essentially to visual experience regardless of what logic ("grammar" in Wittgenstein's terminology of the late 1920s and the early 1930s) sets as genuinely expressive capacity.

Keywords: Wittgenstein . Spatial perception . Visual Space . Substance . Apriority Thesis . Transcendental Arguments . Grammar (Logic)

1. Introduction

Although it is not uncommon today in the philosophy of mind and language to use some of the arguments outlined by Wittgenstein in *Philosophical Remarks*[1] (especially, §§206-208) in favour of the absoluteness of visual space to explain, say, the experiential basis of our capacity to understand demonstrative references and grasp the matching thoughts[2], the very nature of the view they underpin is often left in the dark. Recent developments in research on spatial awareness have, nevertheless, led some authors to reconsider Wittgenstein's view in a way that comes close to a bringing to light and a clarification of its nature.

My starting-point here is precisely the way it is pictured within that research area. The picture is roughly this – it can be sketched in negative as well as in positive terms. To put it negatively, Wittgenstein's view seems to be that the perception of the spatial properties (e.g. location, size or shape) of visual objects does not exhaust visual spatial perception; more positively, that the latter involves something like the sensing of an overarching spatial structure (of a visual *space*) over and above that of the monadic or relational spatial properties of the visual objects.

This picture of spatial perception can give rise to two distinct philosophical understandings depending on the import one wants it to have.

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1 Hereafter: PR.

2 A good example is Campbell (2002: 46-8).

Ontologically speaking, it can be understood as involving a commitment to a substantival conception of the spatial structure of visual perception. On this view, visual space is a kind of entity the existence and structural features of which are not dependent in any way on the existence and the properties of the objects located in it. It is a "substance" in the traditional metaphysical sense of the word[3]. Epistemologically speaking, it can be and has been understood as involving a commitment to some version of the Kantian thesis of the apriority of space. The Apriority Thesis – to shorten – is the thesis to the effect that the representation of (say, visual) sensations as lying outside the human mind and as lying outside one another presupposes a distinct non-empirical capacity of the human mind to represent them along with their spatial relations as parts of a single space[4].

It is tempting, indeed, to construe Wittgenstein's remarks on the absoluteness of visual space as involving a commitment to such a picture on either way of understanding it. For the author of *PR* goes so far as to claim that visual space *itself* has a number of properties – that in it e.g. there is absolute position(s), location(s), motion, distance or else that it is intrinsically oriented – which are in no way dependent on the properties of the objects located in it, nor on the position of the subject's body in physical space[5].

It is the purpose of this paper, however, to show that this way of understanding Wittgenstein's remarks is misguided and that although he *is* committed to the view that visual space is absolute – in the above-explained sense, it does not follow that he is committed to the view that the space of visual perception is a kind of substance, nor that it is an *apriori* (and purely intuitive) representation.

It all turns on how we are to assess the philosophical significance of the transcendental arguments used by the author to vindicate the claims put forward in the aforementioned paragraphs of *PR*. A transcendental argument, on its standard construal, arguably has the following form: if not *X*, not *Y*; *Y* therefore *X*. It is usually taken to be a non-empirical and presumably valid

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3 Substance is traditionally defined as whatever has independent existence and is the ultimate subject of predication. Hence the coinage "substantival conception".

4 See Kant (1970: A23/B38) for its canonical wording. For an interpretation of the thesis in Kant as primarily concerned with the built-in capacity of the human mind to locate (and not only to distinguish) externally referred sensations within a single spatial representational structure, see Warren (1998). For an interpretation of Wittgenstein's view along these lines, see Schwenkler (2012).

5 See PR: 253-7.

way of establishing the reality, if not of some world entities or properties, at least of certain experiences or epistemic capacities against virtual sceptical objections[6].

Wittgenstein's arguments in *PR* are often understood as having just that significance to the extent that they are meant (on the above-mentioned understandings) to establish either the reality of a substantive perceptual space over and above the monadic or relational properties of the visually perceived objects, or the apriority of some spatial intuitive representation.

My point here is that this way of understanding the philosophical significance of Wittgenstein's remarks is misguided because it relies on the typically un-Wittgensteinian assumption that there is a way of saying what counts as a necessary feature of such and such experience or such and such representation regardless of what a piecemeal logic sets as genuinely expressive capacity.

To make the point, I shall consider in turn each possible construal of the picture and show that on either of them the real significance of Wittgenstein's remarks is lost.

2. Metaphysics vs. Grammar of Space Perception: Properties, Relations, Substance, and the Grammatical Criterion for Structure

As to the metaphysical construal, it flows, so it seems, naturally from Wittgenstein's attempt to argue for the absoluteness of a number of spatial properties (e.g. position, motion, and orientation) of visual experience as such or, as he sometimes puts it, of "the purely visual (level)"[7]. Here are some of the most telling lines of argument:

> (i) *(…) couldn't we imagine a visual space in which we would only perceive certain spatial relations but no absolute position? (…) – I don't believe we could. For instance, one wouldn't be able to perceive the whole visual field turning, or rather this would be inconceivable.*

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6 I rely here on the widely accepted distinction between two (among further) general types of transcendental arguments: "world-" (or "truth-") directed" as opposed "experience-directed" ones. On this point, see Stern (2000: 10-11), but also Peacocke (1989: 4), Cassam (1997: 33), and Cassam (1999: 83).

7 PR: 259.

(ii) *In visual space, there is absolute position and hence also absolute motion. Think of the image of two stars in a pitch-black night, in which I can see nothing but these stars and they orbit around one another.*

(iii) *Suppose we are looking at the night sky through a telescope, then our visual field would be completely dark with a brighter circle and there would be points of light in this circle. Let us suppose further that we have never seen our bodies, always only this image, so that we couldn't compare the position of a star with that of our head or our feet. What would then show me that my space has an above and below, etc., or simply that it is oriented? I can at any rate perceive that the whole constellation turns in the bright circle and that implies I can perceive different orientations of the constellation.*

(iv) *But now let's assume that, say, we saw with our telescope only one star at a certain distance from the black edge: that this star vanishes and reappears at the same distance from the edge. In that case [if we held the view that we can see only relative positions and motions, but not absolute ones] we couldn't know whether it reappears at the same place or in another*[8].

It might be objected that Wittgenstein actually *fails* here to give any conclusive argument in support of his view. For all he does, it might be claimed, is at most arguing for the absoluteness of some (visual) *representations*[9]. Take (i). All that Wittgenstein manages to establish is that being able to *see* or *imagine* the visual field turning (that is, a rotation of the visual field as a whole) requires being able to *conceive* of positions in the field regardless of the relative positions occupied by the (visual) objects in that field. Otherwise, we would not be able to perceive a rotation of the field while perceiving no change in the relative spatial positions of the objects. This, however, is perfectly compatible with a relational conception of object positions, one might go on to argue, provided that the space talked about here is not the purely phenomenal space of sight, but the space in which we move and act. From the fact that no change in the relative spatial positions of the objects was perceived, "it does not follow", as Dokic puts it, "that no change *really* occurred"[10].

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8 PR: 254-256. As we shall see, all lines of arguments instantiate the same logical pattern. This pattern is typical of transcendental arguments. More on this in the next section.

9 The objection is voiced by Dokic (2003 : 82-83).

10 Ibid.

This objection relies, notwithstanding, on a distinction between a *seeming* and a *real* visual space, which simply has no relevance for the Wittgenstein of *PR*. For visual space is *ex hipotesi*, for the Wittgenstein of *PR*, the purely phenomenal space of sight and any attempt to describe its phenomena using the look- or the seem-talk would misleadingly suggest that the content of the description was nothing real, whereas the (visual) phenomena *are*, on Wittgenstein's view, *the reality[11]*. No wonder, then, that arguing for the absoluteness of certain visual spatial representations amounts to arguing, to Wittgenstein's mind, for the absoluteness of visual space *itself* – that is, for the absoluteness of some spatial properties (position, motion, rotation, orientation) ascribed to visual space as a whole.

A natural way to understand arguments (i)-(iv), then, would be to understand them as supporting the metaphysical claim that visual space has properties of its own over and above the spatial properties the visual objects (or "phenomena") may have in virtue of their being spatially related to other objects in the field or simply in addition to their having further phenomenal properties (such as colour and shape). To my knowledge, nobody has ascribed Wittgenstein such a view. But it is tempting to do so, given the current taxonomies of conceptions of the spatial structure of perceptual (notably, visual) space available on the market.

It is customary to distinguish three ways of accounting for that structure. On the relational account, visual space is nothing more than the sum of the spatial relations the visual objects bear to each other and in virtue of which they are located at such and such position in the field[12]. This view is the most widely shared, given the prevalence of the relational account of its physical analog[13]. It is usually contrasted with the view that visual space is a further kind of entity over and above the visual items and their spatial relations – that is, with the substantival account. Another theoretical though often neglected option is the monadic account on which the spatial structure of visual space consists in the set of spatial relations the visual objects bear to each other in virtue of (at least some of) their having monadic positional properties such

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11 As to visual space, see PR: 98-99. See also PR: 283 for the overall thesis that the phenomenon "is the reality". Dokic (2003: 83) somehow acknowledges this point without endorsing it for good reasons – as it would commit one to a strong version of verificationism and phenomenalism.

12 Pap (1960) and Falkenstein (1989), among others, explicitly hold this view.

13 Another issue is that of whether that relational structure is Euclidean or non-Euclidean in character. For a good survey, see Suppes (1977).

as centrality, peripherality, being dexter or sinister in addition to other phenomenal properties[14].

Granted that (i)-(iv) support conclusively the thesis of the absoluteness of the spatial properties of the visual field *itself*, it seems natural to take Wittgenstein's view as an instance of the substantival conception. Be it as it may, it would surely be mistaken to do so. For Wittgenstein's way of tackling the issue does not fit the usual metaphysical taxonomies. In particular, counting his view as an instance of the substantival conception is mistaken for it relies on the un-Wittgensteinian assumption that one can meaningfully say what kind of metaphysical structure is that of the visual field prior to any investigation of the logic or the grammar of the statements by means of which such and such spatial (monadic or relational) properties are ascribed to the objects of the field or, alternatively, to the field itself.

One way to show how Wittgenstein's approach stands clear of any metaphysical claim about the spatial structure of visual experience – be it substantival, monadic or relational – is to contrast it with Russell´s own account in monadic terms. If Wittgenstein´s view were an instance of the substantival conception, one might expect it to share at least some of the features of the metaphysical conceptions, including Russell's. That it does not is patent if one analyses carefully (some of) the assumptions underlying Russell's view. This view is compactly expressed in the following passage from *Human Knowledge*:

> *People have become so obsessed with the relativity of spatial position in physics that they have become oblivious of the absoluteness of spatial position in the visual field. At every moment, what is in the centre of my field of vision has a quality that may be called "centrality"; what is to the right is "dexter", what to the left "sinister", what above "superior", what below "inferior". These are qualities of the visual datum, not relations. It is the complex consisting of one such quality combined with a shade of colour that is distinct from the complex consisting of the same shade elsewhere. In short, the multiplicity of instances of a given shade of colour is formed exactly as the multiplicity of instances of humanity is formed, namely by the addition of other qualities[15].*

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14 Russell (1948), Goodman (1977), and Casullo (1986, 1989) notoriously hold this view.

15 Russell (1948: 298-9).

What prevents one, according to Russell, from seeing the relevance of the monadic conception when it comes to visual objects *qua* phenomenal entities is our being used to thinking of the spatial properties of physical objects as being relational in character. Surely, properties such as being located in such and such place and/or occurring at such instant of time are relational properties of physical objects. Physical objects are individuated by their position relative to the position of other objects in space-time. By contrast, positions in the visual field are no relational properties for they are but one among a whole set of qualities the co-presence of which singles out each visual item. This is the so-called "bundle theory of particulars". On the bundle theory, the spatial structure of the visual field is absolute to the extent that: (1) a visual datum is differentiated by the fact that its shade of colour and spatial position *qua* monadic properties combine to make up a unique complex of qualities (2) positional qualities are not disguised relational properties, but genuine monadic ones.

Russell takes it that the spatial relations the visual objects (data) bear to each other in no way individuate them *qua particulars*. In that respect, his view is in sharp contrast with that of the relationalists. On the other hand, he clearly assumes *just as the relationalists do* that it makes sense to speak of positions in the visual field as if they were *further* monadic or relational properties of the visual objects. That assumption, in spite of obvious differences, is shared by both accounts as it is an important feature of all metaphysical accounts. On the monadic view, it makes sense e.g. to speak of the same shade of colour appearing (at the same time) in two distinct places of the visual field being numerically one and of two instances of the same shade endowed with distinct positional properties (such as "dexter" and "sinister") being numerically two. It does because there being two instances of the same shade is not enough to individuate them *qua* phenomenal particulars. On the relational conception, it makes sense to speak of two instances of the same shade of colour being numerically two because the only way to differentiate them is through their bearing such and such spatial relations to each other. One assumption shared by both accounts, then, is that spatial properties – be they monadic or relational in character – are to be added to other phenomenal properties for us to be able to tell a visual object from another. That assumption is also presumably shared by the substantival conception to the extent that it amounts to nothing more than adding a further entity (visual space) endowed with spatial properties of its own to the monadic or relational properties of the visual objects.

That Wittgenstein's approach is at odds with such views is patent once it is realized that the assumption relied upon is mistaken as it overlooks, on the author's view, two important grammatical facts[16]. The first is that it hardly makes sense to speak of the same shade of colour being numerically two without being able to distinguish two places in the field in which they are located[17]. If by "visual space", one does not simply mean *any* quality space (such as colour space), but a quality space endowed with proper spatial dimensions, occupying such and such position in the field clearly is an intrinsic feature of the objects of the field to the extent that it is an intrinsic feature of the field itself[18]. The second important fact is that it is perfectly possible to tell two qualitatively indiscernible shades of colour from each other with respect to their positions in the field without having to *bring in* spatial monadic or relational properties *qua* differentiators. Such a possibility is suggested by the obvious fact that it makes sense to predicate of a part of a uniformly coloured surface the same colour as that of the whole surface[19].

So it is one of two things: either those accounts are wrong and must be replaced with better ones based on the assumption that the property of having a location and that of having a colour or else a (phenomenal) shape are internal properties of the visual objects, or they are to be discarded *as* metaphysical accounts; that is to say as attempts to *tell* what kind of spatial structure is that of the visual field regardless of any investigation of the actual expressive capacities offered by language with respect to purely phenomenal entities. That Wittgenstein opts for the latter and rejects the former is plain from the following claim:

> *The genuine criterion for the structure[20] is precisely which propositions make sense for it – not, which are true. To look for these is the method of philosophy. (PR: 256)*

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16 By "grammatical facts", I mean facts as to which combinations of signs make sense and which do not with respect to the immediate data of visual perception.

17 See PR: 253-4.

18 "It is clear that there isn't a relation of 'being situated' which would hold between a colour and a position, in which it was 'situated'. There is no intermediary between colour and space. Colour and space saturate one another. And the way in which they permeate one another makes up the visual field." (PR: 257).

19 See PR: 253.

20 Here Wittgenstein is speaking of the (spatial) structure of the visual field.

3. Apriority Thesis and Transcendental Arguments: The Real Significance of Wittgenstein's Arguments

Let us turn now to the epistemological construal of the above-sketched picture of spatial perception. My aim here is to show that although Wittgenstein does employ arguments usually identified as transcendental, that is as non-empirical ways of establishing the reality of some epistemic capacities such as the capacity to consciously perceive the space itself, the use he makes of these arguments should not be understood as having the significance of a defence of (some version of) the Apriority Thesis.

That Wittgenstein´s distinctive way of arguing for the reality of our capacity, say, to perceive absolute positions or absolute motion in the (visual) field is understood as having just that significance is particularly explicit in the following passage wherein the author draws a parallel with Kant:

> *Wittgenstein's overriding concerns are different from Kant's, but clearly the two philosophers share a common conviction, namely that at least in the case of vision, there can be no experience of spatial particulars without the awareness of a space that is in some sense 'absolute'; and thus that this latter sort of awareness is a condition on the possibility of the visual experience of spatial properties and relations, and thus also of particular spatial objects[21].*

Plainly, Schwenkler acknowledges that there are significant differences between Wittgenstein and Kant. However, these differences pertain, in his opinion, more to the peculiarities of Kant´s doctrine (basically, to the transcendental character of his psychology and the geometrical premises from which he starts) than to the argumentative strategy employed by both authors and its overall philosophical significance. What remains only implicit in Kant would be made explicit, on this view, by Wittgenstein through a distinctively *phenomenological* argument, namely that the awareness of an absolute space (paradigmatically, the space of sight) is "a condition on the possibility of the visual experience of spatial properties or relations, and thus of particular spatial objects".

The strategy, on this reading, is basically this: by modifying through the exercise of the imagination some features in visual experience and showing the self-contradictory character of the resulting thought-experiment, some

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21 Schwenkler (2012: 312)

features would thus be shown to essentially belong to it while others would be (shown to be) merely accidental[22]. The word "essence" stands, on that understanding, for the metaphysical counterpart of a necessity claim about the relation between two distinct epistemic capacities: the capacity to perceive the spatial monadic or relational properties of visual objects, on the one hand, the capacity to consciously perceive or sense an overarching spatial structure, on the other hand, the latter being a necessary condition on the former. So, by running a self-contradictory thought-experiment on which one would be able to see e.g. one object moving from one relative position to another, say the hand of a clock moving from one point to another on a dial made out of points (not of digits), without being able to discriminate these positions (being *ex hipotesi* unable to perceive positions in the field regardless of their occupants) [23], Wittgenstein would thus provide a phenomenological argument in support of the Apriority Thesis for he would thereby show that being located in an all-encompassing visual space is an essential feature of visual objects *qua* particular spatial objects or, in epistemological terms, that the capacity to be aware of space itself is a necessary condition on the perception of visual objects as bearers of spatial properties and relations.

I already showed that, at least as far as metaphysics is concerned, this reading is misguided. I shall show now that the epistemological understanding of the picture is equally misguided.

What is Wittgenstein´s so-called "phenomenological" argument meant to show? It is meant to show that one cannot have the capacity to perceive visual objects as bearers of spatial properties and relations such as that of occupying such and such position or moving from one position to another without having the capacity to situate these positions and motions within a single representational structure, *spatial* in character[24].

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22 Schwenkler (2012: 311-314) draws a further parallel between Wittgenstein´s method in *PR* and Husserl´s method of eidetic variations. It is this parallel that seems to ground his use of the adjective "phenomenological" applied to Wittgenstein's strategy. It is worth noting, however, that this sense of "phenomenological" considerably differs from Wittgenstein's own use of the adjective in *PR*, which pertains to the non-hypothetical character of some (putative) linguistic representations of immediate experience.

23 See PR: 254.

24 The aim of Schwenkler (2012) on the whole is precisely to challenge this claim on the grounds that recent research in neuropsychology and vision science has shown that some patients are able to perceive e.g. object shapes without being able to situate them within an overarching spatial structure – that visual spatial awareness, that is, does not necessarily require the visual awareness of space.

On some reading of Kant, this is just what Kant's first apriority argument in the Transcendental Aesthetic is meant to establish with regard to space[25]. It is not only, nor primarily meant to show that the representation of space as a whole is a necessary condition for the representation of numerically distinct objects – for their individuation, that is. This would result in an understanding of the notion of necessity that would certainly be "too weak for Kant's purposes"[26]. If what is meant by "necessary" is simply that some spatial representation is *needed* to distinguish two objects *a* and *b* at a given time – these objects having all their qualitative properties in common, the notion will not do for all that is thereby shown is that the representation of space is a sufficient condition of the capacity to tell *a* from *b*, not that it is required even when some other qualitative way of distinguishing them is available. Moreover, there is little textual evidence that Kant was primarily concerned in his first apriority argument with the individuation of objects or their (re-) identification *qua* particulars[27]. A much more cogent, for strongly evidence-based reading, is one on which Kant was primarily concerned with the *origin* of our representation of space as an all-encompassing representational structure within which (visual) objects and their spatial relations are situated. The main issue, on this reading, is that of whether the representation of space as a whole "can be regarded as formed from, and in that sense as having its origin in"[28] the representation of the spatial (monadic or relational) properties of the objects. It is a distinctively epistemological issue, which pertains to the *a priori* or *a posteriori* status of the representation of space. And Kant's argument can be understood precisely as establishing the apriority of that representation to the extent that, in contrast with a somehow arbitrary spatial representation formed on the basis of an empirical relational concept such as that of brightness, the representation of objects as bearing spatial relations to one another (such as outsideness or alongsideness) requires that something different from them be represented, namely parts or regions of a single

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25 This reading of Kant is cogently defended by Warren (1998) against the interpretive tendency to emphasize the anti-Leibnizian flavour of the argument (the target being, on that interpretive tendency, the Leibnizian principle of the identity of indiscernibles) and, more generally, the role of space for the individuation of objects.

26 Warren (1998: 189).

27 Such readings are defended on independent grounds by Allison (1983) and Strawson (1959: 59-86).

28 Warren (1998: 198).

all-encompassing space[29]. Space representation (perception) is a necessary condition on the representation (perception) of the spatial properties of objects, on Kant´s view, for the latter *presupposes* the former. It is on the basis of the former representation that the latter can occur. Hence the non-empirical character of the former, in contrast to any representation formed on the basis of an independently available concept of relation of *some* kind.

Now, since Wittgenstein argues in *PR* in a distinctively transcendental fashion for the independency of some space representation over and above the representation of the spatial properties of visual objects, it seems natural to understand this as an attempt to defend some "phenomenological" version of the Apriority Thesis. However, just as the former assimilation of the claim that visual space is in some sense absolute to a substantival conception of its structure was (would be) misguided, this way of understanding the significance of his arguments for epistemology is equally misguided.

It is true that Wittgenstein expresses himself in such a way that his arguments may sound like anti-sceptical ones aiming at establishing the same kind of necessity relation between two distinct epistemic capacities as that established by Kant in the Transcendental Aesthetic. Consider e.g. (iv):

> *But now let's assume that, say, we saw with our telescope only one star at a certain distance from the black edge: that this star vanishes and reappears at the same distance from the edge. In that case* we couldn't know whether *it reappears at the same place or in another*[30].

The argument runs as follows – it instantiates the same transcendental pattern as (i)-(iii) above: if it were not possible to identify positions in the visual field regardless of how the objects which occupy them stand to each other, one would not be able to do what one *is* able to do, namely to say whether an object reappeared at the same place or in another – assuming that it is the *only* object to be seen in the visual image. Were one to deny, that is, the very possibility of an absolute style of individuation of the places in the visual field, the door would be open to sceptical doubts with respect to our capacity

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29 See Warren (1998: 199-204) for the relevant contrast between the representation of a one-dimensional brightness-space formed out of the empirical concept of brightness and the representation of spatial relations among objects as involving that of places or regions occupied by these objects and from which they are distinct.

30 My emphasis.

to identify and re-identify objects in the field when no comparison with the position of other objects in the field is available[31].

A natural way to express these doubts would be to question the very epistemic capacity involved in the identification or the discrimination of visual objects, namely the capacity to identify or discriminate *places* in the visual field. However, this is not in tune with Wittgenstein's favoured way of assessing the philosophical significance of his argument as it assumes that there is a way of establishing the reality of some epistemic possibilities (in the present case, the possibility for us to know whether the visual object reappeared at the same place or in another) regardless of any logical framework – of what logic sets as genuine (epistemic) possibility. Hence the following qualification added by Wittgenstein as a piece of self-comments:

> Not only: "we couldn't know whether", but: there would be no sense in speaking in this context of the same or different places. And since in reality it has a sense, this isn't the structure of our visual field[32].

Note that the author does not deny here that his argument is somehow relevant for epistemology. For good reasons since it aims at establishing the reality of certain epistemic (cognitive) capacities involved in visual perception such as the capacity to identify places independently of the identification of objects which occupy them[33]. The qualification stems rather from the author´s worry as to which framework would be most relevant to gauge the epistemological payoffs of his transcendental argument. Plainly, Wittgenstein takes it that the most relevant framework is a logical one as the epistemological issue would not even arise if it did not make sense to speak of the same position or of different positions in the visual field *in the first place*. Logic, on his view, enjoys a kind of primacy over epistemology for it is the inescapable framework within which epistemological questions can ever be asked.

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31 The contrast between an absolute and a relational style of individuation of places in the visual field comes from Casati (1995).

32 PR: 256.

33 This is how Wittgenstein's argument is naturally understood in the literature on the epistemology of spatial deictics (see e.g. Campbell 2002; Dokic 2003). His view is often contrasted with Strawson´s thesis of the mutual dependence of the identification of places and the identification of things in Strawson (1959: 37-8).

The point comes, so it seems, straight from the *Tractatus*. It stems from the idea that there are no available answers to epistemological questions outside the framework imposed on our expressive capacities by the logic of our language – the only conceivable logic available to us to the extent that it shapes all speaking and all thinking. For instance, there is no available answer to the epistemological question as to whether we can know an object without knowing all its possibilities of occurrence in (possible) states of affairs outside of a conception of logic as what sets all possibilities and deals with every possibility at the atomic level of analysis[34].

What does not come from the *Tractatus* though and may be considered one of the novelties of PR is the idea that those possibilities, notably the possibility of knowing that a visual object reappeared at the same place or in another place in the visual field thanks to our capacity to identify places absolutely, are not set by logic across the board, but so to speak piecemeal relative to different language regions or strata[35]. This means that an investigation of the logic our language must from now on pay attention to differences among language regions for which hold different systems of rules, logic itself being broken down into different grammatical sections.

So, if I am right Wittgenstein's transcendental arguments should not be understood (like Kant's) as an attempt to establish the apriority of some spatial representations involved in visual perception, but rather as an attempt to show how our spatial concepts depart from their normal use when applied to visual perception just because they pertain to a logic altogether different from the logic that govern our ascriptions of spatial properties to physical bodies. That it makes sense, with respect to the phenomena of visual space, to speak e.g. of places, positions, and motion absolutely undoubtedly is an important clue to that intractable difference.

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34 TLP, 2.0121: "(Nothing in the province of logic can be merely possible. Logic deals with every possibility and all possibilities are its facts.)" This is key to a proper understanding of epistemological claims such as the following one: "If I am to know an object I also know all its possible occurrences in states of affairs." (TLP, 2.0123)

35 The notion of language-strata is Waismann's. It was originally introduced by Waismann (1968) on the basis of an analogy with Gauss's method for determining the curvature of a surface "from within" to sketch a new picture of language on which it is not governed – as it still is in the *Tractatus* – by a uniform truth-functional logic, but "stratified into layers" (1968: 118), each layer having its own (non truth-functional) logic or system of rules. It seems to me that the investigation of the logic of sentences pertaining to the visual data and their spatial properties in PR is a first step toward this new conception of language and logic, resulting in the emergence of the notion of grammar.

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