Farid Masrour, 'Grasping spatial properties'

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1 Phenomenality and reasoning about properties

1.1 Phenomenalism via *presentation*

Phenomenalists[1] think that 'the phenomenal character of perceptual experience'[2] is in some way explanatory of certain capacities for reasoning about certain properties (including, at least, *thinking about* those properties).

The keystone is *presentation* of a property in an experience:

PHENOMENAL ⇒ *PRESENT*

For certain properties F:

for some perceptual experience e^F, a canonical episode of seeing something F as such:

for every experience e phenomenally just like e^F:

e presents that property F (because of e's phenomenal character)

***PRESENT* ⇒ CAPACITY**

For certain rational capacities *blahblah* (including *thinking about*):

for every property F:

for every experience e which *presents* F:

e's subject has those capacities *blahblah* in regard to F and e (because e presents F)

We may grant *PRESENT* ⇒ CAPACITY (whatever it means); this locates the substance of Phenomenalism in PHENOMENAL ⇒ *PRESENT*.

[1] Beyond Masrour, these include authors cited in fn. 3.

[2] This way of talking is unintelligible and pernicious, and everyone should stop. (Compare various BH papers, including cites in fns. 6 and 9.)

. . .

OK: finding our center. —Subsequent remarks (with the exception of sec. 2.3) refrain from further protest; but are to be understood as made only 'within the fiction'—or, more accurately, in attempted conformity to the implicit conventions of proper use of the inconsistent informal calculus around this terminology.

1.2 Varieties of Phenomenalism

Presupposing Phenomenalism: which properties; and which capacities?

***PRESENT* CONCRETA** [3]

the properties include 'material qualities' (redness, sphericality, fluffiness)

***PRESENT* ABSTRACTA**

the properties include 'mathematical' spatial properties

KNOW ESSENCE

the capacities include *being in position to know, by reflecting on how F is phenomenally manifest in e, some nontrivial essential truths about F*

Grasp [4]

PRESENT ABSTRACTA + KNOW ESSENCE[5]

This last is Farid's view.

[3] The 'naive conception of hallucination': Hawthorne and Kovakovich 2006, 178. Advocates: Johnston 2004, 130 (famously); Dretske 1995, 101–2 (anticipating); cites at Pautz 2007, 502–3, as well as Pautz himself.

[4] Officially: 'abstract Grasp'; where 'concrete Grasp' := *PRESENT* CONCRETA + KNOW ESSENCE.

[5] Officially, here: KNOW ESSENCE[know := find primitively compelling].

Farid's interest in his less neutral official formulation may derive from a 'hydraulic' (Field 2009) conception of epistemology; and it apparently contributes, in turn, residual rhetorical weight to sec. 3's 'logical omniscience'-style attack on his 'Russellian' opponent (compare Stalnaker 1991, 1999*b* on resources for an 'unhydraulic' rejoinder): my remarks bypass this topic.

2 Against Phenomenalism

2.1 Against *PRESENT* CONCRETA

Consider some canonical e^{Red}: perhaps phenomenally just-alike experiences could be (i) 'hallucinatory'/'dream'; or (ii) 'inverted'; or (iii) 'twin-earthed'—each of which might occur absent its subject's capacity to think about *Red*: incompatibly with *PRESENT* CONCRETA.[6]

This may leave PHENOMENAL ⇒ *PRESENT* diminished in plausibility and interest. But it is not yet refuted: over its abandonment, Farid prefers retreat to *PRESENT* ABSTRACTA.[7]

[6] (i), (ii): Hellie 2010, 104n5; (iii) Masrour, 7.

[7] Compare also Chalmers 2006.

2.2 KNOW ESSENCE for antisolipsism?

Why?

> Denying [Grasp] threatens to generate a deeply solipsistic picture of the mind on which perception fails to put us in contact with how the world is or might be qualitatively. A subject who does not experientially gasp blueness might know that the sky is blue. But knowing that does not amount to a qualitative grasp of what it is for the sky to be blue. If we deny Grasp, the alternative would be to locate the object of this qualitative grasp in the mind. [Post-imprisonment, Black-and-White Mary newly] grasps something qualitative (or if you like, gains some new qualitative knowledge). But this qualitative grasp is directed at the self. She learns what it is like to be in a specific experiential state. She does not learn something about blueness. Accepting Grasp, in turn, enables us to locate the object of grasp outside the mind. (Masrour, 6)

The claim is that averting solipsism requires KNOW ESSENCE. That in turn presupposes PHENOMENAL ⇒ *PRESENT*, and thus *some* answer to which properties. While *PRESENT* CONCRETA might have been nice, at most *PRESENT* ABSTRACTA remains.[8]

Unfortunately, any anti-solipsistic punch from KNOW ESSENCE now contracts to a disappointingly small rump region around the 'mathematical' spatial properties: if BWM's novel qualitative grasp leaves the mind, it gets no further than 'mathematical' color (whatever that might be).

[8] Recall that Grasp = KNOW ESSENCE + *PRESENT* ABSTRACTA.

2.3 AntiPhenomenalism for antisolipsism

On the other hand, antiPhenomenalists can avoid solipsism in a less disappointing way, with a venerable 'interpretation of *givenness*' approach (IG), allied to direct realism:[9] in seeing something blue, BWM is *given* blueness; such 'qualitative grasp of what it is for the sky to be blue' (knowledge of nontrivial essential truths about blueness) as she may come about requires 'interpreting' this *given*.[10] The former does not constitute the latter, and does not even suffice for it. But for all that, the BWM intuition is at most that pre-imprisonment BWM could fail to know what blue is like—not, as the passage suggests, that *post*-imprisonment BWM could *not* fail to know this.

An attack on IG awaits within Farid's remarks recommending Grasp to direct realists:

> One needs to distinguish having knowledge of the categorical nature of a property from merely being experientially aware of the categorical nature of the property. Knowledge is an epistemic achievement but mere awareness is not an epistemic achievement. It is unclear how we can do justice to this fact if, in our view, the subject who knows the categorical nature of a property is in no better position with respect to some of the essential truths concerning that property than a subject who is merely aware of the categorical nature of that property. A mere practical ability to manipulate the color of things does not amount to knowledge of their categorical nature. (6)

[9] I like this view: Hellie 2011, 5.3. (Maybe Kant did too, which would be fine with me.)

[10] 'But which one is *phenomenal character*?' —See fn. 2.

Identifying being *given* a property with 'mere awareness of its categorical nature', we may concede that it involves no 'cognitive achievement'.

But IG survives, because much daylight remains between 'no cognitive achievement' and 'mere practical ability to manipulate'. After all, when it is blueness (rather than redness) that is *given*, this is consistent with blueness-interpretations and inconsistent with redness-interpretations. So the overall consistency of one's mental state then requires the former and prohibits the latter—significant to most epistemologists, albeit in various ways.

3 What is 'Strict Structuralism'?

3.1 Elucidating *presentation* to explain KNOW ESSENCE

Having defended Grasp, Masrour's raises this

EXPLANANDUM What is *presentation* (to the extent required for *present* ABSTRACTA), such that KNOW ESSENCE is true?

In particular, an adequate explanans would not predict the much stronger thesis KNOW ESSENCE[some := all]: this defect with 'Russellian' explanantes limits the search to 'Fregean' theories of *presentation*.[11]

The preferred Fregean theory is this

Strict Structuralism (Compare Masrour, 13)[12]

For e to *present* mathematical spatial property F (such as *triangularity*) is for there to be some mathematical theory T with a substructure U specifying a role R (the '*triangularity*-role'), such that

(SS1) F uniquely realizes that role R; and

(SS2) For some object o, e's subject (in e) experiences o as having *some property or other* realizing that role R

So *presentation* consists in a 'structural' match between reality and mind—reality, in the clause (i) 'realization' requirement; mind, in the clause (ii) 'experiencing-as' requirement.[13]

3.2 'Ramsification', roles, and realizers

The 'roles' of Strict Structuralism are 'constructed [by] the procedure [of] Ramsification' (12). Reviewing the surrounding *role–realizer* apparatus:[14]

a theory '$T(\ldots, C_i, C_{i'} \ldots)$' $\quad \ldots, i, i', \ldots \in I$[15]

a substructure '$U(\ldots, C_i, C_{i'} \ldots)$'[16]

a substitution '$\varphi(\ldots, C_i, C_{i'}, \ldots)$' $\mapsto$ '$\varphi(\ldots, X_i, X_{i'}, \ldots)$'[17]

a theory radical '$T(\ldots, X_i, X_{i'} \ldots)$'[18]

an assignment $g : Var \to$ All The Things

a realizing assignment an assgt g s.t. '$T(\ldots, X_i, X_{i'} \ldots)$' are g-true[19]

a collective role relation $\langle \lambda X_i \rangle_{i \in I}. \bigwedge T(\ldots, X_i, X_{i'}, \ldots)$

a thing-sequence $\langle o_i \rangle_{i \in I} \in$ (All The Things)^I

a realizing sequence $\langle o_i \rangle_{i \in I}$ s.t. $(\langle \lambda X_i \rangle_{i \in I}. \bigwedge T(\ldots, X_i, X_{i'}, \ldots))\langle o_i \rangle_{i \in I}$[20]

a 'C_j'-role realizer g_j or o_j, where g is a rlzg assg or $\langle o_i \rangle_{i \in I}$ is a rlzg seq

***the* 'C_j'-role realizer** if all rlzg assgs (or rlzg seqs) agree at j: *that one*

[11] Compare my fn. 5, above.

[12] The official statement suggests an understanding of 'role-realization' in a 'Ramsified' description of a property as applying to instances of the property, rather than, more conventionally (Lewis 1970*b*, 81), to the property itself: my paraphrase adjusts the official wording to restore conformity with convention. I hope that any consequent distortion of Masrour's intent is modest enough to preserve some relevance for the following remarks.

[13] 'Experiencing-as' is allied with Fregean 'modes of presentation' (Masrour, 13).

[14] Quote-marks flag 'essentially linguistic' entities. For the math here (slightly fancier than the usual), see Hindley and Seldin 2008, Font 2016.

[15] A 'filter' of the sentences of interpreted language $\mathcal{L}$: a formula algebra of signature ℓ ('$\wedge$' $\in \ell$) and containing 'constants' Con ($\{ C_i \mid i \in I \} \subseteq Con$) and 'variables' Var: I is an 'index set' of arbitrary cardinality.

[16] A *generating* subset of the theory: namely, one for which the theory is the least filter containing the substructure.

[17] A (capture-avoiding) endomorphism of $\mathcal{L}$ generated by some injection from $\{$ 'C_i' $\mid i \in I \} \subseteq Con$ to Var.

[18] The $\mapsto$-image of the theory. Analogous characterizations for *substructure*-concepts are available here and below.

The Ramsey sentence is then '$\langle \exists X_i \rangle_{i \in I} \bigwedge T(\ldots, X_i, X_{i'}, \ldots)$'. It does not, of course, define anything or characterize any role: instead it gives the 'presupposition' or 'synthetic postulate' of the theory—where the 'defining' is done by the 'Carnap sentence', namely 'Ramsey sentence $\supset$ Theory': Lewis 1970*b*, 82.

[19] Namely, *blahblah* [your favorite compositional assignment-relative-truth theory for $\mathcal{L}$].

[20] Namely, the collective role relation holds, sequentially, of the elements of the thing-sequence.

3.3 Unique realization?

On (SS1), I doubt that *the* (unique) '*squareness*'-role realizer is out there: no theory in 'pure math' singles out its constant-term realizers determinately.[21] Nor is assistance forthcoming from 'extra-theoretic' constraints:[22] *acquaintance* is dialectically out; *causality* is unavailable; *naturalness* is a platonist fond hope.[23]

[21] The strongest possible model-determinacy condition, *categoricity*, is only 'up to isomorphism'.

[22] Compare Putnam 1980, Lewis 1984.

[23] Maybe some indeterminacy is OK (Lewis 1970*a*, 228–9; Field 1973): but how much? One view called 'structuralism' (in the Benacerraf 1965 tradition) says *any amount*—but to me, its 'Fregean' credentials seem scant.

3.4 'Experiencing-as'?

On (SS2), we may canvas certain considerations bearing on the plausibility of its phenomenological predictions:

1. The *substitution* at the bottom of the role–realizer apparatus is in some sense 'syntactic':[24] in tension with the thought[25] that syntax discriminates the 'conceptual' from the 'perceptual'.[26]

2. The role–realizer apparatus forks into the *assignment* and *relation* implementations. Downstream choices pit phenomenology against geometry:

   (a) *Assignment*: here the apparatus *mentions* variables—paradigmatically linguistic entities—and appeal to the apparatus represents a mention of variables as indispensible to understanding experience-as. But (i) this promotes the above 'in *some* sense' ascription of 'syntactic' character to 'in *every reasonable* sense'; and (ii) choice of variables would then matter for the description of experience-as: to what could the predicted contrast between 'x'-mode and 'y'-mode *presentation* of triangularity possibly amount?[27]

   (b) *Relation*: here the apparatus only *uses* variables (in service of coordinating λ-binders with appropriate predicate positions), resolving the worries above.[28] But we have now extended a lambda-free geometric base theory with lambda-binding, for phenomenological purposes. Lambda (like all abstraction-forming devices) drives powerfully to inconsistency;[29] so this extension will require an off-ramp. The *typing* exit strategy would restore the accusation of 'syntacticity' (at intermediate strength). The alternative strategy of *nonclassicality*[30] would find phenomenology demanding of mathematics that it weaken its logic.

3. The role–realizer apparatus permits *holism*, with the pivotal theory-radical containing several distinct free variables. Will Masrour exploit this permission? We may map pitfalls ahead of either choice:

   (a) If *yes* (so that *presentation* of *triangularity* involves a theory-radical containing substituenda variables not only for 'triangular' but also for, say, 'line'), some way is needed to select that free variable which is 'live'. The *assignment* strategy offers a conservative option: bind all the others (perhaps with $\exists$ or with $\imath$).[31] The *relation* strategy in contrast provides an inherent order to the variables: the first lambda-binder marks the first-applied argument-position; still, calling on 'rotational' combinators to secure proper stack-order imposes further phenomenological demands.[32]

   (b) If *no* (so that the sole free variable in any theory-radical for a case of *presentation* of *triangularity* is the substituend for 'triangular'), a choice: to leave other constants in (restoring Russellianism for the unseen?); or to hope for some substructure generating the root geometric theory, containing but a single geometric constant term (perhaps artificial means can construct such a theory,[33] but for present purposes, the constant must be *nonartificial*—'triangular').

[24] Masrour's application may impose heavy cardinality demands on the needed syntax. Perhaps *presentation* of *triangularity* puts in position to know, for each natural $n > 3$, that it involves fewer sides than *n-gon-hood*; or of *twice-as-long-ness* that, for each real $x > 2$, that it it involves a smaller ratio than *x-times-as-long-ness*. Do these require theories of denumerably, or nondenumerably, infinite cardinality? If so, the joint conjunction required for the collective role relation of the *relation* strategy, or the existential quantification recommended under (3a) to the *assignment* strategy, would demand a sentence of denumerably, or nondenumerably, infinite length.

[25] Compare Fodor 2007, Burge 2018.

[26] 'Experiencing something as p does not require the concept of p' (Masrour, 13).

[27] For a possible analogue worry for the *relation* strategy, compare fn. 32.

[28] Specifically, the α rule of lambda calculus washes out difference of bound variable.

[29] Untyped lambda calculus defines a *fixpoint combinator* $\mathbf{Y}$ with $\mathbf{Y}G = G\mathbf{Y}G$ for all G: against the logical syntax of our geometric theory, this defines such entities as $L = \neg L$ (the fixpoint of $\lambda p.\neg p$) and $C = C \supset \bot$ (of $\lambda p.p \supset \bot$), which, if the geometric theory is classical, swiftly yield 'liar' and 'Curry' paradoxes.

[30] Compare Field 2008, Caie 2020: the former for a lengthy menu of ways with analogue *semantic*-format paradoxes; the latter for *abstraction*-format Curry (and an alluring addition to the menu).

[31] But this confronts the pressure in fn. 24.

[32] Or perhaps this is somehow guaranteed: if *triangularity*, *squareness*, and *pentagonality* are in a holism when any of the three is *presented*, the collective role relations invoked in seeing an differ, each automatically fronting the appropriate lambda-binder. But I wonder then about a prediction of the phenomenological impact of 'later-position' binder-order—does $\lambda X_3X_4X_5.\varphi$ contrast in wil from $\lambda X_3X_5X_4.\varphi$?

[33] Think *Sheffer stroke*.

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