

Abstract: Hossack claims that knowledge is conceptually and metaphysically fundamental. Conceptual fundamentality consists in the fact that the concept KNOWLEDGE is unanalyzable, and is available to explain other concepts, like BELIEF and WARRANT, and Hossack offers interesting suggestions about how this might be implemented in detail. Metaphysical fundamentality is less clear. One way to understand it is in terms of the “directness” or “simplicity” of the way in which a subject relates to the world in the case of knowledge-of. That’s rather difficult to see in Hossack’s picture, since he claims that knowledge-of is caused by knowledge-that, which is content-involving. This makes it unclear what the directness of knowledge-of consists in. I propose a friendly amendment: in the special case of perception, what Hossack regards as the normal mode of causation is reversed, so that knowledge-of causes knowledge-that. This helps explain the special directness and immediacy of perceptual experience: it supplies knowledge-of in the first instance, and only subsequently do cognitive processes, as opposed to purely perceptual ones, deliver perception-based knowledge-that.

Confronting facts: on Hossack’s *The Metaphysics of Knowledge*

1. The basicness of knowledge

In his dazzlingly bold and original *The Metaphysics of Knowledge* (2007), Keith Hossack suggests that whereas belief is a relation to a content, knowledge is a relation to a fact. Since facts and contents are radically different kinds of thing, so are belief and knowledge. We should not try to analyze knowledge as a supplemented version of a state that occurs in mere belief. Rather, we can use knowledge to explain various other interesting epistemological notions: warrant, rationality, content, reliability, epistemic defeat, and justification. It’s a breathtaking project, undertaken with great energy and clarity.

A central idea that shapes the book is a version of the “knowledge first” approach: a certain kind of knowledge is conceptually primitive and metaphysically fundamental. This basic kind is *knowledge-of*, which directly relates a subject to a fact, as contrasted with knowledge that something is the case, which involves a content as well as a fact. A fact is a structure of a universal and one or more particulars. Sameness of fact is just a matter of sameness of the universal and the particulars. Nothing intensional, like mode of presentation or content, is involved in knowledge-of facts.

Knowledge-that involves knowledge-of, but also involves a content: a mode of presentation of a fact. Hossack proposes the following logical form for “S knows that A”:

$$(\exists x)(\exists p)(x \text{ is a mental act} \wedge p \text{ is a fact} \wedge \text{content}(x) = \text{that-}A \wedge \text{that-}A \text{ is a mode of presentation of } p \wedge S \text{ knows of } p \text{ in virtue of } x) \quad (7 - \text{all page references in this style are to Hossack 2007}).$$

On this view, knowing *that* A is not simply being related to a fact, but is a complex state which obtains in virtue of relations to both a content, which is a mode of presentation of a fact, and also to the presented fact. Content is what makes “propositional attitudes”, like believing-that, non-extensional: the same fact may be presented in different ways, and a seeming presentation of a fact may not present a fact (as in the case of false belief). The mental act that witnesses the quantification in the displayed definition is a belief whose content is *that-A*, so knowledge-that and believing-that both involve a relation to the same *kind* of thing (a content), and may relate to the same *specific* thing of that kind (*that-A*).

In Hossack’s view, the ancient astronomers, before the familiar discovery, were aware of the fact that Hesperus is Phosphorus, for this is the fact that Hesperus is Hesperus, and logic alone acquainted them with the fact. Of course, were one to *say* that the ancients knew of the identity of Hesperus and Phosphorus, one might *implicate* the falsehood that they knew that Hesperus is Phosphorus. But this implicature is cancelable. In Hossack’s example, such a cancelation is felicitous in “Pharaoh was aware of the shining of Hesperus, though I do not imply that he was aware that it was Hesperus that was shining”. Assuming that “aware of” is the same as “knows of”, and “aware that” is the same as “knows that”, cancelation is rather harder to hear as felicitous for the case of identity. We would be disinclined to affirm “Pharaoh knew of the identity of Hesperus and Phosphorus, though I do not mean to imply that he knew that it was Hesperus that was identical with Phosphorus”. English also has the locution “ignorant of” and one might expect this to hold just when “knows-of” does not. Yet it seems hard to resist the thought that Pharaoh was ignorant of the identity; that is, did not know of it.

However, I see no need for Hossack’s position to reflect nuances of English idiom, for he has more significant fish to catch, notably the central claim that knowledge is conceptually and metaphysically more basic than belief. Conceptual basicness is straightforward, metaphysical basicness less so.

2. Conceptions of basicness

First, conceptual basicness. A natural definition is this: X is conceptually more basic than Y iff X figures in the analysis of Y but not conversely. Hossack has more than one argument aimed

at showing that the concept of knowledge is more conceptually basic than the concept of belief. One that especially struck me goes as follows. Belief is a relation to a content, and a true content is a mode of presentation of a fact. There can be different modes of presentation of the same fact, as we have just seen in the distinction between “Hesperus is Hesperus” and “Hesperus is Phosphorus”. How are modes of presentation, or more generally contents, to be individuated? Hossack suggests we should appeal to Evans’ Fregean “intuitive criterion of difference”: contents are different if it is possible rationally to believe one but not the other (4). This obtains if there is no obvious rationally correct inference from one to the other, and “an inference is rationally correct only if it is possible by its means to pass from knowledge of the premisses to knowledge of the conclusion” (5). Belief content is individuated by the intuitive criterion, which depends on the notion of rationality, and this in turn is explained in terms of knowledge. He concludes: “it looks as if belief must be explained in terms of knowledge, and not the other way round”.

Hossack throws out this provocative argument rather briefly, and there are various possible responses. Perhaps content is not to be individuated by the intuitive criterion of difference, but in some other way. For example, perhaps a content is a structure of concepts, where concepts are individuated by their origins and not by any semantic or epistemic features (as in Sainsbury and Tye 2012). Perhaps the notion of rationality is primitive, or can be explained in terms of truth and consistency rather than knowledge, a view possibly attributable to Davidson (1970). Hossack himself mentions other reasons to say that the concept of knowledge is conceptually fundamental, for example the long history of failures to provide a conceptual reduction. This is inconclusive in its nature, whereas the argument that starts with the intuitive criterion of difference, if it could be firmly established, would be conclusive.

This illustrates what conceptual fundamentality is: a relation among concepts fixed by some notion of analysis. It is harder to say what metaphysical fundamentality amounts to. Presumably it should be a relation among things that are not concepts: objects, properties or facts. The two relations would mirror one another if the following held: concept C1 is (conceptually) fundamental relative to concept C2 just if what C1 stands for is (metaphysically) fundamental relative to what C2 stands for. This would enable us to infer metaphysical

fundamentality from conceptual fundamentality. But the equivalence is implausible in both directions. Color concepts have a good claim to be (conceptually) fundamental relative to any other concepts, including concepts for wavelengths or surface reflectance profiles, since they are unanalyzable; but presumably the colors themselves are not (metaphysically) fundamental relative to wavelengths, reflectances and perhaps perceptual systems. For failure in the other direction: an elementary particle is presumably (metaphysically) fundamental relative to any non-elementary particle or object, but the concept of being elementary is (arguably) analyzable in terms of negative concepts like non-complexity or indivisibility, where these concepts are explained by their positive counterparts, as applied to non-elementary objects.

Even if we grant Hossack that knowledge is conceptually fundamental, it remains a further question whether it is metaphysically fundamental. The distinction is not salient in his work. For example, the book's main claim is at one point expressed:

Fact-knowledge is the relation that I take to be conceptually primitive and metaphysically fundamental (8).

I regard these as two independent claims.

A positive suggestion is this: X is metaphysically more fundamental than Y if there could be X-worlds which are not Y-worlds, but not Y-worlds which are not X-worlds. It's not clear that Hossack holds that all knowledge is fundamental in this sense. A crucial feature of his account is that knowledge is caused by belief, under suitable conditions. An immediate thought is that this sounds as if it makes knowledge "composite", in Williamson's sense (2006), which might appear inconsistent with being metaphysically fundamental relative to the components. Hossack denies this charge. Williamson's compositeness involves independent elements, for example an internal state like belief, and an external state, like knowledge-favorable circumstances, where the two elements are independent. By contrast, Hossack's view is that an internal state of belief, along with a suitable context, jointly cause knowledge. "Since joint causation has no simple logical analysis, we should not expect a simple analysis of how knowledge depends on intrinsic state plus context" (19).

This seems to be a claim about conceptual dependence, whereas I was hoping to find an argument for the metaphysical fundamentality of knowledge. The claim about causation,

however, appears to make knowledge non-fundamental, since it is dependent on belief. This dependence is a claim he emphasizes:

We know in virtue of believing, because in a suitable context belief causes knowledge. (259)

If, as in the earlier displayed quotation (from p. 8), knowledge-of is metaphysically fundamental one would expect it to be possible for it to obtain in the absence of knowledge-that. But it's not clear that this really is possible. Hossack certainly doubts that it is actual, though he considers that an omniscient God might have no use for belief or perception, since "he already has all the knowledge there is to be had" (267), and so might have knowledge-of without knowledge-that. But having no use for belief or perception does not ensure no knowledge-that. Omniscience would seem to require some knowledge-that. For example, God needs to know what knowledge-that his creatures possess, and *knowledge-of* the fact that *X* knows that *p* ensures *knowing-that p*. If God can hear our prayers, he needs to understand their content, which means knowing something like: they are praying to me that I will do such-and-such. It's hard to see how this could be captured in a purely knowledge-of way. It seems that, on Hossack's view, knowledge-of is possible only in situations in which there is knowledge-that, which makes knowledge-of non-fundamental in a straightforward sense.

Despite the claimed fundamentality of knowledge-of, we might wonder how we would be significantly worse off without it. On an opposed view, it's an artifact of our ascriptions of knowledge, rather than a specific kind of knowledge. We speak of knowledge-of when we wish to bracket content, and go straight to the referents of the content. But a full account of our mental operations requires specifying content. To describe someone in terms of their knowledge-of, rather than their knowledge-that, is to give a less informative account of their mental state. We say which facts they are related to by their knowledge, but fail to register how those facts are presented. If we were trying to describe the development of astronomy, it would not be helpful to say that everyone (with minimal logical acumen) always knew of the identity of Hesperus and Phosphorus. That would make it mysterious how their telescopes helped them make a discovery.

Hossack's apparent commitment to there being (perhaps only contingently) no knowledge-of without knowledge-that misses an opportunity: that of giving an account of a special feature

of perceptual experience. Without any serious damage to the overall position, perceptual experience could be characterized as a distinctive source of knowledge-of which is not caused by knowledge-that. This gives knowledge-of a special metaphysical and explanatory role.

3. Inference and immediacy in testimony and perception

Hossack argues convincingly that we should not regard perceptual knowledge and testimonial knowledge as inferential, a respect in which the phenomena are alike. But he goes further, showing sympathy for the view that there is value in a notion of the “testimony of our senses”. The point about non-inferentiality seems to me correct, and Hossack supplies at least one novel argument for the conclusion, which I’ll shortly describe. There also seems to be an opportunity to use Hossack’s apparatus to explain a deep and important difference between testimony and perception.

Neither testimony nor perception is inferential, in the sense that neither testimonial nor perceptual knowledge needs to be derived from a premise affirming the obtaining of some knowledge-favorable state of the witness or the perception. For testimony, this kind of inferential knowledge would require it to be the case not merely that the witness is reliable or knowledgeable, but that the hearer of the testimony knows this. Yet examples make it plain that we can acquire knowledge by testimony without even having to reflect on whether the witness is reliable or knowledgeable. Similarly for perception: inferential knowledge would require not merely that the conditions are favorable for perception, but that we know this. Hossack gives an ingenious argument to show that we can attain perceptual knowledge while being unable to know that our senses are reliable. Even if we lack the fine discrimination that would enable us to know that our situation is (by a hair’s breadth) one in which our senses are reliable, that they are in fact reliable is enough to permit perceptual knowledge (240-1).

Yet in at least one critical respect, testimony and perception are very different. In testimony, something does stand between us and the fact we may come to know, namely the testimony itself. We have to “read” it (in Hossack’s phrase: i.e. extract its informational content). We first have to figure out what the witness testified. Only once we have done this do

we have a chance to know, not merely that the witness testified that p, but that p. The testimony is a “veil of witnessing”.

One can agree with Hossack that perception is not inferential without agreeing that non-inferentiality is enough to make it “immediate”.

a visible fact causes one’s faculty of vision to cause a visual experience which if the context is suitable causes one immediately to know the visible fact (244).

Agreed, the process is not one of inference. But on this account the process is causal: something (a visual experience) stands between the known fact and the knowledge of the fact. In testimony, that intermediate element is the testimony itself, which is straightforwardly a mediator. In favorable cases, the testimony is caused by the fact testified to, and in turn causes knowledge of that fact in the audience. For Hossack, perception is similarly structured: something stands between the visible fact and the knowledge of it, namely, perceptual experience. This mediating causal role, linking fact to knowledge, is appropriate for testimony. But it can be doubted whether it does full justice to the nature of perception.

Hossack allows that the analogy between the two ways of gaining knowledge is not perfect, and he expresses it in a nicely turned phrase:

There is a contrast here with perception: one may already know one faces a blue cube, but vision will continue to tell one this for as long as one continues to look ...; but speakers who keep telling conversational partners what they already know are soon partnerless. (247)

True enough: perception is insistent in a way that testimony is not. Indeed, it can be insistent even when the subject knows quite well that it is illusory, as when a knowledgeable subject sees a Müller-Lyer drawing: there is no repressing perception’s insistence that the lines are unequal. But the most striking respect in which perception differs from testimony is its “here and now” quality, or “presentness”, its capacity to “disclose” or “directly present” how things are, enabling “direct confrontation” with reality. Perception is more like a window than a witness. In perception we confront the world; in testimony, just testimony. These observations, however correct, are merely metaphorical. It seems to me that Hossack’s framework can be used to move beyond metaphor to something more literal and precise.

4. The openness of perception

There are many ways of attributing perceptual experiences, but one that seems specially apt to evoke the openness we are trying to explain treats tropes as objects of experience (along, possibly, with individual objects). An example by Mark Johnston¹ can be used to support this idea. You are looking at your car's red leather in a light too dim for you to see the redness. The leather looks red to you, because some non-perceptual, but potentially reliable process (e.g. memory), "fills in" what's missing. On the basis of this perception, you might come to know that the leather is red. But it remains that you do not see the redness of the leather, because the lighting is too poor. The crucial point is the possible truth of both of these attributions:

You saw that the leather was red.

You did not see the redness of the leather.

Seeing a trope (a property instance) demands a relation to that trope which may not be required for the truth of related constructions taking sentential complements of perceptual verbs.

There are less fanciful examples of this contrast. You might see that the knapsack she was carrying was heavy, without seeing its heaviness, for heaviness is not as such visible. You might see that she was likely to cross the road, without seeing her likeliness to cross the road. There are also converse differences: you might hear the last note without hearing that it was the last note, or feel the touch of a mosquito without feeling that a mosquito was touching you.

We can apply the contrast to a case already mentioned, suggesting that the first of these could be false even when the second is true:

Pharaoh saw that Phosphorus shone at dawn yesterday

Pharaoh saw the shining of Phosphorus at dawn yesterday.

The first, using the seeing-that construction, requires Pharaoh to know that the star he saw at dawn was Phosphorus. The second, using a sentence nominalization referring to a trope, does not. The first is nonextensional, the second is extensional.² The first characterizes perception-

¹ Johnston 2006: 278. Revisiting his text, I realize my exegesis is open to question.

² "If fact-knowledge is a simple relation between a mind and a fact, then it should be possible to report fact-knowledge in a way that is referentially transparent" (8).

based knowledge, the second characterizes the perception itself. The first leaves the openness of perception a mystery; the second helps us understand what it involves.

Words for tropes sometimes figure in what Hossack calls “sentence nominalizations”:

if A is the sentence ‘ a is F at t' , then its nominalization A^* will be ‘the F -ness of a at t' or ‘ a ’s being F at t' whenever we have ‘ S knows that A ’ we shall also have ‘ S knows of A^* ’, where A^* is the nominalization of A . (8–9)

This seems to be in conflict with Johnston’s claim. “The redness of the leather” is a nominalization of “the leather is red”. So the inference pattern in the displayed quotation licenses the inference from “You saw that the leather is red” to “You saw the redness of the leather”. But I am persuaded that this is the wrong verdict. I think Hossack could abandon the inferential principle just displayed without any damage to the overall picture. Then he could use the contrast between knowledge-of and knowledge-that to help explain the distinctive features of perception.

“Sees that p ” entails “knows that p ”, so it can be regarded as a determinate of the determinable knowledge-that. Perceiving a trope entails gaining knowledge-of that trope, but does not ensure any specific knowledge-that. Attributions of seeing tropes are extensional, like attributions of knowledge-of. These connections between perceptual verbs and knowledge verbs allows us to use essentially Hossack’s apparatus:

to perceive is to gain knowledge-of by means of the senses.

Perceiving may result in knowledge-that, if a cognitive process initiated by the knowledge-of selects one of possibly many ways of conceptualizing that input to deliver knowledge-that. This is not an inferential process, for inference requires knowledge of premises, which is knowledge-that; and this process starts just with knowledge-of. No trope-related *premise* need be known by the subject, even if a trope is known. The initial input states are properly described extensionally, the output states are only adequately described non-extensionally.

Although perception and testimony are similar in not requiring inference, they differ in how the knowledge-of/knowledge-that contrast applies. Testimony’s starting point is knowledge-that or belief-that, and this may lead to knowledge-of. Perception’s starting point is knowledge-of, and this may lead to knowledge-that.

The proposal is that the openness of perception should be explained in terms of its taking tropes as among its objects, generating extensional, and in this sense “direct”, knowledge-of. What is normally referred to as perceptual knowledge, knowledge-that, is a conceptualized product of this knowledge-of. The notion of “openness” with which we began, and allied notions like “directness”, “disclosure”, “presentness”, “here-and-nowness” are largely metaphorical. The present claim is that we can use knowledge-of to supply a more literal basis for them.

We can start by seeing if the Hossackian picture I have proposed can explain some more literally expressed contrasts between perception and testimony:

(i) Perceptual information is limited to the here-and-now: it can deliver knowledge-of only of what is currently perceptible. By contrast, there are no limits to the kind of information testimony can supply, or to what time the testimony relates.

(ii) Perception has a vividness that testimony can never attain. That’s because it’s knowledge-of, unmediated by the concepts involved in knowledge-that.

(iii) Perception is typically much richer than testimony. You cannot begin to describe what you see in full detail: your testimony relating to an experience would greatly underdescribe what you experienced. That’s because knowledge-of is independent of the conceptual resources or conceptual deployment needed for knowledge-that.

To amplify the last point: if there is motion in the scene, it will normally be much too fast for you to deliver descriptions rapidly enough to keep up. Your color and shape vocabularies are inadequate to do justice to the visual scene. “Green” is hardly specific enough, and suggests a uniformity that is rare in nature. “Leaf-shaped” is manifestly inadequate since leaves come in a huge variety of different shapes. This is perhaps why philosophers try to keep to absurdly simplified examples, like seeing a bulgy red tomato, or a blue cube. But our knowledge-of tropes, we learn from perception, is not constrained in these ways; which also explains how creatures for whom testimony is unavailable may be acute perceivers.

(iv) Perception has a coercive quality that testimony lacks. With our eyes open, we cannot help seeing. With our ears uncovered, we cannot help hearing. We see and hear the world itself, not just testaments about it. We can ignore a testimony we know to be a lie. We hear the

words but have no inclination to believe them. An experience we know to be illusory, like the apparently moving scrolling messages on some public notice boards, is different. We have to engage in active resistance in order to avoid forming the corresponding belief. It's hard not to see the letters as really moving, even when we know the effect is produced by the successive illumination of stationary bulbs. A partial explanation is that our concepts are sometimes under voluntary control: we have some choice about which concepts to exercise. Our confrontation with tropes is not in the same way under our control: if we are normally sighted, and our eyes are open, we cannot but see what is before us.

These explanations compare favorably with another familiar explanatory proposal: in perception, the objects or scene perceived are said to be "constitutive" of the experience. This does not give us any insight into the window-like character, or openness, of perception. If anything is constitutive of experience, its subject is, but even if subjects are always aware of themselves in perception (which seems doubtful) their awareness of themselves is completely unlike their awareness of the perceived scene. Contrast with a summary of the Hossackian position I am proposing: perception's openness consists in being knowledge-of, the feature that makes it capable of being reported extensionally, independently of concepts.

Consider the following three sources of empirical knowledge: (i) perception; (ii) explanations, predictions and theories based on what is perceived (as in empirical science); and (iii) testimony. For the second two categories, knowing-that or believing-that precedes knowledge-of. Perception is distinctive because in that case knowledge-of comes first, and knowledge-that is derived from it. Perception is open: it delivers in the first instance knowledge-of; and this in turn often produces, but is not mediated by, knowledge-that or belief-that.

5. Hallucination

In hallucination, nothing is perceived, so the experience provides no knowledge-of tropes. We can make sense of a "perfect" hallucination, an experience in which nothing available to consciousness marks it as a hallucination. A perfect hallucination has the same phenomenology as a possible veridical experience. Hence, it seems, the shared phenomenology cannot be

“explained” in terms of “knowledge-of”; moreover, knowledge-of cannot correctly identify the phenomenology in the veridical case, since it would be incapable of revealing that case as one whose phenomenology is also available in hallucination.

This is a familiar form of objection, one that has led to so-called “disjunctivist” approaches; and that is the kind of approach that seems natural in the present context. As an initial response, explanations do not always need to supply necessary conditions: the window broke because a brick was thrown at it, providing (a salient part of) a sufficient condition but not a necessary one; she succeeded in voting because she mailed in a ballot paper on time (though she could also have voted in person). A necessary condition may be a disjunction of sufficient conditions.

Knowledge-of provides an illuminating sufficient condition for perceptual phenomenology in veridical cases. This is not undermined by the fact that the same phenomenology may arise in a different way. There is also a closer connection between the cases: in perfect hallucination, it *seems to the subject as if* she has knowledge-of. So knowledge-of does in the end contribute to the explanation of the phenomenology in both cases: in veridical cases, its presence suffices for the openness of perception; in hallucinatory cases, the seeming openness consists in our seeming to have knowledge-of.³

This last point can be made stronger by the observation that both hallucinatory and veridical experiences are produced by a system whose teleological function is to produce veridical ones: a perceptual system is a heritable capacity that supplies knowledge-of an organism’s environment often enough to promote the organism’s survival. This explains why creatures endowed with perceptual abilities came to outperform those lacking the abilities, thus ensuring the survival of the ability over generations. Hallucinatory experiences resemble veridical ones in being defective products of the same system.⁴ Unlike knowledge-that, perceptual knowledge-of does not require the exercise of concepts, and so is available to creatures who lack them.

³ A full account would also discuss illusion. That would require a careful account of what illusion is, saying enough to determine whether seemingly converging railroad tracks, tilted coins and so on should properly be counted as sources of illusions.

⁴ Compare Johnston 2004: 151: “Hallucination is a degenerate state, a failure of the visual system to function properly”.

What is supposed to happen does happen in successful cases, but not in unsuccessful ones. This is just what one should expect, for one would not expect phenomenology as such to have an externalist feature⁵ like necessarily involving knowledge-of. To summarize in a distinctively disjunctivist way, highlighting the role of knowledge-of:

to perceive, or to seem to perceive, is to be in a state produced by a system whose function is to enable subjects who possess it to acquire knowledge-of the subject's environment.

We are intuitively inclined to describe perception in metaphorical terms: it is *direct, open, here-and-now, disclosive, immediate, vivid, rich, and coercive*. It is not that the ascriptions are incorrect, but that they are merely metaphorical and not deeply informative. The Hossackian position changes that. Instead of these unclear ascriptions it makes central use of a clear, non-metaphorical and revealing notion: acquiring knowledge-of the world by means of the senses.

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⁵ Though for other kinds of externalist features (notably historical ones) this expectation has been claimed by many to be erroneous. See for example Lycan 2001, Tye 2009: §8.6.