Few of Sellars’ views are as challenging to interpret and evaluate as those about sense impressions and their distinguishing mental qualities.

I’ll take up some of his views about those matters, and also urge some adjustments of his view—knowing he would not wholly approve of what I’ll suggest.

But I believe that where I’ll depart from him, my departure is not only defensible, but also in the spirit of much though not all of what he held about those issues.
Since Galileo proclaimed that the book of nature “is written in the language of mathematics,” philosophers have been struggling to make our commonsense picture of reality fit with the dictates of science. Thus Sellars’ effort in all his discussions of sense impressions to fuse the manifest and scientific images.

Much of what Sellars says about these topics is, I believe, important and correct. But I’ll urge that his view also embodied a mistaken strand—though happily one we can readily detach from the rest. And I’ll sketch how things look once we do detach that strand.

OVERVIEW

I. Relocation and Consciousness
II. Quality-Space Theory
III. Grain and Analogy
I. Relocation and Consciousness

Galileo’s dictum casts apparent doubt on the nonmental reality of proper sensibles such as color and sound, since such properties appear to resist being “written in the language of mathematics.” How might the red an apple seems to us to have succumb to scientific treatment?

The usual move is to relocate the manifest redness to the mind leaving behind mere reflectance properties, and they do readily lend themselves to scientific formulation. Similarly for the other proper sensibles.

Such relocation isn’t free. One cost has to do with such spatial properties as shape, size, and location. We see the sizes, shapes, and locations of objects by seeing boundaries among colors (cf. “SRII,” 356; “Phenomenalism,” 75n., citing Berkeley).

So the properties of states that represent visible (not, e.g., tactile) shape and size are inseparable from those that represent color. But whatever the temptation to relocate colors and other proper sensibles, there’s none to relocate spatial properties. That’s a puzzle if the two types of property are inseparable in sensing: If we relocate colors, must we not also relocate their boundaries? I’ll return to this in §§II-III.
Another cost of relocation is that whatever seems problematic about manifest physical color will then show up in the mind. On Sellars’ view, that’s ultimate homogeneity.

Sellars adopts the relocation move, though in an unusually subtle way. Still, that move has a consequence that has not generally been noted.

The proper sensibles resist mathematical treatment only as we are aware of them. Sellars’ pink ice cube “presents itself to us as—we are aware of it as—over there” (Carus III 15; quoted emphasis is always Sellars’ own).

And it’s only as we are aware of it that its manifest pinkness resists the treatment we can give to wavelengths and molecules.

Here’s the unnoticed consequence: When we think of the manifest pinkness of the ice cube, we’re thinking of a property as we’re aware of it, not as it is in itself.

So if we relocate manifest physical pink to the mind, we’ll also conceive of that relocated property as we’re aware of it. Moreover, a sense impression that we’re aware of is a conscious state. So conceiving of sense impressions on the relocation picture automatically results in conceiving of those states as conscious.

Sellars wouldn’t contest this: “The esse of cubes of pink is ... sentiri” (Carus III 66)—whether as manifest physical cubes of pink or as sensing states of ourselves.
Sellars sees this relocation as simply a “recategoriz[ing]” of the physical cubical volumes of pink that we see “as sensory states of the perceiver” (Carus III 44; cf. 47). We come to think about sense impressions of pink cubes by thinking about volumes of pink we seem to see out there as instead being states of our perceiving selves. This has implications for mental qualities—and so for Sellars’ grain argument.

I’ll argue that the better path is simply to accept that not all sensations of color are conscious: We see color both consciously and nonconsciously. We may then need not see color terms as mass nouns for color “stuff” (Carus I 47; 46, 62).

Does the relocation picture require that we conceive of the manifest physical property as we’re aware of it? Mightn’t we relocate that manifest property independently of how we’re aware of it? Then we wouldn’t need to conceive of the relocated mental qualities as conscious.

No. The physical property we relocate is problematic for the particulate natures of the scientific image—and so mathematical treatment—only insofar as that property is manifest, i.e., only as we’re aware of it. There’s nothing about these properties in themselves—i.e., independent of how they are present to conscious perceiving—that requires relocation to the mind.
Conceiving of mental qualities as relocated physical properties results in seeing those mental qualities as \textit{intrinsically} conscious.

But if a mental quality is conscious, one has first-person access to it. So if being conscious is intrinsic to mental qualities, it's also \textit{intrinsic} to them that we have \textit{first-person access to them}.

Third-person access to such states is of course not intrinsic. So if first-person access is intrinsic, it will \textit{trump any third-person access}.

We then can't block allegedly pretheoretic intuitions about the inversion or absence of mental qualities—and hence the so-called explanatory gap and "hard problem."

There are also implications for \textit{the Given}: A state's being conscious means having subjective access to that state.

But conceiving of the mental qualities \textit{as} relocated versions of perceptible properties \textit{as we're consciously aware of them} results in seeing mental qualities as intrinsically—i.e., \textit{directly}—accessible. And direct accessibility would be \textit{in respect of specific qualities}—so they'd be \textit{Given}.

Sellars has an ingenious way to avoid this standard conclusion:

First-person access to sense impressions relies on concepts that "are analogical extensions of concepts pertaining to the public or intersubjective world" ("BBK," p. 48).
Thus the subtlety of Sellars’ relocation story. “[V]isual impressions are prior in the order of being to concepts pertaining to physical color,” since manifest physical colors are projections of mental qualities. That’s the **ontological relocation** of manifest physical colors to the mind.

But our **concepts** of **physical** colors “are prior in the order of knowing to concepts pertaining to visual impressions” ("SRII," 357). And that’s the rejection of the Given, since **concepts** of color sense impressions rest on **concepts** of manifest physical colors.

Distinguishing **ontological** from **conceptual** priority does thereby avoid the Given—but **not intrinsic consciousness**.

Seeing physical colors as projected from mental qualities means that we’ve relocated those manifest physical colors to the mind.

The only reason to do so is that manifest physical colors **as we’re aware of them** resist the scientific image.

Since we start by conceiving of manifest physical colors **as we’re aware of them**, we’ll also conceive of sense impressions as we’re aware of them. Conceiving of sense impressions in terms borrowed from concepts for manifest physical colors doesn’t avoid that. So we’ll conceive of sense impressions as being automatically conscious—and being conscious as **intrinsic to their nature**.
On any relocation picture, Sellars’ included, sensations likely must be conscious. But did Sellars himself draw that conclusion?

He never mentions subliminal cases—and “[t]he esse of cubes of pink is ... sentiri.” He does say there’s no contradiction in states of consciousness that aren’t noticed or apperceived (SM I §24). But that may well mean only that sensations, though always conscious, need not be introspected.

One can be aware of something but not its categorial status (Carus I, 44). So we could be always aware of sensations—resulting in their being always conscious—but not aware of them in respect of their being sensory states of oneself (Carus I 153).

Would being aware of what are in reality sensations of color—but being aware of them as manifest physical colors—result in those sensations’ being conscious?

One might think not. One wouldn’t then be aware of oneself as having a sensation. But being aware of something as a colored physical object in front of one is, according to Sellars, being aware of something that is in reality a sensation of a volume of color, which one wrongly conceptualizes as a colored physical object. One would be aware of a sensation, though not as such, which would be conscious. That would help explain Sellars’ apparent view that sensations are invariably conscious.
Sellars’ goal was to explain “how we could have arrived at th[e] idea” of states with the explanatory power sense impressions must have (“EPM,” §60, p. 190). The danger was that this might require conceiving of sense impressions as Given. His solution is that we conceive of them using concepts derived from our concepts for, e.g., manifest physical colors. But as long as we conceive of them as relocated from those manifest colors, we’ll see them as intrinsically conscious—since relocation is motivated by conceiving of manifest colors as we’re aware of them.

It’s useful to compare Sellars’ account of our first-person access to intentional states. After Jones teaches his contemporaries to posit intentional states, “it now turns out—need it have?—that [they] can be trained to give reasonably reliable self-descriptions, using the language of the theory, without having to observe [their] overt behavior. … What began as a language with a purely theoretical use has gained a [first-person] reporting role” (“EPM,” §59, p. 189). Such subjectively noninferential access to one’s own thoughts results in their being conscious, since subjectively noninferential reportability is the accepted commonsense standard of a state’s being conscious. Need it have turned out that we come such access? There are reasons to think so.
Jones’s contemporaries posit thoughts in their own case as well as others’, and in time gain facility in such self-ascribing.

So they come to be disposed to say ‘I think it’s raining’ whenever they’re disposed to say ‘It’s raining’. They come to be—like us—pretty much equally likely to use one type of location as to use the other.

This is not something built in. It’s just that applying Jones’s theory to oneself comes to be automatic and second nature. Jones’s contemporaries—like us—need just to be able to become habituated to apply his theory to themselves in a way that does not subjectively rely on any inference or self-observation (Rosenthal, CM, 301-305).

Sellars gives a parallel story for sense impressions (“EPM”, pp. 194-5, §62). Jones’s theory recategorizes manifest red; so training is needed to report colors thus recast as mental qualities.

But if the esse of sense impressions is sentiri, why is training needed for one to be able to report such states?

Sellars would reply that pre-Jonesians don’t yet have the concepts needed to report their sense impressions—as sense impressions. So Sellars can have sense impressions be always conscious—though not as such. For pre-Jonesians, they’re conscious only as manifest perceptible properties.
II. Quality-Space Theory

- Our concept of visual impressions derives from concepts for perceptible objects: “The essential feature of the analogy is that visual impressions ... resemble[e] and [differ] ... [in ways] structurally similar to the ways in which the colours and shapes of visible objects resemble and differ” (“EPM,” §61, p. 193).

- Such similarities and differences underwrite the way our concepts for sense impressions derive from those for perceptible objects. But we can rely on *discrimination that isn’t conscious*, rather than conscious perceiving.

- Consider colors. Building on a person’s reports of whether two hues match or are just noticeably different (JND), we can construct a quality space of colors that reflects the similarities and differences among all hues, for that person.

- Averaging over people, we get a quality space like this (CIE 1931):

- And people can reliably guess about matching or INDs *even when they do not see stimuli consciously*—because, e.g., the stimulus is masked experimentally or otherwise degraded.
Nonconscious discrimination of perceptible properties is experimentally demonstrable.

Guessing about stimuli seen nonconsciously due to masking and other techniques is highly accurate (>80%), and nonconscious seeing primes subsequent psychological reactions. Also, confidence in one’s guess decreases far more rapidly than accuracy as the stimulus is degraded.

So we can conceive of sense impressions—and the mental qualities in virtue of which they resemble and differ—not by analogy with perceptible properties as we are consciously aware of them, but rather as we can discriminate among them, whether consciously or not.

Sense impressions are states in virtue of which we are able to discriminate among perceptible properties, such as colors. So every difference we can discriminate between two perceptible properties requires states that differ in that way.

So the same quality space that reflects the differences among properties perceptible by us fixes the sense impressions by virtue of which we can make those perceptual discriminations.

Sense impressions, as Sellars urged, do “resembl[e] and [differ] ... [in ways] structurally similar to the ways in which the [perceptible properties of perceptible] objects resemble and differ” (“EPM,” §61).
This captures how concepts of sensations derive from those of perceptible objects.

How about the other half—the *ontological dependence* Sellars sees of manifest colors, e.g., on sense impressions of color? Do we “project or transpose the attributes of sense impressions [of color] into the categorial framework of physical things and processes” (“SRII,” P. 357)?

We must adopt that relocation picture only if colors resist scientific treatment, and they'll do so only if we conceive of them as *consciously* perceived. So if the analogy for rests on discrimination that needn’t be conscious, *physical colors need not be projections from sense impressions*.

Since colors and sounds *as nonconsciously perceived* don’t resist the mathematical treatment of the scientific image, we’ll have no reason to see them as relocated to the mental realm.

As we *nonconsciously* discriminate among them, they’re simply wave phenomena to which we respond differentially. And though we categorize them by appeal to our discriminative abilities, *they are real independent of being so discriminated*.

Once we no longer conceive of colors and sounds only as we are consciously aware of them, they are no more problematic for the scientific image than any other physical properties. We can be *color realists*. 
Perceptible colors in the scientific image would be spectral-reflectance profiles. But for purposes of conceiving of sensations by analogy with perceptible properties, we want to *stay in the manifest image*, which knows nothing about spectral reflectances.

So the manifest image identifies colors—*independent of how we’re consciously aware of them*—with whatever properties of visible objects allow us to discriminate them in respect of color. A manifest-image account of what colors are *in themselves* must be schematic in that way.

But that does fix the manifest-image colors as they are in themselves, independent of our being consciously aware of them.

So we can conceive of sensations by an analogical extension from concepts for properties we can sense—understanding the sensing to be not always conscious.

And since the relevant sensing needn’t be conscious—dispelling a need to relocate perceptible properties such as color—we also won’t see sense impressions as relocated versions of properties *as we consciously perceive them*. Sensations will sometimes occur without being conscious.

Concepts of sensations can derive by analogy from concepts for perceptible properties, but sensations themselves *need not be recategorized or relocated versions of perceptible properties.*
Sellars does insist that “sense impressions ... are common sense theoretical constructs introduced to explain the occurrence not of white rat type discriminative behavior, but rather of perceptual propositional attitudes ... ”

So these commonsense posits are “bound up with the explanation of why human language contains ... words for perceptible qualities and relations” (“Identity Approach,” ¶48).

But the appeal is to *actual discrimination*, not mere discriminative behavior. And perceptual propositional attitudes can be nonconscious no less than sensations. So we need not be *consciously* aware of the relevant perceptible properties.

Has something been lost? What about the way physical colors appear to us when we *do* perceive them consciously? How do we account for those *conscious seeming*? 

Perceptual sensations aren’t intrinsically conscious; so they won’t always result in conscious subjectivity. Such sensations are subjectively present for us only when they are conscious. But if sense impressions aren’t intrinsically conscious, what explains their *sometimes* being conscious? What is it that does result in those conscious seemings?

No state—whether an intentional state or a sense impression—is conscious *if one is wholly unaware of it*.
So a state is conscious only if one is aware of it—only if one has some higher-order awareness (HOA) of that state.

Indeed, that’s the upshot of Sellars’ “need it have?” remark in “EPM” (§59):

It turns out—need it have?—that Jones’s contemporaries can be trained to report their own intentional states. But reports—like all speech acts—express intentional states with the same content as the reports (e.g., “Notes on Intentionality”).

So reporting one’s thoughts requires one to have thoughts about those thoughts—higher-order thoughts (HOTs).

The HOAs in virtue of which we’re aware of our conscious thoughts are HOTs.

As noted, Sellars gives roughly the same account for sensations.

Indeed, without such a story he couldn’t claim that being aware of sensations as sensations requires Jones’s new concepts.

But sensing is sometimes nonconscious; they won’t ever be conscious without some HOA of them.

Still, can HOTs—purely intentional states—give rise by themselves to the conscious “lighted up” character of our conscious sense impressions?

Yes. Strikingly, simply learning new words for one’s sensations does sometimes—as in wine tasting—result in subjectively more fine-grained qualitative experiences.
The new words typically have no prior semantic associations—as with, e.g., ‘tannin’ for the new taste of a wine.

But how can simply learning new words for our sensations result in one’s having a new type of subjective awareness of them?

Learning new words enables us to have new thoughts—in this case new thoughts about our sensations, i.e., HOTs. And new HOTs make one aware of one’s sensations in new ways. HOTs do make a difference in what it’s like for one.

So HOTs must also result in there being anything at all that it’s like for one. They make the difference between sensations being subjectively conscious and not.

Where does all this leave us with sense impressions, manifest perceptible properties, and relocation?

Sellars holds that our concepts of sense impressions of color derive from concepts for manifest-image perceptible colors. The physical perceptible colors, however, are projections from conscious color sensations. Banned from the physical realm, color is relocated as sense impressions of color.

But if we understand perceptible colors in respect of nonconscious discrimination—and so as lacking the character they appear to have in conscious perceiving—there’s no need to relocate.
We can still explain manifest seemings—
but not by appeal to the intrinsic nature
of sensations, but rather to **the way we’re subjectively aware of our sensations**.

The **spatial aspect** of sensing—sensing
size, shape, and location—also allows treatment in terms of quality spaces.

A sensation of a red triangle exhibits a
mental quality of color that resembles and
differs from other such qualities in ways
that parallel the discriminable similarities
and differences that physical redness has
from other physical colors.

And we can also give just such an account
for the **triangular aspect** of a sensation of
a red triangle.

The mental qualities of shape, size, and
location resemble and differ from other
mental qualities in their families in ways
structurally parallel to the **discriminable similarities and differences among the relevant physical spatial properties**.

In both cases the perceptible properties
are fixed by **relative discriminability**.

So we have a uniform treatment of mental
colors and the mental spatial properties we
visually access as boundaries among
mental colors.

We’ll conceive of both by analogy with
relevant similarities and differences—
with no more need to relocate physical
colors than with visible spatial properties.
As already noted, Sellars stresses that the geometrical and content properties of perceptible objects must go together ("SRII," PP, 356; “Phenomenalism,” 75n.).

That's of a piece with his insistence that sensations are modeled on perceptible physical objects—the wafers of “EPM” (pp. 192-3), since their size, shape, and location are visible as color boundaries.

That's all in the manifest image. But the uniform treatment of mental colors and of mental spatial qualities of vision would allow them to remain together even were we to move to the scientific image. And having an account of spatial properties will help as we turn to the grain problem.

A few quick points. Mental qualities do represent—not as intentional states do, but by tracking corresponding perceptible properties. And they do that by reflecting one’s ability to discriminate a particular perceptible property from its nearby neighbors.

Mental qualities thereby connect with the intentional content of perceiving, since that content is about the objects that the qualities represent.

And though mental qualities are not holist in the way concepts are, there is a limited holism: Mental red, e.g., is the property with the right set of similarities to and differences from other mental colors.
Jones plainly relied on colors as they appear to us; so on his theory sensations will always be conscious. But we can adjust his view of colors and sensations to accommodate physical colors as they are in themselves and sensations independent of being conscious.

Nonconscious discrimination is responsive to colors themselves, whereas conscious visual sensations reveal how they appear.

So in Sellars’ spirit we can say that in the order of knowing conscious sensations and colors as they appear are primary—but that nonconscious sensations and colors independent of how they appear are primary in the order of being.

Can the manifest image accommodate sensations that aren’t conscious? The manifest image, “by stipulation [!], ... does not include ... the postulation of imperceptible entities ... to explain the behaviour of perceptible things” (“PSIM,” 7).

Sensations aren’t perceptible, nor are they entities, strictly speaking. They also aren’t posited to explain perceptible things. Still, this stipulation about the manifest image might lead Sellars to rule out sensations we’re wholly aware of—despite ample evidence available to him for the occurrence of sensing that’s subliminal.

And this wouldn’t apply to thoughts, which are modeled on speech acts, not objects.
Still, Sellars acknowledged that intentional states often occur without being conscious, though he seldom used ‘conscious’ to apply to mental states, as against applying it to creatures.

Why, then, his resistance to qualitative states’ occurring without being conscious—given that intentional states can and do?

The pre-Jonesean concept of states that are actually sensations is the concept of a perceptible property—as we’re aware of it. But since, Sellars holds, those properties are projections of states of ourselves, in being aware of those properties we are in reality aware of states of ourselves—though not as states of ourselves.

III. Grain and Analogy

There have long been exegetical questions about Sellars’ grain problem—often tied to other issues of Sellars interpretation. I’ll take for granted a relatively standard version, which Sellars sees as “essentially the same” as Eddington’s two-table puzzle (“PSIM,” SPR, p. 36/¶102).

And I’ll argue that the problem is met by adjusting Sellars’ appeal to quality spaces—to qualitative similarities and differences—so as to accommodate sensations and mental qualities that fail to be conscious.
In “Philosophy and the Scientific Image of Man,” Sellars asks: “[C]an we define, in the framework of neurophysiology, states which are sufficiently analogous in their intrinsic nature to sensations to make ... identification possible?” (SPR, p. 35/¶99).

The answer,” he continues, “seems clearly to be ‘no’”—because of the ultimate homogeneity of “the perceptible qualities of things” (p. 35/¶100), which neural systems lack. (Cf. “Identity Approach,” PPME 179, ¶45.)

“[C]olour expanses in the manifest world consist of regions which are themselves colour expanses”—however tiny (p. 35/¶100). Can we reconcile manifest-image ultimate homogeneity with the scientific image?

A property is manifest if one is aware of it. Still, the properties of the manifest image may not be in themselves as we are aware of them (Benham’s disk and Fechner colors).

Things in the manifest image have natures independent of being perceived—consciously or not. Appearance differs from reality within the manifest image—and so nonconscious discrimination of perceptible properties may mislead less than conscious perceiving.

So the appearance of perceptible colors as being ultimately homogeneous (“dissective”—Goodman 1951), does not by itself establish that those properties really are in themselves ultimately homogeneous.
Sellars’ use of quality spaces—similarities and differences—to fix the perceptible properties appeals to conscious perceiving. So it restricts us to perceptible properties as those properties appear to us in conscious perceiving.

But we can accommodate perceiving that isn’t conscious by appeal to quality spaces built from discriminative ability—matching or JNDs. Since discrimination needn’t be conscious, we’re no longer confined to perceptible properties as they consciously appear.

So we’d need an additional reason to credit the appearance that perceptible properties are ultimately homogeneous.

When an object of the manifest image appears to have a color it doesn’t actually have, we can explain that illusion—in terms suitable to the manifest image.

That’s a reasonable way to test whether a particular case of distinguishing reality from appearance lies within the manifest image—or is instead a contrast of the manifest with the scientific image.

And we can explain, in terms distinctive to the manifest image, why perceptible colors—and corresponding mental qualities of color—would appear to be ultimately homogeneous, even if they aren’t that way independent of how they appear subjectively.
An expanse is ultimately homogeneous if every part, however small, exhibits the color of the whole expanse.

We conceive of an expanse of perceptible color and mental color qualities in terms of position in a quality space—in terms of how similar the perceptible or mental color is to neighboring properties in its quality space.

Indeed, we conceive of perceptible and mental colors exclusively in such quality-space terms. And since there are also mental qualities of size and shape, there’s no problem about how we conceive of a mental expanse of a mental quality of color—or its mental parts.

A sensation of a red triangle has a mental quality of red, and also a mental quality of an expanse with triangular borders.

Mental red occurs in a mental triangular expanse when it occurs in a way that resembles and differs from other mental expanses in ways that parallel the ways a visible triangular expanse resembles and differs from other visible expanses.

But the mental red itself is solely a matter of relative position in a quality space of mental color qualities. So any mental part of that mental expanse will also appear to have a mental color that’s solely a matter of relative position in a quality space of mental color qualities.
Every mental part of a mental expanse of mental red will seem to exhibit mental red.

One might object: If we use location in a quality space to fix mental qualities, that location fixes not only their appearance, but their intrinsic reality as well. With "sensations," Sellars claims, "the analogy concerns the quality itself"—the "intrinsic character [of] sensations" ("PSIM," p. 35/199).

Since mental qualities are manifest-image posits, perhaps their intrinsic nature is fixed by the analogy that underwrites the posit. With thoughts, the analogy fixes only their roles—"leav[ing] open ... their intrinsic character (199). But the sensations analogy, Sellars insists, fixes their intrinsic nature.

Thoughts are fixed by their conceptual roles—conceived in relational terms. But location in a quality space is no less relational: It's how much a particular perceptible or mental color, e.g., resembles or differs from others in its family.

So it's unclear why an analogy built on that relative location fixes intrinsic nature more than an analogy based on conceptual role. Why would Sellars regard mental qualities as fixed in respect of intrinsic natures?

Presumably because of consciousness: It's tempting to see both mental qualities and perceptible properties as subjectively presenting themselves to us as they actually are intrinsically.
If we relied *just* on how mental qualities subjectively present themselves, we might see the subjective appearances as fixing their intrinsic natures.

But that would hold *only insofar as the mental qualities are conscious.* In themselves they’re fixed by location in a quality space—relatively, not intrinsically.

And the temptation to see consciousness as fixing the intrinsic natures of sensations is in any case mistaken: The HOAs in virtue of which sensations are sometimes conscious represent them in terms of their mental qualities—and so *in terms of those qualities’ relative location in a quality space.*

Indeed, it’s clear even *subjectively* that consciousness represents mental qualities in *relative* terms. Thus we consciously distinguish hues more finely when other hues nearby in the quality space are consciously available for comparison.

Conceiving of mental qualities on analogy with the discriminable similarities and differences among perceptible properties *does not appeal to the intrinsic nature of either type of property.*

So the quality-space model, independent of consciousness, explains why sensations *appear* to be ultimately homogeneous—and also leaves it open that, in themselves, they are *not* ultimately homogeneous.
Thank you for your attention