

The Dis-Unity of Humean Space

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My aim in this paper is to explore some metaphysical and psychological implications of the (contentious) idealist interpretation of the belief in external objects (“bodies”) Hume ascribes to us in the *Treatise*. More specifically, I will argue that the interpretation commits Hume to the claim that space is spatially fragmented, both synchronically and (even more so) diachronically, and renders Hume incapable of allowing for all the spatial thoughts we think we can have. But (perhaps surprisingly) it does not impugn Hume’s view of causation.

The idealist interpretation of Hume is defended, *inter alia*, by Laird (1932, 150), Cook (1968), Bennett (1971, 321, 349), Penelhum (1975, 64), Stroud (1977, 111), Fogelin (1985, 67), Dicker (1998, chap. 5), Noonan (1999, 164), Wilson (2008) and Weintraub (2011). Here, I only explain it.

The term “idealism” is usually used to denote an *ontological* thesis, denying the existence of anything but perceptions (and minds, according to some idealists, Berkeley, for instance). The thesis I impute to Hume, by contrast, is *semantic*: it concerns the *reference* of the words “tree,” “table,” etc. So to avoid confusion, I will use the term “semantic idealism” to denote the view I am imputing to Hume, and whose implications I will discuss. The two theses (the ontological and the semantic) are logically independent. We might be capable of thinking about (even believing in the existence of) material bodies even if there aren’t any. This is an “error theory” about body-terms.¹ Conversely, even if material objects exist, there may be no words in our language denoting them. Of course, it is awkward to state this, because if there are no relevant words, what is it we are supposing to exist? But the difficulty is only apparent. Even if there are no terms in our language denoting (putative) material objects, it is possible to say in it that not everything is a perception.

The distinction between the two versions of idealism is important in the present context. Only the semantic version can plausibly be thought to im-

¹ I borrow the term from Mackie (1977), who claims that our moral terms (“good,” “bad,” etc.) purport to denote moral properties that are too “queer” to exist, although we *think* they do.

pinge on the kinds of thoughts we can have. And Hume is a semantic idealist (according to the interpretation I endorse). But he does *not* advocate the ontological thesis. Indeed, he enjoins us to remain agnostic about things, if any, that are not perceptions:

It is a question of fact, whether the perceptions of the senses be produced by external objects, resembling them: How shall this question be determined? By experience surely; as all other questions of a like nature. But here experience is, and must be entirely silent. The mind has never any thing present to it but the perceptions, and cannot possibly reach any experience of their connexion with objects. The supposition of such a connexion is, therefore, without any foundation in reasoning. (E 12.12; SBN 153)²

Here is the second clarificatory remark. Although according to the semantic idealist interpretation, both vulgar and “philosophers” identify objects with *impressions*, we need, for the purpose of the present paper, to distinguish between the beliefs Hume ascribes to them. The vulgar believe—*de dicto*—that objects *are* perceptions: an apple, for instance, is a complex impression with impressions of colour, taste and smell as (simple) constituents. Indeed, that is what they *mean* by the term “apple.” The philosophers believe, at least in their reflective moments, in “a double existence internal and external, representing and represented” (T 1.4.2.36; SBN 205).³ They “distinguish [...] betwixt perceptions and objects, of which the former are suppos’d to be interrupted, and perishing, and different at every different return; the latter to be uninterrupted, and to preserve a continu’d existence and identity” (T 1.4.2.46; SBN 211). According to the semantic idealist interpretation, the independently existing “objects” behind our impressions are also impressions (that we do not perceive).

Note, next, that the wording in the title is somewhat inauspicious, because Hume thinks we cannot talk about spatial points as distinct from bodies. “[T]he idea of extension is nothing but a copy of these colour’d points, and of the manner of their appearance” (T 1.2.3.4, SBN 34). So talk of the unity of *space*, which I will sometimes adopt for ease of exposition, needs to be understood as the claim that all the bodies (that ever exist) are *spatially related*.

² References to the *Enquiry* are to Hume (1999) and to Hume (1975), hereafter SBN.

³ References to the *Treatise* are to Hume (2000) and to Hume (1978), hereafter SBN.

For instance, Rome, London and Paris form a triangle, and ancient Rome is located (roughly) between nineteenth century London and modern Cairo.⁴ I rely on an intuitive understanding of spatial relatedness, because the notion is clear, and I cannot think of a non-circular way of making it more precise.⁵

Here is the fourth clarificatory point. The suggestion that idealist objects are not *public*, i.e. that no object can be perceived (at any one time) by two different people, has been made in discussions of Berkeley's immaterialist philosophy. The claim in which I am interested pertains, instead, to the *unity* of space. These questions are logically independent. A space in which intersubjective ("public") objects are located may (logically) be fragmented. And, conversely, subjective "bodies," perceivable by one person only, may be located in a unified space, be spatially related to each other. What I will say about the unity of semantic idealist space will have no bearing on the more familiar question—the inter-subjectivity of the objects that occupy it.

The structure of the paper is as follows. After considering both kinds of spatial unity, synchronic (section 1) and diachronic (section 2), I will conclude that in both cases, Hume cannot allow for all the spatial thoughts we seem to have, and that semantic idealist space (itself) is fragmented, much more markedly in the diachronic case, there being no diachronic spatial relations *at all*. This, I will note (section 3), does not entail that there are no causal relations, and in particular, does not impugn Hume's causal claims, initial appearances notwithstanding.

1 Synchronic spatial unity

We all believe that there is a single space in which all extant bodies are located: the book that I am now reading, the moon (that I do not perceive now), and

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- 4 It might be thought that diachronic spatial relations are reducible to synchronic ones. Ancient Rome being to the north of modern Cairo concerns the two spatial *sites*, which are co-existent. But, first, talk about spatial sites goes against Hume's relationism about space, his claim that we cannot think of spatial points as distinct from bodies. And, second, the proposed reduction doesn't eliminate cross-temporal spatial relations. To say that ancient Rome was in some presently existing site, S_1 , is spatially to relate two non-contemporaneous sites: that which ancient Rome occupied, S_2 , and S_1 .
- 5 The suggestion that comes to mind is that in a unified space, there is a *path* between any two points. But what is a "path"? It is not enough that it be possible to reach from any point in it to any other, because that only requires that it be possible to be at the two points at two different times. And this is not the notion I have in mind. To require that two points in a path must be spatially related is to render the definition circular.

the apple I am munching, to name but a few. In this section, I will consider the spatial relatedness of this (largely unperceived) totality of coexisting objects from a Semantically Idealist perspective (section 1.1), and the spatial thoughts Hume's semantic idealist can allow us to have (section 1.2).

1.1 *Metaphysics*

The intuitive view is that space is synchronically unified. This view can be upheld if, as Jackson (1977, 81–87) thinks, perceptions are spatially located in *physical* space, alongside physical objects. They then derive their spatial relations (and spatial unity) from it: physical objects are all spatially related to one another. So if, for instance, perceptions are located in retinas, which are physical objects, they are spatially related to one another through the spatial relations between their respective retinas.

As Anderson (1976) notes, Hume sometimes talks in this vein. In explaining how we acquire the idea of extension, he suggests that ideas are located in the brain: “the mind is endow’d with a power of exciting any idea it pleases; whenever it dispatches the spirits into that region of the brain, in which the idea is plac’d; these spirits always excite the idea, when they run precisely into the proper traces” (T 1.2.5.20; SBN 60–61).

In a similar vein, when he explains how malice and envy are aroused (T 2.2.8.3; SBN 372), Hume suggests that “the image and idea of the object are [...] equally extended in the retina, and in the brain or organ of perception.”

But the intuitive view cannot be taken for granted from the semantic idealist point of view. Here, the retina isn't *physical*: it is an *impression* of a retina. And if an image of a house (say) is located in a retina-image, this simply means that an image of a house is a part of an image of a retina. And this does not give the semantic idealist a way of relating perceptions spatially, their being located in retinas notwithstanding. For *that*, we need to be told how the house-image is spatially related to a tree in a *different* perception, which the fact that they are both located in retina-images doesn't determine.

So there is a serious question pertaining to the synchronic spatial unity of semantic idealist space. In response, I argue for two claims. First, the objects any one person perceives by touch or sight at any one time are spatially related to one another. The restriction to two sense modalities is required because Hume thinks only these two kinds of perceptions are spatially located. He says “an object may exist, and yet be no where” (1.4.5.10; SBN 235). Tastes,

smells and sounds are not spatially located. Second, not all extant objects that *are* spatially located are spatially related; space is synchronically fragmented.

In arguing for the first claim, I need to rebut the suggestion, made by several commentators, that Hume is committed to thinking that *no* two coexisting bodies are spatially related. Thus, Huemer, who, like Hume's semantic idealist, rejects the suggestion that perceptions are spatially located in physical space, concludes that we must invoke material objects in order to account for the spatial nature of our experience. "In perception," he reasonably claims, "[we are] aware of things with spatial properties (things with shapes, sizes, and spatial relations to each other)" (2001, 150). And, Huemer continues, since these are not perceptions located in physical space, they must be material objects. Since the semantic idealist denies their existence, he cannot account for the spatial nature of our experience.

Huemer's reasoning is specious. The semantic idealist may invoke spatial relations *within* perceptions by way of spatially relating perceived "bodies." Indeed, this is Hume's strategy. He thinks many minimally visible points are simultaneously and adjacently coexistent in our perceptual field: "my senses convey to me [...] the impressions of colour'd points, dispos'd in a certain manner" (T 1.2.3.4; SBN 34). Again:

The perception [of the table] consists of parts. These parts are so situated, as to afford us the notion of distance and contiguity; of length, breadth, and thickness [...] the very idea of extension is copy'd from [...] an impression, and consequently must perfectly agree to it. To say the idea of extension agrees to any thing, is to say it is extended. (T 1.4.5.15; SBN 239–240)

Costa (1998, 79) elaborates: "For an idea to represent space it must resemble space, and to do that it must itself be an instance of the spatial relation, i.e. it must consist of ideas that are spatially related. Thus, an idea of space is literally spatially extended."

The semantic idealist is not yet home and dry. The claim that there are spatial relations within Humean impressions is contested. Green (1874, 205) and Annand (1930, 589) impute to Hume the claim that *no* two impressions are co-existent. If that were so, we would never have a compound impression with simpler constituents spatially related to one another. But the ascription is based on a misinterpretation of Hume's claim that "time [...] consists of different parts [...] [which] are not co-existent" (T 1.2.3.8; SBN 35–36). The idea

of time depends on there being *some* non-simultaneous impressions: it “must be deriv’d from *a* succession of changeable objects” (T 1.2.3.8; SBN 36, italics mine). It doesn’t require—and Hume nowhere suggests that it does—that *no* two impressions in the temporal order be simultaneous.

Still, even if Hume doesn’t *say* that there are no spatial relations within impressions, perhaps he is *committed* to this claim. I find in Kemp Smith (1941, chap. 14) an argument in support of the claim that for Hume, spatial relations aren’t part of the content of impressions. My interpretation of Kemp Smith isn’t the standard one. Garrett (1997, 52–54) interprets these passages in Kemp Smith as claiming that our ideas of space and time do not have corresponding impressions. And in response, he suggests, echoing Hume himself (T 1.2.3.5; SBN 34), that the ideas of space and time are *abstract*: “although there is no *separate* impression of space, every spatially complex impression is an impression of space [...] every idea of space [...] is an idea that has been copied from previous impressions” (1997, 52–54, original italics).⁶ But this is not to the point as *I* see it. Kemp Smith’s objection, I think, is that there are no *individual* ideas which can represent the abstract idea of space (and time), since in no impression—and correlatively, in no idea—is the spatial arrangement *present*.

I think my reading better fits Kemp Smith’s text. Spatial arrangements of simple perceptions “are, Hume is virtually saying, contemplated or intuited—‘viewed,’ ‘taken notice of’ are his favourite expressions—but *are not sensed*. They are non-impressional” (Kemp Smith 1941, 274, italics mine). And he asks,

[H]ow is it that [Hume] has not taken what would seem to be for him the easier and more obvious course, at least as regards space—the course usually taken by those who hold a sensationalist theory of knowledge—that extensity is a feature of certain of our sensations (those given through the senses of touch and of sight), and in consequence sensibly imaged? (1941, 277)

Whatever Kemp Smith’s intention, the argument is one we should consider. If sound, it would show that semantic idealist “bodies” (those to which our body-terms refer) are *never* spatially related, because on the interpretation of spatiality of “bodies” we are considering, spatial relations obtain within perceptions (and not between material objects).

⁶ Falkenstein (1997), too, interprets Hume in this way.

The argument I am imputing to Kemp Smith for the claim that spatial arrangements aren't given in perceptions is that Hume himself thinks the idea of space (and time) is not "given in the content of any one perception, and also does not consist in any mere summation of them. The arrangement is over and above the perceptions" (Kemp Smith 1941, 274). Now, the premise does not entail that the spatial arrangement of impressions isn't part of the content of the complex impression *in addition* to the coloured minima. To bridge the logical gap, another assumption is required, which Kemp Smith imputes to Hume: "it is in simples, to the exclusion of any supplementary factors, *relational* or other, that compounds consist" (1941, 279, italics mine). Since (uncontentiously) Hume also thinks that simple perceptions have no extension (spatial or temporal), he is committed, according to Kemp Smith (1941, 288–89), to the supposition that extension is not given in experience (and, by implication, Kemp Smith 1941, 548 thinks, must be *a priori*).

Kemp Smith adduces indirect evidence in support of the attribution to Hume of the "composition theory": it was "so little questioned in his day," so much so that Hume holds to it "tenaciously and dogmatically, without argument and in the face of contrary evidence" (1941, 279). But in fact, the imputation is implausible. First, Gibson, on whom Kemp Smith relies for the attribution, ascribes the view to "thinkers of the *seventeenth* century" (1917, 47, italics mine), and Hume is an *eighteenth* century philosopher. Second, the view Gibson ascribes to them does not, *pace* Smith, preclude relations as constituents of wholes; it only requires a whole to be the *aggregate* of its constituents: two wholes can differ only if they differ with respect to some part. So when Locke, who does belong in the relevant period, says (II.xxv.8, italics mine)⁷ that relations are "not contained in the real existence of Things, but something *extraneous* and *superinduced*," he doesn't mean to suggest that a relation isn't *objective*; that it is imposed by us. He means, far less pregnantly, that a relation isn't an *intrinsic* property of the relata. And when he says (II.xii.7) that a relation "consists in the consideration and comparing one Idea with another," he doesn't mean to suggest that the comparison is of *our* making. For instance, and closer to home, he says (II.xiii.2) it "is so evident that Men perceive, by their Sight, a distance between Bodies [...] as that they see Colours themselves." This is in keeping with compositionality if, for instance, *a* being to the left of *b* is composed of *a*, *b* and "to the left of."⁸

⁷ All quotations from Locke are from (1975).

⁸ Inukai (2010, 22) notes that compositionality doesn't allow for a distinction between asymmetric relations: *aRb* and *bRa* have the same constituents, yet one might hold without the other. But

This does not yet show that Hume's semantic idealist can allow for spatial relations within perceptions. If he subscribes to this (less radical) version of compositionality, according to which a relation *may* be part of an idea, but has to be an idea *itself*, he is still in trouble vis-à-vis spatiality. For, unlike Locke, he cannot allow the relational impression aRb (“ a is to the left of b ,” for instance) to include R as a constituent impression, in addition to a and b . This is because Hume subscribes to the principle of separability: “Everything that is different [...] may be separated” (T 1.2.2.10; SBN 36). In fact, Hume invokes several, logically independent, versions of the separability principle (Weintraub 2007). According to the version that is relevant here, a perception can constitute the entire content of the mind (at a given time); it is a *complete* image.⁹ Of course, it *may* appear as part of a more complex image, but it *needn't*.

Hume invokes this version of separability, call it SP_1 , on several occasions; for instance, in the argument he adduces (T 1.2.3.9; SBN 36) to show that time is not a “distinct idea,” but rather, a “manner” in which perceptions “appear to the mind.” Since time cannot “be conceiv'd without our conceiving any succession of objects,” Hume argues, “it can[not] alone form a distinct idea in the imagination [...]. The idea of time is not deriv'd from a particular impression mix'd up with others, and plainly distinguishable from them.” Note that a weaker separability principle, call it SP_2 , according to which any two perceptions are separable *from one another*, which Hume invokes elsewhere, does not suffice for Hume's purpose here. “Five notes play'd on a flute give us the impression and idea of time.” But five violin notes would have done equally well. *Some* sequence of objects is required, but no particular one. So we see that Hume is here invoking the stronger separability principle.

The strong separability principle, SP_1 , prevents relations, e.g. “to the left of” from being ideas, and, consequently, aRb from having three constituents, a , b , R . The weaker principle, SP_2 , doesn't here pose a problem for Hume. The relation “to the left of” can be separated from any two *specific* relata (the

this seems to me a subtle problem of which Locke was unaware. So it doesn't constitute evidence against the imputation to him of the compositional view.

⁹ Hume uses the term “image” broadly, as applying to anything which can be given in, or copied from, experience, not just the *visual*. The term “impression” applies to “*all* our sensations, passions and emotions, as they make their first appearance in the soul [...] [and ideas are] the faint images of these” (T 1.1.1.1.1; SBN 1, italics mine).

table and the chair) when it relates two *other* relata, a pen and a pencil, for instance.¹⁰

Locke, by contrast, rejects separability. (Indeed, he rejects both of its versions.) “Many ideas require others as necessary to their Existence or Conception, which yet are distinct Ideas. Motion can neither be, nor be conceived without Space [...] and they are very distinct ideas” (II.xiii.11). So although “to the left of” and “roundness” aren’t complete images, they can count as ideas for him.¹¹

So Hume is in trouble with respect to the spatial character of our experience *if* he subscribes to compositionality. But there is no clear-cut textual evidence that he does, and much that tells against its attribution to him. There are some passages that might be taken to favour the ascription, but they are compatible, I will argue, with the (weaker) ascription according to which each perception has simple perceptions as parts, which does not imply that each perception is the *aggregate* of simple perceptions. The first passage is Hume’s explanation of the distinction between simple and complex perceptions, where he says that “complex perceptions [...] may be *distinguished into parts*” (T 1.1.1.2; SBN 2, italics mine). This *might* be taken to suggest that a complex perception is the *aggregate* of its simple parts. But it can be taken to mean, instead, that a complex perception, unlike a simple one, *has* parts, which does not entail that it is identical to their aggregate. The second such passage is Hume’s discussion of the association of ideas (T 1.1.4.1; SBN 10), where he attempts to account for the way simple ideas are combined. The rules constrain the way simple ideas unite, so that, for instance, similar ideas tend to be associated. But the

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- 10 Falkenstein (2006, 68) suggests the problem engendered by the separability principle is that it is not clear how a red point can be separated from a blue point if their “manner of disposition” isn’t a distinct impression. By way of a solution, he suggests that there are here three different impressions: the red point, the blue point and the (complex) impression of the red point to the left of the blue one. But the problem engendered by the separability principle pertains to the *relation* and not to the relata. The former cannot exist on its own, whereas the latter two can.
- 11 Inukai cites another Humean reason against the existence of an impression “to the left of” (2010, 203). She points out that Hume explicitly says that there is no additional impression to the impressions of notes from which our idea of time is derived. Rather, the idea of time “arises [...] from the manner, in which impressions appear to the mind” (T 1.2.2.10; SBN 36). There being no relevant difference between time and space, she argues, Hume would say that there isn’t, in addition to “the impressions of colour’d points disposed in a certain manner” (T 1.2.2.4; SBN 34), another impression from which our idea of space is derived. Although *x* can be to the left of *y*, there is no impression “to the left of.” I think this is not an additional Humean *reason* against an impression “to the left of,” but rather, *textual evidence* for the imputation of the claim to Hume.

rules do not imply that the association of simple ideas is the *only* way of forming complex ideas.

The final relevant passage is more troublesome for my claim that Hume does not endorse compositionality. In his attempt to account for our possession of some seemingly problematic ideas, Hume says that “we do not annex distinct and compleat ideas to every term we make use of, and that in talking of *government, church, negotiation, conquest*, we seldom spread out in our minds all the simple ideas, of which these complex ones are compos’d” (T 1.1.7.14; SBN 23, original italics). But what matters for Hume here is his claim that we can bring to mind the constituent ideas of these terms should the occasion require. And this does not require compositionality.

Here, now, is evidence for the claim that Hume *denies* compositionality. As is apparent from his discussion of distinction of reason, Hume (sensibly) thinks whiteness is *somehow* part of the impression of a white globe. He thinks an impression of a white globe is different from an impression of a black one: “when a globe of white marble is *presented*, we are [not] able to separate and distinguish the colour from the form” (T 1.1.7.17; SBN 25, italics mine). We have an impression of a white globe, but neither the whiteness of the globe nor its roundness is a constituent impression, because neither is capable of appearing on its own in the mind.¹² So *contra* Kemp Smith, Hume *breaks* with the compositional tradition.

The break with compositionality is also manifest in Hume’s view of relational impressions: “space [...] consists of a number of co-existent parts dispos’d in a certain order, and capable of being *at once present to the sight or feeling*” (T 2.3.7.5; SBN 429, italics mine). But for any relation, R, the fact *aRb* includes components (*a* and *b*) without being their aggregate; if it was, there would be no difference between different relations (“to the left of,” “is taller than,” etc.). Neither, we have seen, does it have R as a component-perception. So *aRb* isn’t a *combination* of perceptions. It *includes* simple components, but isn’t their aggregate. It, thus, has a *non-compositional* structure.¹³

12 The white globe is a complex, extended, image (composed of white *minima*), and can appear in the mind on its own. So can a *single* coloured perception (although it has no shape).

13 Hume’s treatment of the apple example (T 1.1.1.2; SBN 2), designed to illustrate the distinction between simple and complex perceptions, is perfunctory. He says “a particular colour, taste, and smell [...] [are] all united together in this apple.” But he is here contravening his own claim, made subsequently, that the colour of an object *isn’t* an impression, because it cannot appear on its own without some shape. Hume is more circumspect in his attitude to the *shape* of the apple, which he *omits* from the list of its constituents.

I conclude that Hume rejects (albeit implicitly) the “composition theory,”¹⁴ and this rebuts Kemp Smith’s argument for the claim that he is not entitled to suppose that spatial relations are *given* in perceptions. But the semantic idealist needs to contend with another threat to his claim that spatial relations are given in perceptions. If “to the left of” is not a perception, how can it be *present* in a perception? The natural thought here (Garrett 1997, 70) is that it is a non-separable *aspect* of the perception. It makes a difference to the perception without itself being a perception. But Hoffman (2011, 1139) argues that Hume takes the separability principle to hold *universally*, and to apply, in particular, to *aspects*: “Whatever is distinct, is distinguishable; and whatever is distinguishable, is separable by the thought or imagination” (T App. 19; SBN 634, italics mine). Since aspects cannot exist on their own, Hoffman argues, they are not separable. Consequently, they are not distinguishable “by the thought,” and we cannot, *pace* Garrett, think of R as a (non-separable) aspect of *aRb*.

I needn’t here adjudicate between Garrett and Hoffman. For my purpose, it suffices to show that even on Hoffman’s (ontologically more austere) interpretation, Hume countenances relational thoughts like “*a* is to the right of *b*.” The first step in showing this is to note that if he cannot, no more can he countenance monadic thoughts like “*a* is brown.” If R is not a (non-separable) aspect of *aRb*, neither is the brownness a non-separable aspect of the perception of a brown *a*.

That this is a very unreasonable view doesn’t show that it is not Hume’s, but it puts pressure on us to show that he is *not* committed to it (and Kemp Smith isn’t vindicated after all). To this end, suppose, following Hoffman’s Hume, not only that there are no colours, over and above objects, but also, that there are no “aspects” of objects. Now, consider the statement “Fido is brown.” We can represent the statement with a perception of a brown Fido, and distinguish between *it* and statements ascribing other colours to Fido. Despite his (radical) nominalism, Hume (sensibly) recognises that these are all phenomenologically different perceptions. The dispute over the existence of aspects, whether separable or not, pertains to the *underlying ontology*; to

14 My (interpretative) claim pertaining to compositionality is restricted to the *Treatise*. In the first *Enquiry*, Hume endorses compositionality. “Complex ideas may, perhaps, be well known by definition, which is nothing but an enumeration of those parts or simple ideas, that compose them” (EHU 7.4; SBN 62). But his endorsement here makes sense, since compositionality is simple and elegant, and is precluded in the *Treatise* by Hume’s allegiance to separability, which he relinquishes in the *Enquiry*.

the sorts of facts in virtue of which statements have the truth-values that they do.

Similarly, there is a phenomenal difference between *a*'s being on the left of *b* and *a*'s being on the right of *b*, even if (as the principle of separability dictates) neither perception has a non-separable aspect, "to the left of" or "to the right of." There are here two distinct perceptions, representing in thought two different states of affairs.¹⁵

At the end of this (somewhat tortuous) analysis, I conclude that there *are* spatial relations within Humean perceptions, so (this is the first claim I set out to defend) the (visual and tactile) "bodies" each person perceives at any one time are spatially related to one another. This is fortunate for Hume the semantic idealist, since a commitment to the denial of this claim would constitute a strong argument against, a *reductio* of, his science of man. Evidently, our visual experience has a spatial character.

I move to argue for my second claim, that not *all* visual or tactile coexisting objects are spatially related. The supposition that they are all spatially related means, from the semantic idealist perspective, that they are all included within *one* (visual) impression. This is an adaptation of a suggestion from Berkeley's ontological idealism, at least as it is sometimes construed. According to Foster's interpretation of Berkeley,

God has an all-embracing perception of a vast spatiotemporal arrangement of sensible qualities [...] As a result, the arrangement, though just an idea in God's mind [...] qualifies as our physical world. It is something which has, in relation to us, the publicity and externality which our concept of the physical requires. (1982, 30)

Of course, Hume will omit God and invoke only the "vast spatiotemporal arrangement of sensible qualities."

In determining whether Hume's semantic idealist can allow for this all-inclusive impression, we should consider separately the vulgar and the philo-

¹⁵ Inukai claims that because Hume accepts the separability principle, he is committed to denying the phenomenal reality of relations. Relations only exist, she suggests on Hume's behalf, "at the level of ideas *in the imagination*" (2010, 206, original italics). But her claim is based on the mistaken supposition that Hume accepts compositionality. If relations were a real part of our perceptions, she argues, they would be inseparable perceptions, in violation of the separability principle. But without compositionality, the inference is fallacious. Relations can be experientially real without being perceptions.

sophical beliefs. I start with the former. He clearly *cannot* if all the “bodies” that we think exist actually do. The all-encompassing impression must include *all* the details of all the extant (semantic idealist) “bodies.” For instance, it must include the (visual) impressions of all extant cities. So it is too rich and detailed to be had by any human.

Perhaps we shouldn’t assume that all these “bodies” exist. After all, Hume thinks that although unperceived “bodies” (that is, impressions) *may* (logically) exist, our impressions do not, as a matter of fact, continue to exist when they are not perceived: “all our perceptions are dependent on our organs, and the disposition of our nerves and animal spirits” (T 1.4.2.45; SBN 211). Hume adduces several “experiments” in support of this claim, and their cogency may be questioned (Bennett 1971; Wright 1983, 44). Fortunately, we can bypass this issue. Even if Hume is right in thinking that only perceived bodies exist, the threat to the supposition that there is no impression “housing” all extant bodies remains, and the space of extant vulgar “bodies” is not unified. The experiments at most show that every extant object is perceived by *someone*. And since there are many perceivers, there are too many perceived (visual) objects to be included in a single human impression. So although the (visual and tactile) objects *each person* perceives are spatially related, vulgar space, which includes (visual and tactile) bodies perceived by *some person or another*, is not spatially unified.

There is another reason for thinking there is no all-inclusive impression. Suppose I am sitting at my desk, seeing it and the things on it. The “bodies” I perceive are constituents of a single (complex) impression, and stand in spatial relations: the pencil is on the left of the pen, for instance. Suppose, further, someone else is perceiving the pen and a bookcase behind me, which I am not perceiving. Since the pen, the pencil and the bookcase are all perceived by someone, they all exist. So we are looking for an impression that will include them as constituents. Remember, the vulgar perceive “bodies” *directly*. “The very image, which is present to the senses, is with us the real body” (T 1.4.2.36; SBN 205). For instance, when a vulgar person has a table-impression, he is directly perceiving what the word “table” refers to when used by the vulgar.

Here, the impediment is not that the requisite impression is too detailed, but rather, that no impression in vulgar space can play the envisaged role. An impression that includes the bookcase and the pen is (intuitively speaking) an image of them as seen from a perspective different from my current one (facing one, but not the other). And looking at these two objects from somewhere

else (the door, for instance), the image of the pen will be different from the image I have of it now, and will, therefore, constitute a *different* image.

What about the philosophers' space? Hume thinks that the philosophers' belief in the existence of unperceived "bodies" is *unjustified*, rather than false:

The only conclusion we can draw from the existence of one thing to that of another, is by means of the relation of cause and effect, which shews, that there is a connexion betwixt them, and that the existence of one is dependent on that of the other. The idea of this relation is deriv'd from past experience, by which we find, that two beings are constantly conjoin'd together, and are always present at once to the mind. But as no beings are ever present to the mind but perceptions; it follows that we may observe a conjunction or a relation of cause and effect between different perceptions, but can never observe it between perceptions and objects. 'Tis impossible, therefore, that from the existence or any of the qualities of the former, we can ever form any conclusion concerning the existence of the latter, or ever satisfy our reason in this particular. (T 1.4.2.47; SBN 212)

So we cannot tell for any body-impression had by someone whether the impression "behind" it, the "body," exists, and correlatively, whether philosophers' "bodies" can be "housed" in a single all-inclusive impression. This means that Hume is committed to the *undecidability* of the synchronic unity of philosophical space. But this is far less significant than his commitment to the spatial *disunity* of *vulgar* space. He thinks the vulgar belief is *predominant*: "almost all mankind, and even philosophers themselves, for the greatest part of their lives, take their perceptions to be their only objects, and suppose, that the very being, which is intimately present to the mind, is the real body or material existence" (T 1.4.2.38; SBN 206).

1.2 *Psychology*

I now move to discuss the psychological question, concerning our ability to *think* various spatial thoughts. I will focus on thoughts pertaining to the spatial relatedness of *particular* objects: {Paris, London}, {Rome, Moscow, Neptune}, {Jerusalem, the cup on my desk, the Eiffel tower, the moon}, etc., and will argue that Hume cannot account for those that involve too many objects.

It might be wondered why I do not focus, instead, on the *generalisation* that all contemporaneous objects are spatially related. The answer is that this seemingly more natural suggestion is problematic, because it is not clear that Hume's imagism can accommodate thoughts involving complex structures such as logical connectives and quantifiers. And the generalisation that all objects are spatially related engenders a special instance of this problem. Hume explains how error engendered by (nominalist) thinking with representatives is typically avoided. If we erroneously generalise from an equilateral triangle that all triangles are equilateral, the "other individuals of a scalenum and isocetes, which we overlooked, crowd in upon us, and make us perceive the falsehood of that proposition" (T 1.11.7.8; SBN 21). But he doesn't explain how the erroneous thought was possible to begin with, how we could *meaningfully* "assert, that the three angles of a triangle are equal to one another." The natural suggestion is that a generalisation, that all dogs are brown, for instance, is a huge conjunction of statements about individual dogs: that Fido is brown; that Spot is brown, etc. But this suggestion familiarly fails. The universal belief (about *all* dogs) cannot be reduced to (defined in terms of) them. One might believe the generalisation without thinking about any individual dog; indeed, without knowing even of a single one. I avoid the difficulty by focusing on spatial thoughts that are not vulnerable to this difficulty so as to highlight another.

I argued above that there is no (human) impression capable of "housing" *all* the bodies we think exist (at any one time). And similar reasoning will rule out impressions "housing" a sufficiently large number of them: all the world's capitals or denizens, for instance. And the same seems to hold for the corresponding *beliefs*. Like any Humean belief, they are (sufficiently lively) ideas, and they are seemingly too "crowded" to be human perceptions. So is the thought (for instance) that Rome is between Paris and Jerusalem *impossible*?

A positive reply would be worrying. Hume might not balk at the suggestion that all of our everyday spatial beliefs are *false*. It is not an adequacy condition on the science of man that it *vindicate* our beliefs; its aim is to *account* for them. Indeed, Hume might view the falsity of some of our spatial beliefs as an interesting discovery within his science, akin to his claim that our attributions of personal identity across time and our belief in the continuing existence of objects are false. Berkeley, too, attributes to us wholesale error when he suggests that our ordinary causal judgements are false, because causation requires agency, and the objects of sense are ideas, which are *inactive* (1710, sec.25). The true cause of all event, he thinks, is God. But our *having* these

spatial beliefs is a fact that Hume's science of man ought to countenance, and even explain (like our (false) belief in the continued existence of bodies).

The suggestion that naturally comes to mind by way of a Humean response is that there is a difference between semantic idealist space itself and our (ideational) thoughts about it, a difference that might make possible the seemingly problematic spatial beliefs. Consider the thought that Rome is between Paris and Jerusalem. Putting together my impressions of the three cities engenders an impression that is too rich and detailed to be had by any human. But Hume thinks an idea of an object needn't include all the details included in its impression. "I have seen Paris; but shall I affirm I can form such an idea of that city, as will perfectly represent all its streets and houses in their real and just proportion" (T 1.1.1.4; SBN 3)? By means of this rhetorical question, Hume makes the point that although he has forgotten many of the details present in his original impression of Paris, he nonetheless has an idea of it. And, similarly, we cannot have a "just" idea of a mite, because a "just" idea has to represent "every part" (T 1.2.1.5; SBN 28), which is impossible, because of their "vast number and multiplicity." Yet, we do have an idea of a mite (and those of "other objects vastly more minute"), which enables us to think about it. Similarly, the thought that Rome is between Paris and Jerusalem doesn't require an idea with all the details included in my impressions of the three cities, so there is no impediment to my having it.

But even if an idea of Paris may be quite "thin" in comparison with Paris itself (i.e. its impression), it seems that an idea cannot represent, even "thinly," *all* the (numerous) cities that I think are spatially related: it would (impossibly) have to include at least one detail for each city. So we cannot have spatial beliefs pertaining to (sufficiently) many objects.

There are two points worth noting. First, the impossibility is due to Hume's theory of ideas, not to his semantic idealism. This means that the problem will not arise for a non-imagist semantic idealist. Second, the difficulty is not restricted to spatial thoughts. Hume's semantic idealist cannot countenance *any* thought that involves a large number of objects. The spatial case is an interesting special case of the difficulty.

2 Diachronic spatial unity

2.1 *Metaphysics*

We are here concerned with spatial relations obtaining between *non-simultaneous* objects. Since we are aiming to discern the implications of Hume's semantic idealism, this means that our question pertains to cross-temporal spatial relations between *impressions*. If my impression includes the (visual) objects on my desk, they are straightforwardly spatially related to one another. But how can the lamp in my T_1 -impression be spatially related to the computer in my *subsequent* T_2 -impression?

Here is a suggestion for contending with the problem. Several contemporaneous perceptions may constitute a more complex *single* perception: "a particular colour, taste, and smell are qualities all united together in this apple" (T 1.1.1.2; SBN 2). So can't *successive* perceptions count as one, *temporally extended*, perception? And if they do, won't there be spatial relations between even their non-simultaneous constituents?

The answer to the first question is "Yes." Hume has a reason for thinking that some perceptions are temporally extended: "from the succession of ideas and impressions we form *the* idea of time" (T 1.2.3.7; SBN 35, italics mine). For instance, the (single) idea of a particular temporal sequence ("I ate and then I drank") is composed of two successive ideas, the first of which represents my eating; the second—my drinking. The same is true, *mutatis mutandis*, of *general* temporal ideas, "lasting 5 minutes," for instance. Each is represented by some particular idea of a succession (a song lasting 5 minutes, for instance), and associated with other (isomorphic) particular successions.¹⁶

The second question, as to whether there are spatial relations between non-simultaneous constituents of a temporally extended perception, is much thornier. We have granted that some perceptions are temporally extended. Let us even allow that each person's entire perceptual biography constitutes one (temporally extended) perception. Does this mean that there are spatial relations between its non-simultaneous constituents? The answer, I will now argue (at length), is "No."

¹⁶ Like any plurality, a complex perception is taken by Hume to be ontologically inferior: it depends for its existence on that of its constituents. "But the unity, which can exist alone, and whose existence is necessary to that of all numbers, is of another kind, and must be perfectly indivisible" (T 1.2.2.3; SBN 31).

Suppose I have a perception of a ball and then of a pen. The two objects in the successive perceptions are not spatially related even if they are constituents of a single (temporally extended) perception. What *would* allow for cross-temporal spatial relations between the two perceptions is some third perception spatially related to both. If, for instance, both the ball and the pen were directly above a cup, the pen at T_2 would be where the ball was at T_1 .

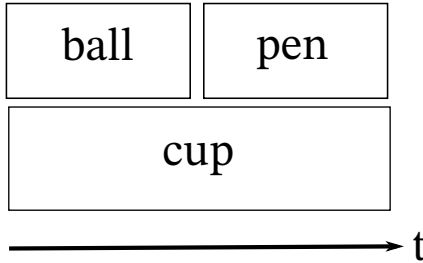


Figure 1: A

But the cup-perception coexists with a succession (the ball-perception and the pen-perception). And it is natural to suppose that it must, therefore, be a *succession* of (qualitatively identical) perceptions of equally brief durations (Price 1940, 46–47; Stroud 1977, 103; Waxman 1994, 200):

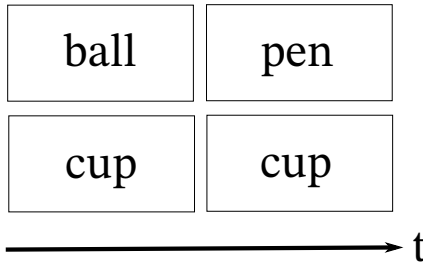


Figure 2: B

But then, it cannot make for cross-temporal spatial relations (between the ball-perception and the pen-perception). If we require some external “anchor”

so as to relate the (non-simultaneous) ball-perception and the pen-perception, the same is true of the (non-simultaneous) cup-perceptions. That they are qualitatively identical doesn't help.

The cup-perception which co-exists with the ball and the pen can make for cross-temporal spatial relations only if, as Baxter's (2007, chap. 3) Hume thinks, it has no temporal parts, doesn't itself *endure*. I am persuaded by Baxter that despite its strangeness, the view of time he imputes to Hume is consistent (Baxter provides a formal model), and doesn't contravene our concept of time. That something with no temporal parts might coexist with a temporal succession is no stranger than was the suggestion that a set can have the same size as a proper subset, which Cantor's set theory made respectable. Indeed, the (ingenious) proposal Baxter imputes to Hume does to time precisely what Cantor did to *size*. By choosing the possibility of mapping one set on to another as a criterion for sameness of size, Cantor allows size to violate the very intuitive assumption that a set is larger than any proper subset. So similarly, by choosing as a criterion for A and B coexisting neither having a temporal part that is earlier than all temporal parts of the other, Hume allows temporal coexistence to violate the intuitive assumption that coexisting objects must have the same number of temporal parts.

But the consistency of Hume's conception does not make for cross-temporal spatial relations. The question is whether the (strange) temporal structure *in fact* obtains. This is a question about the *actual* structure of time, or—in our (semantic idealist) context—impressions. *Are* there “steadfast” impressions? Suppose I see a ball and then a pen, both above a cup. There are here two possibilities as to the temporal structure of my impressions:

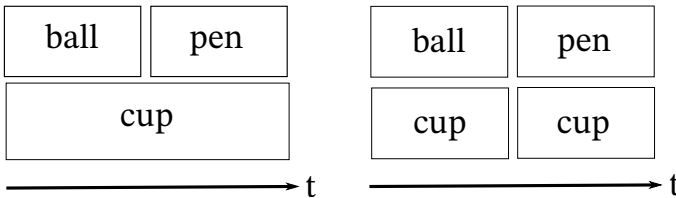


Figure 3: B (left) and A (right)

Which is the correct one? We cannot tell by introspection. True, Hume says that “all sensations are felt by the mind, such as they really are” (T 1.4.2.5;

SBN 189), and “[t]he perceptions of the mind are perfectly known” (T 2.2.6.2; SBN 366). But elsewhere, he denies that the temporal or spatial structure of perceptions is transparent. There is no perceptible dividing line between adjacent visual atoms. If there was, it would itself be a perception, contrary to the supposition that the two atoms are adjacent. We can tell where one visual atom ends and another begins only when they are differently coloured. That is why we cannot tell how many points (visual minima) there are in a line, and equality of the number of points is “useless” (T 1.2.4.19; SBN 45) as a standard for equality of length. It is “difficult for the imagination to break [a spot of ink] into its component parts, because of the uneasiness it finds in the conception of such a minute object as a single point” (T 1.2.4.2; SBN 42).

But surely, one will protest, if A and B differ *significantly* with respect to the number of their atoms, they feel different. In the spatial case, we can tell which of two lines is longer when one is markedly longer. “When the measure of a yard and that of a foot are presented, the mind [cannot] question, that the first is longer than the second” (T 1.2.4.22; SBN 47).

The answer is that the spatial and temporal cases differ. A temporal succession, no matter how long, is perceived to be a succession only if its members aren’t qualitatively identical: “the idea of duration is always deriv’d from a succession of *changeable* objects” (T 1.2.3.11; SBN 37, italics mine).¹⁷

Since the question isn’t decidable by introspection, I submit that we should opt for A, because it is much *simpler*. True, there are fewer entities in B. But even if (implausibly) Ockham’s razor enjoins us to minimise the number of entities (rather than number of *types* of entities), it also bids us to give (methodological) weight to simplicity. And B is *structurally* much more complex. In A, (perfect) coexistence of impressions coincides with sameness of number of (non-overlapping) parts.

Not only is Ockam’s razor plausible, Hume subscribes to it (without using the label). He says “we must endeavour to render all our principles as universal as possible, by tracing up our experiments to the utmost, and explaining all effects from the simplest and fewest causes” (T Introduction 8; SBN xii).

¹⁷ It might be objected that a sufficiently long temporal succession, even of qualitatively identical perceptions, feels different from a steadfast perception. But this does not help us to decide between A and B. If the steadfast perception of the cup (in B) appeared *on its own*, it would feel different from the corresponding succession (in A). But we are trying to decide between A and B *in their entirety*. And here, because the “steadfast” part of B happens alongside a “changeable” temporal succession (the ball and the pen), the duration we experience may be entirely due to that of the variable succession.

This means that the temporal structure of my impressions isn't the one Baxter's Hume allows (perhaps even thinks) it to be. So even if Baxter's interpretation is correct, and "steadfast" impressions required for cross-temporal spatial relations *could* exist, as a matter of fact they don't. I conclude that on both interpretations of Hume's view of time, there are no spatial relations between non-simultaneous impressions. Humean space is maximally fragmented diachronically.

2.2 Psychology

The falsity of such diachronic spatial thoughts is no skin off Hume's nose: he doesn't aim to vindicate common sense. Indeed, it is another interesting discovery he makes, showing yet another of our beliefs to be false. But doesn't the argument I adduced on Hume's behalf to show that such diachronic thoughts are *false* also show that we cannot *have* them? This *would* be a problem for Hume, who aims to *account* for human beliefs.

I will argue that there *is* here a problem for Hume, although it is not obvious. In our context, ideas differ significantly from impressions. In the case of impressions, there is a *tie* between two ways the temporal structure of our impressions might be. And simplicity favours the standard structure: each temporal atom temporally coinciding with all others with which it overlaps. But in the case of ideas, explanatoriness tips the balance in favour of the non-standard structure, because only *it* can explain our seeming to have the diachronic thoughts.

So Hume can account for our thinking, for instance, that ancient Rome is located (roughly) between nineteenth century London and modern Cairo. But the diachronic structure of space renders this thought (and others of its ilk) *false*. This is not troubling for Hume the idealist. But he *should* be concerned by the fact that diachronic spatial thoughts involving *a large number of objects* are not possible within his semantic idealist system (because they require ideas that are too detailed).

3 Causation

The fact that there are no diachronic spatial relations seemingly poses a difficulty for Hume's invocation of causal claims. Cause and effect, he claims in his analysis of causation, must be spatially (and temporally) contiguous, or at least linked by an intermediate chain of "causes, which are contigu-

ous among themselves, and to the distant objects” (T 1.3.2.6; SBN 75). And, furthermore, causes precede their effects. This means that the requisite contiguity is between objects in *successive* perceptions. But this condition, we saw (section 2.2), is never satisfied. The only spatial relations obtain between perfectly simultaneous impressions. This is not a discovery about which Hume can be sanguine: it undermines his *own* causal claims, pertaining to the mind. For instance, “our impressions are the *causes* of our ideas” (T 1.1.1.8; SBN 5, italics mine); resemblance, contiguity in time or place, and cause and effect “*produce* an association among ideas” (T 1.1.4.2; SBN 11, italics mine); the “mind is *determin’d* by custom to pass from any cause to its effect” (T 1.3.11.11; SBN 128, italics mine). Like Hume’s (interpretatively contentious) sceptical argument against induction, his semantic idealism threatens to undermine his science of man. Indeed, it seems as if the “standard” Hume cannot even *think* his causal thoughts about the human mind. Like philosophers’ talk about *substance* and *occult powers*, significant parts of the *Treatise* might turn out to be *unintelligible*.

Hume wavers in his attitude to the requirement of spatial contiguity. It is one of the three conditions he discerns for causation in its analysis. “I find in the first place, that whatever objects are consider’d as causes or effects, are contiguous” (T.1.3.2.6; SBN 75). But in his discussion of psycho-physical causation, he drops the requirement of contiguity. Since being “constantly united is *all* the circumstances, that enter into the idea of cause and effect, when apply’d to the operations of *matter*, motion may be and actually is, the cause of thought and perception” (T 1.4.5.30; SBN 248, italics mine).

Hume seems to have forgotten that in his analysis of causation, he found the requirement of contiguity so essential and the idea of action at a distance so repugnant, that “when in any particular instance we cannot discover this connexion, we still presume it to exist” (T 1.3.2.6; SBN 75). But in fact, he adduces spatial contiguity as one of the requirements for causation *tentatively*. “We may therefore consider the relation of CONTIGUITY as essential to that of causation; at least may suppose it such, according to the general opinion, till we can find a more proper occasion to clear up this matter, by examining what objects are or are not susceptible of juxta-position and conjunction” (T 1.3.2.6; SBN 75).


And later, he argues that tastes, smells and sounds “exist no where” (T 1.4.5.10; SBN 235). And these, of course, are involved in causal relations. For instance, a foul smell may cause one to retch, and an unexpected loud sound—to jump with fright. So causation does *not* require spatial contiguity

(even if we think that, as a matter of fact, it often goes with it). Hume exploits this discovery to vindicate the possibility of psychophysical causation. And we can now conclude that semantic idealism does *not* pose a problem for Hume's causal claims.

4 Conclusion

The Humean position regarding spatiality that has emerged is the following. First, Hume's semantic idealist cannot account for some spatial thoughts we seem capable of having, both synchronic and diachronic. And this is a problem for Hume's science of man. Second, semantic idealist space (itself) is fragmented, much more markedly in the diachronic case, there being no diachronic spatial relations *at all*. Hume will view this (metaphysical) implication of semantic idealism as an interesting discovery. Finally, because Hume does not think causation requires contiguity, his semantic idealism does not imply that there are no causes and effects or that his science is replete with unintelligible or false causal claims. Neither does it engender a problem for our ability to have causal beliefs.*

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