

# Pains and holes: comments on (Casser & Schiller 2021)

## Abstract

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I argue that contrary to their own intentions Casser & Schiller should think that their pain-in-mouth argument is invalid. I cast doubt on whether a hole must be in a host of it but show that the crux of Casser & Schiller's proposal does not depend on this.

10 **Keywords:** pains, holes, locations, validity, implicatures

## There is no such thing as the pain-in-mouth argument

15 Casser & Schiller wrote:

The following argument is widely assumed to be invalid:

(1)

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- a. There is a pain in my finger.
- b. My finger is in my mouth.
- c. Therefore, there is a pain in my mouth.

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The so-called 'pain-in-mouth argument' has had a serious impact on recent discussions of pain, and continues to be the subject of considerable controversy. ... While most philosophers accept the invalidity of (1) (cf. Block 1983; Carruthers 2000; Noordhof 2001, 2002, 2005; Tye 1995a, b, 1996, 2002, 2005, 2017), some have suggested that it might in fact be valid, despite appearances to the contrary (Reuter *et al.* 2019). ...

The aim of this paper is to vindicate the validity of the pain-in-mouth argument...

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We conclude that (i) the pain-in-mouth argument is a valid argument; that (ii) its apparent invalidity is explained by a conversational implicature based on the metaphysics of pains and holes; and that (iii) the argument cannot be used against the view that pain is spatially located...

(Casser & Schiller 2021: 686)

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None of the cited authors discussed the argument which Casser & Schiller called "the pain-in-mouth argument" in the works cited. Given that there has been debate over various hypothetical senses of "in" and over implicatures, it is vital that attention be paid to subtle differences in linguistic expression.

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Regardless of whatever else Casser & Schiller said, they should not have said that their pain-in-mouth argument was valid. For a finger to be in a mouth, it is not necessary that every part of the finger be in the mouth. So presumably even Casser & Schiller should agree that if there were to be a pain in the base of my left forefinger (and no holes were hosted by my left forefinger), and every part of the tip of my left forefinger were in my mouth, there would be a pain in my finger, my finger would be in my mouth, but there would not need to be a pain in my mouth.

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Perhaps Casser & Schiller thought that if a finger were to be in someone's mouth, in the relevant sense of "in", every part of the finger would be in that person's mouth; that they thought this is

50 suggested by their citation (2021: 693) of (Block 1983) and Block’s having said that there is a sense of “in” which is ‘transitive’ (1983: 517). Block called the sense he was talking about “the “in” of spatial enclosure” and wrote that it is “the sense of ‘x is in y’ [...] which means that every point of x is surrounded by points of y (though not conversely)” (1983: 517).

55 I doubt that Block’s hypothetical sense of “in” exists: it is not clear where it would ‘appear’. It is possible that a nail (i.e. a small metal spike) have been driven into my right hand, the nail be thereby in my hand and in me, I be in a shed, and yet the nail not be in the shed (my right arm could be outside). So this argument is invalid:

There is a nail in me.  
I am in a shed.  
Therefore, the nail is in the shed.

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So why is Casser & Schiller’s pain-in-mouth argument not invalid?

65 It does seem to follow from Kirkcaldy being in Fife and Fife being in Scotland that Kirkcaldy is in Scotland. But not every point of Kirkcaldy is surrounded by points of Fife: arguably wherever Kirkcaldy is, Fife is, and Kirkcaldy has a bay, so there are points of both Kirkcaldy and Fife bordering the bay which are not surrounded by points of Fife. So whatever sense of “in” would ‘appear’, were one to say that Kirkcaldy is in Fife, it would not be Block’s hypothetical sense.

(Suppose there were a town which marked the border between the county it was in and another county. It would be in the county it was in, but not every point of it would be surrounded by points of the county it was in.)

70 I think Casser & Schiller should sooner accept the invalidity of their pain-in-mouth argument than commit themselves to the existence of Block’s hypothetical sense of “in”.<sup>1</sup>

(Given that it is invalid, it might be useful to test whether people accept as an explanation of the invalidity of Casser & Schiller’s pain-in-mouth argument the possibility of a finger being in a mouth without every part of the finger being in the mouth.)

75 Block did not discuss Casser & Schiller’s pain-in-mouth argument. He actually discussed the following argument:

The pain is in my fingertip.  
The fingertip is in my mouth.  
80 Therefore, the pain is in my mouth.

(Block 1983: 517)

85 Noordhof discussed it too ((2001: 95); (2005: 151)), and so did Tye ((1995b: 226–227); (2002: 150–152); (2005: 103–104)), and Reuter, Sienhold, & Sytsma (2019: 72–78). Perhaps Casser & Schiller should think that even Block’s pain-in-mouth argument is invalid. Perhaps it is possible that a pain be in the bottom of the tip of someone’s (a tall person’s) left forefinger, the top of the tip of their left forefinger be in their mouth, the pain be in their fingertip, the fingertip be in their mouth, and yet the pain not be in their mouth.

90 Other analogous arguments have been discussed as well. In (1995a), Tye discussed:

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1 Hyman wrote tentatively: “it may be true, in the case of substances generally, that if A is (spatially) in B and B is in C, it follows that A is in C” (2003: 20). Presumably nails, humans, and sheds are ‘substances’, so the generalisation is false. Tye has long spoken of “the relation of being spatially inside” being “transitive” ((1984: 322); (1995a: 32); (2017: 479)). But it is possible that a nail be inside me, I be inside a shed, and yet the nail not be inside the shed.

I have a pain in my thumb.  
My thumb is in my mouth.  
Therefore, I have a pain in my mouth.

(Tye 1995a: 32)

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He wrote in (1996): “One can have a pain in a finger without having a pain in the mouth even if one’s finger is in one’s mouth” (296), but did not discuss any pain-in-mouth argument *per se*. In (1995b), he wrote:

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If I have a pain in my fingertip, and I slit open a small portion of my leg, into which I then thrust my finger, still it does not follow that I have a pain in my leg. Suppose, for example, that my leg has been anaesthetized. In this case, I feel a pain in my finger, but not in my leg.

(Tye 1995b: 227)

105 Ignoring differences in the placement of “so”, both Tye and Carruthers discussed:

I have a pain in my finger.  
My finger is in my mouth.  
So I have a pain in my mouth.

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((Tye 2017: 479); (Carruthers 2000: 120))

It remains to be seen whether one must account for the (in)validities of pain-in-mouth arguments concerning the having or feeling of pains in the same way as for the (in)validities of other pain-in-mouth arguments.

115 This variant of Block’s argument might interest Casser & Schiller:

The pain is in my fingertip.  
My fingertip is in my mouth.  
Therefore, the pain which is in my fingertip is in my mouth.

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I am more inclined to accept this argument as valid than Block’s. In Casser & Schiller’s words (2021: 695), this last sentence could be used to specify both a ‘host’ of a pain and a ‘container’ of a host. So perhaps I am more inclined to accept this argument as valid because in uttering “The pain which is in my fingertip is in my mouth” in order to state something, I wouldn’t implicate that my mouth is a ‘host’ of a pain whereas I would do so if I were to utter “The pain is in my mouth” in order to state something.

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### Must a hole be in a host of it?

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Casser & Schiller write:

A hole isn’t a hole unless it is a hole in something. Or, in other words, a hole always has a ‘host’ (Casati and Varzi 1994: 2).

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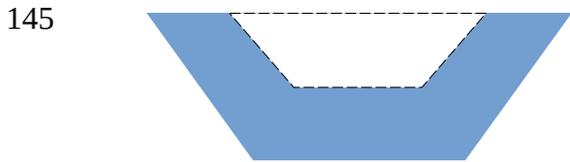
(2021: 694)

I agree that a hole must have a host. And perhaps anything that is somewhere must be in something (a town, a country, an ocean, the Milky Way, the universe). But if so, this holds of both ‘hosted’ and

140 non-‘hosted’ entities. It is Casser & Schiller’s suggestion (see also (2021: 695)) that a hole must be  
in a host of it which I doubt.

Fig. 1 is a (crude) cross-sectional representation of a cupped hand from the side:

Fig. 1



150 There is a hollow whose border is marked by the dashed line. I assume, following Casati & Varzi’s  
taxonomy, that hollows are holes (1994: 40). I am inclined to say that while the hollow has a host,  
i.e. the hand, it isn’t a hollow in the hand. I think that if there were to be a hole in a cupped hand  
then the hand would be better represented by Fig. 2, Fig. 3, or Fig. 4:

155 Fig. 2

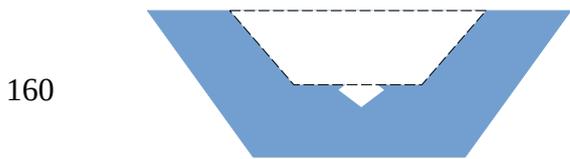
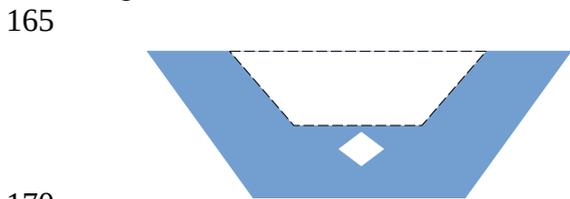
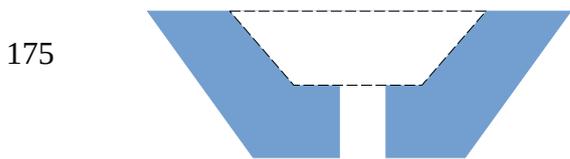


Fig. 3



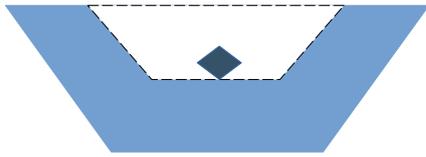
170 Fig. 4



180 There seem to be some potentially important differences between holes that are in their hosts and  
holes that are not. If a shard of glass were resting on the palm of my right hand (Fig. 5)

Fig. 5

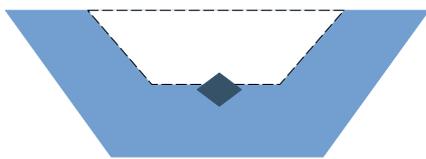
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the shard of glass would be in my hand but it would not be in me, even though my right hand is a part of me.<sup>2</sup> If a shard of glass were stuck in the palm of my right hand (Fig. 6)

195 Fig. 6



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the shard of glass would be in my hand and it would be in me.

205 Casser & Schiller considered the following argument to be analogous to their pain-in-mouth argument (2021: 687, 693–695):

- (3)
- a. There is a hole in my shoe.<sup>3</sup>
  - b. The shoe is in the box.
  - c. Therefore, there is a hole in the box.

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Hence in stating their proposal they wrote:

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All holes are holes in something, and all pains are pains felt (as) in body parts. As such, pains and holes are ‘spatially dependent’ entities, which do not exist in space without a host. Consequently, statements referring to the location of such entities may be thought to *ordinarily require* mention of their hosts: to speak of the location of a pain or a hole without specifying what they are a pain or a hole *in*, is to omit a vital piece of information.

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We argue that this is precisely what occurs in the conclusions of (1) and (3). In (1c), there is a pain in my mouth *insofar* as my mouth contains a finger which hosts a pain. Hence, ‘in my mouth’ does not specify the host of the pain, but the container of the host. However, since statements of pain location ordinarily require the specification of a host, and the actual host isn’t mentioned, the sentence offers a natural misreading as implicating that my mouth hosts the pain. The same, we suggest, is true in the case of holes. In (3c), there is a hole in

2 You might think that if the shard of glass would be in the hand, then the hollow would be too. I am sympathetic to this, but while I am certain that the shard of glass would be in the hand, I doubt that the hollow would be.

3 Casser & Schiller seem to think that the sense of “in” in which a hole that is in its host is in it is spatial (2021: 693–694). They wrote: “a hole counts as located in my sock in virtue of it being entirely enclosed by my sock” (2021: 694). I’m not sure what they mean (I ignore the adjective “located”). A prototypical hole in a sock is a tunnel, and because of this I wouldn’t say that it is ‘entirely enclosed’ by the sock: if one were to wear the sock presumably one could touch the tip of a needle against one’s foot without the needle touching the material of the sock. In Casati & Varzi’s words, tunnels are not “internal” (1994: 40).

225 the box *insofar* as the box contains a shoe which hosts a hole. But again, since statements of  
hole location ordinarily require the specification of a host, and the actual host isn't  
mentioned, the sentence is misread as implicating that the box hosts the hole. Hence, what  
explains the misreading of (1) and (3) is the fact that 'in my mouth' and 'in the box'  
230 conversationally implicate a specification of the host of the pain or the hole, and not the  
container of the host.  
(2021: 695)

But the crux of Casser & Schiller's proposal can be stated in such a way as to show that it does not  
depend on whether a hole must be in a host of it:

235 If, in saying where a pain is, one says that it is in something, typically what one says it to be  
in is a host of it; and if, in saying where a hole is, one says that it is in something, typically  
what one says it to be in is a host of it. Hence, in uttering "There is a pain in my mouth" in  
order to state something, one would implicate that one's mouth is a host of a pain; and in  
240 uttering "There is a hole in the box" in order to state something, one would implicate that  
the box is a host of a hole.

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