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*For the philosophers, past and present,  
of Sydney and Canberra*

# 10

## *Casati and Varzi on holes*

WITH STEPHANIE LEWIS

Roberto Casati and Achille Varzi, *Holes and Other Superficialities*, MIT Press, Bradford Books, 1994.

*Argle.* I've said it before and I'll say it again: all things are material. Either holes are somehow material, or else there are no such things. Maybe a hole is the material hole-lining that, as we so misleadingly say, "surrounds" the hole; or else whatever ostensible reference we make to holes is secretly some other sort of language-game altogether, or it's fictitious reference, or it's just plain mistaken.

*Bargle.* You're ready to say *anything*, aren't you, so long as it isn't plain common sense. Of course what's true is that holes are *immaterial* entities. – But what do these fellows think?

*Casati and Varzi.* Exactly so, Bargle: holes are immaterial entities. As Turcholsky put it: a hole *is*, where something *isn't*.

*Argle.* If there were no matter at all, there'd be one big hole?

*Casati and Varzi.* No; a hole is always a hole *in* something: a cavity in the cheese, a hollow in a glass bottle, a tunnel through rock. A hole requires a host; and these hosts are material. (Normally, anyway; a hole in the electromagnetic field might be a region where the field vector is uniformly zero. Let's ignore these special cases here.) No matter, no

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hosts; no hosts; no holes. Holes are *dependent* entities: they exist in virtue of the arrangement of matter.

*Bargle.* Right! And the hole is immaterial through and through, and the host is material; and besides, the hole is where the host isn't. So the host and the hole are entirely distinct – the clearest case ever of necessary connection between distinct existences. And there's another of Argle's prejudices punctured!

*Argle.* Right! The hole is redundant: it supervenes upon the arrangement of matter. So it is no genuine addition to reality; it is nothing over and above the matter it supervenes on. Its being – if being it be – must *not* be taken with ontological seriousness!<sup>1</sup>

*Casati and Varzi.* Steady on. These are deep matters, and there's a lot we can say without becoming embroiled in them. Whether or not the dependence of holes upon matter means what either one of you thinks it means, at least it does mean that hole-statements are true or false in virtue of the arrangement of matter. While we do have a view about the nature of holes – we endorse Bargle's common sense, we reject the alternatives Argle has on offer – it scarcely matters. Take some hole-statements: that a hole is present in a certain material host; or that it is one or another kind of hole, cavity or tunnel or hollow or whatever; or that one hole is part of another; or that the same hole that was here yesterday is here today, though expanded or even shifted; or instead that there's a new and different hole; or. . . . It's the arrangement of matter that makes these statements true or false. You, Bargle, will agree with us that the hole-statements depend for their truth upon the holes, which in turn depend for their existence upon the arrangement of matter; whereas Argle will think that the truth of the hole-statements somehow depends more directly upon the arrangement of matter; but, either way, *our* job is to say how the truth of the hole-statements depends upon the arrangement of matter. And about that, we have quite a lot to say.

1 Evidently Argle is a student of D. M. Armstrong, "Metaphysics and Supervenience," *Critica* 14 (1982): 3–18.

[Days pass]

*Argle and Bargle.* You do indeed. We're impressed. But we do have a few questions for you. Take your taxonomy of holes, and stick to the simplest cases. There are cavities, with no entrance from the outside; hollows, with one entrance; tunnels, with two or more entrances . . .

*Casati and Varzi.* And depressions: holes that are like hollows except that their entrances begin gradually, without a sharp edge to demarcate the surface inside the hole from the surface outside.

*Bargle.* Yes – for instance a test tube with a lip hosts a depression, whereas one without a lip hosts a hollow. That's our problem. On page 6, you “distinguish three basic kinds of holes”; but on page 40 it's four. We think you had it right the first time. Why do you divide hollows from depressions by whether there's a demarcating edge, when you don't divide other holes on the same principle? Some tunnels have entrances like the entrances of depressions, whereas others have entrances like the entrances of hollows . . .

*Argle.* . . . And even a single tunnel might have one kind of entrance at one end and the other at the other; or, if it's a branching tunnel, two entrances of one kind and six of the other.

*Bargle.* And even a cavity might have a sharp edge dividing part of its inner surface from another part.

*Argle.* What happens when you fill a hole? No hole any more, right?

*Casati and Varzi.* That depends. In the first place, you might fill it incompletely, leaving a cavity. In the second place, you might leave a crack where the surface of the hole used to be – a thin hole, maybe even a mere two-dimensional hole, but still a hole. But most important, you might fill it with the wrong sort of matter. A hole in the ground, filled with air or water, is still a hole. A hole in wood, filled with hardened putty, is still a hole.

*Argle.* For short: a hole filled seamlessly goes away, a hole filled not seamlessly is still there but it has stuff in it. But what if the host itself is none too seamless? Consider a hollow in a pile of miscellaneous rubbish. Fill the hollow with more miscellaneous rubbish. Plenty of

inhomogeneity, plenty of cracks, plenty of cavities and hollows and tunnels; but the big hole you filled is gone without a trace.

*Bargle.* That's part of a bigger problem. You have foremost in mind the case of a hole hosted by homogeneous and cohesive matter. But not all holes are hosted by homogeneous and cohesive matter. In fact, when you think of it microscopically, there's no such thing as homogeneous matter – not in our world, anyway. And cohesiveness is very much a matter of degree.

*Argle.* Can you have a hole in a big dense swarm of bees?

*Bargle.* Can you have a hole in a stream of oncoming traffic? If not, how can you ever turn onto a busy road?

*Argle.* Perhaps some holes are strictly and literally holes, whereas others are holes by courtesy: holes by some sort of metaphorical extension from the case where the host is homogeneous and cohesive. But where do you draw the line?

*Bargle.* Last question. Why did you call hole-linings *Ludovician* holes? That's what *Argle* thinks holes are. But who appointed *him* the spokesman for our authors?