No Impediment to Solidity as Impediment

I. The Impediment Thesis

Quassim Cassam (1997) argues that a subject, S, must be intuitively aware of himself as a physical object in order to conceive of his perceptions as being of physical objects. One premise in Cassam's argument for this claim is that, in order for S to conceive of objects as having a shape, being spatially located, and being solid, S's perceptual experience must present such objects to him in just that way (i.e. as shaped, spatially located, and solid). And about the experience of solidity, Cassam adopts the standard view; "solidity is typically felt as an impediment to one's movements" (1997: 52). This is the Impediment Thesis:

(IT) If S feels x as solid, then S typically feels x as an impediment to S's movement.

In a recent article, Martin Fricke and Paul Snowdon (2003) set out to refute (IT). They hypothesize that one who endorses (IT) may be persuaded by something like the following argument (2003: 177):

- (1) If S feels x as solid, then that is typically because x is solid and in contact with the surface of S and exerting some pressure on the body of S.
- (2) If x is exerting some pressure on S, then x is exerting some influence on a movement state of S.
- (3) If x is exerting some influence on a movement state of S and thereby felt, then S must feel x as an impediment to S's movement.
- (4) Therefore, (IT).

But according to Fricke and Snowdon, (3) is false. On their view, even if it were true that for x to be felt as solid it must be felt as exerting pressure, x need not be felt as exerting a pressure that impedes S's movement.

In this brief note, I show that Fricke and Snowdon's discussion

conflates two senses of 'impediment' which must be kept separate in order to accurately characterize the content of our perceptions of solidity. But first, a preliminary objection.

II. Coincidence, Parthood, and Solidity

Early in the paper, Fricke and Snowdon (2003: 175) suggest that we accept the following claim:

(E) Necessarily, a solid object excludes other solid objects.

But friends of coincident objects will deny that, necessarily, anything that is solid is an excluder of other solid objects. If 'is solid' can be truly predicated both of the statue and of the lump of clay, and if the statue and the lump wholly and simultaneously occupy the same place, then it is false that solid objects necessarily exclude other solid objects from simultaneously occupying the same space.

Now it might be thought that the following modification to (E) answers my objection:

(E') Necessarily, a solid object x excludes any solid object y from which x is distinct.

While coincident objects like the statute and the lump are not identical, nor are they distinct, and it is for this reason that the two fail to exclude one another.

But *contra* (E'), although you and your spleen are distinct solid objects, you do not exclude your spleen. So consider an even stronger formulation:

(E") Necessarily, a solid object x excludes any solid object y from which x is distinct and which is not a part of x.

The trouble with (E"), however, is that it will prove tricky to disentangle y's not being a part of x from x's exclusion of y. In particular, rather than y's not being a part of x acting as a condition on x's excluding y, y's being or not being a part of x may essentially involve x's not excluding or excluding y (respectively). Thus, consider a clay statue of a human form. At t_1 , the statue lacks a head; at t_2 , the sculptor affixes the head atop the

previously headless statue. At both times, the head is distinct from the statue; but whereas at t_1 , the head is not a part of the statue, at t_2 it is. Far from being excluded by the statue, by t_2 , the head has become a part of the statue. And yet, had the sculptor simply thrown the head at the headless statue, the headless statue would have excluded it. Only by affixing it does the sculptor make the head into a proper part. The point is that, even if y is not a part of x, whether x excludes y will (in some cases) depend upon the manner of their interaction. Indeed, x's non-exclusion of y may essentially involve y's becoming a part of x (as when the head is affixed to the headless sculpture); and vice versa, x's exclusion of y may essentially involve y's failure to become a part of x (as when the head is hurled at the sculpture).

To be sure, this objection does not threaten the overall aim of Fricke and Snowdon's paper. Nevertheless, the contentiousness of (E) should not be overlooked.

III. The Ladder Case

In support of their attack on (IT), Fricke and Snowdon present a battery of examples in which x is felt as exerting a pressure that 'supports or aids or facilitates S's movements'. Here, for instance, is their *ladder case*:

S wishes to get a book from a high shelf and climbs a ladder to reach it. He feels the rungs of the ladder as solid, but hardly as obstructive. They aid his movement in his desired direction. They will surely be felt as aids or promoters of his movements. (2003: 176)

Fricke and Snowdon's examples are structurally isomorphic. Each case comprises three components:

- (i) x. In the ladder example, x is a ladder rung. Other examples feature a slide, an escalator, a chair, the ground, a dog, a person, etc..
- (ii) S perceives x as not impeding. In the ladder example, the rungs are felt "as aids or promoters". In other examples, x is felt to 'enable', to 'facilitate', to 'not obstruct', etc..
- (iii) What is unimpeded is the movement involved in S's intended

course of action. In the ladder example, S's "desired" course of action is to move up the ladder. In other examples, x "facilitates his planned movement", "enables S to stay precisely where he wishes", "enables him to move in the desired direction", etc..

Since each of Fricke and Snowdon's examples appeals to intuitions about perceptual content, in principal, one could challenge one without challenging the others. But because I will be concerned with a feature common to all nine examples, I will use the ladder example as a case study; analogous points about the remaining examples may be extrapolated *mutatis mutandis*. In particular, I will concentrate on (iii) and the sense of 'impediment' involved in its claim that S's movement is unimpeded.

IV. Impediment-S and Impediment-A

Consider two ways in which S may feel x as an impediment. According to the first, S feels x as an impediment to his movement when S feels x as exerting an influence on a movement state of S. Because S feels *himself* to be impeded by x, let us label this sense 'impediment-S'. This is to be contrasted with a second sense, according to which S feels x as an impediment to movement when S feels x as an obstacle to the achievement of a movement-involving goal. What is felt to be impeded here is not S but his *action*, so let us label this 'impediment-A'.

Before I illustrate this distinction with examples, some caveats are in order. I do not discount the possibility of overlap between impediment-S perceptions and impediment-A perceptions. Nor do I claim that, in cases of overlap, perceiving x as both an impediment-S perception and as an impediment-A involves distinct contents. (We should say that the content of such a perception has two aspects.) Nevertheless, I do claim that there is a genuine distinction to be drawn here. In some cases, x may be felt as an impediment-S but not as an impediment-A; whereas in other cases, x may be felt as an impediment-A but not as an impediment-S.

Consider a case in which x is felt as an impediment-A but not as an impediment-S. Whereas the air that we breathe on Earth is composed of roughly 80% nitrogen and 20% oxygen, the atmosphere on Mars is composed of 95% carbon dioxide. If S were transported to Mars, he would perceive the high concentration of carbon dioxide as an impediment-A to

breathing.¹ That is to say, S would feel the Martian atmosphere as precluding the successful respiration of his lungs. But although he would feel the Martian atmosphere as an impediment-A (with respect to his goal of breathing), he would not feel it as an impediment-S. To see this, note that in ordinary settings here on Earth we do not feel gases constitutive of the atmosphere as exerting any influence on the movements of the component parts of our respiratory system. Nor does the fact that S would struggle to breathe on Mars confirm that the gases would be felt as impeding the movements of those parts; for as long as he survived, they would felt to move just as they do here on Earth. It is not S himself that the Martian atmosphere is felt to impede, but rather the activity of S's breathing.

By contrast, a familiar stretching exercise illustrates how *x* may be felt as an impediment-S but not as an impediment-A. Standing approximately one metre in front of a wall, with his feet flat on the ground, S stretches his calf muscles by placing his hands against the wall, leaning forward, and slightly bending his knees. The further S leans forward (without lifting his heels), the better his calves are stretched. S feels the wall as an impediment-S – as exerting influence on a movement state of S – but not as an impediment-A. S does not feel the wall as an obstacle to the achievement of his goal of stretching his calves, precisely because he does feel the wall as preventing his moving forward.

But as noted, the difference between impediment-S and impediment-A does not preclude the possibility of overlap; *x* may be felt as impeding in both senses, or as not impeding in both senses. For instance, if S aimed to topple the wall rather than to stretch his calves, he would feel the wall not only as an impediment-S but also as an impediment-A. Likewise in the Martian atmosphere case, if S aimed not to breathe but to end his life, S would feel the air as neither impeding-S nor as impeding-A.

Yet this just confirms a crucial point, *viz*. that, even in cases of overlap, it is the action-related aspect of S's perception which is sensitive to the aim of the movement. In each case, S can effect a change in the content of his perception – specifically his impediment-A perception – by revising the aim of his movement. But S's impediment-S perception is not sensitive in this way. S does not begin to feel the wall as an impediment-S

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¹ Solely for the purposes of drawing this conceptual distinction, I set aside the myriad other differences between our atmosphere and the Martian atmosphere – some of which would certainly prevent S from surviving long enough to do much breathing in the first place!

to movement simply because he revises his aim from stretching his calves to toppling the wall; he felt it as an impediment-S all along.

Fricke and Snowdon would characterise the stretching case as they do their ladder case; like the rungs of the ladder, the wall is felt as enabling or facilitating, rather than as 'impeding', S's movements. But it will be clear now that (a) this way of putting things equivocates between the two senses in which the wall may be felt as impeding; and that (b) this equivocation obscures, rather than elucidates, S's perceptual content. To say that the wall is not felt as impeding-A is not to say that it is not felt as impeding-S. Indeed, S *couldn't* feel the wall as not impeding-A unless he also felt it as impeding-A his goal of stretching his calves, but also for his perception of the wall as impeding-A his goal of toppling the wall. S could hardly feel the wall as impeding-A his attempt to topple it if he did not feel it as exerting an influence on his pushing (i.e. as impeding-S).

Likewise in the ladder case. By ascribing to S the perception of the ladder rungs as enabling rather than 'impeding' his progress toward the high shelf, Fricke and Snowdon take for granted that S represents his aim as acquiring the book (or perhaps reaching the shelf). If S's aim were different, so too might the content of one aspect of his perception be different. With respect to the aim of avoiding falling, in particular, S would feel the ladder rungs as impeding-A his fall to the floor below. But as above, both perceptions – feeling the ladder rung as impeding-A (à propos the goal of falling) and feeling as not impeding-A (à propos the goal of climbing) – depend on feeling the ladder rung as impeding-S: as exerting an influence on a movement state of S.²

V. Conclusion

What this discussion substantiates is the primacy of the impediment-S perception. The sense in which one feels something as impeding-A is (a) goal-relative and (b) dependent upon one's feeling that thing as impeding-S. While Fricke and Snowdon have succeeded in calling our attention to a different and additional sense in which one may feels things as impediments to movement, their examples do nothing to undermine – and

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² And on those occasions in which we have no particular aim concerning the physical objects with which our movements put us into contact, it seems right to say there will be no action-related aspect to our perception; we simply feel them as impeding-S *simpliciter*.

in fact depend upon – the truth that (IT) should be understood to express: If S feels x as solid, then S typically feels x as an impediment-S to S's movement.³

REFERENCES

Cassam, Quassim. (1997) *Self and World* (Oxford: Clarendon Press). Fricke, Martin and Snowdon, Paul. (2003) "Solidity and Impediment," *Analysis*, 63: 173-8.

³ I am grateful to Quassim Cassam and especially Paul Snowdon for helpful discussions and comments.