Bennett on building

Ted Sider Ground seminar

1. Unifying building relations

One can think of many different relations as all being ways of building something from something else:

- grounding
- composition
- determination
- realization
- constitution,

Bennett says these relations are unified in at least the following sense:

Relations like composition, constitution, realization, microbasing, and grounding are objectively similar to one another. They form a reasonably natural class. If you like, they are determinates of a common determinable, or species of a genus; at any rate, they are all variations on a theme. (Bennett, 2013, chapter 2, p. 18)

In what way are they objectively similar? They all satisfy B1:

B1 Relation *R* is a building relation if and only if:

- it is asymmetric and irreflexive
- the "input" relatum is more fundamental than the "output", and
- the input is minimally sufficient in the circumstances for the output
- **B2** x builds y (or the xxs build y, or the yys) if and only if
 - *x* is more fundamental than *y*, and
 - *x* is minimally sufficient in the circumstances for *y*

Let *P* be the proposition that there exists some electron, and let *Q* be the proposition that grass is green. *P* is minimally sufficient in the circumstances for $Q \vee \sim Q$, and is arguably more fundamental than $Q \vee \sim Q$, but does not build it. Bennett could respond by weakening B₂ (and B₁) to necessary conditions on building.

2. Entities versus facts again

- i) propositions are sets of possible worlds
- ii) for nonempty sets x and y, $x \subseteq y$ iff x is part of y
- iii) a conjunctive proposition is grounded in its conjuncts taken together

These assumptions imply:

- (1) the proposition P is composed of the propositions $P \land Q$ and $P \land \sim Q$
- (2) P, Q ground $P \land Q$

That means that partial building, as defined thus:

x partially builds $y =_{df} x$ together with some zzs bear some building relation to y

is not asymmetric. Moreover, assuming partial building suffices for more-fundamental-than, more-fundamental-than is also not asymmetric.

The source of the problem is that building is a very heterogeneous notion, and the different kinds of building needn't "match up". A related effect of this heterogeneity is the need to mention particular building relations in generalizations about generic building. For example, Bennett's

MC⁻ if *x* builds *y*, then for certain *C*, $\Box(x + C \rightarrow y)$

really means:

if x builds y relative to building relation R, then for certain C,

- 1. if *R* is a form of composition then $\Box(x \text{ exists} \land C \rightarrow y \text{ exists});$
- 2. if *R* is ground then $\Box(x \text{ is true } \land C \rightarrow y \text{ is true})$
- 3. if *R* is realization then $\Box \forall z(z \text{ instantiates } x \land C \rightarrow z \text{ instantiates } y)$ etc.

A parallel issue can arise for ground. Consider "structuralism" about individuals, according to which the fact that Ted is human, is 5 feet 9 inches, has a 40-inch vertical jump, etc. is explained by the fact that *someone* is human, 5' 9", has a 40-inch vertical, etc. Two arguments about structuralism:

- **Pro** What is explanatorily fundamental is epistemically accessible to us. So qualitative facts (such as that *someone is such-and-such*) are explanatorily fundamental; non-qualitative facts (such as that *Ted* is such-and-such) are not explanatorily fundamental.
- **Con** Existentially quantified statements are explained by their instances. Thus the fact that someone is human, 5' 9", etc. is explained by the fact that Ted is human, 5' 9", etc.

If ground/explanation is heterogenous, maybe Pro and Con are both right about different kinds of ground.

3. Strong versus weak unification

- 4. Responding to Wilson
- 5. Grounding building in particular building relations

6. Building versus ground

Is building or ground the more basic relation?

- *R* is a building relation iff *R* implies facts about ground in some systematic way?
- *R* is a building relation iff i) *R* implies necessitation, ii) *R* implies more-fundamental-than, and perhaps: iii) "*R*'s canonical structure is recursive"?

References

Bennett, Karen (2013). *Making Things Up*. Oxford: Oxford University Press. Forthcoming.