Fact/Operator Grounding

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Ground seminar

1. Operator vs predicate

F_1 grounds F_2

where 'F_1' and 'F_2' are names of facts, versus: =

ϕ because ψ

where 'ϕ' and 'ψ' are replaced by sentences.

In favor of the operator view:

- Neutral about the granularity of facts

- Maintains parallel with operators like 'and' and 'not'

- Keeps the subject matter of ground where it ought to be

But the operator view makes it harder to define notions like "ungrounded":

- $\sim\exists F'$ (F' grounds [Snow is white]) *(works fine)*

- $\sim\exists S$(Snow is white because S) *(sentential quantification)*

- $\sim\exists S$(⌜Snow is white because S⌝ is true) *(what about inexpressible grounds?)*

2. Plural arguments

Rather than saying that conjunctions are grounded in *each* of their conjuncts:

$A \wedge B$ because A, and $A \wedge B$ because B

we must instead say that they are grounded in the conjuncts *taken together*:

$A \wedge B$ because A, B

Entailment restated If A because Γ, then necessarily: if $\bigwedge \Gamma$ then A

("Γ" takes the place of an arbitrary list of sentences; $\bigwedge \Gamma$ is the conjunction of those sentences. Note that this definition is a schema.)

3. Full versus partial ground

4. Some logical issues

Asymmetry If A because B, Γ, then not: B because A, Δ

Irreflexivity Not: A because A, Γ

Transitivity If A because B, Γ and B because Δ, then: A because Γ, Δ

Factivity If A because Γ, then $\bigwedge \Gamma$

~~**Monotonicity**~~ If A because Γ, then A because B, Γ

$\wedge$ If A and B, then: $A \wedge B$ because A, B

$\vee$ If A, then $A \vee B$ because A

$\exists$ If $\phi(a)$, then $\exists x \phi(x)$ because $\phi(a)$

Comments:

- Asymmetry implies irreflexivity

- Irreflexivity and hence asymmetry fail for Fine's weak ground

- Transitivity fails for Fine's immediate ground.

- Factivity fails for Fine's nonfactive ground.

- The failure of monotonicity is central to the very idea of ground. The ground is supposed to be relevant to the grounded.

- Fine notes an interesting problem. Given $\exists$, $\exists x \, x = a$ because $a = a$; given Entailment, Necessarily, if $a = a$ then $\exists x \, x = a$; since it's necessary that $a = a$, it follows that it's necessary that $\exists x \, x = a$; so a exists necessarily.

5. Is ground fundamental?

What does it mean to say that ground is "primitive"?

Strongly metaphysically primitive All facts about ground are fundamental

Weakly metaphysically primitive Some facts about ground are fundamental

Conceptually primitive ground isn't defined in terms that don't involve ground.

Methodologically it's legitimate to talk about ground without having a definition in our pocket.

Argument (from the principle of "purity") against strong metaphysical primitiveness: it can't be a fundamental fact that there exists a city because C, because no fundamental fact involves cityhood.
If you buy the purity argument, then:

1. *No quick account of connection/levels.* You can still say that different descriptive levels are related by ground, but that isn't a satisfactory answer to the question of what that relationship consists in.

2. *Ground might yet be modal.* For all the assault on modal *definitions* of ground, ground may yet be grounded in modal terms (or modal plus other stuff).

6. Infinite descent

Given path dependent distance, the friend of ground will find herself saying that a certain path is one meter long because it's made up of two (nonoverlapping) half-meter long parts, and that the half-meter long parts of the initial path have the lengths that they do because they are made of quarter-meter parts, which themselves have their lengths because of the lengths of still smaller parts, and so on.