Fundamentality and non-symmetric relations

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Non-symmetric relations appear to have distinct converses. This gives rise to a number of difficulties:

- 1. Referential indeterminacy (Williamson; van Inwagen).
- 2. Brute necessities (Armstrong; Dorr).
- 3. An over-abundance of states of affairs (Fine).

The first part of the paper argues that there are no fundamental non-symmetric relations. In particular, it identifies a central role that the notion of fundamentality is meant to fulfil and that it can only fulfil if no fundamental relations are non-symmetric. This will be illustrated by means of three closely related problems:

- 1. Carnap's difficulties in implicitly defining the basic relation in the Aufbau.
- 2. Newman's objection to structural realism.
- 3. Putnam's model-theoretic argument against external realism.

The second part develops an account of derivative relations; in particular it provides identity criteria for derivative relations. These identity criteria allow us to establish that non-symmetric relations do not have distinct converses. Instead of a plurality of relations, we only have a plurality of different ways of picking out the same relation.

The third and final part identifies three ways in which asymmetry and order can be introduced into a world that only contains symmetric but no non-symmetric fundamental relations. One important upshot of this discussion is that it leads to a re-conceptualisation of grounding as an operation (where this is not understood in terms of the idea of grounding being a sentential operator) rather than as a relation.