

An Argument for Temporal Parts
(Postscript B to Lewis's 'Survival and Identity')
February 26, 2001

1. Supervenience

A-facts **supervene** on B-facts iff any two possible situations alike as far as B-facts are concerned must also be alike in respect of A-facts.

In other words, it is necessary that if the B-facts are so-and-so, then the A-facts are such-and-such.

Example: the facts about what words appear on the computer screen I'm typing on supervene on the facts about the colours of each of the pixels that make up the screen.

Somewhat controversial example: the facts about peoples' mental lives supervene on the facts of fundamental physics.

Humean Supervenience: everything supervenes on the "arrangement of local qualities": i.e. on the fundamental properties instantiated at single spacetime points, together with the geometric facts about the structure of spacetime.

Weakened Humean Supervenience: everything supervenes on the arrangement of local qualities and the pattern of causal relations.

2. Lewis's argument, in outline

1. A world which is like the actual world as regards the arrangement of local qualities and the pattern of causal relations, and at which the doctrine of temporal parts is true, is possible.
2. Weakened Humean Supervenience is true.
3. Therefore, the doctrine of temporal parts is true at the actual world.

3. Lewis's argument for the first premise

4. An argument against temporal parts

1. A world which is like the actual world as regards the arrangement of local qualities and the pattern of causal relations, and at which the doctrine of temporal parts is false, is possible.
2. Weakened Humean Supervenience is true.
3. Therefore, the doctrine of temporal parts is false at the actual world.

5. Diagnosis

Weakened Humean Supervenience is plausible only if 'possible' is interpreted in a narrow or restricted sense. (In fact Lewis concedes elsewhere that some sort of restriction is needed to rule out "rubbishy" worlds.) But for the argument for the first premise to be convincing, 'possible' needs to be interpreted in a broad sense.