Exposition of Lewis's modal realism Cian Dorr January 24, 2005

1 Analyses of sentences involving modal operators

The distinction between 'unrestricted' and 'standard' uses of the quantifiers.

The standard ones can be analysed in terms of the unrestricted ones plus certain indexical terms. E.G.: 'There are donkeys' taken as standard will be analysed as 'There are donkeys that are part of the same world as me / us / this'.

'Possibly' and 'Necessarily', when taken in their 'metaphysical' senses:

Analysis suggested by the Kripke semantics: 'Possibly P' is analysed as 'There is a world w such that in w, P'. This leaves two unfinished pieces of business for further analysis: 'world' and 'in w'.

Lewis on 'in w': it's (primarily) a quantifier restricter. The analysis of 'in w, P' is contextual: you go through and put an explicit restricter on each 'standard' quantifier that appears in P. ('Unrestricted' quantifiers are left alone: so in the sense in which 'there are many worlds' is true, so are 'possibly, there are many worlds' and 'necessarily, there are many worlds'.)

— Implicit quantifiers, as in 'invent', must also be restricted.

Something more than this happens when 'P' in 'in w, P' contains free variables (or "rigid" names). See 'Counterpart Theory and Quantified Modal Logic' for fully explicit details of one way it might go.

An important feature of this analysis: suppose that 'P' is some ordinary sentence and 'Q' is its analysis using unrestricted quantifiers and indexicals. Then the analysis of 'Possibly P' may be different from—even differ in truth value from! the analysis of 'Possibly, Q'.

– Is that bad?

Restricted and unrestricted modalities.

Different, contextually selected accessibility relations and counterpart relations.

The strongest sense of 'necessarily' and weakest sense of 'possibly' this framework allows for will be ones where we let everything be a counterpart of anything else. Nothing suggests any account of anything stronger/weaker than that.

— What would Lewis say about "analytic" necessity and possibility, for example? Well, he does think that there's a way of understanding 'possibly' on which sentences like 'possibly, water is not H_2O ' come out true. He holds that 'water' is to be analysed as something like 'the actual stuff of our acquantance that is to be found in rivers and lakes, falls from the sky as rain...': the weaker sense of possibility will correspond to a reading of this on which 'actual' is treated as completely redundant.

Other modal discourse not naturally formulable in the language of QML.

The analysis of 'world'

First pass: w is a world iff no part of w bears any spatiotemporal relation to anything which is not a part of w, and there is no part v of w such that no part of v bears any spatiotemporal relation to anything which is not a part of v.

Second pass: insert 'analogously' in front of both occcurrences of 'spatiotemporal'.

Another alternative tentatively rejected: replace 'spatiotemporal relation' with 'perfectly natural [external] relation'.

Why not have overlapping worlds?

The problem of island universes.

2 Lewis's ontology

Someone *could* hold all of this while believing that there is only one "world" in Lewis's sense, or remaining entirely agnostic as regards how many of them there are. Not Lewis. Lewis wants us to be relatively conservative in our modal opinions, and relatively revisionary in our opinions about how much stuff there is.

The principle of recombination.

For any class of objects, there is a world that contains non-overlapping intrinsic duplicates of each of them, "size and shape permitting".

Motivation and interpretation of the restricting clause.

— The question what the maximum cardinality of a possible world is is a vivid example of a question about the space of worlds concerning which we may be irremediably ignorant.

Do we need stronger principles than this to reconstruct our ordinary thought about possibility?

Don't we need to say something about how the intrinsic duplicates can be *ar-ranged* in spacetime?

A much stronger possible view: "combinatorialism" about the perfectly natural properties and relations.

3 Propositions and properties

4 More on counterpart theory