

Lewis's *Causal Explanation*

- ❖ Main Thesis: Explanations of particular events are either (a) chunks of information about the event's causal history or (b) acts of providing such information (i.e. acts of explanation).

Converse? Not necessarily...no clear boundary between bad/unsatisfactory explanations and that which doesn't qualify as explanation at all; some chunks of info or acts of providing info will certainly straddle this boundary, only unmotivated stipulation could guarantee their status as explanation.

MT extension: General explanations – i.e. explanations about *kinds* of events – are simply chunks of info about what is common to a set of parallel causal histories (or the acts of providing such info).

- ❖ Possible counterexamples:

- (1) beam of light and *path of least time* – this is not an explanation *unless* it combines with already possessed info to imply something about causal history, e.g. about refractive indexes of media, etc.
- (2) collapsing star and *Pauli exclusion principle* – negative info is provided, viz. that there is no additional cause for this phenomenon beyond causes of collapse itself.
- (3) smallpox immunity and *antibodies* – dispositions are not *events*, only their realizers are.

- ❖ Comparison with other models of explanation:

- no requirement that explanandum be necessary or probable consequence
- no explanation/prediction symmetry
- no requirement of simplicity, familiarity, unifiability, etc.
- *explanatory* D-N and D-N-P arguments are just a subclass of causal explanation and *not* an ideal:
 - (a) not necessarily the case that all explanations can be put into D-N form (maybe contingently)
 - (b) even if so, that goal is both unrealistic and pragmatically narrow-minded
- explanations are not essentially nomological, but the investigation of causes and the investigation of laws are, from a practical standpoint, inextricably united.

- ❖ Explanatory diversity and pragmatics:

Causal histories are temporally extended, dense, and complex; information about them comes in multiple and varied forms, including (a) naming one event in the history, (b) naming several that are causally independent from one another but act jointly, (c) tracing a linear or branching chain in the history, (d) claiming only that the history includes a certain kind of event or pattern of events (of varying specificity), (e) making a negative claim, i.e. saying what the history does not include, etc.

Relative satisfactoriness of explanations is similarly multiply dimensional, depending on (a) truth/falsity/relative verisimilitude, (b) amount and quality of info (how many alternatives it excludes, how disjunctive it is), (c) whether it's justified or not from standpoint of explainer, (d) how well it meshes with recipient's previous knowledge, current interests, ability to assimilate it, etc. (e) how clearly and convincingly it is presented.

Explanation should be viewed in terms of more-or-less rather than all-or-nothing; this runs counter to the D-N approach insofar as the latter attempts a hard-line delineation of the *unit* of explanation (though something like Railton's "ideal text" may mitigate this difference).

Why-questions, for instance, always get partial answers (with no clear line between enough and not enough info) – contrastive questions simply indicate what kind of info is wanted, ruling out certain aspects of the event's causal history

* certain contrastive questions unanswerable in indeterministic contexts