

## The True Causes & Effects Notes

### 1. Topic:

*Singular* causation (Fred's smoking caused his cancer); *not* general causation (smoking causes cancer)

### 2. Assumption:

Causation is *contingent*: sufficient causes don't entail their effects; causation can be indeterministic.

### 3. Target: singular causes *c* and effects *e* are 'events':

(i) particulars; (ii) things with properties; (iii) changes in things; or (iv) tropes (property instances).

### 4. Assumptions about target:

- (i) Causes *c* and effects *e* are non-abstract empirical entities, with limited locations in space and time.
- (ii) All singular causation is statable in '*c* causes *e*' format.

### 5. Implications of assumptions:

- (i) '*c* causes *e*' entails that *c* and *e* exist in the actual world.
- (ii) '*c* causes *e*' is *transparent*. E.g.  
     '*Caesar's stabbing caused his death*',  
     '*Caesar's stabbing = the stabbing in the Theatre of Pompey on the Ides of March*', and  
     '*Caesar was Rome's Dictator*' entail  
     '*The stabbing in the Theatre of Pompey on the Ides of March caused the death of Rome's Dictator*'.

### 6. Case against '*c* causes *e*': (i) '*c* affects *e*':

Fred's injection caused his death *to be painless*; Fred's injection didn't cause his *death*.  
 So Fred's painless death  $\neq$  Fred's death.

### 7. Case against '*c* causes *e*': (ii) *identities* as causes or effects:

*Causes*: JFK's being US President *caused* him to be shot;  
     JFK's being Joseph Kennedy's second son *didn't* cause him to be shot.  
*Effects*: Trump's winning the 2020 election *would* cause Trump to be the 2021 US President;  
     Trump's winning the 2020 election *wouldn't* cause Trump to be Trump.

### 8. Case against '*c* causes *e*': (iii) *inactions* and other *non-events*:

Fred's *not* being injected caused him to die painfully; Fred's operation caused him *not* to die of cancer.

### 9. 'Q because P' format:

'Q because P' entails 'P' and 'Q': i.e. causes and effects are *facts* in the innocuous sense that  
 It's a *fact* that P if and only if 'P' is *true*.

### 10. Objection (i) to 'Q because P': it *doesn't* entail that *explanation* is *causal*.

*Reply*: (a) 'Q because P' is causal if it's shorthand for 'P's being the case causes Q to be the case';  
 (b) 'Q because P' shows that causes *explain* effects, but (since it's asymmetrical) not *vice versa*.

### 11. Objection (ii) to 'Q because P': P and Q *facts have no spacetime locations*.

Tenseless and non-indexical 'P' and 'Q' are true everywhere and always.  
*Reply*: location is in *content*: 'Trump is US President in 2021 because he won 2020 US election';  
     'JFK was shot because he was [*already*] US President'; 'Caesar died because he was stabbed [*earlier*]'.

### 12. Case for 'Q because P': (i) implied by principal theories of causation.

Theories: (a) *covering law*, (b) *counterfactual*, and (c) *probabilistic*:  
 (a) '*Gx* because *Fx*' = 'All *Fs* are *Gs*' – *sufficient* causation;  
 (b) '*Gx* because *Fx*' = 'If *x* wasn't *G* it wouldn't be *F*' – *necessary* causation;  
 (c) '*Gx* because *Fx*' = 'If *Fx* then  $ch(Gx)=p$  [& if  $\neg Fx$  then  $ch(Gx)<p$ ] &  $Fx \wedge Gx$ ' – *chancy* causation.

### 13. Case for 'Q because P': (ii) it can express *causing/affecting* distinction

Fred *dies* because *he has cancer*; Fred *dies painlessly* because *he's given a painkilling injection*.  
     'Fred dies painlessly'  $\models$  'Fred dies'.

**14. Case for ‘Q because P’: (iii) it can express *identity* causes and effects:**

‘Trump is the 2021 US President because he wins the 2020 election’ *doesn’t* entail

‘Trump is Trump because he wins the 2020 election’.

‘JFK was shot because he was US president’ & ‘JFK was Joseph Kennedy’s second son’ *don’t* entail

‘JFK was shot because he was Joseph Kennedy’s second son’.

**15. Case for ‘Q because P’: (iv) it can express causation by and of *non-events* and *inactions*:**

Fred dies in pain because he *doesn’t* get painkiller; Fred *doesn’t* die of cancer because he has operation.

**16. Case for ‘Q because P’: (v) facts have negations:**

*Facts*: ‘Fred doesn’t die’  $\models$  ‘Fred doesn’t die *painlessly* & Fred doesn’t die *painfully*’.

*Events*: Fred’s non-death would have to be both *painless* and *painful*.

**17. Transparency:**

Caesar died because he was stabbed & there was a stabbing of Caesar & there was a death of Caesar: so

*Caesar’s stabbing caused his death.*

Caesar’s stabbing = the stabbing in the Theatre of Pompey & Caesar’s death = the Dictator’s death: so

*The stabbing in the Theatre of Pompey caused the Dictator’s death.*

**18. Opacity:**

‘Q because P’ can be opaque because it’s not a *complete* truth function of ‘P’ and ‘Q’.

**19. Opaque causation of action:**

Caesar is *both* Calpurnia’s husband *and* the would-be Emperor.

Brutus *believes* that Caesar is Calpurnia’s husband & that Caesar is the would-be Emperor. But

‘Brutus stabs Caesar because he believes Caesar is the would-be Emperor’ is *true*;

‘Brutus stabs Caesar because he believes Caesar is Calpurnia’s husband’ is *false*.

**20. Ontological postscript (i) non-maximalist truthmaking:**

Only *some* ‘primary’ truths have non-propositional truthmakers, which include:

*things* having *natural properties* (and relations), *events* having *durations*; spacetime *regions*’ curvatures.

*Complete truth functions* of primary propositions, including

*negations, disjunctions, conjunctions*

*don’t* need their own [non-propositional] truthmakers to make them true: e.g.

if a primary ‘V’ is false, ‘ $\neg V$ ’ is made true by the *non-existence* of ‘V’s truthmaker.

**21. Ontological postscript (ii) ‘Q because P’ ’s truthmakers (TMs):**

‘Q because P’ entails ‘P’ and ‘Q’, which may or may not need truthmakers.

‘Q because P’ *isn’t* a complete truth function of ‘P’ and ‘Q’, so it *does* need a truthmaker.

‘*o* accelerates at  $A$  m/sec<sup>2</sup> because  $F$  Newtons is applied’: TM is *o*’s having mass  $M=F/A$  kg.

‘*o doesn’t* accelerate because *no* force is applied’: TM is *o*’s having *a* mass.

‘Salt dissolves because it’s immersed in water’: TM is salt’s properties that dispose it to dissolve in water.

‘Salt *doesn’t* dissolve, because it’s *not* in water’: TM is salt’s properties that dispose it *not* to ‘dissolve’ in air.