§ The Problem of Mental Causation

* The problem of mental causation for Cartesian Dualism:
  ___ How is it possible for the Cartesian soul that has no extension in space to unite with a material object like the body, and to intervene in those electrochemical processes in the brain?
[This problem is no longer a problem for contemporary philosophers of mind.]

* The problem of mental causation under the assumption that there are no immaterial substances like souls:
  ___ 1. How is it possible for a mental event to cause, or to be caused by, a physical event?
  ___ 2. How is it possible for an instantiation of a mental property to cause a physical property to be instantiated, or vice versa?

Q: Why is this a problem?
A: The incompatibility between the lawful nature of physical causation and the unlawfulness of mental causation.
  ___ Causality is lawful and not random. If an event of type A causes an event of type B, then in general all events of type A must cause events of type B. It cannot just be a happy coincidence. But when a mental event (such as having a desire) causes a physical event (such as an action), there is no lawlike regularity. So, could it be that it is not a causal relationship after all?

§ Varieties of Mental Causation

1. physical-to-mental causation (e.g. sensation)
2. *mental-to-physical causation (e.g. beliefs and desires cause actions)
3. mental-to-mental causation (e.g. beliefs lead to another belief)

Q: Through what mechanism or process does a mental event manage to initiate, or insert itself into, a causal chain of physical events?

§ Agency and Mental Causation

[Agent] =def Someone with the capacity to perform actions.
Someone who is able to act for reasons and whose actions can be explained and evaluated in terms of the reasons for which he acted.

\[ \text{Reason} = \text{desires} + \text{beliefs} \]

\[ \text{DBA} = \text{[The desire-belief-action principle]} \]
If S desires something and believes that doing A will help secure it; and (i) if there are no other conflicting desires; (ii) ceteris paribus (other things being equal); Then, S will do A.

§ Epiphenomenalism and Mental Realism

[Alexander's Dictum]: To be real is to have causal powers.

[Argument from Alexander's Dictum]
___ 1. If mental events have no causal powers, then they are in total causal isolation from the rest of the world -- their existence would be inexplicable since they have no causes; they would make no difference to anything else since they have no effects.
___ 2. If anything is both causeless and effectless, then it cannot really exist.
[Alexander's Dictum]
___ 3. According to epiphenomenalism, mental events have no causal powers whatsoever.
___ 4. Therefore, under epiphenomenalism, mental events are not real. \( \Rightarrow \) [Mental Irrealism]
\( \Rightarrow \) Epi-phobia (the fear of being committed to epiphenomenalism)

Q: Do you accept [Alexander's Dictum]? Can you think of any abstract thing that may exist while having no causal powers?

§ Davidson's Theory of Mental Causation

*Davidson's thesis on mental causation: Reasons explain actions in virtue of being their causes.*
[i.e. Rationalizing explanation is causal explanation.]
e.g. The reason why I went to the supermarket was that I needed to get some milk.
\( \Rightarrow \) My desire for milk caused me to go to the supermarket.

*Davidson's theory: anomalous monism*
There are no immaterial substances; all events are events of the same substances.

But there are no nomological connections between types of mental events and types of physical events. [Psychophysical anomalism]

Furthermore, the nature of mental causation is lawless, even though the nature of physical causation is lawful. [Mental anomalism]

Q: Is it just that mental states like beliefs and desires are so complex that it is impossible for us to discover their neural bases? Or is it the case that they are simply not the sort of state for which neural correlates could exist and that it makes no sense to look for them?

* [Davidson's Argument for Psychophysical Anomalism]
___ 1. Rationality and coherence is of the essence of the mental; they are the very things that constitute mentality.
___ 2. Therefore, the ascription of intentional states like beliefs and desires must be regulated by certain principles of rationality.
___ 3. [The principle of rationality]: In ascribing beliefs and desires to another human being, we should ensure that the total set of her mental states will be as rational and coherent as possible.
___ 4. Therefore, there is a principle of rationality and coherence that governs human's intentional states.
___ 5. But there is no such law in the physical domain.
___ 6. If each of our beliefs is connected lawfully to a type of neural states, then beliefs would be governed by the constraints of physical theory.
___ 7. If beliefs are governed by the constraints of physical theory, then they are no longer under the principle of rationality.
___ 8. Therefore, to preserve the essence of the mental, we cannot expect beliefs to be connected by law to a physical substrate.
___ 9. Therefore, there cannot be any lawful connections between (intentional) psychological and physical states.

* [Davidson's Dilemma]
[On the one hand]
___ 1. Causal relations require laws.
___ 2. Therefore, for there to be causal relations between mental and physical events, there must be psychophysical laws.
___ 3. But Davidson argues that there are no psychophysical laws.
___ 4. Therefore, there cannot be causal relations between mental and physical phenomena.
[On the other hand]
___ Davidson does believe in mental-to-physical causation.
* [Davidson's Answer]: Anomalous Monism
  1. [the nomological model of causation]: For every single causation to take place (e.g. between event c and event e), there must exist a causal law between event type C and event type E such that all events of type C would cause events of type E.
  2. All events in the universe are physical events.
  3. Causation takes place among individual events.
  4. Thus, every singular causation is governed by some physical causal law.
  5. Some physical events are at the same time mental events (i.e., they can be given mental descriptions.)
  6. When the same events c and e are given mentalistic descriptions and are called m and n, there does not have to be a strict lawful connection between events of type M and events of type N.

Q: Do you think that Davidson's theory is a coherent one?

§ Three Problems of Mental Causation for Davidson's Anomalous Monism

[A] The Problem of Property Epiphenomenalism (Or: The Problem of the Causal Efficacy of Mental Properties)

1. [c causes e].
2. A physical event c [of type C] = A mental event m [of type M].
3. c causes e in virtue of property C, not in virtue of property M.
4. Therefore, property M becomes causally irrelevant in this causation.
5. In general, all mental properties are causally irrelevant.

[B] The Problem of the Causal Efficacy of Wide Content Properties

1. Wide content properties (i.e. properties that are partially determined by factors in the environment) can vary with individuals who have exactly the same narrow content properties (i.e. properties that are internal to the workings of the brain).
2. But behavior causation is only "local" and depends only on the intrinsic neural/physical properties of the brain.
3. Therefore, differences in the wide content properties have no bearing on the causation of behaviors.
4. Therefore, wide content properties are causally irrelevant in behavior causation.
[C] The Problem of Causal/Explanatory Exclusion

1. [The causal closure of the physical domain]: The physical domain is causally closed such that nothing outside of this domain can exert any causal force on objects in this domain.

2. [The causal/explanatory exclusion principle]: For any single event, there cannot be two distinct (independent) causes, or causal explanations, that are each causally/explanatorily sufficient.

3. Every single behavioral event has a sufficient physical cause already. (from 1)

4. Therefore, no event distinct from the physical event can be a sufficient cause of the behavior. (from 2, 3)

* Three possible models for mental causation to be effective:

(i) The epiphenomenalist model

\[
\text{Pain} \uparrow \text{causes} \text{Neural State} \rightarrow \text{Wincing}
\]

(ii) The supervenient model

\[
\text{Pain} \longrightarrow \text{Wincing} \uparrow \text{causes} \text{Neural State} \rightarrow \text{Muscle contraction}
\]

(iii) The reductionist model

\[
\text{Pain} \rightarrow \text{Wincing} \uparrow \text{causes} \text{Neural State} \rightarrow \text{Muscle contraction}
\]
[Suggested Paper Topics]:

___ Q: How would you solve any of the three problems of mental causation for Davidson? To choose any of these three topics, you need to read several articles written by Kim and Davidson to find your own position. Come ask me for reference.

___ Q: Which model do you think best preserves mental causation? To choose this topic, you need to fully understand what the problem of causal exclusion is and what those three models stand for. Come ask me for reference.