The Mind is the Brain

Materialism

- **Materialism**: the only kind of substance in the world is material/physical
  - Materialism emphasizes the connection of stuff to matter
  - Physicalism emphasizes the connection of stuff to physics and the physical world
  - For our purposes, Materialism is interchangeable with Physicalism
- Identity-thesis is a version of materialism/physicalism
  - "All mental states and events are in fact physical states and events"
Identity–thesis

- **Identity-thesis**: the position that mental events are identical to physical events
  - When one uses terms to talk about mental events and uses terms to talk about brain events, one is talking about the same thing

Identity-thesis Is Not about Meaning

- What is lightning?
  - Such-and-such a discharge of electricity
- What is heat?
  - Mean molecular kinetic energy
- What is water?
  - H2O
  - "Water" does not mean H2O. "Water" and "H2O" refer to the same thing.
- Likewise, pain does not mean C-fiber firings. "Pain" and "C-fiber firing" refer to the same thing
Argument for Identity-thesis

1. "Some conscious states and events are causally necessary for the occurrence of some physical ones.

2. "In a completed neuro-physiological science there will be no need to advert to anything other than physical-physical causality.

3. "So some conscious states and events are (are identical with) physical (brain) states and events." (277)

Key Points @ 1

@ 1: This premise recognizes the causal relations between the mind and the brain

- We believe that mental events are necessary causal forces for some physical events
  - E.g., I have a pain in my head and this necessitates my going to the medicine cabinet to get aspirin

- In fact, we think mental events form part of the causal explanations of many physical events
Key Points @ 2

• @ 2: This premise follows from materialist assumptions about causal explanations
  • Non-physical events cannot provide an explanation of a physical event
  • All physical events have physical causes
  • This view is part of our scientific worldview
  • Admitting that physical events have nonphysical causes would require a completely new science of causal laws and causal relations

Key Points @ 3

• @ 3: The conclusion follows from premises 1 and 2
  • While the conclusion maintains that "some" mental states are identical to brain states, Carruthers thinks it follows that all mental states are brain states
  • "Then since it seems extremely unlikely that some conscious states are physical while some are not, it follows that all are." (277)
Defending the Identity-thesis Argument

• The argument is valid. And, the premises are likely true. But, the persuasiveness of the argument depends on adequate responses to the many objections to the argument

• Many of the arguments involve violations of Leibniz's Law: identical things share identical properties

Defense Against Certainty

• See argument on p. 278

• While the two premises are true, the argument commits a fallacy.

• Leibniz's Law does not hold in intentional contexts

  • Intentionality: the ability of mental states (thoughts) to be about, represent, or stand for things, events, or properties

  • "So from the fact that I have complete certainty about my own conscious states without having certainty about my own brain-states, it does not follow that my conscious states are not brain-states." (278)
Defense Against Privacy

- See argument on p. 278
- What is meant by "private"?
  - A. Only I can know it (about knowledge)
  - B. Only I can possess it (about ownership)
- If the argument intends knowledge privacy, then it commits the same fallacy as the Certainty argument
- If the argument intends ownership privacy, then premise 2 is false
  - Only I can own my brain states

Defense Against Value

- See argument on p. 279
- "wicked" and "admirable" are intentional states
- So, the use of these intentional terms in the argument means that the argument commits the same fallacy as the Certainty argument
Defense Against Colour

• Afterimage: green-and-orange-afterimage

• Grass is green. Is the afterimage green or is the afterimage of green?
  • Green afterimage is an experience of green but is not itself green.
  • Green afterimage represents some green stimulus. Brain-states also represent. So, the brain state and mental state are identical states (representing a green afterimage).

Defense Against Felt Quality

• See argument on p. 280

• Experiences have a qualitative feel. The experience of pain is identical to the qualitative feel of pain.

• Brain states cannot have or possess a qualitative feel. But, can a brain state be identical to a qualitative feel? If so, then there is no problem.

• This argument makes a similar grammatical mistake as the Colour argument
  • The grammatical structure used in talking about experience seems to attribute genuine properties to that experience. But, experiences are identical to the particular qualitative feel.
Defense Against Complete Knowledge

- See argument on p. 281
- This argument does not commit an intentional fallacy, like the Certainty argument
- Rather, the argument commits the fallacy of equivocation
  - What is meant by "knowledge" changes from *practical* knowledge to *factual* knowledge
  - No amount of *factual* knowledge (about a red experience) will necessarily provide one with *practical* knowledge (of recognizing a red experience when one has it). In this sense, premise 1 is true.
  - Premise 2 is true if it only means *factual* knowledge.

Problem of Intentionality

- See argument on p. 281
- Is it true that no physical state (of the brain) can be intentional in its own right?
- There's a general problem in saying how it is possible for anything to represent
  - So, the answering the above question is challenging since it is not clear what the essential criteria for representation are
  - At the same time, the problem of representation is not easier if we assume that it is non-physical mental states that do the representing
  - There may not be a convincing argument against premise 2 without a solution to the problem of representation
Representation in a Physical System

- If a computer can represent or express intentionality, then there is no principled reason the brain (biological computer) cannot represent or have intentionality.

- 1. One important characteristic of intentional states is that they represent the world in one way as opposed to another.
   - Can a computer represent the world one way as opposed to another?
     - Example of a software-controlled robot picking only yellow objects, and ignoring shape other features (of the lemons).
     - The robot "desires" yellow objects.
     - Is there a difference between the robot and Oedipus?

Representation of Non-existent Objects

- 2. Another important feature of representation is that it can be about non-existent objects.
   - Can a computer have representational states of non-existent objects?
     - Example of a cruise missile that is programmed to look for a non-existent lake.
     - The missile will behave and continue to behave as if there is a lake even though no lake exists.
Heliotropic Plants Represent

- Heliotropic plants track the sun throughout the day with their leaves or flowers
- One might argue that the flowers or leaves represent the sun's location
- Here’s an example of a physical thing representing or having intentional states

Carruther's Conclusion to the Problem of Intentionality

- "I conclude that there is no reason in principle why a merely-physical system should not display the various features characteristic of intentional states. So we have been given no reason for supposing that beliefs and desires are not themselves physical (brain) states." (283)
Problem of Spatial Location

• See argument on p. 283

• Is it really meaningless to attribute any particular spatial position to a thought (consciousness)?

• Carruthers thinks the identity-theorist should not dismiss the problem by redefining what it means to be a "thought" or "conscious state"

• It's not enough to define a thought as existing in a brain state. One needs to make the spatial argument a contingently discoverable claim and not definitional.

Being Mislead by Grammar

• "My thought of my dog"

• A thought is not an individual thing or object. Your thought is not like your dog.

• What is a thought like?

• A thought is an action, or type of event. It's a "happening."

• Can we (how do we) attribute spatial positions to events?
Where does the event "Fido growing older" take place?

- At a certain bodily location? Does Fido grow older at this spot on its body? The question seems nonsensical.
- But, ageing is a purely physical process.
- Similarly, the question of the spatial location of any particular thought also seems nonsensical.

We do attribute location to thoughts, but in a general, distributed sense.

- Compare:
  - Where is ageing located?
  - Where is thinking located?
  - Can we specify more a exact location for thought/consciousness?

"The first step in dispelling the puzzlement which it [the question about spatial location] causes is to realize that what we are in fact being asked is: ‘In virtue of changes in what specific region of Mary is it becoming true that she is thinking of her mother?’ The next step is to learn that each conscious event is identical with some brain-event."