- From Dualism to Physicalism(s)
    - In the wake of powerful arguments against substance dualism, especially the 'mental causation argument', dualism was gradually abandoned by the beginning of the 20th century.
    - What replaced substance dualism can be called (loosely) **Physicalism**: the claim that all there is are physical entities and features (whatever 'physical' ends up meaning', perhaps just the language of physics). The mind, then, must itself be physical, explainable in physical terms, or otherwise reducible to the physical.
        - Life, for example, has been incorporated into a physicalist framework: we can describe, at least in principle, how life occurs in terms that are purely physical.
        - The most straightforward (and initially plausible) form of physicalism is Mind-Brain Identity Theory (usually just called Identity Theory). A mental state (or the entire mind) can be identified with a particular physical-neural state (or the entire brain).
    - Those who wanted to maintain some kind of non-physicalist picture usually opted for some kind of epiphenomenalism.
        - Epiphenomenalism is the position in the philosophy of mind according to which mental states or events are caused by physical states or events in the brain but do not themselves cause anything.
        - So while brain states might cause mental states, the inverse is not true; the cause of a brain state is always another brain state.
- Consciousness
    - It seems reasonable that a theory of the mind would make sense of *consciousness* or subjectivity, as we pre-theoretically take this to be a basic feature of having a mind.
        - In the sense that most philosophers use it, a being is conscious just if there is "something that it is like" to be that creature, i.e., some subjective way the world seems or appears from the creature's mental or experiential point of view.
            - Bats are conscious because there is something that it is like for a bat to experience its world through its echo-locatory senses, even though we humans from our human point of view can not emphatically understand what such a mode of consciousness is like from the bat's own point of view.
- The 'What it's like" Argument
    - There is something that it is like to be a conscious being or to be in a particular mental state.
        - Our cognitive processes are often accompanied by conscious, subjective, and felt aspects.
    - This "something like" is only accessible from the particular point of view in which it is experienced.
        - We, as humans, can never know what it is like to experience the world as a bat--can not emphatically understand what such a mode of consciousness is like from the bat's own point of view.
        - All that we can do is to imagine what it would be like for *me* or for *a human* to be in a position relatively similar to a bat.
    - We cannot give a *complete* objective or physicalist explanations of entities that are inherently *subjective*, that is, necessarily tied to a particular, first-personal view of the world.
        - We can explain the phenomenon of thunder, as it does not depend on a particular perspective. As well, we can explain why thunder produces sound for us. Yet what it

is like to hear thunder (for *me* or for a particular kind of conscious being) is not detachable from a perspective.
    - Physicalism is incomplete.
- The Knowledge Argument
    - A person can have complete physical knowledge concerning facts about the world, such as the nature of color and vision.
        - Mary lives in a world without color, but becomes an expert in the study of color and vision.
    - But there is some kind of knowledge (e.g., concerning the experience of color) that is not explained by such physical knowledge.
        - Mary *experiences* color for the first time; this is an augmentation or increase in her knowledge of color.
    - There is some kind of knowledge concerning facts about human color vision that is non-physical knowledge, or that refers to non-physical entities/features ('qualia).
    - Physicalism is incomplete.
- The Modal Argument
    - It is imaginable that a human body might exist without conscious experience (i.e., philosophical zombies).
        - This can also be put in terms of possible-world semantics: there is a possible world in which I exist atom for atom identically, but am not conscious.
        - Likewise, we might say that no amount of physical information 'logically entails' the presence of consciousness.
    - Consciousness is something over and above (e.g., epiphenomenal) physical states.
    - Physicalism is incomplete.
- Hard and Easy Problems of Consciousness
    - Chalmers infamously accounts for the failure of physicalism by distinguishing two sorts of problems we might try to solve about consciousness: the easy problem and the hard problem.
        - The (relatively) easy problems of consciousness are those that can be explained using the methods of science (especially neuroscience and cognitive science). These are still, of course, quite difficult areas of inquiry, but nonetheless seem solvable in principle.
            - These are problems about phenomena that are explainable in terms of computational or neural mechanisms.
            - They are vulnerable to such solutions because they concern specific cognitive *functions* (and so the mechanism that accounts for that function).
                - How does the brain process visual information? How do we make decisions? How do we learn and remember things? How do we control our movements?
        - The hard problem is the problem that the previous arguments point to: the problem of 'what it is like', qualia, or (for Chalmers) experience.

- This is a problem about the subjective, felt nature of our experience. What makes the hard problem hard and almost unique is that it goes beyond problems about the performance of functions.
    - Why is it that when our cognitive systems engage in visual and auditory information processing, we have visual or auditory experience: the quality of deep blue, the sensation of middle C? Why should physical processing give rise to a rich inner life at all?

- Example: Imagine a robot that is programmed to see, hear, and move just like a human. It can even respond to questions and commands in a way that is indistinguishable from a human.
    - The easy problems of consciousness would be concerned with explaining how the robot's brain processes visual and auditory information, how it makes decisions, and how it controls its movements. These problems could be solved by studying the robot's neural circuitry and its programming.
    - The hard problem of consciousness would be concerned with explaining why (or *if*) the robot has subjective experiences. Why does the robot feel like it is seeing and hearing things? Why does it have qualia, such as the redness of red or the pain of a stubbed toe?