

Brain, Mind, and Consciousness

Is our mind
just our brain?

Can
consciousness
be physical?



The Brain and the Mind

Frontal Lobe

Planning
Reasoning
Problem solving
Morality
Personality
Social Skills
Recognising and
Regulating Emotions
Motor Functions
Motor speech area
of Broca

Brain Mind Relation

Parietal Lobe

Recognising sensation,
body position and objects
Sense of time and space
Reading and Comprehension area
Association between
functions of other
lobes

Temporal Lobe

Understanding
Language
Hearing
Speech
Memory
Learning
Sensory speech area
of Wernicke

Occipital Lobe

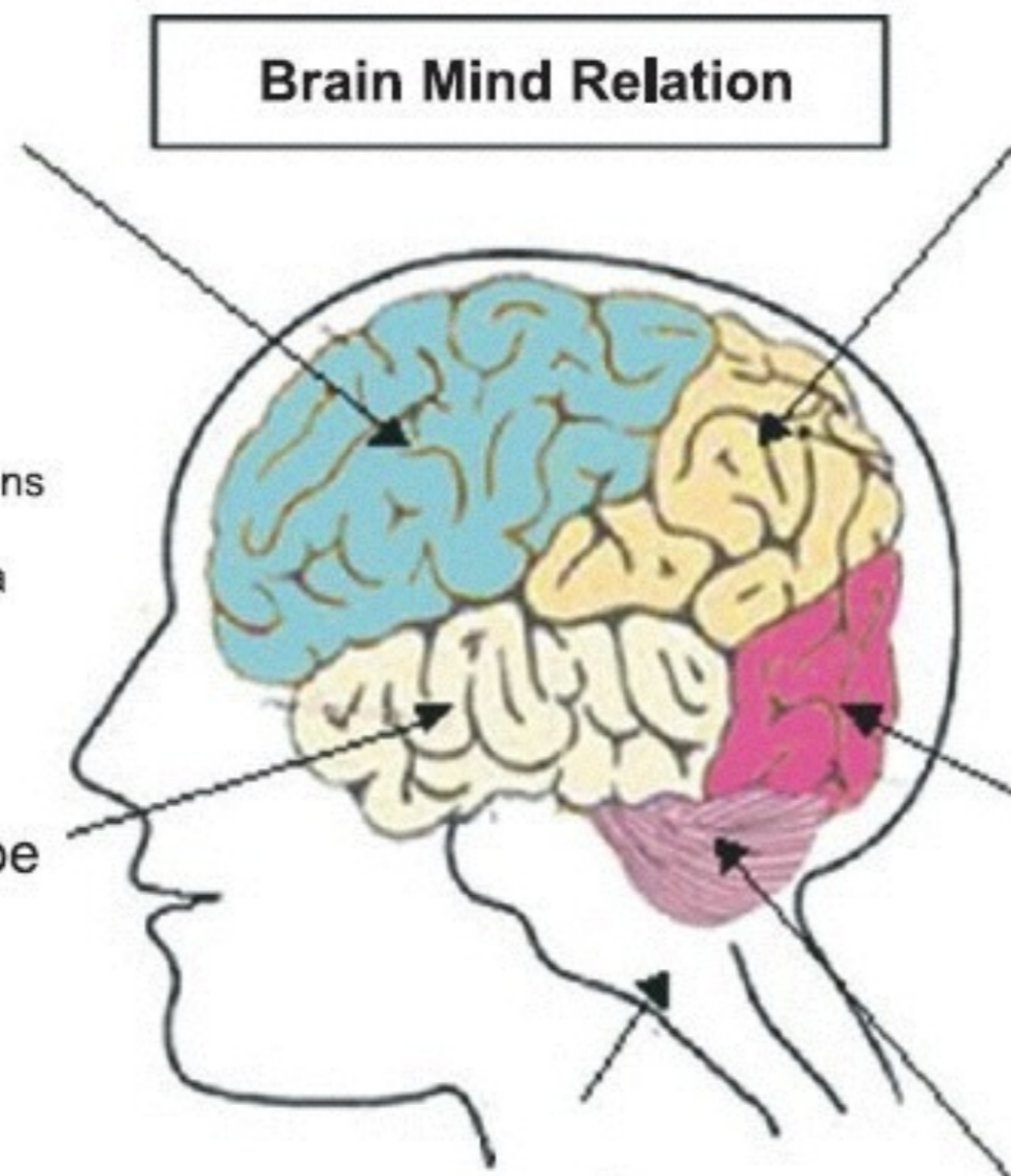
Vision and Integrating
visual information
(colour, shape and
distance)

Brain Stem

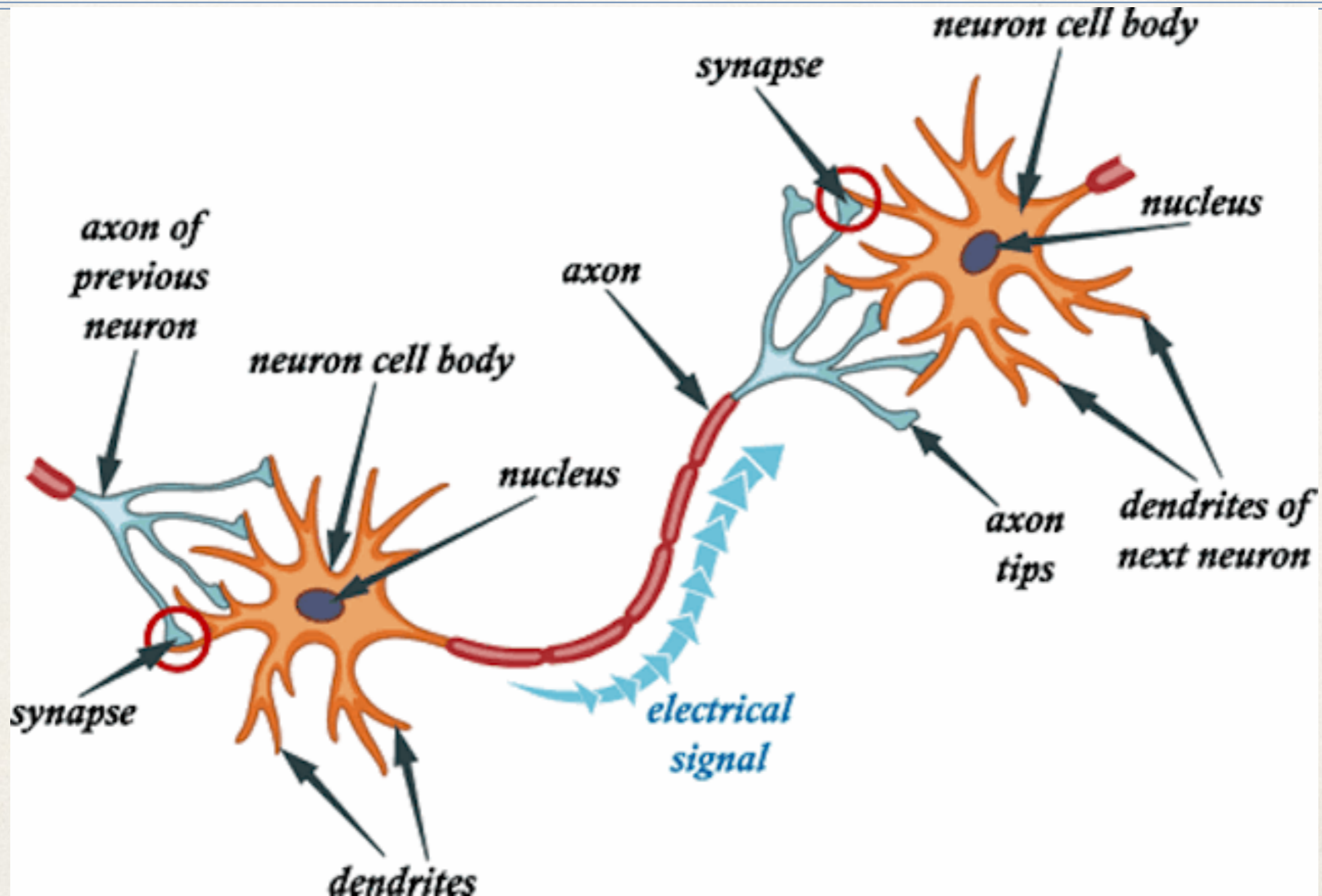
Regulation of heart
beats, respiration,
body temperature
and other essential
body functions

Cerebellum

Balance
Muscular co-ordination

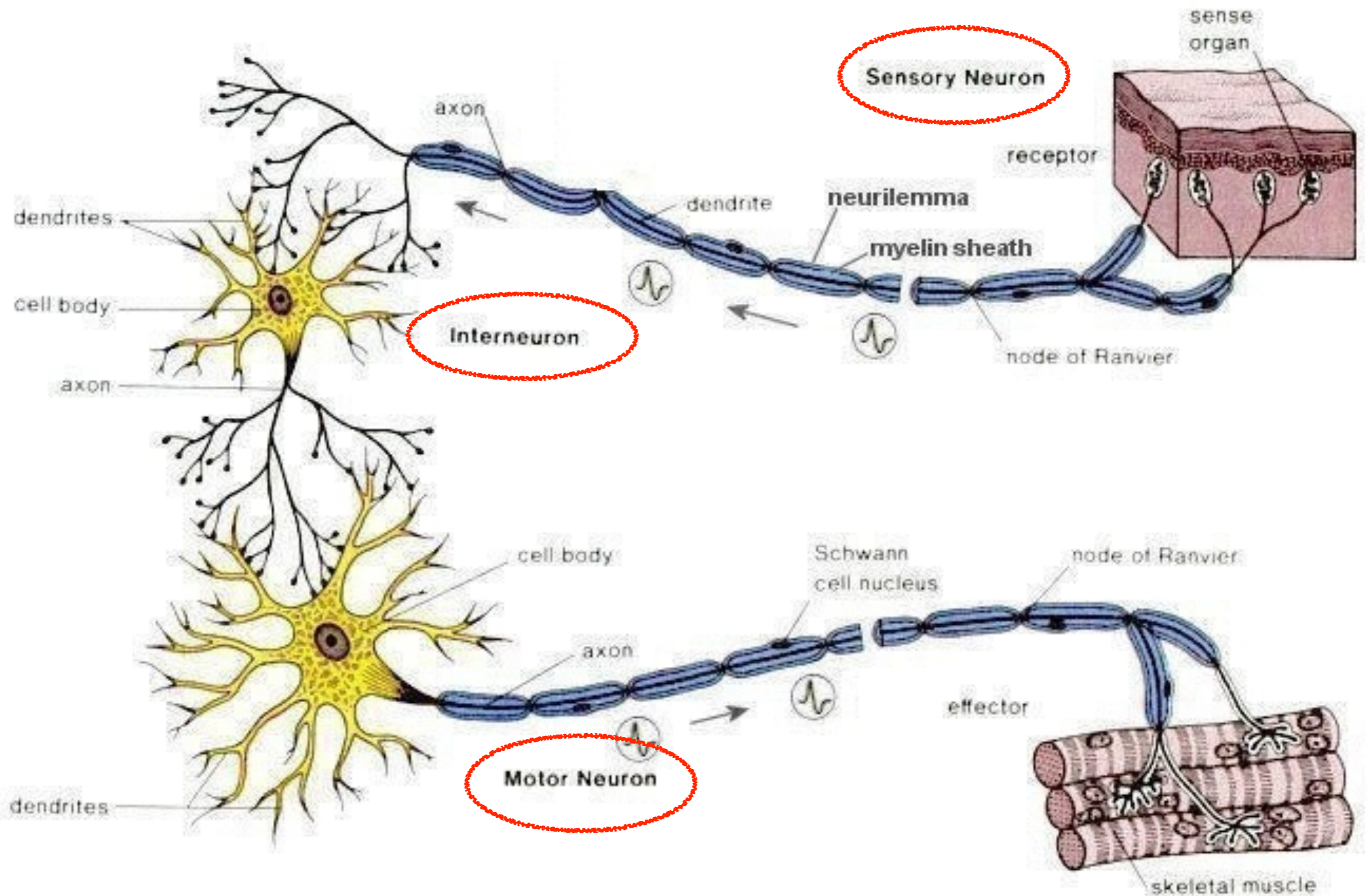


Brain Activity Consists of Electrochemical Signals Traveling From One Neuron to Another



Electrochemical Signals Traveling Across Neurons

Control our Perceptions (see *Sensory Neurons*) and Movements (see *Motor Neurons*)



Do Electrochemical Signals Traveling Across Neurons Control Our Feelings and Emotions?

<https://www.youtube.com/watch?v=haNoq8UbSyc>

Certain molecules are associated with feelings of pain or pleasure, sadness or happiness

Do Electrochemical Signals Control Even our Moral Judgments?

<http://thecolbertreport.cc.com/videos/fykny6/patricia-churchland>

The Philosophical Question

- Neuroscientists are telling us that **mental phenomena**, such as our feelings, thoughts, experiences, moral judgments etc. are associated with brain activities and electrochemical signals. (This means whenever we experience feelings or make conscious decisions, there is a corresponding electrochemical activity in the brain that goes along with our subjective experience.)
- *Does this mean that the mind is nothing other than what goes on in the brain? Is the mind nothing other than the electrochemical activities of the brain?*

Terminology

Physical/brain state:

the electrochemical activation of certain neurons in the brain

Mental state:

the subjective experience of, for example, *seeing red, feeling pain, being conscious of being yourself, experiencing hatred, etc.*

The Peculiarity of Mental States

No one else except you knows what your mental states are really like. By contrast, physical or brain states can be studied and known by more than one person.

Physicalism *versus* Non-Physicalism

Some philosophers — called **physicalists** — believe that mental states can be entirely *reduced to* brain states. In other words, they believe that mental states are entirely physical.

Other philosophers — called **non-physicalists** — think that it is *impossible to reduce* mental states to brain or physical states.

Whether mental states can be reduced to physical states or not is one of the central questions in philosophy of mind today.

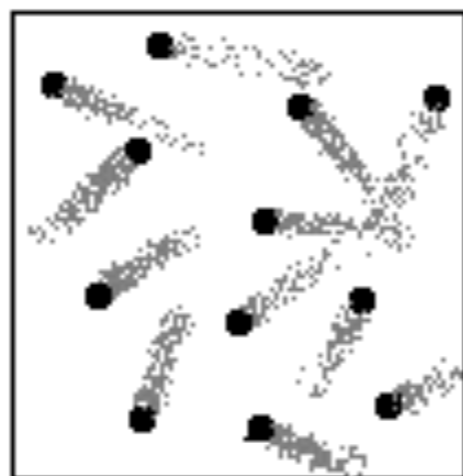
An Example of “Reduction”

Consider **heat** or **temperature**.

The more rapid the movement of the particles, the higher the temperature.



COOL



HOT



Since the movement of the particles can be entirely described in physical terms, we have a *reduction* of the notion of heat or temperature to physics.

The Goal of Physicalism

(also called, Materialism)

The goal of physicalism is to provide an *entirely physical* description or explanation of *mental phenomena*, such as our subjective feeling of pain, our conscious experience of being here, etc.

An *entirely physical* description or explanation is one that uses knowledge from the sciences, such as physics, chemistry and biology, and does not appeal to any non-physical entity.

Are You a Physicalist or Not?
