

Introduction to the Philosophy of Mind

Antoni Diller

1 December 2011

1 The Body-mind Problem

The body-mind problem is ‘the problem of the immensely intricate physiological influences (of drugs, say) upon our mental state, and *vice versa*, of mental influences (of the realization of dangers, say) upon our physiological state.’ (Popper, *Realism and the Aim of Science* (1983), p. 103.) The statement of the body-mind problem presupposes that phenomena can be classified as being either mental or physical. This classification is not unproblematic.

physical world	mental world	mental?
material bodies	perceptual experiences	memories
physical processes	bodily sensations	beliefs
fields of force	emotions	desires
	moods	thinking

Here are some questions to think about relating to the division of phenomena into mental and physical:

- Is the division of things into mental and physical exhaustive?
- In other words, are there things which are neither mental nor physical?
- Is the division exclusive?
- In other words, are there things that are both mental and physical?

Philosophers have put forward many theories to solve the body-mind problem. Here is a selection of some of these theories:

interactionism Interactionists accept the reality of both mental and physical entities and believe that mental phenomena can affect physical objects and that physical things can influence mental occurrences.

epiphenomenalism Epiphenomenalists accept the reality of both mental and physical entities, but they believe that mental phenomena cannot influence physical occurrences. Consciousness is an epiphenomenon; free will is an illusion.

materialism In the philosophy of mind, materialists are people who deny the existence of mental phenomena. In psychology such people are called *behaviourists*.

idealism Idealists deny the existence of the physical world.

double aspect theory The double aspect theory is also known as the *dual-attribute* theory and the *dual-aspect* theory. Supporters of this theory deny the existence of both mental and physical phenomena; they think that there exists only one kind of entity and that this is neither mental nor physical. Looked at in one way this neutral stuff appears mental; looked at in another way it appears physical. The double aspect theory is, thus, a form of monism. It is held, for example, by Grand [3].

parallelism Believers in parallelism accept the reality of the mental and physical worlds, but deny that either can influence the other. Events in the two spheres run in parallel like synchronised clocks.

occasionalism Occasionalism is an old theory about how mental and physical events are related. It postulates that mental and physical events do not directly influence each other; God intervenes constantly to give the impression that there is a connection.

pre-established harmony The theory of pre-established harmony is a version of parallelism in which God is thought to have set up the parallelism.

functionalism Goldman [2, pp. 73–74] sums up functionalism as follows:

The functionalist claims that in learning the meaning of mental predicates, people learn causal laws of three types: (A) laws relating environmental events and mental states, (B) laws relating mental states and other mental states, and (C) laws relating mental states and overt behavior. Here are some examples.

- (A₁) If a part of the body is cut or damaged or burned, then the person will be in pain.
- (A₂) If a red tomato is directly in front of a person in ample light, then the person will have a perception of red.
- (A₃) If a person has gone many hours without liquid, he will tend to be thirsty.
- (B₁) If a person is thirsty, he will tend to want to drink.
- (B₂) If a person wants to drink, and if he believes that a potable liquid is in the refrigerator, he will form an intention to go to the refrigerator.
- (B₃) If a person believes proposition P, and if he believes “if P then Q,” then he will tend to believe Q.

- (C₁) If a person is in severe pain, he will tend to wince and/or groan.
- (C₂) For any actions X and Y, if a person decides to do X and believes that Y is the best way to do X (and he is able to do Y), then he will do Y.
- (C₃) If a person is happy, he will tend to smile.

Let “I” stand for environmental input, “S” for internal state, and “O” for behavioral output. Then the first three generalizations are I–S generalizations, the second three are S–S generalizations, and the final three are S–O generalizations.

Given such generalizations, the functionalist claims that each mental expression can be understood only in terms of its relations to inputs, other internal states, and outputs. This understanding of mental expressions does not appeal to “intrinsic” qualities—what pain or thirst or belief “feels like”—but only to these relations.

2 Closed (Physical) World Assumption

The *closed (physical) world assumption* is the assumption that the physical world is causally closed [5, p. 51]:

[Physical] processes can be explained and understood, and must be explained and understood, entirely in terms of physical theories.

The closed world assumption gives rise to Laplace’s demon:

We ought . . . to regard the present state of the universe as the effect of its anterior state and as the cause of the one which is to follow. Assume . . . an intelligence which could know all the forces by which nature is animated, and the states at an instant of all the objects that compose it; . . . for [this intelligence], nothing could be uncertain; and the future, as the past, would be present to its eyes. (Laplace, *A Philosophical Essay on Probabilities* (originally published 1819).)

In his book *The Open Universe*, Popper argues that it is impossible to build a machine that predicts all of its own future states, therefore there are physical events that cannot be predicted.

Another problem with the closed world assumption arises when we realise that physical, and especially biological, systems are organised in a hierarchical manner as shown in Table 1. (This is based on a table that occurs in Popper and Eccles, *The Self and its Brain* [5, Table 2, p. 17].) If the closed world assumption were correct, then only upward causation would be possible, but downward causation also happens. In downward causation a whole structure acts upon one of its constituent parts. In a star, for example, the gravity of the star exerts pressure on atoms near its centre and causes them to fuse. An animal may well continue living even if some of its cells die or if an organ is removed.

-
- (12) level of ecosystems
 - (11) level of populations of metazoa and plants
 - (10) level of metazoa and multicellular plants
 - (9) level of tissues and organs
 - (8) level of populations of unicellular organisms
 - (7) level of cells and of unicellular organisms
 - (6) level of organelles (and perhaps viruses)
 - (5) liquids and solids (crystals)
 - (4) molecules
 - (3) atoms
 - (2) elementary particles
 - (1) sub-elementary particles
-

Table 1: Biological systems and their parts.

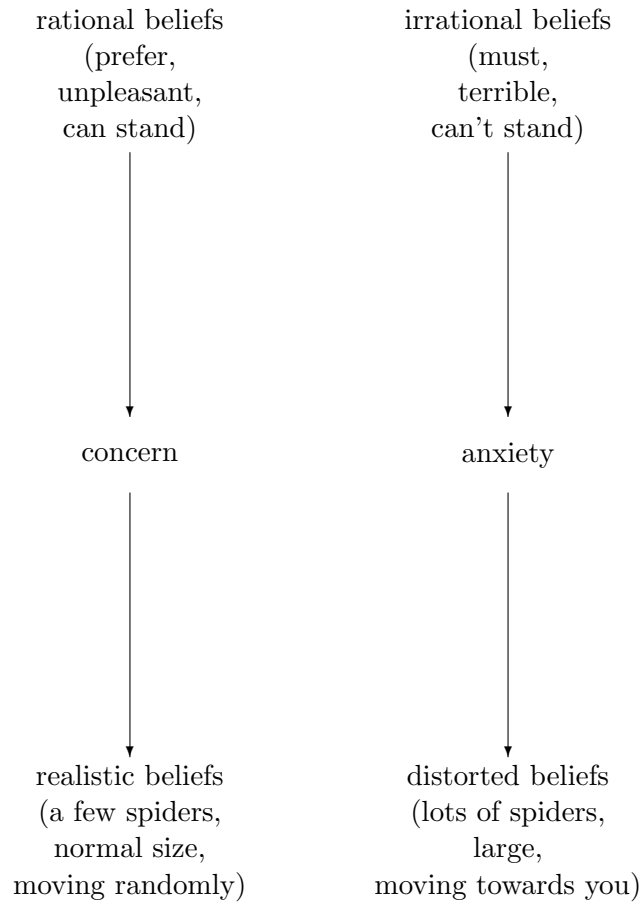


Figure 1: Spiders.

3 Popper's Three Worlds

In addition to mental and physical phenomena several philosophers, including Frege, Brentano and Popper [4], have argued that we must recognise the existence of entities that are neither mental nor physical. Experiments conducted by Windy Dryden [1] strongly suggest that it is the *contents* of people's thoughts that link the mental and the physical universes; see Fig. 1. Popper puts the content of a thought into a category that he calls *World 3*. He classifies things into three categories:

World 1 This is the physical world; the world of physical objects and of physical states. Chairs, tables, planets and telephones are all denizens of world 1; as are magnetic fields and gravitational fields.

World 2 This is the realm of our conscious experiences; the world of mental states and of states of consciousness.

World 3 This is where objective contents of thought live; as well as problems, theories (both true and false), conjectures, refutations, poetic thoughts and works of art.

There are many arguments for the existence of world 3; here are some of them:

- (1) Logical laws cannot be reduced to either physical or psychological laws.

- (2) The content of a statement can be represented in many different ways.
- (3) Many people can grasp the same content.
- (4) Lost books can continue to exert an influence long after they have ceased to exist as physical books.

References

- [1] Windy Dryden, Julia Ferguson, and Sean McTeague. Beliefs and inferences: A test of a rational-emotive hypothesis: 2. On the prospect of seeing a spider. *Psychological Reports*, 64:115–123, 1989.
- [2] Alvin I. Goldman. *Philosophical Applications of Cognitive Science*. Westview Press, Boulder, 1993.
- [3] Steve Grand. *Creation: Life and how to make it*. Phoenix, London, 2001.
- [4] Karl Raimund Popper. *Objective Knowledge: An Evolutionary Approach*. Oxford University Press, London, 1975. Originally published in 1972.
- [5] Karl Raimund Popper and John C. Eccles. *The Self and its Brain: An Argument for Interactionism*. Routledge, London and New York, 1977.