

## 35.11

**Consciousness**

## 35.11.1

**Defining Consciousness**

The idea of consciousness is implicit in almost everything that we talk about. Here, I am going to try to bring 'consciousness' out of the shadows and into a more demonstrable realm so that, perhaps one of the oldest bastions of philosophy, can be made to succumb to science (become amenable to scientific investigation).

I have a mental allergy (§ 81 Emotional Allergens and Hypersensitivity) to sweeping statements. My mind recoils on hearing words such as 'always' and 'never'. However, there are times when absolute conclusions are inescapable. Here is one of them (even after assuming that our questions are rational and relate to something that is falsifiable [courtesy of Karl Popper] in the first place),

**Science will never be able to answer all of our questions**

[The reason I am so confident about this is that for anything to be open to scientific investigation, two conditions are absolutely necessary. Whatever it is that is being investigated must be **measurable** AND it must be **reproducible** (consistent). The purpose of science is to **make predictable**. And what is not measurable *and* reproducible is not predictable. To predict accurately, we rely on mathematics, yet some of the most fundamental units in science and mathematics are irrational (unpredictable). The one that we are most familiar with (there are lots of others) is the ratio of a circle's circumference to its diameter. Pi is an irrational number. It is not possible to predict the sequence of numbers in Pi because it can be calculated to an infinite number of decimal places without it ever becoming a repeating pattern. For as long as there are irrational numbers, there is unpredictability in the universe. Why? Because of something called sensitive dependence on initial conditions. We explore this concept in Unit 21 (Diversification and Speciation of Relationships).]

To make consciousness available to scientific enquiry, we need to define it in a way that allows us to measure something about it. For example, no one has ever seen an electron, but we believe it exists because that assumption has successfully allowed us to *predict*, and manipulate, the world around us. How can we do that when no one has ever seen an electron? We use a fundamental assumption of all science:

**If anything (a change) happens, something has caused it to happen**

With electrons, we saw effects and assumed (theorised as to) a cause. The theory is still working, so we can go on assuming that electrons exist until there is evidence to the contrary.

Perhaps you can see where I am going with this; I propose that consciousness is the cause of behaviour, i.e., *consciousness is that which causes behaviour*. But this definition is missing something very important, so let me clarify:

**Consciousness is the cause of goal-directed behaviour.**

If behaviour is not *goal-directed*, it is random. Although organisms can, and apparently do (sometimes), behave randomly, it is their *potential* for goal-directed behaviour that makes them conscious. And that brings me to the main point of my argument; it is the potential to exercise choice that characterises consciousness. In other words,

**Where there is the potential to exercise choice, there is consciousness**

The importance of this discussion and its conclusion to our quest for ‘empowering and mutually satisfying relationships’ will become more apparent as we develop the arguments in this book.

### 35.11.2

## Subconscious and Unconscious

Often, the words subconscious and unconscious [not to be confused with non-conscious] are used interchangeably. Here, I have made a distinction between the two. [The reason for this will become clear in our discussion about the role of attention in thinking and how this relates to interpersonal relationships.] Both of these words mean ‘unaware’. However, we can be unaware of things for different reasons.

The prefix sub- means below. When I am looking up or straight ahead, I may not be aware of things that are 'below' at my feet. However, I *can* become conscious of what is at my feet by directing my attention downwards. Similarly, there are things that are happening inside my mind and body that I am not aware of as long as my attention is elsewhere, but I can become aware of them if I choose to redirect my attention. For example, are you conscious of how often you blink? No. *Can* you become conscious of it? Yes. Therefore, you blink subconsciously.

On the other hand, there are things happening around us that are not accessible to our conscious attention because they may be obscured (e.g., behind a rock) or be beyond our perceptual range, such as radio waves or ultrasound (accessible to a greater extent to bats and dogs). Similarly, there are processes that are going on inside my mind and body that I *cannot* become aware of by simply redirecting my attention because they are either obscured or I do not have the necessary faculties to perceive them. These are what I would refer to as unconscious content and processes.

With the environmental examples above (radio, ultrasound and rocks) we can construct devices that can make the directly inaccessible, indirectly accessible (perceivable and measurable) to us. Although biofeedback and neurofeedback are procedures through which we can gain access to some of our unconscious processes, I am curious as to how far these can go and, to me, the prospect is exciting.

### 35.11.3

## Consciousness and Thought

Can there be thought without consciousness? That was the easy question. Here comes the hard one.

Can there be consciousness without thought? I would postulate that, since such a hypothesis is not falsifiable, it is not open to scientific enquiry and dwelling upon it is a mere distraction. On the other hand, having an opinion about the answer could simplify our exploratory journey into the realm of interpersonal relationships. I am, therefore, going to rely on my instinct and say that there can be no consciousness without thought. How does this simplify our journey? Well, let's see. If there can be no thought without consciousness and there can be no consciousness without thought, then we could, through a leap of presumption, conclude that thought is consciousness and consciousness is thought.

[This is reminiscent of Descartes' *cogito ergo sum* and, whilst I am tempted to discuss this further, like Odysseus and the Sirens, I am going to tie myself to the mast so that I am not able to give way to the temptation to veer into that philosophical quagmire].

Since we are much more familiar with the concept of thought (cognition) than we are with consciousness, we can reduce our cognitive load [strain on the brain] (§ 72.5 Cognitive Load and Heuristics) by making a mental note that, whenever we talk about consciousness, we mean thought and whenever we talk about thought, we mean consciousness. Just before we move on; from a philosophical perspective, one could argue that *'thought is what happens in the brain'* and *'consciousness is what happens in the mind'*, but for all practical purposes, we can consider them to be the same thing [for now ;-)].

#### 35.11.4

### Extended Consciousness

The interaction of two conscious entities (entities that have the potential to exercise choice) leads to extended (higher) consciousness, increasing the number of options (potential for making choices) than there would be in the absence of such interaction.

Endosymbiosis is a process by which one organism lives inside another to their mutual benefit. I propose that this is an example of extended consciousness. But the idea that an organism is simply living inside another is too simplistic because it is too dissociative/reductionist.

Atoms can exist as individual entities, but when they combine (bond) to form molecules, both their individual characteristics and colligative properties (§ 39.6 SRC are Unstable at the Individual Level) change drastically. Yes, it is still possible to separate the parts from the whole, but doing so will destroy the thing that is the whole. Similarly, two microbes (prokaryotic cells) that do not have a nucleus can 'merge' together. If this 'merging' is of the form where one goes inside the other, it is called endosymbiosis. There is a potential problem (conflict) here (§ 59.1 Stages of Relationship Development). Both of the original prokaryotic cells contain genetic code (DNA and/or RNA) inside their cell membranes. If they get mixed up neither 'component' would be able to function properly.

If I have a room to myself. I can spread my belongings in any way that I please (see fit). However, if I decide to have a roommate, then I will need to clear up my belongings. This is where cupboards and wardrobes and compartments come in handy. Eukaryotic cells; the cells that make up the bodies of 'higher' organisms, including humans, evolved from an endosymbiotic relationship between two prokaryotic cells; a larger cell decided to have a roommate. To do this, it had to clear up the 'room' and put the important stuff (genetic material) somewhere where it could not potentially cause conflict. In eukaryotic cells the

nucleus is the 'wardrobe' for the host's DNA and the smaller cell became the mitochondrion. The combined consciousness of the two prokaryotic cells, leads to the emergence of an entity with a higher consciousness.

To wit, when two conscious beings interact, a higher consciousness emerges that could not exist otherwise.

#### 35.11.5

### Consciousness and Levels of Organisation

We discuss levels of organisation in § 36. At this stage, I simply want to point out that,

**every level of organisation has its own communication systems, goals and values and makes decisions at its own level.**

This means that consciousness works differently at different levels of organisation (from viruses to ecosystems and from information to humankind). In other words, we can extend the argument in the previous section fractally\* and say that at every level of affinitological organisation, each of the emergent entities (including Pacta, Bondles, Communities, Societies, Cultures and Humankind) have their own separate consciousness, including the 'will' to adapt (survive) and to grow.

\* [I searched the internet and was relieved to find that others are already using the word fractally, so I didn't need to make up another new word :-)]