

Sensory Perception, Subjective Reality and Raw Feels

How does the brain create consciousness, subjective feelings and "raw feels"? i.e. pain, the redness of red, the stink of hydrogen sulfide, an oboe-playing concert A, etc. As used here, the three terms consciousness, subjective feelings and raw feels are used interchangeably.

Subjective feelings are due to stimuli that cause the sensory receptors of the nervous system of an animal to fire. Light photons in the case of retinal cells, sound waves in the case of auditory hair cells, pressure in the case of pain sensitive nociceptor cells and so on. Objective measurements using instruments designed for the task can be made to measure the strength of a stimulus for each type of sensory receptor e.g. The energy in watts/sq.cm of light on the retina, the overpressure of air on the auditory hair cells caused by a sound wave or the pressure caused by a hammer on the nociceptor cells of an index finger and by hypothesis, the energy of U.V. light in the case of the sixth sense (See the appropriate attachment on www.jmkingsleyiii.info).

What an organism perceives e.g. the redness of a rose, is dependent on the photon energy and momentum emitted by the rose and the electrophysiological state of the photoreceptors and interneurons of the organism of the beholder. If the photon energy, momentum and spin of the light photons falling on the retinal cells of two individuals is the same, and the electrophysiological state of the photo receptors and interneurons of the two individuals is the same, then by hypothesis, the subjective perception (The redness of the rose) of the two individuals is the same.

As far as is known, before the evolution of the nervous system and sensory neurons here on earth, there was no consciousness, subjective feeling, or raw feels on planet earth. As a result of naturally occurring forces on earth, (gravity, the strong force holding an atom together, the chemical bonding force holding atoms together to form molecules) there occurred a chemical evolution resulting in organic molecules that could reproduce themselves using background molecules and an energy source. Later a very complex set of molecules within a lipid or cellulose membrane evolved that could reproduce the entire set of molecules within the membrane. Driven by chemical-bonding forces and using an

energy source provided by the external world, this entity is called the biological cell.

There followed a process of biologic evolution driven by naturally occurring physical forces that resulted in multicellular plants and animals and finally vertebrates, mammals, primates, hominids and most recently Homo Sapiens. Concomitantly in the higher multicellular animals, a nervous system and sensory nerves were created.

Up to this point, all of the structures enumerated above were composed of atoms and molecules and with suitably engineered instruments, (Set up on earth by an alien society some 4 billion years ago), the structures could have been recorded as created, saved on a computer chip and played back in the present on a pc.

Not so for pain and the other subjective raw feels, for the feel of raw feels cannot be recorded and played back on a pc. Assume there was a device that could record the feelings of raw feels. In order to determine whether or not the created device was experiencing pain or any other of the raw feels would require a second created device to determine whether or not the first created device was experiencing pain or any other of the raw feels and that would require a third device and so on... At an extreme, consider the recording device to be a man subjected to a pinched finger. On camera one see a man with a pinched finger saying "I am in pain". This however does not record the feeling of pain, it records a man with a pinched finger saying "I am in pain".

With the creation of a nervous system and sensory nerves, something entirely new came into being i.e. consciousness, subjective feelings, raw feels, pain, the redness of red etc. In so far as the nervous system was created by naturally occurring forces, and in so far as consciousness does not exist without a nervous system then consciousness was created by naturally occurring forces. The naturally occurring forces have existed as long as molecules have existed and can be objectively measured, without the presence of man, using suitably designed instruments. Consciousness however came into being with the evolution of the nervous system and has not existed as long as molecules have existed. Thus objective forces on earth have created the nervous system that creates subjective consciousness that cannot be objectively determined. How is this possible?

Consider the following thought experiment. A complete human nervous system is dissected and kept alive in a saline solution in a vat. By hypothesis, suitably placed electrodes exciting the index finger cause the

nervous system to feel as if it were being burned. The subset of cells S necessary to produce the sensation of a burning index finger are now dissected from the complete nervous system and placed in another vat. S consists of the pain receptors of the index finger (P.R.I.), the interneurons connecting the P.R.I. to select cells of the thalamus, and the select cells of the thalamus-hypothalamus. Suitably placed electrode stimulation of the P.R.I. of S now cause S to feel the burning index finger while the complete nervous system minus S does not feel the burning palm.

Next dissect out the molecules M responsible for the feel of pain and place them in a third vat. Stimulate M with an electric potential identical to the one caused by a pinched finger that stimulated M when in the nervous system. Do these molecules feel pain? If so, they are said to have the pain removal property, if not, they are said not to have the pain removal property.

Note that if a given set of molecules has the pain removal property, by inference all subjective modalities have molecules that when stimulated feel and are the cause of the subjective modality. A molecule for red, a molecule for green etc.

Subjective modalities do not exist independently of the nervous system. The nervous system is made of molecules. Molecules were created by naturally occurring forces and thus the nervous system was created by naturally occurring forces. If no molecules have the subjective removal property, then subjective modalities are not made of molecules but yet the nervous system, without which there are no subjective modalities, is made of molecules. Thus subjective modalities, are and are not properties of molecules.

To repeat: Except for the raw feels, everything in the universe of which we are aware is made of atoms and molecules and yet it is these same forces that have created out of molecules the nervous system and the nervous system creates the raw feels that are by hypothesis not made of molecules. This is a conundrum.

In order to resolve the conundrum it is assumed that certain molecules have the subjective modality removal property. That is, certain molecules in and of themselves feel the subjective modality, and it is an intrinsic property just as the force binding certain molecules to certain molecules is an intrinsic property of those molecules.

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naturally occurring forces. If certain molecules have the subjective removal property and all subjective raw feels are due to molecules with the subjective removal property, then subjective modalities are made of molecules and the nervous system, without which there are no subjective modalities, is made of molecules. Therefore subjective modalities, are a property of certain molecules and there is no conundrum.

There is an important difference however between the objective properties of molecules and the subjective properties of molecules with the subjective modality removal property. The force binding two atoms together can be experimentally determined using properly designed instruments with out the presence of man. The molecule with the subjective modality removal property cannot be determined objectively to have that property. As a thought experiment, that property can only be determined by placing the molecule back into a man and then only that man with the inserted molecule will feel the pain and only he can subjectively know whether or not the molecule had the subjective modality property.

Given a molecule with the pain removal property, what is the difference between that molecule when it is feeling pain and when it is not feeling pain? A possibility is the difference is radial oscillation frequency. i.e. When not feeling pain the molecule oscillates at a given frequency and when feeling pain it oscillates at a higher or lower frequency. The oscillation is not the pain, the pain is an intrinsic property of the molecule when oscillating at the proper frequency.

It has been conjectured that due to naturally occurring forces, specific molecules have evolved each of which have consciousness for a particular sensory modality and this modality is an intrinsic property of that specific molecule much as the force holding molecules together is an intrinsic property of atoms and molecules.

There is however another important difference between molecules that have the sensory modality removal property and those that do not. As long as molecules have existed, the force holding molecules together has existed. The sensory modalities however have only existed from the time that sensory cells, nervous system and specific molecules with the sensory modality removal property came into being in a biologic chemical evolutionary sense. The sensory modalities have therefore evolved over

time while the forces that created them have existed as long as atoms and molecules have existed.

Note that: If in a phantastic way, a molecule with the removal property were placed in a vat and could still cause pain in the organism from which it had been removed; Then that molecule when properly stimulated would call attention to the organism (And presumably to all other organisms for whom that molecule was pain) that the organism was in danger when in fact the organism was not in danger. This assumed property for molecules is called the pain action at a distance property. Molecules with the pain action at a distance property can therefore not unambiguously act as a warning signal, and presumably the animal kingdom will never evolve such a system for pain or any other sensory modality.

~100 years ago biologists were asking themselves what is the difference between living and nonliving material. That question was answered to the satisfaction of biologists in terms of the chemical reactions and molecular compounds created in a biologic cell that are not created in non biologic cells, although both chemical reactions and molecular compounds created in biologic cells and non biologic cells are a consequence of naturally occurring forces. There are no living molecules or dead molecules but there are chemical reactions and molecular compounds created in biologic cells that are not created in non-biologic cells. A biological cell is said to be living if it is carrying out respiration or synthesis and dead if it is not.