

## What do we mean by It? Or Bit?

John Merryman is a sequence of symbols, identifying a particular participant in this contest.

It is received wisdom to say the physical world is not intuitively accessible to a mind evolved for basic survival. Given the current impasse in physics, even this assumption should be open to reconsideration.

Intuition is not just subconscious impulse and cultural conditioning, but is every individual's accumulated knowledge, as accessed as a non-linear/scalar response mechanism. Intuition for a physicist would be different from others with different experiences, as well as equally constrained by the strictures of the systemic construct. If conceptual errors become incorporated into the framework, they become part of the lens through which further information is viewed and the resulting distortions become natural, ie. intuitive to that mindset.

Bias is fundamental to the construct of knowledge, so it needs to be factored into the model. Whether it is a particular perspective, or a generic model or pattern inductively distilled from circumstance, knowledge is a focused distillation of a larger context. Much as a telescope would give us much deeper depth of vision, but also limit the field of view. Thus the very process of definition imposes limitations and introduces further layers of context.

This factor is incorporated in physics as the Uncertainty Principle, though the full consequences do not seem fully appreciated. Knowledge does not go to infinity, because it is a function of distinctions and judgements. Measurements, if you prefer. So combining multitudes of such bits of information cancels out detail, like colors running together. They can be networked into a larger body of knowledge, much like various colors can create a picture, if they remain separate and distinct.

What we think of as knowledge is that border between distinction and continuity, as the making of connections and relations among and between the distinctions, we glean the broader patterns. The consequence is that broader, generalized perspective does blur the fine detail and loses some information, just as a detailed view limits the broad perspective.

So we have the classic reality that somehow seems separate from the quantum foundations on which it rests. Obviously the connection must exist, yet there seems to be a missing link. This separation goes more to the nature of knowledge, then of reality.

Both top down and bottom up are effective ways to consider the nature of the physical, but there is no middle ground view that effectively encompasses both. Those "bits" are

what we know of "it."

Similarly either side of all those binary relationships; up/down, on/off, yes/no, good/bad, black/white, etc. are not distinct units of information, because any meaning they have is in the relationship with the other. There is no fundamental essence of up, or on, or yes, or good, or white. Any value, meaning or reality is in the contrast with down, off, no, bad and black.

What then is the reality to which these bits of information adhere? This ethereal presence that is medium to the message of information is best defined as energy: That which is conserved.

The very nature of energy is that it is dynamic, yet the information it expresses, is equally inherently static. Otherwise it is indistinct, blurred, fuzzy.

The result is a profound tension, as the medium of energy is constantly manifesting form and constantly changing it.

This process is what we call time. The presence of the energy is like the hand of time, constantly moving onto the next configuration, as these forms, as their own units of time, come into being and dissolve.

While we have this sense of forward motion through the events, it is the presence of the energy that is constant, so it is the events forming and receding, going future to past. As when the unit of time that is our lifespan is over, we too recede into the past.

The reality of our physical brain is constantly absorbing fresh information as energy flows into it, out of which we coalesce the form of thoughts, then these recede, replaced by the next.

So those thoughts are the momentary bits of form and information, yet they are transitory relationships thrown up by the underlying dynamic.

As living organisms, we are the result of billions of years of evolution. The consequence of this process is two fairly distinct systems. One is the central nervous system, to absorb, organize and act on information. The other, the respiratory, digestive and circulatory systems, serve to consume and process energy. It is preserving the flow of this energy that the central nervous system is most concerned. So we exist as manifestations of this dichotomy of energy and information, as medium and message.