

THE PEDAGOGY OF WONDER

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Mystics and Scientists

The world is more mysterious than we are wont to admit. The way we ordinarily represent it to ourselves is useful for our survival thanks to a long evolutionary story, and it is well adapted, to the management of the reality we are daily confronted with. So well adapted in fact, that we do not experience it as problematic in any way. This unquestioning acceptance itself probably has survival value: we could speculate that had we been a species of philosophers from the very beginning, we would have become extinct long ago and would not be here to speculate about it...

But reality is infinitely more mysterious, complex and vast than useful practical representations. Mystics have always been aware of this larger dimension and again and again they have tried to remind us of the vastness of the universe, of the immensity of our essential nature. However practically effective our ordinary representations of the world may be, they leave us naked and defenceless, facing the mystery of death, leaving us blind to the wonder of existence.

Science sits on the divide of these two dimensions: the practical and the investigation into the ultimate nature of things. Understanding cause and effect relationships has a clear survival value and is at the base of all our technologies. But it is only one aspect of scientific investigation. The deeper sense of purpose in the work of all great scientists has always had to do with the mystery of our existence. The separation of science from philosophy and religion is fairly recent, going back at the most three or four hundred years. Newton was also an alchemist, Kepler was also an astrologer. Even in the Twentieth Century, when that separation was already solidly established, the founders of quantum physics (Einstein, Bohr, Heisenberg, Schrödinger, Pauli, etc.) all had a mystical *penchant* in their writings.

Scientific materialism is still the dominant ideology of our time. That in itself is a paradox, because on the frontier of science the notion of matter itself seems to evaporate and there is no longer a clear separation between consciousness and world. The awareness of these fundamental issues is confined to a relatively small circle of scientists and philosophers and has hardly had an impact on our day to day dealings with the world. The Cartesian separation of mind and matter is still the dominant paradigm of our culture.

Abstraction

The trouble, as Husserl would say, is that we have forgotten the foundational operation of our science, and with that we have lost the larger vision. At the base of science is a process of abstraction, *abstrahere*, "pulling out", separating from the unmanageable complexity of existence, a solid skeleton of communicable and reproducible operations. The essence of the scientific method consists of the notion of *reproducible experiment* and that of *measurement*, i.e. mathematical description. This allows a measure of control over reality, which ultimately means power – and human beings are fascinated by power.

Abstraction of course is not a problem when we are aware of it and manage it wisely. But when we forget that abstraction is *our* doing, *our* specific choice oriented to a goal, then we mistake our abstract representations for the whole, and we think that is all there is. Then we lose touch with all that *cannot* be "pulled out", all that cannot be abstracted, the irreducible complexity of the real. Awareness of this other side, of this other face of the moon is vitally important – because there lie our bonds with life, with all living beings and with meaning. As a culture we are collectively identified with our rational mind and are removed from emotional intelligence.

But reason separates: it separates the world into parts and separates us from the world. Out of the infinite complexity of the real, we forge a world of objects that the ego wants to dominate and possess. At that point, the abstract models of science stand in front of us as matter and paradoxically proclaim themselves to be the only concrete reality. At that point we may think we are masters of the world, but in reality we are possessed by our own creations.

The Pedagogy of Magic

An awareness of the reductive and impoverishing quality of our common sense representations of the world was quite vividly present to Daoist masters in China twenty-five centuries ago. They were acutely aware of the trap of language, of the danger of *reification*, mistaking our mental creations for objective realities "out there". And especially, they were aware that the practical mind tends to blind us to the vastness and the mystery we are part of, to the vastness and the mystery *we are*. In challenging that reductive knowledge and calling us back to experience the wonder of existence, the Daoist masters' favourite devices were hyperbole, paradox, provocation, humour, irony. This little fairy-tale of *Zhuangzi* is an example of it. *Zhuangzi* probably lived in the IV Century BCE and is generally considered the author of a large portion (including, according to most Chinese scholars, the first seven chapters) of the book that bears his name. His critique of language anticipates some intuition of postmodern thinking. Ironic, irriverent, *grand provocateur*, he loves to reverse exemplary situations: in his book lunatics, bandits and criminals teach life lessons to kings and sages.

In the northern darkness there is a fish and his name is Kun. The Kun is so huge I don't know how many thousand li (Chinese mile, equivalent to about half a kilometer) he measures. He changes and becomes a bird whose name is Peng. The back of Peng measures I don't know how many thousand li across and, when he rises up and flies off, his wings are like clouds all over the sky. When the sea begins to move, this bird sets off for the southern darkness, which is the Lake of Heaven.

The Universal Harmony records various wonders, and it says: "When the Peng journeys to the southern darkness, the waters are roiled for three thousand li. He beats the whirlwind and rises ninety thousand li, setting off on the sixth month gale." Wavering heat, bits of dust, living things blowing each other about, the sky looks very blue. Is that its real colour, or is it because it is so far away and has no end? When the bird looks down, all he sees is blue too.

The cicada and the little dove laugh at this, saying, "When we make an effort and fly up, we can get as far as the elm or the sapan wood tree, but sometimes we don't make it and just fall down on the ground. Now, how is anyone going to go ninety thousand li to the south!"

Of course we do not have to take *Zhuangzi* literally (literal-mindedness is after all what he keeps warning us about!). What he is saying is just that the world has magic if you open your eyes to it. The cicada and the little dove cannot see it because their horizon is limited to the elm and the sapan wood tree. *Zhuangzi's* fairytale is an invitation to go beyond that narrow world, it is an invitation to experience the world's magic. Which is not supernatural and esoteric: it is right there in front of us all the time.

This article is from Shantena's book Pellegrinaggi verso il vuoto (Pilgrimages to Emptiness) which has just been published in Italian (Lindau, Turin, 2015). An English version will be published soon.

Reference

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Shantena Sabbadini worked as a theoretical physicist at the University of Milan, Italy, where he helped lay the foundations for what is now called the "decoherence approach" to describing quantum observations, presently the most widely accepted understanding of this controversial subject. He has also translated the *Tao Te Ching* into Italian.

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