

## Non-linearity – the mission continues

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Since its first English edition some 10 years ago, Pelviperineology Journal has actively promoted innovation and discovery. This editorial continues a mission which this journal considers critical for all future medical research, recognition that the control systems of the pelvic floor and the body in general are non-linear and holistic.

*Non-linearity in medicine* is not a new concept. The interaction of all parts of the Universe as a unified interactive whole is an essential part of Stoic philosophy and indeed, medicine since the time of Hippocrates. This holistic perspective lies at the heart of our “Art of Medicine” tradition. Yet medicine as practiced today is essentially reductionist. For older physicians this change has happened during their lifetime. Increasingly, all classes of physicians rely on ‘objective’ evidence, imaging of all types, blood tests and in the pelvic floor, urodynamics and anal manometry; these two ‘objective’ tests, are but snapshots in time, pressure endpoints of complex exponential control mechanisms. Clinical pelvic floor conditions are classified and fractally subclassified. Many such as urinary incontinence are reduced to number ‘scores’. All these ‘innovations’ require the learning of new terms and ‘definitions’, ‘new languages’. These were described by Karl Popper as follows:

*“Thus the method of constructing artificial model languages is incapable of tackling the problems of the growth of our knowledge; and it is even less able to do so than the method of analysing ordinary languages, simply because these model languages are poorer than ordinary languages. It is a result of their poverty that they yield only the most crude and the most misleading model of the growth of knowledge - the model of an accumulating heap of observation statements”.*

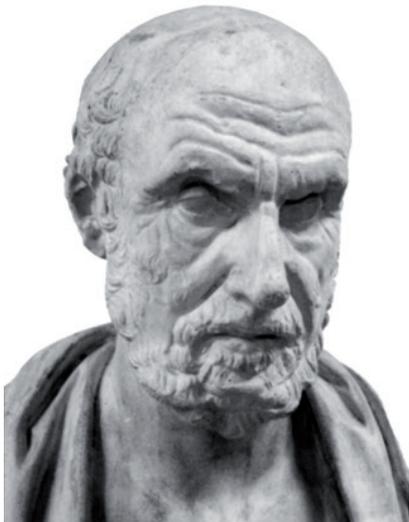
Some reasons for this reductionist trend could be the explosion of medical technology, the emphasis on rigorous evidence, the imperative of statistical analysis. Then there are computers. The whole substance of the computer age is Boolean. It is built on the binary concept of 0 or 1. Our brains have become trained in this way of thinking, black or white, reductionist. All these advances are essential. However, they do conspire to a reductionist way of thought. There is no room for variation or ‘shades of grey’. There needs to be if medicine is to advance.

Pelviperineology journal sees *non-linearity* as both a dilemma and an opportunity. A *dilemma*, because the present reductionist thinking in medicine seems to have no space for the non-linear mechanisms which control the pelvic floor. An *opportunity*, because of the opportunities this line of research offers.

Advances in computer science such as parallel processing, incorporation of positive and negative feedback systems, may be seminal in advancing non-linear science in the future.

Pelviperineology journal continues its mission to encourage a more holistic perspective of the pelvic floor with a further article by P. Petros, which we hope will stimulate further debate and research.

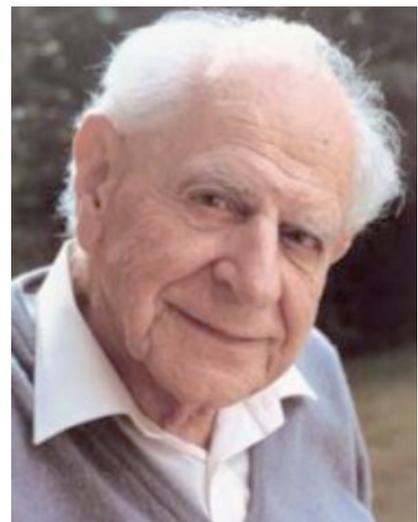
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Hippocrates 460 - 377 b.C.



Marcus Aurelius 121 - 180 a.C.



Karl Popper 1902-1994