

## Opening

It is a pleasure and honour for me indeed to officially open this symposium on the discipline of medicine which, to my opinion, will contribute significantly to the discussion on the identity of medicine at the end of the 20th century.

It seems to me that this symposium provides ample opportunity to reflect on some fundamental issues and problems: I mention a few: What is the nature of medical science? How does the scientific information relate to diagnostic and curative practice? How can the caring attention of the practitioner have an effect on the cure or prevention of illnesses over and above or perhaps even instead of the scientific insights? And how can these insights be made useful for the individual application in the treatment of patients? How can we overcome the double information gap – the collective and individual lack of knowledge – which prof. Borst-Eilers described recently? What will be the relationship and balance between human skills and technological equipment? Will there always be the eye and the hand of the physician as major parameters in the medical intervention, or will the future operating room look more like a cockpit of the Boeing 747, where the human input will be restricted to controlling and monitoring? This fundamental reflection on the ‘basics’ of the medical discipline makes this symposium pre-eminently suitable for the series of 6-8 colloquia which the Academy supports annually.

There is another element in the nature of the Netherlands’ Academy that makes its patronage of this symposium ‘The discipline of medicine’ relevant. That element is related to its name. In English it is called ‘Academy of Arts and Sciences’ The Dutch name is ‘Akademie van Wetenschappen’ The term ‘Wetenschappen’ like the German ‘Wissenschaften’ and the Scandinavian Videnskaber encompasses all branches of learning conform the original Latin term ‘scientia’. The English word ‘science’ has a more restricted annotation and usually refers to natural sciences only. ‘Arts’ refers to ‘artes liberales’, of course. This broader concept ‘scientia’ liberates us from the dilemma how to classify the discipline of medicine as a natural science or as part of humanities.

And if I understand most of the messages to be presented at this symposium well, there seems to be a reasonable consensus on the unacceptability of medicine to be narrowly defined as a science shaped after the physics-model. At the same time it is clear that this profession cannot flourish without deep roots in and active interaction with basic scientific disciplines such as microbiology, biochemistry and biophysics.

May I take the liberty to add a personal touch. Reading through the summaries of the presentations, I was surprised to notice the many similarities between your and my own discipline, which is psychology.

1. Both deal with a degree of (un)reliability of their measurements far beyond the accepted, or average norms in physical sciences.
2. Both deal with phenomena that are untangible; concepts are principally different from the operational measurements and observations. Both sciences, therefore, are facing the issue of meaning and validity of their measures.
3. Both are dealing with predictions: predictions of future behaviour or reactions on treatment/intervention. This needs a stochastic decision making model based on probabilities of outcomes, rather than a deterministic model. False negatives have to be weighted against false positives. Improvement of success ratio's depends on selection ratio's and antecedent probabilities.
4. In both disciplines simple, atomistic models have turned out not to work. Simple linear equations had to be replaced with non-linear models with many contingencies and interaction terms.
5. Finally – as indicated before – in both disciplines a mono-disciplinary model appears to be too restrictive. Human behaviour, just like illness, is determined or influenced by biological, psychological and social factors. For a full understanding a multi causal model should be adopted.

The Academy has been glad to take this symposium under its wings. I hope the academic patronage will inspire this conference to independent and creative exchanges of ideas. I wish you a fruitful and inspiring conference.