Perspective

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We will focus on the pulmonary circulation, but as in past conferences, we will concentrate on a part of the respiratory system only to make it clearer in its relationship to the whole. In accord with the basic fact that the pulmonary arteries follow the course of the airways, we have for our conference brought together in potentially congenial juxtaposition experts in both the blood and gas transport systems. This morning it will be our particular purpose to show the morphologic and mechanical relationships between the blood vessels and the airspaces of the lung. Before I introduce our speakers, I would like you to be prepared to deal with the two chief types of informational entities which will be communicated, namely concepts and models. We will hear from anatomists who will directly or indirectly imply physiological concepts. We will also hear from physiologists who will build anatomical and mathematical models.

What is the difference between a concept and a model ? Basically they are very similar. The model is in many ways a concept made explicit, laid bare, exposed with all its assumptions showing. Furthermore, a model is a concept you can experiment with, a great advantage over something you can only discuss. Models, however, tend to be arbitrary, whether because of human prejudice or fallibility, or because of the action of formaldehyde or Zenker's. Concept formation, if created by the humbly receptive observer, even though fuzzy and nonquantitative, may well be the process touching closest to reality. In the end, however, concepts and models are of the same stuff, not only the stuff that dreams are made of, but the fabric of science itself.