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THE TREND OF MORPHOLOGY<sup>1</sup>

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THE trend of morphological investigation has seemed to me a particularly appropriate topic for consideration before the American Association of Anatomists on this occasion. Others might suppose that since all of us are morphologists we are naturally familiar with this trend and such a discussion is out of place or useless. Yet are we as workers in a science always conscious of its trend, or is the trend the same in the minds of any number of us? It may be that each sees the trend from the view-point of his own endeavor and any one might have difficulty in convincing his colleagues that he is looking straight forward rather than sidewise or possibly even backwards. The exact direction of progress is somewhat problematical and attempting to follow it becomes an experimental venture, since the speaker is forced to employ his own personal compass and takes the chance of being alone or in a company of questionable size when the end of the survey is reached. In spite of the risks involved, I shall attempt to trace an impartial outline of the growth of morphology with an analysis of its sudden modifications at the beginning of this century and the possible effects of these on its immediate problems.

The very early history of the subject has no place in such an outline, and a convenient point for starting is with the introduction of the definite term *morphology*. It is strangely interesting that this word was first used by one of the most romantic poets of history, who at the same time chanced to be an eminent morphologist of the early nineteenth century. Goethe, in 1817, employed the word to indicate unity of structure in place of the more awkward term *metamorphosis* which had been applied in a similar sense by the great naturalist Linnaeus. Goethe's instinctive biological ideas frequently occur even in his poetry and drama—in the poet's great masterpiece Mephistopheles remarks to Faust the oft-quoted morphologic truth, "Blut ist ein ganz besonderer Saft!" All hematologists are still unwilling to disavow it.

The investigation of living mechanisms considered as the structural side of biology has followed in its history something of a parallelism with the two other great natural sciences—physics and chemistry.

<sup>1</sup> Address of the president of the American Association of Anatomists, University of Rochester, New York, March 27, 1929.

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