tendons and ligaments which are employed in walking, and for the evolutionary process by which they have been adapted to their use. Nevertheless, biological science has not been able to escape the recognition of a natural formative tendency, which Darwin identified as the result of natural selection. And now it appears to be necessary to postulate a like tendency in the evolution of inorganic nature.

We have found that the properties of the environment, biologically considered, present the same fitness as the properties of life. In each case the fitness results, at least in part, from an evolutionary process. Through the main lines of later development these are both known, though in both cases we stop short, perhaps far short, of the origins — the origin of life and the origin of the universe — if indeed they have ever originated.[1] Can we then deny that in the one as in the other process there is a tendency, a bent, a direction of flow or development?[2] I think not,

[1] It is hardly necessary to point out that the properties of the elements are themselves quite free from variation of any sort.

[2] "Alike in the external and the internal worlds, the man of science sees himself in the midst of perpetual changes of which he can discover neither the beginning nor the end. If, tracing back the evolution of things, he allows himself to entertain the hypothesis that the universe once existed in a dif-