

must still ask, What then is this variability, this power to vary? *Potentialities too are real characters*, their precise difference from actualities being that they require a particular environment as a condition of development. "Only potentiality," "only predisposition," this is a favourite expression with those who belong to the school of Weismann, but all life is "only predisposition" until it is made actual in an environment. To say there is a tendency to variation cannot be the last word. We must ask, Has the tendency—or the variation—a cause, or has it not? Will science here at last, at the heart of life, abjure its faith and speak of "accident"? Weismann tells us in *The Germ-Plasm* that "*the cause of hereditary variation must be deeper than amphixis*" (the intermingling of germ-plasms involved in sexual reproduction), "*it must be due to the direct effect of external influences on the biophors and determinants.*"¹ But these external influences—the admission of which is in itself most significant—cannot do more, as Weismann reminded us in his Romanes Lecture, than merely provide the environmental stimulus for the development of characters already latent in the germ.

As the life differs, so does its response to any stimulus. Variability cannot be regarded as mere plasticity, or variations as mere accidents. Our present knowledge of nature, as the scientist of our day pre-eminent for the fineness of his imaginative insight, Henri Fabre, has striven to show, makes the conception of a world in which *casual* variation (however rigorously controlled by selection) determines species, an intolerable burden on the imagination. If a variation is slight, it can become the differentia of a new variety only if it persists in growth through many generations, and how can it so persist unless it expresses a determinate and directed activity of life?² If it is considerable—and we are beginning to learn how considerable and determinate most variations are in their first appearance—the notion that they are "accidental" in the Darwinian sense, like the grouping of shots round the bull's eye of a target, mere casual divergences from the mean, is contrary to every principle of probability.

Is not the deeper truth implicit in the very expression

¹ *The Germ-Plasm*, p. 415. Italics Weismann's.

² Cf. Bergson, *L'Evolution Creatrice*, Alcan, 4th ed., c. 1. p. 95 ff.