nor short, short. Galton discusses* the absence of assortative mating for stature and forms the following table, where the medium group embraces individuals of 67″ and up to 70″ stature for males or transmuted females:

Husband

Wife	Short	Medium	Tall	Totals
Short ...	9	28	14	51
Medium	25	51	28	104
Tall ...	12	20	18	50
	46	99	60	205

He notes that there are 27 like marriages short with short and tall with tall, and 26 contrasted marriages† short with tall, and argues that there is no assortative mating in stature. In a fuller treatment of the same data by the present writer the coefficient of resemblance between husband and wife was found to be ·093 ± ·047‡, which might just be significant. Later work has shown that there is sensible assortative mating not only in stature (·280), but in span (·199) and cubit (·198)§; in other words big men do tend to marry big women and small men small women. Galton's data show, however, so little assortative mating that his results were not sensibly influenced by disregarding it.

Galton now turns to another point, namely: Does the difference in stature of parents influence the stature of the offspring? He was clearly conscious that this was an important point, for on it depends whether his value for the midparental stature is or is not to be considered correct. As we should now express it, he was really asking whether the stature in the offspring was equally correlated with the statures of the two parents, or rather, that is the question he would have been asking had he transmuted his female deviations to male deviations by aid of the ratio of the two variabilities and not of the two means‖. If the two correlations be not equal, then Galton's "Forecaster," based on his conception of midparent, would give incorrect results. Galton indicates in a table (*Journ. Anthrop. Instit.* Vol. xv, p. 250) that the differential influence of the parents should not be very great, but he does not really

* *Journ. Anthrop. Instit.* Vol. xv, p. 251.

† Printed in *loc. cit.* 32 instead of 26.

‡ *Phil. Trans.* Vol. 187 A, p. 270, 1896.

§ *Biometrika*, Vol. II, p. 373.

‖ If r_{13} be the paternal, r_{23} the maternal coefficient of correlation and r_{12} that of assortative mating, the bivariate formula shows us that to give equal weight to father and mother we must have equality of the two expressions

$$\frac{r_{13} - r_{12}r_{23}}{1 - r_{12}^2} \quad \text{and} \quad \frac{r_{23} - r_{12}r_{13}}{1 - r_{12}^2}$$

(*Roy. Soc. Proc.* Vol. VIII, p. 240, 1895), and this involves $r_{13} = r_{23}$, i.e. the equality of the parental influences.

determine it quantitatively. Actually for his data we have the following correlations*:

	Father	Mother
Son	·396 ± ·024	·302 ± ·027
Daughter	·360 ± ·026	·284 ± ·028

There was thus really quite a well-marked prepotency of the father in the case of stature. Later results on ampler and better material have failed to confirm this prepotency†; I think it may well have been due to amateur measuring of stature in women, when high heels and superincumbent chignons were in vogue; it will be noted that the intensity of heredity decreases as more female measurements are introduced. Daughters would be more ready to take off their boots and lower their hair knots, than grave Victorian matrons. As we have not since succeeded in demonstrating any sex prepotency in parentage, Galton's assumption that such did not exist justifies his theory. But this assumption was not justified by his actual data and affects seriously the values of the constants he reached, which are all too low in the light of more recent research. I think we should be inclined to say now that the regression of the offspring deviate‡ is on the average nearer to $\frac{4}{5}$ than to Galton's $\frac{2}{3}$ of the midparental deviate. Galton, however, recognised very fully that his numerical values were only first approximations. He writes:

"With respect to my numerical estimates, I wish emphatically to say that I offer them only as being serviceably approximate, though they are mutually consistent, and with the desire that they may be reinvestigated by the help of more abundant and much more accurate measurements than those I have at command. There are many simple and interesting relations to which I am still unable to assign numerical values for lack of adequate material, such as that to which I referred some time back, of the relative influence of the father and the mother on the stature of their sons and daughters.

"I do not now pursue the numerous branches that spring from the data I have given, as from a root. I do not speak of the continued domination of one type over others, nor of the persistency of unimportant characteristics, nor of the inheritance of disease, which is complicated in many cases by the requisite concurrence of two separate heritages, the one of a susceptible constitution, the other of the genus of the disease. Still less do I enter upon the subject of fraternal deviation and collateral descent§."

Galton's reasons for making a special study of stature are dealt with at considerable length and summarised as follows:

"The advantages of stature as a subject in which the simple laws of heredity may be studied will now be understood. It is a nearly constant value that is frequently measured and recorded, and its discussion is little entangled with consideration of nurture, of the survival of the fittest, or of marriage selection. We have only to consider the midparentage and not to

* *Phil. Trans.* Vol. 187 A, p. 270, 1896.

† See *Biometrika*, Vol. II, p. 378, 1902.

‡ Galton in this paper introduces the term "deviate": "I shall call any particular deviation a 'deviate,'" *Journ. Anthrop. Instit.* Vol. XV, p. 252. The term was perhaps unnecessary considering the existence of "deviation," but it has come into general use, and is perhaps more justifiable in Galton's sense than "variate," which is now so often used, not for a particular variation, but for the "variable" itself.

§ *Journ. Anthrop. Instit.* Vol. XV, p. 258.