physical and physiological traits has been examined to determine whether the interval between births of children of the same parents is related to degrees of resemblance. His results furnish no definite evidence that the interval between births has any influence on degree of resemblance in the traits studied. To date there has been published no direct attack of a similar nature upon the question of resemblance in mental traits.

For the past two years the author has been collecting data from intelligence tests administered to two or more members of a family with the idea of trying to reveal any relationship existing between age interval and degree of resemblance of siblings in mental capacity (within the limits to which paper and pencil tests measure mental capacity). The present results are based on the records of 1,012 pairs of native-born white siblings, representing 614 families and having age differences ranging between one and eleven years. Three groups, including superior, average and inferior ability, respectively, were obtained by drawing upon schools enrolling children from widely different socio-economic strata.

In all cases the two members of a pair were tested with the same tests and under similar conditions, in so far as this was possible. For example, children from any one school were all tested when they had progressed to a given grade level, so that the average age at test was approximately equal for the older and younger members of all pairs.

The principal method of analysis employed to discover any possible relationship existing between age interval and difference in intelligence was that of product-moment correlation. For each group of data this relationship was computed by entering the difference of a pair in I. Q. on the x axis, and their difference in age on the y axis. The obtained correlations, as will be seen from Table 1, indicate no tendency for children within a family, far apart in age, to resemble each other less than children born near together.

TABLE 1

RELATION BETWEEN I. Q. DIFFERENCE AND AGE INTERVAL OF SIBLINGS

X = I. Q. difference
Y = Age difference in months

Group	r_{xy}	P.E.*	M_x	M_y	σ_x	σ_y	N*
I	−.001	.036	10.59	41.04	7.83	23.70	359
II	−.006	.049	11.55	32.34	8.04	15.78	188
III	+.058	.032	10.86	43.20	8.10	25.26	465

* The values of N given here, and employed in computing the values of P. E. here reported, are in each case the number of pairs, and, since some individuals entered more than one pair, are greater than the actual number of cases involved. These P. E. values are therefore slightly below the true probable errors.

The data of Group I are probably most free from selective factors favoring the inclusion of bright young and dull older sibs. In this group the mean I. Q. of the 359 paired as older was found to be 117.6 as compared to a mean of 118.0 for the 359 paired as younger. The difference in mean I. Q. (.4) is less than its own probable error, and gives no evidence of superiority of later over earlier born members of a family. It may also be pointed out that the degree of sibling resemblance has been computed for each group of data. This has been done by entering the I. Q. of the older member of each pair on the x axis, and the I. Q. of the younger on the y axis. The resulting values for r were .49, .52 and .34, respectively. The first two of these are probably fairly accurate measures of the degree of sibling resemblance in representative groups; the latter is lower than the true degree of resemblance because of a marked restriction of range in the data employed.

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BOOKS RECEIVED

FALK, I. S., C. RUFUS ROREM and MARTHA D. RING. *The Costs of Medical Care.* Pp. xviii + 623. University of Chicago Press. $4.00.

FALK, I. S., MARGARET C. KLEM and NATHAN SINAI. *The Incidence of Illness and the Receipt and Costs of Medical Care Among Representative Family Groups.* Pp. xii + 327. University of Chicago Press. $3.00.

KLÜVER, HEINRICH. *Behavior Mechanisms in Monkeys.* Pp. xvii + 387. 52 figures. University of Chicago Press. $4.00.

PLANCK, MAX. *Introduction to Theoretical Physics.* Translated by Henry L. Brose. Vol. I: *General Mechanics.* Pp. vii + 272. $2.50. Vol. II: *The Mechanics of Deformable Bodies.* Pp. 234. $2.50. Vol. III: *Theory of Electricity and Magnetism.* Pp. viii + 247. $2.50. Vol. IV: *Theory of Light.* Pp. vi + 213. $2.50. Vol. V: *Theory of Heat.* Pp. viii + 301. $2.75. Macmillan.

REED, LOUIS. *The Ability to Pay for Medical Care.* Pp. x + 107. University of Chicago Press. $2.00.

ARKELL, W. J. *The Jurassic System in Great Britain.* Pp. xii + 681. 97 figures. 41 plates. Oxford University Press. $7.75.

COLLINS, A. FREDERICK. *Experimental Optics.* Pp. xiv + 318. 174 figures. Appleton. $2.00.

MCALPINE, ROY K. and BYRON A. SOULE. *Qualitative Chemical Analysis.* Pp. xii + 697. Van Nostrand. $4.50.

MOORE, R. L. *Foundations of Point Set Theory.* Colloquium Publications, Vol. XII. Pp. vii + 487. American Mathematical Society.

RITT, JOSEPH F. *Differential Equations from the Algebraic Standpoint.* Pp. x + 173. American Mathematical Society.

STONE, MARSHALL H. *Linear Transformations in Hilbert Space and Their Applications to Analysis.* Pp. viii + 623. American Mathematical Society.