

INHERITANCE IN ROVING AND IN ROMANTIC TYPES.¹

IN his interesting study Dr. Davenport deals first with those not unfamiliar types who cannot settle down, who run away from home and school, who disappear suddenly and are next heard of at the ends of the earth. When the impulse is well-marked those whom it sways are known as rovers, and the periodic or prevailing domination of life by the wandering impulse may be called nomadism. It occurs in various forms and degrees, but the term nomadism should not be used too widely if it is to be of any use. Thus Meunier's classification includes legitimate nomads (like peddlers and missionaries), delinquent nomads (like fugitives from justice), nomads of ethnic origin (like gipsies and crusaders), as well as nomads of morbid origin (who are "rovers" in the strict sense). But this net has been too widely cast, and the suggestion that the rovers are necessarily morbid is unfortunate. The truant may become a scholar-gipsy and the stowaway a great explorer.

According to Dr. Davenport, "nomads, of all kinds, have a special racial trait—are, in a proper sense, members of the *nomadic race*. This trait is the absence of the germinal determiner that makes for sedentariness, stability, domesticity." From the data of a hundred family histories (some of which seem to us far from convincing as illustrations of true roving), the investigator concludes that

nomadism is probably a sex-linked recessive monohybrid trait. Sons are nomadic only when their mothers belong to nomadic stock. Daughters are nomadic only when the mother belongs to such stock and the father is actually nomadic. When both parents are nomadic, expectation is that all children will be.

The wandering impulse is frequently associated with various kinds of periodic behaviour, such as depression, migraine, epilepsy, and hysteria, but Dr. Davenport is probably right in concluding that these merely permit the nomadic impulses to assert themselves. We do not feel at all convinced, however, by the argument that nomadism in man is of the same order as the regularised restlessness of migratory birds, or that it is the reassertion of a fundamental human instinct, normally inhibited by the conditions of civilisation.

The second study deals with the inheritance of temperament, more especially of the "romantic" and "classic" types, that is to say, the quickly-reacting and the slowly-reacting, the feebly-inhibited and the strongly-inhibited. In the old terminology the choleric and nervous were contrasted with the phlegmatic and melancholic; in the new terminology the "hyperkinetic" are contrasted with the "hypokinetic." Politically, Dr. Davenport tells us, the contrast spells radical and conservative; in any case, the dualism runs through our whole population.

The investigator is well aware that our tempera-

¹ "The Feebly Inhibited. Nomadism, or the Wandering Impulse with Special Reference to Heredity. Inheritance of Temperament." By C. B. Davenport. Pp. 158. (Washington: Carnegie Institution, 1915.)

mental outlook is profoundly affected by a complexity of conditions, such as the secretion of the suprarenal bodies, the blood-pressure, the state of the arterial walls, the adequacy of digestion and toxin-elimination, the state of the eyes (as Gould's well-known studies show), as well as by such unconsidered trifles as an ambition, a passion, an enthusiasm, an ideal; but he is not afraid to launch the hypothesis that there is in the germ-plasm a factor, E, which makes for excitability, while its absence means calm; that there is another factor, C, which makes for cheerfulness, while its absence "permits a more or less periodic depression."

This hypothesis is supported by an analysis of the pedigree-charts of eighty-nine families. There is interesting evidence of similarity of temperament in "identical twins." As regards marriage it is pointed out that "these twain" rarely have "the same zygotic temperamental formula," which is doubtless providential. As regards suicide it is shown that the hyperkinetic and the hypokinetic types are consistent even to the end, for they keep to their distinctive methods. The factorial hypothesis seems to work well in certain cases, but we must confess that the theory of a factor C, "which makes for normal cheerfulness of mood," appears to us an incredible simplification of the facts of life.

PROF. SILVANUS P. THOMPSON, F.R.S.

THE sudden and unexpected death of Prof. Silvanus Thompson will be deeply regretted by a large and distinguished circle of personal friends, as well as by the many engineers, electricians, and others who, either directly in his classes, or indirectly through his books and writings, have come under the influence of his teaching. A many-sided, cultivated, and highly gifted man of untiring industry, possessed of an almost unique knowledge, not only of the highways and byways of science itself, but also of its history and the history of its creators, Prof. Thompson held a distinguished position in the scientific world.

During the past three centuries scientific facts have been accumulating so rapidly and on so vast a scale that no one could to-day honestly pretend, with Francis Bacon, that he took all knowledge for his province. Nor would it be possible nowadays for any single individual to be, like Leonardo da Vinci, the master, not only of every branch of science and engineering, but also of literature and the arts. Prof. Thompson, however, if he fell short of reaching the unattainable, was a real master in many separate intellectual fields. In the sciences of electricity, magnetism, and optics, and in other branches of physics, he made discoveries and did original work of his own, besides much other work in the way of elucidating and popularising what was done by others. Gifted with a peculiar charm of manner, a pleasantly resonant voice, great clarity of diction, and an immense facility for finding the proper words and expressions, his lectures were always a pleasure to listen to, particularly as, in addition to his

powers of locution, he was also exceedingly successful with his experiments. His speeches, whether prepared or extempore, were always models of lucidity, and when moved he was capable of attaining to real eloquence. From a combined scientific and literary point of view he possessed not a few points of resemblance with Tyndall, though very different himself in other ways from Tyndall as a man.

The late Sir William White, himself a very fluent and effective speaker, and himself a no mean judge of oratory, once told the present writer that he had heard Prof. Thompson deliver an address at a religious meeting in the Friends' Meeting House at York, and that it was the best sermon he had ever heard in his life. Nor were Prof. Thompson's powers of speech limited to his own language, as he was equally at home both in conversation, and when speaking in public, in the French, German, and Italian languages. In his writings also he showed himself to be a master of English. If the subject was scientific his language was always extraordinarily clear and to the point, which explains the remarkable success of some of his books. His treatise on "Dynamo Electric Machinery," for example, which was first published in 1884, has run to seven English editions and has further been translated both into French and German. Again, his "Elementary Lessons in Electricity and Magnetism" has been translated into French, German, Italian, Polish, and Japanese, and, in addition, has had a circulation of more than one hundred and fifty thousand copies in this country; while other of his technical books, such as his "Electro-Magnet," his "Poly-phase Electric Currents and Motors," and his "Light, Visible and Invisible," together with many of his other scientific writings and lectures, have met with world-wide success.

To turn to Prof. Thompson's efforts of a more purely personal character, his fine literary style was turned to good use in his life of Faraday, his biographical notice of Philip Reis and his telephone, and his recent two-volume "Life of Lord Kelvin." Then, again, he was always keenly alive to the historical side of science, particularly from a romantic point of view, as is seen from the large amount of time and labour that he devoted to old books, such as the "De Magnete" of William Gilbert of Colchester, physician to Queen Elizabeth, which book he assisted to translate. He also devoted attention to, and reprinted, some of the seventeenth-century works on magnetism of Robert Boyle. Mention should also be made of the translation he made from the original Latin of the epistle on magnetism of Peter Peregrinus, written in the year 1269 by a soldier in the trenches during a siege, which translation he caused to be privately printed, ornamenting the coloured initial letters with his own hand. For, in addition to being a man of science and a man of letters, Prof. Thompson was also an artist who was able himself to draw the portrait of Faraday that illustrates his life of that great man, and whose water-colours of Alpine scenery have appeared on the walls of the Royal Academy.

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As a man Prof. Thompson was a genial and interesting companion of wide general interests and sympathies. He lived up to the high standard of the Society of Friends, of which he was a life-long member, and was, indeed, a very good and true friend to many, to whom he tendered a helping hand in his quiet unostentatious way. Perhaps his chief characteristic was his amazing industry, and it is to this that is due the vast amount of work that he accomplished, though, passing away as he did at less than sixty-five, he has not attained even to the three score years and ten of the Psalmist, much less to the four score years which are now so commonly surpassed by many of our grand old men of science.

Few of the many who attended the service "For Worship," in memory of Prof. Thompson, on Friday last, in the Friends' Meeting House, St. Martin's Lane, will readily forget that remarkable and moving occasion. Many of the veterans of British science were there assembled, and the complete absence of any approach to form or ceremony, and the austere simplicity of the proceedings, were very impressive and carried one back to the days of the Puritans. Such was a fitting finale to a strenuous and distinguished career, by the close of which science has lost an enthusiastic leader and an illuminating exponent. Amongst those who knew Prof. Thompson personally all will deplore the departure of a trusted and very sincere friend—one who will not readily be forgotten.

A. A. CAMPBELL SWINTON.

WHAT SCIENCE SAYS TO TRUTH.

AS is the mainland to the sea,
Thou art to me:

Thou standest stable, while against thy feet
I beat, I beat!

Yet from thy cliffs so sheer, so tall,
Sands crumble and fall;
And golden grains of thee my tides each day
Carry away.

WILLIAM WATSON.

NOTES.

WE regret to see the announcement of the death on June 18 of Dr. R. H. Scott, F.R.S., superintendent of the Meteorological Office from 1867 to 1900.

THE longevity of men of science has often been brought under notice. On Saturday next, June 24, the Rt. Hon. Henry John Moreton, Earl of Ducie, F.R.S., enters on his ninetieth year, having been born in 1827. His lordship is the senior fellow of the Royal Society in point of election to that body, this dating from 1855. When Lord Moreton, he obtained from the Jurassic limestone of Burford the fossil species of star-fish named by Prof. Edward Forbes *Solaster moretoni*, in honour of the finder. In connection it may be mentioned that Sir Robert Palgrave, F.R.S., entered on his ninetieth year in the early part of this month, while Sir William Crookes attained the age of eighty-four on Saturday last, June 17.