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regenerative power is also greatest in simple tissues, less in the highly differentiated tissues, and at the minimum in the brain.

Many of the facts of regeneration have long been known, but of late years they have been widely discussed in relation to Weismann's theories. It has generally been regarded as a general and unexplained power of the organism to resume its integrity after the loss of a part. Weismann regards it as a specially developed adaptation to oft-recurring needs under the influence of natural selection. He seeks to prove that it occurs only in those parts of animals which are specially liable to loss; and contends that special germinal rudiments are developed to meet the oft-recurring need. On the other hand, it is held by certain of the experimental morphologists (e.g. Wilson) that cases of regeneration, such as the regeneration of the lens of the eye by injuries which would not happen in actual life, render this explanation inadequate.

Literature (to 2): A. WEISMANN, *The Germ-Plasm* (1892-3); and 'Regeneration' in *Nat. Sci.* (April, 1899; and the literature there referred to); E. B. WILSON, *The Cell in Devel. and Inheritance*; T. H. MORGAN, *Regeneration* (1901). (C.L.L.M.—J.M.B.)

Regress: see PROGRESS.

Regression [Lat. *regressus*, a going backward]: Ger. *Rückkehr*; Fr. *retour au type*; Ital. *regressione*. (1) In biology: the maintenance in a group of animals of a certain type or standard in any given character through the intermingling and levelling effects of heredity, whereby extreme variations are not perpetuated. It should be carefully distinguished from Reversion or ATAVISM (q. v.).

(2) In sociology: sometimes erroneously used for social retrogression and decay. See SOCIAL EVOLUTION.

(1) The principle was first given general formulation by F. Galton. It is important as a conservative factor in evolution, since through it progress, being made by change in the average value of a character, becomes continuous and steady. Sports of all kinds have influence only as single individuals whose characters are balanced by other variations according to the law of distribution about a mean. The influence of a 'sport,' therefore, would be greatest the smaller the group in which he appears. Although operating upon individuals, the net result of natural selection appears in the shifting of the mean value.

The principle was embodied in Galton's

law of the mid-parent (see MIN-), and assumes more exact form in the same author's 'law of ancestral inheritance,' known as GALTON'S LAW (q. v.). It has been worked out mathematically on the basis of statistics illustrating Galton's law by K. Pearson, who establishes the relative stability of groups, and introduces a 'coefficient of stability.' Cf. PANMIXIA.

The principle seems, however, to apply mainly in cases of 'blended' inheritance (in which the characters of the two parents blend), and not in cases of 'mutually exclusive' inheritance (cf. Galton, *Nat. Inheritance*, 12, and Ewart, *Pres. Address, Sect. Zool., Brit. Assoc.*, 1901).

(2) The principle has been discussed in connection with social evolution; but it evidently does not apply, since its operation is entirely through physical heredity (the mating of variations of different value). In social life a single individual mind, or a single thought, may dominate and colour all subsequent progress, its propagation being by imitation and tradition. Such propagation is inconsistent with the law of biological regression. If such an analogy held, it would indicate a law of regression (not of retrogression; cf. above, 2) in social evolution.

Literature: GALTON, *Natural Inheritance*; and papers cited under GALTON'S LAW, notably *Proc. Roy. Soc. Lond.*, xi. 401; PEARSON, *ibid.*, meeting of Jan. 27, 1898; *Science*, Mar. 11, 1898, 337 f.; and *Grammar of Science* (2nd ed., 1900); CONN, *Method of Evolution* (1900); HEADLEY, *Problems of Evolution* (1900); other expositions of EVOLUTION (q. v.). On the social application see citations under BIOLOGICAL ANALOGY; also KIDD, *Social Evolution*; LL. MORGAN, *Habit and Instinct*; BALDWIN, *Social and Eth. Interpret.*, sect. 300 ff. (J.M.B., C.L.L.M., E.B.P.)

Regressive (in logic): see PROGRESSIVE (2).

Regret: Ger. *Bedauern*; Fr. *regret*; Ital. *rammarico*. Emotion of sorrow attaching to portions of the past into which one's own voluntary attitudes or acts have entered. Cf. REMORSE, and REPENTANCE.

Regret attaches to things not done, to attitudes of *laissez-faire*, and even of indifference, as well as to positive acts. Some of the keenest regrets attach to opportunities unimproved, to attainments not won. 'Nothing but leaves! The spirit grieves O'er years of wasted life!' (J.M.B.)

Regular [Lat. *regula*, a rule]: Ger. *regel-*

mässig, regulär; Fr. *régulier*; Ital. *regolare*. Conforming to rule.

Regular proof: proof which has the external form considered appropriate to making its cogency clear. The form of a regular demonstration is as follows: first, the proposition to be stated is precisely stated in general terms; second, the construction of a diagram is described conforming to the conditions of the proposition; third, the proposition is restated with reference to the construction; fourth, by means of additions to the diagram, parts of it are brought into comparison; from which it is made evident that the proposition is true of that construction. It is evident that to perfect the proof, it ought then to be shown that what is true of the particular construction will be true in every case.

Regular syllogism: a syllogism which is stated precisely in the standard form, the major premise first, the minor premise next, the conclusion last; and with these propositions in the peculiar language, or symbols, of the system of formal logic used. (C.S.P.)

Regulative: see CONSTITUTION.

Reid, Thomas. (1710-96.) Born at Strachan, Scotland, he was educated at home and at Marischal College, Aberdeen. College librarian and student of mathematics and philosophy, 1726-37, when he became minister at New Machar in Aberdeenshire. Professor of philosophy in King's College, Aberdeen, 1752; of moral philosophy in Glasgow, 1763; resigned 1781, and devoted himself exclusively to philosophy until his death. He was the founder of NATURAL REALISM (q. v.) and its leading figure.

Reify (-fication) [Lat. *res*, thing, + *facere*, to make]: not in use in the other languages. To change a mental attitude or abstraction into a supposed real thing; to attribute objective substantiality to an idea. It is the practical equivalent to hypostatize; see HYPOSTASIS. (J.D.)

Reimarus, Hermann Samuel. (1694-1768.) Born at Hamburg and educated at Jena, he became Privat-docent in philosophy at Wittenberg; travelled in Holland and England; was professor of Hebrew in the Johanneum at Hamburg, 1728. He was one of the figures of the ENLIGHTENMENT (q. v.).

Reinhold, Carl Leonhard. (1758-1823.) Born at Vienna; fled from a Jesuit college, St. Barnabite order, 1783; professor in Jena, 1787-94; successor of Tetens as professor of philosophy in Kiel, 1823, where he died. He

sought for the ultimate principle which would resolve the Kantian dualism of sense and understanding.

Reinhold, Ernst. (1793-1856.) Son of the preceding, he was born and educated in Jena, and became professor of logic, philosophy, and metaphysics in the university there.

Reintegration. Repeated INTEGRATION (q. v.). See also REDINTEGRATION. (J.M.B.)

Rejuvenation [Lat. *rejuvenare*, to make young]; Ger. *Verjüngung*; Fr. *rajeunissement*; Ital. *ringiovanimento*. The production of young tissue or cells of the embryonic type, capable of further growth and differentiation.

Embryonic cells are characterized by the small amount of their protoplasm, and the absence of differentiation in both the protoplasm and the nucleus. In the biological sense old cells are those which are most differentiated, and such old cells are never rendered young; hence rejuvenation in its popular meaning cannot be applied in biology. (C.S.M.)

Literature: MINOT, *Senescence and Rejuvenation*, *J. of Physiol.*, xii. 97; and *Biol. Centralbl.*, xv. 571; DELAGE, *Structure du Protoplasma*, and *Année Biol.* (successive issues); works on biology. (C.S.M.—J.M.B.)

Relation [Lat. *re + latus*, p. p. of *ferre*, to bear]: Ger. *Beziehung, Verbindung, Verknüpfung, Verhältnisse*; Fr. *relation, rapport*; Ital. *relazione, rapporto*. See RELATION (consciousness of).

More specifically, (1) Practical. The bearing or influence of one thing upon another—the way one thing 'has to do' with another; for example, the testimony of A has relation to the guilt of B; the discovery of a new fact has relation to the truth of some theory.

(2) Logical. The mutual dependence of two or more subjects upon a common principle, fact, or truth, of such a kind that any assertion regarding one modifies the meaning of the other. Accordingly the predicate is true or false of one taken not independently or in isolation, but only in reference, regard, or respect to the other.

Examples: the relation of father and son, buyer and seller, of parasite and host. Many qualities may presumably be predicated of A which have no bearing upon what is asserted or believed of B, but in so far as A stands in relation to B (as father to son, seller to buyer, &c.), this indifference ceases, giving way to complete (logical) reciprocity. This does not mean that A and B are the common subjects of the same predicate, or are taken