

are multiplied the observed ratio will indefinitely approximate to the true ratio. This sort of induction, therefore, has no other validity than such as belongs to a hypothesis which suits the facts as far as we yet know them. If it is to be called an induction, it is a degenerate induction differing very little from hypothesis. It may properly be said, then, that even a pure mathematical theory is developed out of hypotheses.

No theory in the positive sciences can be supposed to satisfy every feature of the facts. Although we know that the law of gravitation is one of the most perfect of theories, yet still, if bodies were to attract one another inversely as a power of the distance whose exponent were not 2, but 2.000001, the only observable effect would be a very slow rotation of the line of apsides of each planet. Now the lines of apsides all do rotate in consequence of perturbations, which virtually do alter slightly the sun's attraction, and thus such an effect would probably only produce slight discrepancies in the values obtained for the masses of the planets. In very many cases, especially in practical problems, we deliberately go upon theories which we know are not exactly true, but which have the advantage of a simplicity which enables us to deduce their consequences. This is true of almost every theory used by engineers of all kinds. The most extraordinary departure from the known facts occurs when hydrodynamics is applied, where the theory is in striking opposition to facts which obtrude themselves upon every spectator of moving water. Nevertheless, even in this case, the theory is not useless.

In all the explanatory sciences theories far more simple than the real facts are of the utmost service in enabling us to analyse the phenomena, and it may truly be said that physics could not possibly deal even with its relatively simple facts without such analytic procedure. Thus, the kinetical theory of gases, when first propounded, was obliged to assume that all the molecules were elastic spheres, which nobody could believe to be true. If this is necessary even in physics, it is far more indispensable in every other science, and most of all in the moral sciences, such as political economy. Here the same method is to begin by considering persons placed in situations of extreme simplicity, in the utmost contrast to those of all human society, and animated by motives and by reasoning powers equally unlike those of real men. Nevertheless, in this way alone can a base be obtained

from which to proceed to the consideration of the effects of different complications. Owing to the necessity of making theories far more simple than the real facts, we are obliged to be cautious in accepting any extreme consequences of them, and to be also upon our guard against apparent refutations of them based upon such extreme consequences.

Whewell makes a great point of the relativity of the distinction between theory and fact. This is an important point that ought not to be overlooked. Every fact involves an element supplied by the mind, which if not, properly speaking, theory, is analogous to theory. On the other hand, serious errors of logic will result from not taking account of the difference between the intellectual elements already involved in the perceptual facts and scientific theories. A theory is a result subject to criticism, meaning by criticism, not the consideration of whether or how far an object is beautiful, useful, or the like, but the passing of a judgment as to whether the object *ought* to be as it is or as it is proposed to make it. If this judgment is adverse, the theory can and will be altered; and it will not be maintained by anybody until it is put into a shape to withstand his criticism. But it is perfectly idle, in this sense of the word, for anybody to criticize what he cannot help; and, like other idle and unamiable practices, it is also highly pernicious. Now all the subconscious work of the intellect in framing a percept and a perceptual judgment is beyond our control, and therefore not subject to logical criticism. It simply has to be accepted. Kant, perhaps, did not sufficiently appreciate this when he undertook to study the critic of such mental forms as space, time, unity, reality, &c.; but, after all, his deduction of the categories is merely in outcome that knowledge cannot be had on other terms; that is, that they are inevitable. Perceptual judgments, therefore, are, for the purposes of logical criticism, absolute facts without any admixture of theory. If a theory does not square with perceptual facts it must be changed. But the impressions of sense from which it is supposed that the percepts have been constructed are matters of theory. If the percepts were proved not to square with the impressions of sense, it would not at all be the percepts that would have to be reformed, for they cannot be reformed; it would be, on the contrary, that theory, that the percepts are constructed out of impressions of sense, that would have to be modified. (C.S.P., C.L.F.)

Theory of Knowledge: see EPISTEMOLOGY, and cf. GNOŚIOLOGY, PHILOSOPHY, and METAPHYSICS.

Theosophy [Gr. *theosofia*, divine wisdom]: Ger. *Theosophie*; Fr. *théosophie*; Ital. *teosofia*. (1) A stage into which philosophic reflection passes when its primary data are God and an organ through which he is revealed or mystically intuited.

(2) A form of Buddhistic thinking which from the postulate of a divine principle deduces the fundamental law of things, a vibratory movement of evolution and involution, the application of which in the sphere of psychic life leads to the process of perpetual reincarnation.

In the first or general sense most oriental thinking is theosophic. Modern thought first became distinctively so in Neo-Platonism, but the tendency has survived down to the present, and has taken on various embodiments.

The Buddhistic form is a direct importation from the East, and has Madame Blavatsky for its great apostle. It has many votaries, and seems to be a growing cult. Cf. MYSTICISM.

Literature: PLOTINUS, *Enneads*; PSEUDO-DIONYSIUS, *Theologica mystica* and *De divinis Nominibus*; works of JACOB BÖHME and SWEDENBORG. For the special forms, see Johnson's *Cyclopedia*, art. *Theosophy*; WM. Q. JUDGE, *The Ocean of Theosophy* (1893); SINNETT, *Esoteric Buddhism* (1883); RAMA PRASAD, *Nature's Finer Forces* (1890). (A.T.O.)

Therapeutics (mental): see PSYCHOTHERAPEUTICS, and MIND-CURE.

Thesis [Gr. *thesis*, a placing or setting; also, in the modern sense, and apparently sometimes to mean merely a universal proposition]: Ger. *These*; Fr. *thèse*; Ital. *tesi*. An assertion formally stated preparatory to a regular defence of it by argumentation.

The Latin form *positio* is less formal in its implication. The denial of a thesis preparatory to regular counter-argumentation is sometimes called the *antithesis*; but this is rarely used except with reference to Kant's antinomies. In geometry, the abstract statement of a theorem is called the *enunciation*, or first enunciation; the statement with reference to the diagram being called the second enunciation, or statement. The latter is also called the *ecthesis*, or *exposition*. For other meanings of thesis, see *The Century Dictionary*. (C.S.P.)

Thing (in law). Ger. *Ding*, *Sache*; Fr. *chose*; Ital. *cosa*. The object of a RIGHT (q.v., in law).

It must be something capable of standing in a relation to the human will; it may be either material, or an object or group of objects only discernible by the mind (Holland, *Jurisprudence*, chap. viii. 85). *Simple thing*: one that can be comprehended, externally, by a single act of recognition, e.g. a horse. *Compound thing*: one to be comprehended only on a view of its several acts or properties, separately considered, e.g. a house. *Intellectual things*: those not material, e.g. an obligation, a copyright. *Divisible things*: things divisible without destroying their essential character or value. A house or horse cannot be thus divided; a pair of horses or block of houses might be (see Pollock, *Jurisprudence*, chap. vi). *Thing in action*, or *chose in action*: a thing not in the possession of the person with reference to its relation to whom it is considered. Not being in his possession, he, if the owner, may be forced to bring an action in order to get it. *Things fungible*: those which can be replaced by others of the same kind without loss to the owner, e.g. a barrel of flour of a certain brand. See RES. (S.E.B.)

Thing-in-itself: see NOUMENON, DING AN SICH, and KANT'S TERMINOLOGY, Glossary, 'Ding an sich.'

Thinking: see THOUGHT.

Thinking (in educational method). In general, the exercise of the intellect, specifically, in grasping the significance of facts presented in instruction.

Nearly all stages of school methods give the pupil's mind some exercise in thinking, but the phase of thinking deemed important enough to be designated as a stage or 'step' in method is the formation of generalizations. Dörpfeldt classifies the mental movements formed in a complete act of learning as follows: (1) Observation, (2) Thinking, (3) Application. Other writers, like Ziller and Rein, divide this second stage into Association and Generalization. See FORMAL STEPS, REFLECTION, and METHOD (in education). (C.D.E.G.)

Thisness [ME. *this*]: Ger. *Diesheit* (Wolff); Fr. *eccéité*; Ital. *eccéità*. Trans. of Lat. *haecceitas*. See LATIN AND SCHOLASTIC TERMINOLOGY, II, and cf. Eisler, *Wörterb. d. philos. Begriffe*, 'Haecceitas.' (J.M.B.)

Thomas à Kempis. (1380-1471.) Born at Kempen, near Cologne; was for seven years novitiate; entered, about 1407, the cloister of St. Agnes as regular canon, became superior, and died there. He belonged to the Brotherhood of the Common Life, founded by Ruysbroek and Geert de Groot.