

# INDEX

the causal connection of psychical phenomena is not complete, and leaves room for an undetermined choice of will (*Princ. of Psychol.*, ii. 573); and he further allows that this theory of 'indeterminism is rightly described as meaning chance' (*Will to Believe*, 159). (W.R.S.)

**Index** (in craniometry) [Lat. *index*, from *indicare*, to point out]: Ger. *Index*; Fr. *indice*; Ital. *indice*. The relation of two dimensions of the skull to one another.

The most important index is the cephalic, which (if one neglects detailed differences in the mode of measurement) may be described by the formula:

$$\frac{\text{Maximum transverse diameter} \times 100}{\text{Maximum antero-posterior diameter}}$$



B, the figures on the left side, represents a brachycephalic skull with length 177 mm., breadth 156 mm., or cephalic index of 88.1. In this skull the orbital index was 87.5 and the nasal index was 49.1. A, the figures on the right, represents a dolichocephalic skull of length 204 mm., breadth 143 mm., or cephalic index of 70.1. In this skull the orbital index was 87.2, the nasal index 42. Upper and side views of skulls of long and round barrow races: after Haddon.

Long-headed skulls in which this index is 75 and under are called dolichocephalic; those with an index of 77.78 to 80.00 are mesati-cephalic; index 80.01 to 83.33, sub-brachycephalic; index 83.34 and above, brachycephalic (Broca). Roughly speaking, the index 80:100 is that of a medium skull (mesocephalic), while the index 75:100 is quite a long skull (dolicho-), and the index 85:100 quite a short skull (brachy-) (for variations in these terms, &c., see references cited under CRANIOMETRY). Of other indices the following may be men-

tioned as most frequently employed. The vertical index, or relation of maximum height to length of head (*B, Bg to Gl, O* in the figure under CRANIOMETRY), varies from 69 to 78; the facial index, which is the ratio of the width of the face (horizontal distance between the two zygomatic arches) to the height of the face, and varies from 61 to 73 (see also FACIAL ANGLE); the nasal index, or proportion of length to width of nose, from below 48:100 to above 53:100; orbital index, or ratio of height to width, from below 84:100 to above 89:100. If the breadth of the head is expressed in terms of the height, we should have a transverse vertical index (86:104), and so on.

*Literature:* art. Indices, in *Dict. d'Anthropol.*; MANOUVRIER, *Année Psychol.*, v. (1899) 558 (a review of recent work); the references under CRANIOMETRY. Cf. also BRAIN, IV. (J.J.)

**Index** (in exact logic). A sign, or representation, which refers to its object not so much because of any similarity or analogy with it, nor because it is associated with general characters which that object happens to possess, as because it is in dynamical (including spatial) connection both with the individual object, on the one hand, and with the senses or memory of the person for whom it serves as a sign, on the other hand.

No matter of fact can be stated without the use of some sign serving as an index. If A says to B, 'There is a fire,' B will ask, 'Where?' Thereupon A is forced to resort to an index, even if he only means somewhere in the real universe, past and future. Otherwise, he has only said that there is such an idea as fire, which would give no information, since unless it were known already, the word 'fire' would be unintelligible. If A points his finger to the fire, his finger is dynamically connected with the fire, as much as if a self-acting fire-alarm had directly turned it in that direction; while it also forces the eyes of B to turn that way, his attention to be riveted upon it, and his understanding to recognize that his question is answered. If A's reply is, 'Within a thousand yards of here,' the word 'here' is an index; for it has precisely the same force as if he had pointed energetically to the ground between him and B. Moreover, the word 'yard,' though it stands for an object of a general class, is indirectly indexical, since the yard-sticks themselves are signs of the Parliamentary Standard, and that, not because

they have similar qualities, for all the pertinent properties of a small bar are, as far as we can perceive, the same as those of a large one, but because each of them has been, actually or virtually, carried to the prototype and subjected to certain dynamical operations, while the associational compulsion calls up in our minds, when we see one of them, various experiences, and brings us to regard them as related to something fixed in length, though we may not have reflected that that standard is a material bar. The above considerations might lead the reader to suppose that indices have exclusive reference to objects of experience, and that there would be no use for them in pure mathematics, dealing, as it does, with ideal creations, without regard to whether they are anywhere realized or not. But the imaginary constructions of the mathematician, and even dreams, so far approximate to reality as to have a certain degree of fixity, in consequence of which they can be recognized and identified as individuals. In short, there is a degenerate form of observation which is directed to the creations of our own minds—using the word observation in its full sense as implying some degree of fixity and quasi-reality in the object to which it endeavours to conform. Accordingly, we find that indices are absolutely indispensable in mathematics; and until this truth was comprehended, all efforts to reduce to rule the logic of triadic and higher relations failed; while as soon as it was once grasped the problem was solved. The ordinary letters of algebra that present no peculiarities are indices. So also are the letters *A*, *B*, *C*, &c., attached to a geometrical figure. Lawyers and others who have to state a complicated affair with precision have recourse to letters to distinguish individuals. Letters so used are merely improved relative pronouns. Thus, while demonstrative and personal pronouns are, as ordinarily used, 'genuine indices,' relative pronouns are 'degenerate indices'; for though they may, accidentally and indirectly, refer to existing things, they directly refer, and need only refer, to the images in the mind which previous words have created.

Indices may be distinguished from other signs, or representations, by three characteristic marks: first, that they have no significant resemblance to their objects; second, that they refer to individuals, single units, single collections of units, or single continua; third, that they direct the attention to their objects by blind compulsion. But it would

be difficult, if not impossible, to instance an absolutely pure index, or to find any sign absolutely devoid of the indexical quality. Psychologically, the action of indices depends upon association by contiguity; and not upon association by resemblance or upon intellectual operations. See Peirce, in *Proc. Amer. Acad. Arts and Sci.*, vii. 294 (May 14, 1867). (C.S.P.)

**Index Number:** Ger. *Indexzahl*; Fr. (Eng. term in use); Ital. *numero-indice*. A figure calculated to show the relative level of prices in a certain year as compared with that in preceding years, so that we may know whether prices in general have risen or fallen.

The index numbers of *The Economist*, which were the first calculated, consisted of simple additions of prices of a number of articles for successive years. An improvement was made when these numbers were reduced to a percentage basis, some one year which is taken as the basis of comparison being given the index number 100. A still further improvement was made by taking, instead of an arithmetical average of prices, a 'weighted' average of prices, which considers the relative amounts of the different articles used in trade or consumption.

**Literature:** principally in the economic journals. The chief authorities on the subject are SAUERBECK and LOETBBER. (A.T.H.)

**India** (philosophy and religion in): see ORIENTAL PHILOSOPHY (India).

**Indictment** [Med. Lat. *indictare*, to declare]: Ger. *Anklage*; Fr. *accusation*, *jugement* (to indict, *mettre quelqu'un en jugement*); Ital. *accusa*. (1) A formal charge of crime.

(2) In English and American law: a written charge of crime or misdemeanour, presented to a court for prosecution, by a grand jury. It is drawn up by the prosecuting officer, and at that stage is termed a bill of indictment. If the grand jury are satisfied that there is probable cause for supporting it, their foreman indorses it as 'a true bill,' and returns it to court, whereupon it becomes an indictment. The party accused is then entitled to trial before a petit jury.

The grand jury is an English institution for the protection of the individual against unjust prosecution. In cases of grave crimes most American constitutions require the return of an indictment before the accused can be brought to trial. (S.E.B.)

**Indifference** [Lat. *in + differens*, different]: Ger. *Gleichgültigkeit*; Fr. *sentiment d'indifférence*; Ital. *indifferenza*. (1) The state of

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