

The provision of food, drink, and attire was regarded as a religious duty (Maimonides, *Mischne Tora*, 'De'oth' v.). Bodily cleanliness was similarly regarded; and as part of the 'Law of Holiness,' dietary restrictions and ablutions were prescribed. From the middle of the 2nd cent. A.D. hand-washing before meals became general. Washing in the early morning was older. During ablutions pietists would avert their eyes from their own bodies. The bodily secretions were not unclean until they separated from the body; in the latter case ablution was rigidly enforced. Special communal baths have always been provided in Jewish settlements. The Biblical conceptions as to the defilement caused by dead bodies were continued in later Judaism. But the great bulk of the early Rabbinic laws as to ritual purity applied only to priests or to Israelites about to participate in Temple rites. Maimonides sums up the Rabbinic rulings as follows (*ib.* 'Tumath Okhelim' xvi. 9):

'It is permitted to every one to touch an unclean thing, and thereby to become unclean. For Scripture only forbids priests and Nazirites from becoming unclean by touching a dead body; hence it is inferred that everybody else may become unclean. And even the priests and Nazirites are only forbidden to become unclean through a human corpse. Every Israelite is enjoined to be clean at the time of the festivals, in order that he may be able to enter the temple, and eat holy food' (Montefiore, *Hibbert Lectures*, 1892, p. 476, note 4; Büchler, *Der Galiläische Amha'areg*, chs. i.-v.).

Some exalted ideas in relation to the body and its stature and proportion were derived from an anthropomorphic interpretation of the text that man was made in the image of God (Gn 1<sup>27</sup>). The bodily sign of the covenant is discussed under CIRCUMCISION.

LITERATURE.—Besides sources already noted, see L. Löw, *Die Lebensalter in der jüd. Literatur*, 1875; M. Joseph, *Judaism as Creed and Life*, 1903, p. 364; art. 'Body in Jewish Theology,' in *JE* iii. 283. I. ABRAHAMS.

**BODY (Hindu).**—The Sanskrit terms denoting the various parts of the body agree remarkably with those of the other Aryan languages—a circumstance which renders it probable that a certain knowledge of anatomy may have been part of the common heritage of Aryan nations. Their acquaintance with anatomy would seem to have extended to the internal organs, such as the heart, liver, lungs, bile, kidneys, etc. The ancient Hindu sages have improved and extended this traditional knowledge. Thus, in a hymn of the Atharvaveda (x. 2) on the creation of man, which is supposed to belong to the most ancient portion of that venerable collection, we have a careful and orderly enumeration of the several parts of the skeleton. The hymn consists of a series of questions, such as these:

By whom were fixed the two heels of man? By whom was the flesh constructed? By whom the two ankle-bones; by whom the slender digits; by whom the apertures; by whom the two sets of long bones in the middle? How did they (the *devas*, or gods) make the two ankle-bones of man below, and the two knee-caps above? How many *devas*, and who among them, contributed to build up the bones of the breast and the cartilages of the windpipe of man? How many disposed the ribs of the two breasts; who, the shoulder-blades? Who pierced the seven apertures in the head: the two ears, two nostrils, two eyes, the mouth? Whoever first constructed that brain of his, the brow, the facial bone, the cranium, and the structure of the jaws, and, having done so, ascended to heaven—who, of the many *devas*, was he?

The composition of this hymn is ascribed to a certain sage called Nārāyaṇa, the same to whom the famous Rigvedic hymn (x. 90) on the sacrifice of man (*puruṣasūkta*) is attributed, in which the four classes of priests, nobles, husbandmen, and serfs are declared to have sprung from the mouth, arms, thighs, and feet of the Primeval Male, or original source of the universe. Some ancient medical formulæ, which occur in some of the earliest Sanskrit tracts on medicine, are also supposed to have been proclaimed by this Nārāyaṇa.

Descending from the Vedas to those early pantheistic compositions, the Upaniṣads, we meet, in

the *Garbha* (or *Embryo*) *Upaniṣad* with an interesting description of the constitution and growth of the human body, which is said to consist of the five elements—earth, water, fire, air, and space or ether. From cohabitation, a small compact mass is produced, which, within a month, becomes a solid lump of flesh. The head is formed after two months; the feet are developed after three months; the ankles, belly, and thighs, after four months; the spine, after five; mouth, nose, and eyes, after six months; the soul (*jīva*) enters the fœtus in the seventh month; it becomes altogether complete in the eighth month.

The later systems of philosophy assign to each person two bodies—an exterior or gross body (*sthūla-sarīra*), and an interior or subtle body (*sūkṣma-sarīra*, or *linga-sarīra*)—much as Pythagoras claimed a subtle ethereal clothing for the soul, apart from its grosser clothing when united with the body. Indian philosophers had to admit the existence of a subtle body, in order to make the process of migration after death intelligible, according to the Indian doctrine of metempsychosis. The subtle body is that which cleaves to the soul in its migration from existence to existence. According to the Vedānta system, this subtle body arises from the so-called *upādhis* ('conditions'), and consists of the senses of the body (*dehendriyas*), both perceptive (*buddhēndriyas*) and active (*karmēndriyas*), and of mind (*manas*), intellect (*buddhi*), sensation (*vedanā*), implying beyond itself the *viśayas*, or objects required for sensation. Its physical life is said to be dependent on the vital spirit (*mukhya prāna*), and on the five *prānas*, or specialized spirits. According to the Sāṅkhya system, the subtle or inner body, which is, of course, invisible, is formed of eighteen elements. The coarse material body consists either of the earth only, or of the four or five coarse elements, and is made up of six coverings—hair, blood, flesh, sinews, bones, and marrow. In some systems, each organ is connected with its own peculiar element, the nose with the earth, the tongue with water, etc.

The whole subject of anatomy is treated at great length in the vast medical literature of ancient India. The Indian theory of the skeleton, in particular, has been transmitted to us in three different systems, one of which, the anatomical system attributed to the mythical sage Ātreya, while agreeing in the main with the statements quoted above from the Atharvaveda, is also found in several later non-medical Sanskrit works, notably in the celebrated law-book of Yājñavalkya. In its original shape, as restored by the researches of Dr. Hoernle, this enumeration of human bones seems to have been made up of the following thirty items:—(1) 32 teeth (*danta*); (2) 32 sockets (*ulūkhala*) of the teeth; (3) 20 nails (*nakha*); (4) 60 phalanges (*aṅgulī*); (5) 20 long bones; (6) 4 bases of the long bones; (7) 2 heels; (8) 4 ankle-bones; (9) 4 wrist-bones; (10) 4 bones of the fore-arms; (11) 4 bones of the legs; (12) 2 knee-caps; (13) 2 elbow-pans; (14) 2 hollow bones of the thighs; (15) 2 hollow bones of the arms; (16) 2 shoulder-blades; (17) 2 collar-bones; (18) 2 hip-blades; (19) 1 pubic bone; (20) 45 back-bones; (21) 14 bones of the breast; (22a) 24 ribs; (22b) 24 sockets of the ribs; (22c) 24 tubercles fitting into the sockets; (23) 15 bones of the neck; (24) 1 windpipe; (25) 2 palatal cavities; (26) 1 lower jaw-bone or chin; (27) 2 basal tie-bones of the jaw; (28) 1 bone constituting nose, prominences of the cheeks, and brows; (29) 2 temples; (30) 4 cranial pan-shaped bones:—total, 360. The large excess of this number over the some 200 bones in the adult human skeleton, which are distinguished by modern anatomy, is principally due to the fact that, besides including

the teeth, nails, and cartilages in the category of bones, the Indian sages counted prominent parts of bones, such as are now known as processes or protuberances, as if they were separate bones. Allowing for these modifying causes, the views of the early Indian anatomists are surprisingly accurate, which seems to be due to the fact that they were acquainted with the practice of human dissection, allowing bodies to decompose in a river, and taking them out after decomposition had set in, when they were very slowly scrubbed with a whisk made of grass-roots, or hair, or bamboo, or bast, and every part of the body examined, as it became disclosed in the process of scrubbing.

Besides the bones, there are 210 joints (*sandhi*) in the body. The joints of the extremities, jaw, and vertebræ are movable (*chala*); all the rest are immovable (*sthira*). There are 900 ligaments (*snāyu*), i.e. sinews and nerves; 500 muscles (*peśi*); 700 veins (*sirā*). Besides the veins, there are other vessels or canals called *dhamanī* and *srotas*, all of which proceed from the navel, which resembles the root of a water-lily, and is the root of the vessels of all living animals. This notion seems to have been derived from the appearance of the vessels in their foetal state. There are six principal limbs: the two arms, the two thighs, the head with the neck, and the trunk or middle portion. Attached to these are 56 minor limbs. The trunk contains 15 organs, such as the heart, the liver, the lungs, the spleen, the two breast-glands, the bladder, the smaller intestines, the larger and grosser intestines, the adeps-bearing duct, etc. There are in the body 10 *añjalis* (a certain measure consisting of two handfuls) of water, 9 *añjalis* of juice (*rasa*), 8 *añjalis* of blood, 7 *añjalis* of stools, 6 *añjalis* of phlegm, 5 *añjalis* of bile, 4 *añjalis* of urine, 3 *añjalis* of adeps, 2 *añjalis* of fat, 1 *añjali* of marrow,  $\frac{1}{2}$  *añjali* of brain,  $\frac{1}{2}$  *añjali* of the essence of phlegm,  $\frac{1}{2}$  *añjali* of semen. Of weak or sensitive parts (*marmān*) in the body, which have to be avoided in operations, there are 107, which are accurately described. In some varieties of these, instant death ensues on their being wounded; in others, the person when wounded dies after a few days, or when the external substance has been extracted; in other varieties, lameness, or only pain, is produced. The seven essential parts or elements of the body (*dhātu*) are: chyle or juice (*rasa*), blood (*rakta*), flesh (*māmsa*), fat (*medas*), bone (*asthi*), marrow (*majjā*), and semen (*śukra*). When there is inequality of proportions between these constituent elements of the body, the person becomes subject to pain or destruction. Hence that has to be regarded as the proper medicine which restores the elements simultaneously to their normal condition by diminishing the increased and increasing the diminished ones. For keeping up the harmony of the elements of a person in health, food is prescribed in various forms, endued with proper attributes. The three humours of the body—air (*vāyu*), bile (*pitta*), and phlegm (*kapha*)—are more important even than the seven elements for the preservation of a healthy and normal condition of the body. Of these humours (*doṣa*), air or wind is dry, cool, light, soft, and always flowing more or less quickly, so as to convey the elements or essential parts over the body; bile, which is situated principally in the stomach, is a hot, bitter, oily fluid, of a blue colour, and sour, and produces animal heat; phlegm is white, heavy, oleaginous, cooling, moist, sweet, and is conveyed by air through the vessels. Most diseases are due to an abnormal increase or decrease of one of the humours. There exists an unmistakable similarity between this Indian theory and the ancient Occidental theory of four humours in the human body. Blood (*rakta*) is

sometimes mentioned as a fourth humour in India, as it is in Western medicine.

The supposed parallelism between the microcosm and the macrocosm is also to be found in Indian thought. Thus, as the universe consists of earth, water, heat, air, ether, and Brahman, which is unmanifest, even so Puruṣa, or the male, is said to be made up of six ingredients: the form is earth; the liquid secretions are water; the animal heat is heat; the life-breaths are air; the hollow places are ether; the inner self is Brahman. The self or soul is an emanation from God or the Universal Soul, from which it springs in the same manner as sparks do from a red-hot ball of iron.

LITERATURE.—Hoernle, *Studies in the Medicine of Ancient India*, part i. 'Osteology,' Oxford, 1907; Max Müller, *The Six Systems of Indian Philosophy*, London, 1899; Wise, *Commentary on the Hindu System of Medicine*, London, 1860; Sir Bhagvat Singh Jee, *A Short History of Aryan Medical Science*, London, 1896; J. Jolly, 'Medicin,' in vol. iii. of the *Grundriss d. indo-ar. Philol. u. Altertumskunde*, Strassburg, 1901; *Charaka Saṁhitā* (Eng. tr.), by K. Avinash Chandra Kaviratna, Calcutta, 1871 ff.; *Yājñavalkya Smṛiti* (Eng. tr. and notes), by V. N. Mandlik, Bombay, 1880; Deussen, *Sechzig Upanishads des Veda*, Leipzig, 1897. J. JOLLY.

**BODY AND MIND.—1.** The problem of the relation between body and mind has occupied philosophers and scientists since the dawn of thought, and to many it appears no nearer to solution now than then. It has been named the central problem of all philosophy, fundamental alike in the theory of knowledge, in ethics, and in religion. Not less fundamental, however, is it for psychology and for physical science; for the point of view from which we regard mental development, the changing forms of nature, animal life and evolution, will be radically different according as we do, or do not, attribute to mind a controlling or directing part in the process of change and growth. The question of the relation between body and mind cannot be discussed apart from the question as to the nature of the two factors, and the difference between them. Both are really metaphysical questions; that is to say, the solution put forward will necessarily be incapable of scientific verification; but it should be such as to give a rational account of the possibilities of knowledge, of individual and race progress, of ethical and religious life.

2. Whether we are dealing with the special relation between the individual mind and the individual body, or with the general relation of finite mind to matter, there are three possible solutions of the problem:—(1) That matter or body is the 'real' or 'substantial' thing, while mind is its product, or in some way dependent upon it both for its existence and for its qualities—the solution of Materialism. (2) That mind alone is real or substantial, and that matter or body is its appearance, its manifestation, or in some other way dependent upon it for existence and quality—the solution of Idealism, and of Spiritualism. (3) That mind and matter are equally real, and independent entities; or equally unreal, as the two 'aspects,' 'appearances,' 'sides' of one and the same reality. The former is Dualism, the latter 'Scientific Monism' or the Philosophy of Identity. There are of course many shades of difference and many overlappings in the different views that have actually been held. The divergencies are especially apparent when a given principle is applied to the relation between the finite body and the finite mind. Thus, even when we regard body as unreal, it is clear that 'my' body is not the manifestation of 'my' mind, but is to a large extent at least independent of it; therefore one may quite well speak of 'my' body—meaning the mind of which the body is a manifestation,—as acting upon 'my' mind, and yet remain a spiritualist or idealist. Here then we have a second basis of division, the lines crossing