## ON THE VOLUNTARY TRANCE OF INDIAN FAKIRS.

TN the spring of 1896 the newspapers told of two Indian fakirs at the Millennial Exposition in Budapest, who took turns at putting each other into hypnotic sleep from which they awoke at the expiration of from eight to fourteen days. The one who was in the hypnotic state was exposed to public view in a glass coffin. two Indians were observed by Professor Aurel von Török, the anthropologist of Pest, and by the Viennese neuro-pathologist, Professor Benedict. A report of the weights and the measurements of temperature, pulse, and respiration of the two fakirs made by Professor Török in May 1896, is to be found in the Correspondenz-Blatt der deutschen Gesellschaft für Anthropologie, Ethnologie und Urgeschichte, for 1896, pp. 49, 50. In this essay Török makes the cautious remark with reference to the observations reported, that a strictly scientific and responsible inspection was out of the question in the matter, since a public exposition was neither the proper place nor the proper time for a strictly scientific investigation. The justification for this qualification came to light soon after this publication in the fact that the two fakirs were exposed as swindlers,or, more correctly, the one of them who was at the moment sleep-

<sup>&</sup>lt;sup>1</sup> Translated from the author's manuscript by W. H. Carruth, of the University of Kansas.

ing in the glass coffin. Some gentlemen to whom the whole performance seemed incredible concealed themselves one evening in the apartment in which the glass coffin stood, and saw some hours later in the night, the lid of the coffin rise and the alleged hypnotised fakir come forth and partake of a cake and a bottle of milk. They sprang out instantly and seized the fakir, and this was the end of the rôle of the two Indians in Budapest. In all probability the fakir thus exposed had regularly taken nourishment in the night; yet we must assume that he was accustomed then by autohypnosis to throw himself into the hypnotic state for nearly twentyfour hours; for the physicians of Budapest who investigated left no doubt that the one of the two Indians whose turn it was, lay by day in a really rigid state in the coffin. Nevertheless, the two fellows, who claimed to produce a hypnotic sleep of seven or fourteen days, instead of merely one of a day's length, had perpetrated such an evident fraud that it is no wonder if straightway the conviction gained ground in wide circles that the much-discussed ability of the Indian fakirs to lie one or even several weeks in a cataleptic condition was altogether a swindle. But this suspicion is by no means warranted, inasmuch as we have positive testimony to the contrary.

The ability of certain fakirs to suspend their vital activities for a considerable length of time, and even to be buried for a while in this condition, without thereby seriously harming life or health, is confirmed by performances of which perfectly reliable, high English civil and military officials were witnesses. No one who can properly estimate the value of historical documents can conserve any doubts in the case. Although the testimony in the case was compiled after careful investigation and published by no less a man than James Braid, the European discoverer of hypnotism, in his treatise, Observations on Trance or Human Hibernation (London and Edinburgh, 1850), and although his treatise was made conveniently accessible to the German public by W. Preyer in his German edition of Braid's selected works (Berlin, Gebrüder Packl) under the title Der Hypnotismus, yet the remarkable facts have become known to a strangely slight extent; indeed, I have been sur-

prised to learn of even distinguished medical men who have not the slightest knowledge of them. Accordingly it seems to me proper to discuss the subject somewhat in detail in this journal and to explain the significance of these observations for the history of civilisation. The fanciful expositions which have been devoted in our day by mystics and other uncritical people to the demonstration of trance by the fakirs as being a supernatural phenomenon beyond the means of science to explain, I of course ignore; but I shall use with gratitude the excellent contribution on this subject kindly sent me by Prof. Ernst Kuhn, of Munich, for my description of the Yoga system in the Grundriss der indo-arischen Philologie und Alterthumskunde (Vol. III., No. 4, pp. 47, 48).

To begin with, I must remark that the Indians whom we are discussing should not be called fakirs. The word "fakir" is Arabic, and has come into the modern Indian languages through the Persian; it really means "poor," and is applied to Mohammedan ascetics. But in the case which interests us here we have to deal, not with Mohammedans, but exclusively with Hindus; and the ascetics among the Hindus are called "Yogin" (nominative, Yogî). The word is derived from "Yoga." Yoga in its broadest sense is the name of an old, pre-Buddhistic philosophical system to which I cannot here devote more attention, save to say for its characterisation that it teaches the absolute distinction of matter and spirit. In the accurate recognition of this distinction the system sees the means of salvation, i. e., of salvation in the Indian sense: release from the necessity of passing through ever new earthly existences after death, in a word, the attainment of eternal In the course of time there has been substituted for this negative aim that of union with God. In the narrower sense Yoga designates the physical and spiritual discipline by which man succeeds in diverting his mind from all other things and concentrating his thought fixedly and steadfastly upon one certain point, i. e., either upon his own inner self, or in later times, upon the divinity, or even upon other things. The Yoga procedure is minutely described in the system, and consists in a series of stages which are to be passed through. In this all sorts of corporeal attitudes play

a part, also the counting of the inspirations and expirations, and especially the suppression of the breath, the fixing of the gaze upon a definite point, as the tip of the nose, the navel, and so on. final result of this Yoga procedure is the falling into unconsciousness, the so-called Yoga-sleep, which is regarded as an introductory step to salvation, especially in case life actually goes out while the subject is in the Yoga-sleep. Now I scarcely need to insist that this Yoga-sleep, which is, of course, regarded by the Indians as a very wonderful phenomenon, is nothing else than the hypnotic sleep. In fact a whole series of hypnotic methods are described in the Yoga texts, such as have always proven effective. Under the name of "trâtaka" later Yoga texts, which rest however upon accient traditions, recommend the steadfast gazing at some small object until the eyes begin to water; and as the result of this practice it is said that the body will become as rigid as a piece of wood, i. e., cataleptic. A method which seems to be of especial importance in the artificial trance of the Yogins is the so-called "khecarî" (pronounce kācharē). It consists in putting the tip of the artificially lengthened tongue back into the throat while at the same time keeping the eyes fixed upon the spot between the eyebrows. Among us too, in recent times, it has been observed that the steady elevation of the eyes in an oblique direction induced hypnotic sleep.

In the execution of the Yoga procedure before complete unconsciousness ensues the Yogin is said to hear within his body (in the heart, the throat, between the eyebrows and in other places) various tones, to wit, consecutively the roar of the sea, of the thunder, of a drum, of a shell, of a bell, of a pipe, of a lute, and of a bee. There is no doubt that such sounds were heard as a result of auto-suggestion; and just as confidently we may assume that a skilful hypnotist to-day could produce by suggestion in a responsive subject the same tone-sensations in exactly the same order as the Yoga text reports.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Cp. Hermann Walter, translation of the *Hathayogapradtpikâ* (Munich 1893), pp. xxviii, xxix.

The correct and persistently practised Yoga procedure has according to Indian opinion therapeutic as well as various other effects; but according to general belief it especially secures to man the magic powers so often mentioned in Indian literature. the authors of the Yoga texts promise these supernatural powers, we must not forget that these were men who were very serious about their task of advancing the attainment of the highest goal; deliberate fraud is certainly not to be ascribed to them. They are simply expressing the convictions of the Yogins, who by suggestion in the hypnotic state really believed themselves to be possessed of such powers. These alleged wonderful powers are in part the same which our somnambulists think they possess. I will name merely a few of the frequently enumerated powers: the ability to make oneself infinitely small or invisible; to increase one's size immensely and to reach the most remote objects, as, to touch the moon with one's finger-tips; to transport oneself anywhere at will. There is mentioned also an increase in the acuteness of the senses such that the most remote objects could be perceived even through intervening walls and the like, and also the processes in the inside of other persons (mind-reading); knowledge of past and future, especially of one's own death hour; the ability to cause the dead to appear and to communicate with them, and still other similar things. Even the most enlightened Brahmans are to this day firmly convinced of the possibility of obtaining these marvellous powers by means of the Yoga procedure. The fact that such powers are not publicly manifested by the Yogins is explained by the condition precedent to the attainment of them, to wit the absolute indifference of the Yogins to the things of this world. One of my instructors, the Brahman Mohanlâl, one of the best and most intelligent Indians I have known, informed me at the beginning of the year 1887 that he proposed, after completing his engagement with me, to devote himself with all zeal to the Yoga cult; and he promised me seriously, as soon as he should have attained the marvellous powers, to visit me in what was at that time my professional residence, Königsberg, i. e., to transport himself by mere force of will to my study in that city. Unfortunately I was prevented from holding the good Mohanlâl to his word by the fact that he died of the cholera in Benares a few weeks after my departure.

Whenever the Yogins, by means of practising the Yoga procedure, fell into hypnosis and catalepsy, the people at first very naturally regarded them as dead; and when thereafter the Yogins awoke again into life, it is just as easy to understand that they were treated with the greatest veneration and regarded as saints. This pleased the Yogins,—for vanity is one of the most conspicuous national characteristics of the Indians, - and accordingly many among them probably postponed the attainment of the highest goal. there was plenty of time left, by means of the sharp distinction of matter and spirit and the other prescribed methods, to burst the bonds of metempsychosis. Accordingly many Yogins probably endeavored, by increasing perfection in hypnotic methods and the prolongation of the cataleptic state, to attain the repute of ever greater sanctity and miraculous power. In this way, in my opinion, catalepsy or lethargy—the particular name is unimportant—became in India a sort of sport or profession. I find in Braid, Observations on Trance, p. 27, another but improbable explanation of this fact. On the authority of some Persian writer Braid assumes that sick Yogins, in order to escape the common fear of dissolution, put themselves into a hypnotic condition and had themselves delivered in this state to the grave which was to be their final resting-place on earth.

"Now it appears to me no very improbable supposition to allege, that accident had revealed to them the fact, that some of those who were thus buried might be restored to life after exhumation,—the action of the air restoring respiration and circulation, on an accidental disinterment of the body of some one thus interred; and the fact once observed would encourage others to try how much they could accomplish in this way, as the newest and most striking achievement which they could perform in token of the divine origin and efficacy of their religion over that of all others."

This whole attempt at explanation is unacceptable for the simple reason that the customary method of disposing of the corpse among the Hindus is not burial but burning.

From the beginning of the eighteenth century we have in the

Cerémonies et Coutumes religieuses des Peuples Idolâtres, II, 1 (Amsterdam 1728) p. 8, a report concerning Indian ascetics who took turns in being buried, and remained nine or ten days in the grave without changing position or taking food or drink. "Air and light they received only through a very small hole." This last item is of especial importance, because, while indeed we have to do in these reports with the burial of Yogins, yet it was a burial in which there was provision for the introduction of at least a slight amount of air.

Now, however, I come to the real subject of my discussion, the actual burial alive, i. e., to the fact that a Yogin could have himself buried under the earth in a sack or a closed box, without any device whatever for furnishing him air. The writings of spiritists and theosophists on this point attempt to give the impression that this performance is a familiar occurrence in India. sition to this view, Prof. Ernst Kuhn has shown with certainty in the article above mentioned, p. 483, that all the reports of this striking phenomenon are derived from the extraordinary performances of a single man, who toward the end of the second decade and during the third decade of the last century repeatedly allowed himself to be buried in Râjputânâ, in Lahore, and once also in Hindustan proper, of course always for good compensation. was the Yogin Haridas, a man who from especial adaptability and by long training had succeeded in prolonging the catalepsy observed in other Yogins to a quite abnormal extent. This man succeeded in suspending his vital functions for forty days and remaining under the earth that length of time. I repeat that no case of actual inhumation has been reported before the case of Haridas, and that no similar case has been authenticated later, since 1837. Since then search has been made in India, and especially in the northwest of the peninsula from which Haridas came, for a man with the same powers, but in vain. But in the case of Haridas himself the repeated inhumation is so well authenticated that there is no room for doubt about it. From the circumstances

<sup>&</sup>lt;sup>1</sup> Professor Garbe, according to the decision of the German Bundesrath, reckons the year 1900 as the first of a new century.

of the case jugglery is quite out of the question, apart from the fact that according to my experience the Indians do not at all deserve the reputation of being skilful jugglers.

Braid describes four cases in the work before cited, p. 10 ff. The name of the Yogin who was buried and came to life again is not here given; he speaks merely of "the fakir who could have himself buried alive." But from another description, to be mentioned later, of the case first reported by Braid we learn the name of Haridâs and some details about his life. In the four cases described by Braid, Haridâs passed 3, 10, 30 and 40 days respectively in the grave.

There is a peculiar interest attaching to the case last mentioned by Braid, in which the burial was for only three days. It was in the year 1828 at Concon that the English major in command of the military station there was visited by a member of the native judiciary who asked permission for "one of his holy countrymen" to be buried alive for nine days within the bounds of the military cordon. After resisting for some time the major yields to repeated requests—for the holy man laid great weight upon the permission to make his experiment within the military territory, since he could thus give better proof that there was no fraud involved than if it were done elsewhere—and gives consent, declaring at the same time that he would take all necessary measures to prevent any possible deceit. Thereupon the "holy man" is buried (without a coffin, but wrapped in a sheet of camel's hair) in an open field in the

¹Raja Dhyan Singh, at that time the prime minister of the Maharaja Runjeet Singh of Lahore, told (see Honigberger, Früchte aus dem Morgenlande, p. 137) that he had kept the man buried under ground for four months in Jemu in the mountains, and that he had his beard shaved on the day of the burial; at the exhumation and revival his chin was as smooth as on the day of the burial. I regard both these reports, the length of the period as well as the matter of the beard, as fabrications. Nothing that is reported by natives about these occurrences has any value for one who knows the unreliability of the modern Indians. We must rely entirely upon the accounts of the high English officers and officials who were witnesses of the performances. For this reason I do not consider the reports of cases in N. C. Paul's Treatise on the Yoga Philosophy (Benares, 1851; third edition, Bombay, 1888). The author was a native, Navina Chandra Pala, who tried by Europeanising his name to make himself pass for an Englishman.

presence of perhaps one thousand Indians, being laid into a grave from three to four feet deep dug in the usual way and having the customary dimensions. A guard of Mohammedans was placed at the grave with orders to prevent any approach to the same; and this guard, which was relieved every two hours, followed orders so strictly that they did not permit one of the hated Hindus to take "even a crumb of the consecrated soil which covered the holy man (a priceless boon in their esteem)." But near at hand were many Hindus watching anxiously lest the Mohammedan guards should play some trick upon their holy brother. Thus the strong religious antipathy of the two parties afforded the best means of preventing any deception. Three days passed. Then, when at evening report was made to the major that the guard had been relieved and that all was as it should be at the grave, the thought occurred to him that the probable death of the man who had been buried alive might have very disagreeable consequences for himself. Fearful of losing his position and of being called into court as accomplice in the murder of a man, he gives orders for his immediate exhumation. The Brahman who had obtained the major's permission for the burial of the holy man comes and tries to pacify the major by assuring him that the holy man had often been buried in the same manner without suffering harm; and he begs the officer earnestly to wait the nine days agreed upon. But the latter refuses and hastens mounted and in ever-growing anxiety to the field. the presence of an immense multitude the grave was excavated and to the horror of the major the inmate brought forth cold and stiff. When the major had satisfied himself of the condition of the body by feeling it, he had no longer any doubt of his misfortune. At this point two disciples of the buried man came forward and proceeded to rub his head, eyes, hands and feet, and especially the region of the heart with an ointment. For a quarter of an hour the rubbing was without result, but then signs of life were recognised, and at the end of an hour the resurrected man was once more in possession of his physical and mental faculties, and acknowledged the homage and the presents of the Hindus, while the major left the place, happy that his fears had proven groundless.

The description of another burial of Haridas is found in the Calcutta Medical Journal of 1835, which I have been unable to consult. But the most detailed and instructive description is that of the first case in Braid, reported by Sir Claude Wade, at that time British Resident at the court of Maharajah Runjeet Singh, of Lahore. This case comes from the year 1837, while the preceding one is from the year 1828; and it is interesting that Haridas had so perfected himself in these nine years that he could now be buried not simply for nine days, but for forty. It also deserves comment that the Maharaja of Lahore was altogether sceptical when the holy man resorted to him and offered to have himself buried for six weeks, and that he took every possible precaution to avoid the possibility of fraud. Since the details themselves are of most importance here, I cannot do better than print word for word that part of Wade's report with which we are concerned. Sir Claude Wade writes to Dr. Braid as follows regarding the exhumation of the man who had been buried forty days before (Braid, Observations on Trance, p. 11 ff.):

"On the approach of the appointed time, according to invitation, I accompanied Runjeet Singh to the spot where the fakir was buried. It was in a square building, called a barra durra, in the middle of one of the gardens, adjoining the palace at Lahore, with an open verandah all round, having an enclosed room in the centre. On arriving there, Runjeet Singh, who was attended on the occasion by the whole of his court, dismounting from his elephant, asked me to join him in examining the building to satisfy himself that it was closed as he had left it. We did so; there had been a door on each of the four sides of the room, three of which were perfectly closed with brick and mortar, the fourth had a strong door, which was also closed with mud up to the padlock, which was sealed with the private seal of Runjeet Singh in his own presence, when the Fakir was interred. Indeed, the exterior of the building presented no aperture by which air could be admitted, or any communication held by which food could be conveyed to the fakir. I may also add, that the walls closing the doorway bore no mark whatever of having been recently disturbed or removed.

"Runjeet Singh recognised the seal as the one which he had affixed, and as he was as sceptical as any European could be of the success of such an enterprise,—to guard as far as possible against any collusion,—he had placed two companies from his own personal escort near the building, from which four sentries were furnished and relieved every two hours, night and day, to guard the building from

intrusion. At the same time, he ordered one of the principal officers of his Court to visit the place occasionally, and to report the result of his inspection to him, while he himself, or his Minister, kept the seal which closed the hole of the padlock, and the latter received the report, morning and evening, from the officer of the guard.

"After our examination, we seated ourselves in the verandah opposite the door, while some of Runjeet Singh's people dug away the mud wall, and one of his officers broke the seal and opened the padlock. When the door was thrown open, nothing but a dark room was to be seen. Runjeet Singh and myself then entered it, in company with the servant of the fakir, and a light being brought, we descended about three feet below the floor of the room, into a sort of cell, where a wooden box, about four feet long by three broad, with a sloping roof, containing the fakir, was placed upright, the door of which had also a padlock and seal similar to that on the outside. On opening it we saw a figure enclosed in a bag of white linen, fastened by a string over the head—on the exposure of which a grand salute was fired, and the surrounding multitude came crowding to the door to see the spectacle. After they had gratified their curiosity, the fakir's servant, putting his arms into the box, took the figure out, and closing the door, placed it with its back against it, exactly as the fakir had been squatted (like a Hindoo idol) in the box itself.

"Runjeet Singh and myself then descended into the cell, which was so small that we were only able to sit on the ground in front of the body, and so close to it as to touch it with our hands and knees.

"The servant then began pouring warm water over the figure; but as my object was to see if any fraudulent practices could be detected, I proposed to Runjeet Singh to tear open the bag, and have a perfect view of the body before any means of resuscitation were employed. I accordingly did so; and may here remark, that the bag, when first seen by us, looked mildewed, as if it had been buried some time. The legs and arms of the body were shrivelled and stiff, the face full, the head reclining on the shoulder like that of a corpse. I then called to the medical gentleman who was attending me to come down and inspect the body, which he did, but could discover no pulsation in the heart, the temples, or the arm. There was, however, a heat about the region of the brain, which no other part of the body exhibited.

"The servant then recommended bathing him with hot water, and gradually relaxing his arms and legs from the rigid state in which they were contracted, Runjeet Singh taking his right and I his left leg, to aid by friction in restoring them to their proper action; during which time the servant placed a hot wheaten cake, about an inch thick, on the top of his head,—a process which he twice or thrice re-

<sup>&</sup>lt;sup>1</sup> Might not this "heat about the region of the brain" have been caused by the warm water poured over the head imparting the greatest degree of heat to the part with which it came first in contact?—J Braid.

newed. He then pulled out of his nostrils and ears the wax and cotton with which they were stopped; and after great exertion opened his mouth by inserting the point of a knife between his teeth, and, while holding his jaws open with his left hand, drew the tongue forward with his right,—in the course of which the tongue flew back several times to its curved position upwards, in which it had originally been, so as to close the gullet.

"He then rubbed his eyelids with ghee (or clarified butter) for some seconds, until he succeeded in opening them, when the eyes appeared quite motionless and glazed. After the cake had been applied for the third time to the top of his head, the body was violently convulsed, the nostrils became inflated, when respiration ensued, and the limbs began to assume a natural fulness; but the pulsation was still faintly perceptible. The servant then put some of the ghee on his tongue and made him swallow it. A few minutes afterwards the eyeballs became dilated, and recovered their natural color, when the fakir, recognising Runjeet Singh sitting close to him, articulated in a low sepulchral tone, scarcely audible, 'Do you believe me now?' Runjeet Singh replied in the affirmative, and invested the fakir with a pearl necklace and superb pair of gold bracelets, and pieces of silk and muslin, and shawls, forming what is called a khelat; such as is usually conferred by the Princes of India on persons of distinction.

"From the time of the box being opened, to the recovery of the voice, not more than half an hour could have elapsed; and in another half-hour the fakir talked with myself and those about him freely, though feebly, like a sick person; and we then left him, convinced that there had been no fraud or collusion in the exhibition we had witnessed."

This careful account may be supplemented in some important respects from Honigberger's rather odd book, Früchte aus dem Morgenlande (Wien, 1851), p. 136 ff. Johann Martin Honigberger, a physician from Siebenbürgen, came in the course of his adventurous life to Lahore, where he rendered such valuable services as personal physician to Maharaja Runjeet Singh and his successors that the English government granted him a pension on his return. It happened that Honigberger was in Europe just at the time of

<sup>1&</sup>quot; At a subsequent interment of this fakir, besides all the precautions enumerated above as resorted to on that occasion, after the box containing the fakir was deposited in the cell, locked and sealed, earth was turned in and trodden down, so as completely to surround and cover the box; a crop of barley was sown over it; and a constant guard maintained on the spot. Moreover, twice during the period of interment, Runjeet Singh had the body dug up, when it was found to be exactly in the same position as when interred, and in a state of apparently entirely suspended animation. At the expiration of this prolonged interment, the fakir recovered under the usual treatment."—B. (p. 16, note).

the remarkable performances at the court of Runjeet Singh here narrated. When he returned to Lahore in 1839 he was told by the English general Ventura and other credible persons of the astonishing experiment of which they had been witnesses in his absence. Honigberger also reports that among the Englishmen present at the exhumation of the Yogin, who had come partly from neighboring places, there was a physician—evidently the medical attaché of the British political embassy mentioned by Sir Claude Wade. Honigberger gives on plate VII a picture of Haridas, after what is declared to be an excellent portrait given Honigberger by a Captain Gardner; and according to this picture the Indian habitual or professional expirer looks like quite a cheerful fellow. Honigberger's account of the burial and resuscitation of Haridas has been reproduced lately in the Introduction to a small Indian publication, an edition with English translation of the Gheranda Samhitâ (Bombay, 1895), with the aforementioned portrait of Haridas prefixed, the account following the English edition of Honigberger's book, which appeared in London in 1852 under the title, Thirty-five Years in the East."

According to Honigberger's account, which is based chiefly on the testimony of General Ventura, the following were notable among Haridâs's preparations for his burial. When Haridâs began to train for his strange profession he cut the ligament of his tongue, as other Yogins are accustomed to do, and induced an elongation of this member by continual pulling and rubbing with certain substances. The holding of the breath is treated in all Yoga texts as a chief feature in the Yoga procedure; years are spent in learning to hold the breath for ever longer periods. Haridâs must have at-

<sup>&</sup>lt;sup>1</sup>Cp. the accounts in the *Dabistan*, a Persian work on the religious sects of India, quoted by Braid, p. 9. I find in Braid's paper also the following interesting observations: "As a result of the fixing of the attention, and after steady gazing at any object, no matter what, there develops most remarkably a condition which deserves much attention, and which I bring about artificially, in case it does not ensue spontaneously, and this is, the suppression of respiration. The effect of the suppression of respiration upon the quantity of oxygen in the blood and the prevention of the throwing off of carbonic acid gas doubtless play an important part, as they may cause slight organic changes, by which the hypnotic condition is first established."

tained great ability in this direction also before he made the experiment with his tongue.

As for the immediate preparations for the burial, Haridâs took an aperient several days beforehand, and thereafter took no food but milk. On the day of the burial he slowly swallowed a strip of cloth three fingers wide and over thirty yards long, and then pulled it out of his throat. This performance was for the purpose of cleansing the stomach of all foreign materials. Thereupon Haridas seated himself in a tub with water up to his armpits and by means of a tube filled the rectum with water in order to thoroughly cleanse it. After this was done Haridas stopped all the openings of the body with plugs made of an aromatic wax, put his tongue folded back in the way hitherto described into the back of his mouth, folded his arms over his breast and fell asleep. All this was done in the presence of a great multitude. Haridâs now presented the appearance of a corpse. He was wrapped in the linen cloth on which he had been sitting, which was then tied together and sealed with the seal of Runjeet Singh, the Maharaja. Then the body was laid into a chest, upon which the Maharaja himself fastened a heavy lock. The burial of this chest, the guarding of the vault about the grave by military pickets, the exhumation on the fortieth day and the resuscitation of the cold and stark body is told by Honigberger in the same way as by Sir Claude Wade. The two reports are entirely independent of each other; Honigberger did not know the report of Wade, which is far clearer and more intelligently written, and which Braid had published a year before the appearance of Honigberger's book, that is at a time when the latter was surely in manuscript, and probably partly printed.

In Honigberger's account of the resuscitation of Haridâs there is one other detail, which probably has no especial significance. After the tongue had been restored to its normal position and the wax plugs had been taken out of the ears, air was blown into his throat and ears, whereby the wax plugs were blown out of the nostrils with some noise. This was regarded by the natives as the first sign of returning life.

From the preparation for his burial which Haridas made in

the way of stopping up air passages it is evident that he himself was convinced of the complete cessation of respiration during his cataleptic torpor. Here he was in error, for the absolute cessation of respiration for so long a time would have meant the end of life. A medical colleague kindly informs me that such a stoppage of the air passages as is reported in the case of Haridâs is not tight enough to stop all admission of air, aside from the fact that the organs of respiration are not the only means of breathing, but that the skin also serves this end, and further, that even through three or four feet of earth and a closed box enough air may pass for the preservation of life when reduced to its lowest limit, the so-called vita minima.

W. Preyer, Ueber die Erforschung des Lebens (Jena, 1873), p. 28 ff., mentions the astonishing performances here discussed in connexion with the fact that plant seeds of the most varied sorts, after being preserved dry for many years, centuries and even millenniums, germinate when put into water or moist earth; and that low animal organisms, tardigrades and the like, may lie for a long time dried up and altogether without metabolism, and yet revive under favorable conditions; and that frogs and fish that have been frozen in solid revive to normal life if thawed out gradually. But Preyer adds, that it is a question whether the condition of the buried Yogins is not a lethargy similar to the hibernation of mammals, rather than a real and complete cessation of metabolism like that of frozen animals or of infusoria and arctiscoids. This question is to be answered in the affirmative,1 and Braid himself not only compared the catalepsy of the Yogins with the hibernation of animals, but actually used the expression "human hybernation." Nevertheless, while the two conditions may be regarded as similar they are not identical, and that for the following two self-evident

<sup>&</sup>lt;sup>1</sup> It is left open by Preyer as well as by Max Verworn, who discusses in his Allgemeine Physiologie (Jena, 1895), p. 190 ff., the phenomena of voluntary trances, citing the burial of Indian fakirs reported by Sir Claude Wade and the case of Colonel Townsend (postea p. 497). And yet the question is decided by the great emaciation observed in Haridâs at his exhumation (to be referred to later); for we must conclude from this that metabolism did not cease during his interment but went on, though in greatly reduced intensity.

reasons. In the first place, the hibernation of animals ensues involuntarily, while the trance of the Yogins is induced voluntarily. In the second place, hibernation is chiefly dependent on cold, since in the case of animals which under normal conditions fall into this state at the entrance of the cold season it can be prevented by residence in a higher temperature, and since animals in a state of hibernation can always be roused by artificial warmth. In the catalepsy of the Yogins the temperature plays no part, or if at all, in an entirely different way; thus my medical adviser believes that the experiment of burying alive as performed by Haridas would not have been possible in our climate, but only in a hot country like India, where the heated earth gave to the torpid body of the buried man the degree of warmth necessary for the preservation of life under such abnormal conditions. But on the other hand the artificial trance of the Yogins has the following important features in common with the hibernation of animals: the extraordinary reduction and retardation of respiration and heart action, as well as the consumption of fat and of other tissues. Much as it is to be regretted that no exact weights of Haridas were noted before and after the burial, it can be asserted with absolute certainty that Haridas during the period of his cataleptic torpor lived on his own tissues, as is the case with hibernating animals, and that the trance would gradually have merged into real death when the man had once consumed all his surplus tissues. Forty days is the longest attested period that Haridas passed under ground, and with this he had probably reached the limit of his capacity. It proves nothing that Haridas himself was confident of his ability to endure burial for a much longer time. In the year 1835 two English officers, Lieutenant Boileau and Lieutenant Trevelyan, were witnesses of a

¹ The same opinion has been uttered by W. B. Carpenter in his essay "On the Psychology of Belief," Contemporary Review, Vol. XXIII (December, 1873), p. 134: "And that such a state [of "suspended animation" or "apparent death"] might be maintained in India under the circumstances described, for a much longer period than in this country, may be fairly attributed to the warmth of the tropical soil, which will prevent any considerable reduction of the temperature of the body buried in it, notwithstanding the almost entire suspension of its internal heat-producing operations."

burial of Haridâs for thirty days. After the resuscitation of the buried man they were struck by his greatly sunken abdomen,—an analogy to the fact that animals coming out of hibernation are always very much emaciated;—Haridâs manifested also great weakness, though he said straightway to the English officers that they might if they chose bury him again right away for a full year. If this experiment had been made it would certainly have caused the death of the experimenter.

Let us now ask what means Haridas used to bring about his torpor. We shall have to consider here chiefly a procedure which has been described by the Viennese clinician L. Schrötter in a passage to which Ernst Kuhn has called the attention of Sanskrit Schrötter says in H. von Ziemssen's Handbuch der specischolars. ellen Pathologie und Therapie, second edition, VI. 311, in the section on disturbances of the motility of the heart: "The trick of the Indian jugglers in voluntarily retarding the action of the heart, has now been explained by Donders, who showed that he could stop the action of the heart by the voluntary contraction of the muscles of the neck which are supplied by the spinal accessory nerve, since by the stimulation of the branches of the nerve in these muscles the branches controlling the heart are at the same time affected." In this way, it is most likely, the experiment of Colonel Townsend is to be explained, which excited attention in its day and is discussed by Braid, p. 8, as well as by W. B. Carpenter, in the Contemporary Review, Vol. XXIII., December, 1873, p. 135: "... the standard case of Colonel Townsend, which no medical authority has ever ventured to call in question, so high was the authority of Dr. Cheyne, the eminent physician, by whom it was recorded." The achievement of Colonel Townsend, who paralleled the already described performances of the Indian Yogins, and of whom it was said that he could die at will, i. e., cease to breathe, was once observed by three physicians together. Braid gives the following. after the report of Dr. Cheyne, a Dublin physician of high standing in his day: "He insisted so much on us seeing the trial made, that we were at last forced to comply. We all three felt his pulse first; it was distinct, though small and thready, and his heart had its

usual beating. He composed himself on his back, and lay in a still posture for some time; while I held his right hand, Dr. Baynard laid his hand on his heart, and Mr. Skrine held a clean lookingglass to his mouth. I found his pulse sink gradually, till at last I could not feel any, by the most exact and nice touch. Dr. Baynard could not feel the least motion in the heart, nor Mr. Skrine perceive the least soil of breath on the bright mirror he held to his Then each of us by turns examined his arm, heart, and breath, but could not, by the nicest scrutiny, discover the least symptom of life in him. We reasoned a long time about this odd appearance as well as we could, and, finding he still continued in that condition, we began to conclude that he had indeed carried the experiment too far; and at last we were satisfied that he was actually dead, and were just ready to leave him. This continued about half an hour. By nine in the morning in autumn, as we were going away, we observed some motion about the body, and, upon examination, found his pulse and the motion of his heart gradually returning; he began to breathe heavily and speak softly. We were all astonished to the last degree at this unexpected change, and, after some further conversation with him, and among ourselves, went away fully satisfied as to all the particulars of this fact, but confounded and puzzled, and not able to form any rational scheme that might account for it." However, I am assured that modern medical science possesses the means for recognising the respiration and heart action even when reduced to such a minimum.

Even though the case of Colonel Townsend proves that the voluntary catalepsy observed in India occurs also in Europe, the question still remains, by what means the guild of Indian Yogins, and particularly Haridâs, produced the extraordinary prolongation of the cataleptic state, and whether the difference of race has anything to do with the matter. It is quite probable that Haridâs had some special secret, and that he always took some strong narcotic before he put his tongue back into his throat and threw himself into catalepsy. The conjecture has been expressed several times that some preparation of Indian hemp was used; Ernst Kuhn has recently supported this conjecture by a number of reasons, and at

the same time shown the probability that the effect of the hemp preparation was strengthened for the purposes of the Yogins by the combination with stramonium and henbane.

Inasmuch as Haridâs was without doubt an abnormal personality from a physiological point of view, the scant notes which Honigberger gives of his life are of some interest. Haridâs was born in the vicinity of Karnal, and led a roving life after he discovered his career. The worship he enjoyed in Lahore at the zenith of his reputation as a saint, must have gone to his head; for his behavior began to give such offence there that the Maharaja Runjeet Singh seriously considered banishing him from the country. The "holy man" anticipated this command by leaving of his own accord—not alone, however, but with the wife of another. Until that time there had been a report that Haridâs was a eunuch or a hermaphrodite. But the fact that he eloped with a young woman was regarded as evidence that this report was unfounded. Haridâs died soon after his flight, "in good earnest" somewhere in the mountains, and was burned according to the custom of the country.

A legend reports (Honigberger, p. 140) that a Yogin in Amritsar three hundred years ago was found buried under ground in a sitting posture, together with directions for resuscitating him. After his resuscitation this Yogin reported events from his early life, which referred to events of a hundred years before. Of course this is only a legend such as are found in plenty among other races, and has nothing to do with the extraordinary performances of Haridas. I do not doubt that some of my readers will simply deny the facts here reported, and regard themselves as very keen and critical for so doing. They are heartily welcome to this agreeable feeling. When James Braid published fifty years ago his famous essay on the subject here discussed, the worthy man uttered (p. 55) with the calm superiority which is so befitting to a positive scholar, the following propositions which are good to-day and always will be: "I am well aware, that there were individuals in this country, as well as elsewhere, who hastily published observations, from limited data, pronouncing the whole of these feats of the fakirs as mere Hindoo tricks; and, consequently, who will now feel themselves

bound in self-defence, to stand by their former verdicts. I know human nature too well to expect to extort a confession of conviction to the contrary from such individuals, by any amount of evidence which could possibly be adduced, even if they were permitted to be eye-witnesses of the facts themselves.—'Unlimited scepticism is equally the child of imbecility as implicit credulity.'"

RICHARD GARBE.

TÜBINGEN.