

In the difficulty of accounting for this most extraordinary influence, there are some persons who have ventured, as in the preceding cases, to doubt the truth of the fact, since, in the marvellous, it will always be found far more easy to doubt than to determine, though the belief of it has been very generally gaining ground within the course of the last half-century. Pennant seems to allow it with some degree of hesitation, admitting, however, the authority of those who have asserted it. Dr. Mead endeavoured to account for it upon the principle of mere terror; my late learned friend, Professor Barton of Philadelphia, upon that of a courageous daring of parent animals in defence of their young, in consequence of which they often adventure too near, and are seized upon; Dr. Barton apprehending that this is a fate which more frequently pursues older than younger animals. Neither of these explanations, however, can be very readily assented to; the first being inadequate to the effect produced, and the second being contrary to the general observations of naturalists who have treated upon the subject: in consequence of which Major A. Gordon, of South Carolina, has since ventured upon another explanation, which is highly ingenious, and may hereafter, perhaps, be fully substantiated. In a paper published by him in the New York Historical Society, he attributes the fascinating power supposed to be possessed by serpents to a vapour which they secrete, and can throw around them to a certain distance at pleasure. He advances various facts in support of this opinion, and observes, that the vapour produces a sickening and stupefying effect; and alludes to a negro who, from a peculiar acuteness of smell, could discover a rattlesnake at a distance of two hundred feet when in the exercise of this power, from his smell being affected by it; and who, on following such indication, always found some animal drawn within its vortex, and struggling with its influence.\*

Should this asserted fact be confirmed by others of a like kind, it will give us an insight into the nature, not only of the present, but of similar fascinations, which we stand much in need of. The greater acuteness of smell in barbarous and uncultivated tribes than in those of civilized nations, we have already had occasion to notice, and have endeavoured to account for.† In some instances it is highly probable that the emanation is alone perceptible by the animals that are overpowered by it; which may be the case in the example of serpent-charmers, and sometimes in the fascination of serpents themselves. In other examples, and especially those of artificial emanations, there is an odour of which every one is sensible, though its captivating power is confined to the particular tribe to which it is directed; and I now allude to the mode of charming trout and other fresh-water fishes, by illining the hand with asafetida, to which, indeed, we had occasion to refer in a former lecture.‡ The trout, in its intoxication of delight (for here the charm is accompanied with a forcible pleasure instead of a forcible pain), resigns all caution, becomes dead to its natural instinct, and so far from flying from the ensnaring hand when introduced into the water, advances to it irresistibly, as the bird to the jaws of the rattlesnake, and suffers itself to be laid hold of and fall a prey to the decoyer.

There is, hence, nothing in the accounts of these curious powers of fascination that is hostile to our own experience: and though our own senses may not be fine enough to detect the medium of action in every instance, whether natural or artificial, we have some reason for ascribing it generally to an overwhelming emanation, capable of leading captive the ordinary instincts and faculties of the animals upon which it is exercised, and hereby of hurrying them headlong to destruction. Catesby, the best natural historian of North America, while admitting that he had never witnessed an instance of the fascination of the rattlesnake, asserts that he had received one uniform account of it from a variety of persons who had witnessed it; nor is it, indeed, denied by Dr. Mead or Professor Barton, but only attempted to be accounted for upon principles which will not apply, or are not adequate.

\* Journal of Science, &amp;c. No. xii. p. 374.

† Series 1. Lecture xv.

‡ Id. *ibid.*

In truth, the rattlesnake does not seem to be the only serpent that is possessed of this extraordinary influence. The American writers contend that the larger snakes of various kinds have a similar power. Dr. Barrow, in his travels into the interior of South America, asserts this to be a fact well known to almost every peasant in that quarter of the world; and Vaillant, in his travels into Africa, affirms that, at a place called Swortland, beholding a shriek in the very act of fascination by a large serpent at a distance, the fiery eyes and open mouth of which it was gradually approaching with convulsive tremblings, and the most piteous shrieks of distress, he shot the serpent before the bird had reached it; still, however, the bird did not fly, and on taking it up, it was already dead, being killed either by fear or by the fascinating influence of the serpent, although upon measuring the ground he found the space between them to be not less than three feet and a half.

M. Acrell, in a very interesting paper upon this subject in the Swedish *Amenitates Academicæ*,\* contends that the coluber *Berus*, or common viper, is in some degree endowed with the same fascinating power as the rattlesnake. And there is a case much in point inserted in one of the early volumes of the *Philosophical Transactions*, which states that a mouse, put, by way of experiment, into a cage in which a female viper was confined, appeared at first greatly agitated, and was afterward seen to draw near to the viper gradually, which continued motionless, but with fixed eyes and distended mouth, and at length entered into its jaws and was devoured.

There is, in truth, a secret kind of influence, but whether of the same kind or distinct from it, we have no means of ascertaining, which other animals possess on particular occasions, and which is even in some cases possessed by man, and is known to disarm the fury of the most enraged or vicious quadrupeds. This is peculiarly seen at times in the case of watch-dogs, over whom some housebreakers have found out the secret of exercising so seductive and quieting a power, as to keep them in a profound silence while the burglary is committed. M. Lindecrantz, another interesting writer in the *Amenitates Academicæ* of Sweden, tells us, that the natives of Lapland and Dalarna are in possession of this secret generally, inasmuch that they can instantly disarm the most furious dog, and oblige him to fly from them with all his usual signs of fear, such as dropping his tail, and suddenly becoming silent.†

Grooms are sometimes found possessed of a similar power over horses. Mr. Townsend, a clergyman of excellent character and considerable learning, has a striking anecdote to this effect, in his account of James Sullivan, a native of the county which forms the subject of his pen. The man, an awkward, ignorant rustic of the lowest class, was by profession a horsebreaker, and generally nicknamed *the whisperer*, from its being vulgarly supposed that he obtained his influence over unruly horses by whispering to them. The actual secret of his fascinating power he kept entirely to himself, and it has died with him. His son, who is in the same occupation, knows nothing of it. But it was well known to every one that, however unbroken or vicious a horse, or even a mule, might be when brought to him, in the short space of half an hour he became altogether passive under his influence, and was not only entirely gentle and tractable, but in a very considerable degree continued so, though somewhat more submissive to himself than to others. There was a little mystery in his plan, but unquestionably no deceit. When sent for to tame an unruly horse, he ordered the stable door to be shut upon himself and the animal alone, and not to be opened till a given signal. This singular intercourse usually lasted for about half an hour; no bustle was heard, or violence seemingly had recourse to: but when the door was opened on the proper sign being given, the horse was always seen lying down, and the fascinater by his side, playing with him familiarly as a child with a puppy. "I once," says Mr. Townsend, "saw his skill tried on a horse that could never before be brought to stand for a smith to shoe him. The day after Sullivan's

\* Vol. vi. No. 112. *Morsura Serpentum*, 1762.† Vol. iv. No. 53. *Canis Familiaris*, 1753.

half-hour lecture, I went, not without some incredulity, to the smith's shop, with many other curious spectators, when we were eye-witnesses of the complete success of his art. This, too, had been a troop-horse, and it was supposed, not without reason, that after regimental discipline had failed, no other would be found availing. I observed that the animal seemed afraid whenever Sullivan either spoke or looked at him.\* In common cases, Mr. Townsend adds, even the mysterious preparation of a private interview was not necessary, the animal becoming tame at once. We have here, therefore, another instance of most extraordinary and instantaneous ascendancy of one animal being over another, without any manifest medium of action, which we are occasionally, but not often, called upon to witness. That it could not have been force is clear; and though natural firmness and intrepidity may do much, they by no means appear to have been sufficient in the present case, and could, indeed, accomplish but little in the dark. Nor does there seem to be any mode of accounting for such a control so reasonable as that of a natural or artificial emanation from the fascinator, which we have already adverted to; and, if the last, obtained, perhaps, as in many of these instances, by illining or impregnating the person of the operator with the virtues of various plants unknown or little known to the rest of the world.

Thus far we may proceed safely upon the subject before us. But some theorizers have not rested satisfied here, and with much rhapsody of invention, have carried forward the same mysterious agency into the recesses of the intellect, and contended that it is by a similar kind of medium, or, sometimes, by a sort of elective attraction, operating invisibly through the moral world, as the imperceptible powers before us operate in the physical, that mind produces occasionally an instantaneous influence upon mind; whence, say they, we are at times impelled, by a certain indescribable sympathy, to feel more pleased with one person of less intellectual and perhaps even less moral worth, than with another person, whose endowments in both respects are confessedly superior: while others, pursuing the hallucination still farther, have gravely suggested, that it is possibly by some such medium that an intercourse is occasionally maintained between ourselves and the spirits of our departed friends; between this world and worlds around us. To hunt down such vagaries would indeed be a thriftless employment; and I only mention them to show that philosophy has its dreams and romances as well as history or even poetry; and that the principles of physics are as liable to perversion as those of ethics. Philosophy is a pilgrim, for the most part, of honest heart, clear foresight, and unornamented dress and manners; the genuine bride to whom heaven has betrothed him is Reason, of celestial birth and spotless virginity; and the fair fruit of so holy a union is truth, virtue, sobriety, and order. But should ever the plain pilgrim play the truant, as unfortunately in the present corrupt state of things we have reason to fear has too frequently proved a fact,—should ever Philosophy migrate from his proper hermitage, and in an hour of ebriety connect himself with the harlot Imagination, what can be the result of so unlicensed a dalliance but a spawn of monsters and miscreations; of hideous and unreal existences; of phantoms and will-o'-the-wisps, equally abhorred by God and man; treacherously hanging up their dim wildfire, in the pestilent bosom of mists and exhalations, and from their murky shades alluring the incautious inquirer to bogs and sloughs, and quagmires of wreck and ruin?

\* Survey of the County of Cork, p. 433.

## LECTURE VII.

ON SLEEP, DREAMING, REVERY, AND TRANCE; SLEEP-WALKING, AND SLEEP-TALKING.

We are proceeding to a subject of much difficulty in theory, though of the greatest familiarity in fact; and I freely confess to you, that although I have endeavoured to investigate almost every opinion that has been offered upon it, from the time of Aristotle to our own day, I have never met with any thing in the least degree satisfactory, or capable of unravelling the perplexities in which it lies entangled.

What can possibly be more opposite to each other than the two states of wakefulness and sleep?—the senses in full vigour and activity, alive to every pursuit, and braced up to every exertion,—and a suspension of all sense whatever, a looseness and inertness of the voluntary powers, so nearly akin to death, that nothing but a daily experience of the fact itself could justify us in expecting that we could ever recover from it.

And yet, while such is the lifelessness without, the mind, now destitute of the control of the will, is often overwhelmed with a chaos of ideas, rushing upon each other with so much rapidity, that the transactions of ages are crowded into moments, and so confused and disjointed, that the wildest and most incongruous fancies flit before us, and every thing that is possible becomes united with every thing that is impossible.

Such, however, are the ordinary means devised by Infinite Wisdom to revivify the animal frame when exhausted by the labours of the day; to recruit it for new exertions, and enable it to fill up the measure of its existence.

The order I shall take leave to pursue in discussing this abstruse subject will consist, first, in a brief examination of the more prominent hypotheses on sleep and dreaming that have been offered to us by ancient and modern schools: secondly, in a minute analysis of the feelings and phenomena by which these operations are characterized, agreeably to the series in which they occur: thirdly, in submitting the outline of a new theory to explain the entire process: and, lastly, in an application of such theory to a variety of other subjects of a similar and equally extraordinary nature.

Sleep may be either natural or morbid. The former is usually produced by whatever exhausts the principle of life; as great muscular excitement, violent pain, vehement use of the external senses; or great mental excitement, as intense thought or severe distress. Morbid sleep is commonly occasioned by compression or commotion of the brain, and is hence often the result of congestion, plethora, or local injury to the skull.

Compression and commotion, though less frequent, are more direct and obvious causes: and hence the greater number of physiologists believe compression to take place, also, though in a slight degree, in every case of natural sleep; and in reality to constitute the immediate, while sensorial exhaustion only constitutes the remote, cause of this phenomenon. They appeal to the lethargic effect of a full stomach in infants, and of drunkenness in adults, which they refer to congestion in the brain, in consequence of a greater influx of blood into this organ: and hence they reason that a similar sort of pressure is produced by some means or other in every case of sleep.

But what are the means of pressure thus referred to? And here a considerable difficulty is felt by every school of physiologists: and two distinct schemes are devised to get rid of it. By the one we are directed to the arterial system, which, we are told, becomes peculiarly excited and overcharged in the organ of the brain during wakefulness, from the activity of the internal senses.\* By the other we are directed to the absorbent system, which from

\* This explanation is partly, though not chiefly, adopted by the author of the elaborate article on sleep, in Rees's Cyclopædia; and has since been fully embraced by Mr. Carmichael, in his learned Essay on