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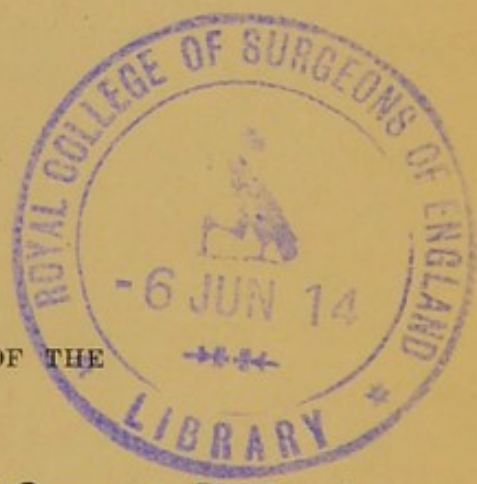
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ON
SOME OF THE PHENOMENA
OF
SLEEP AND DREAM.



READ AT THE MEETING OF THE

Psychological Society of Great Britain,

MAY 12, 1875,

BY

MR. SERJEANT COX,

PRESIDENT.

ON
SOME OF THE PHENOMENA
OF
SLEEP AND DREAM.

. "We are such stuff
As dreams are made of and our little life
Is rounded by a sleep."

So says Shakespeare. The question to-night is—Of *what stuff* are dreams made?

You are at this moment conscious. You are in the full possession of all the faculties of your mind—that is to say, you can control and regulate their action. You can, by the exercise of your Will, cause your thoughts to follow each other in a certain order. You can, as it were, sit in judgment upon your thoughts—accept such as are fit for use, reject such as are useless or incongruous. You can compare thought with thought and deduce rational conclusions from the relationship of those thoughts.

You are *awake*.

What is the "*you*" that does this? What is *the thing*, distinct from the thoughts that are controlled, marshalled, and judged, which so deals with them when you are awake?

We cannot enter upon that question now. It is too large a subject for discussion in this paper. It must be reserved for special examination hereafter.

For the present purpose it suffices that, when you are awake, some entity we call "*You*," or "*I*," exercises an intelligent direction over the process of thought by force of a power we call "THE WILL."

But suddenly the thoughts, so orderly before, fall into disorder. They follow in no definite course. They flow with no discoverable connection. They wander about in all directions. You try to retain or to recal them. For a moment, perhaps, you succeed and the orderly train of ideas proceeds as before. But soon they are starting off again more wildly than ever. The work of reining them in may be thus performed twice or thrice, but unless something startles you into wakefulness, they speedily break away from all restraint and are scattered beyond recovery.

You are *dreaming*.

By one who views you during this process your head will be seen to nod, your eyes to become fixed, your eyelids to droop, your limbs to relax. Occasionally you will start and resume a kind of stupid animation. The eyelids are lifted. The eyes exhibit consciousness.

You are *falling asleep*.

For a moment only. Soon the same paralysed aspect recurs and there is no recovery from it.

You are *asleep*.

This condition of the body accompanies the mental condition described. *Sleep* and *dream* are coincident conditions.

The bodily change that attends sleep is a depletion of the blood from the brain, attended by its necessary consequence, a collapse of the fibrous structure of the brain. Of this any person may satisfy himself by noting the very

perceptible inflation of his brain that follows upon a sudden awakening. The blood is felt to be rushing into the brain attended by a sense of fullness and expansion.

But what is the *mental* condition? That is the question to which I now invite the attention of the Society.

The subject is a very large one, and I cannot possibly treat of it in one paper. This evening I can hope to invoke discussion upon what can be little more than introductory.

Familiarity has destroyed the wonder of it to us, but what can be more wonderful in itself than the change that is accomplished in a moment from the mind awake to the mind asleep?

Suddenly that which before was real is unreal, and that which was unreal is real. Things cease to become thoughts, and thoughts become things. All the conditions of conscious existence are reversed. The mental faculties that are exercised in the process of reason are in abeyance. The mind is incapable of comparing one idea with another, or of holding any thought before itself for examination or judgment. The experiences of the past have no influence over the impressions of the present. The world without is all a dream (with some limitations to be described hereafter). The world within is the actual world to us.

This entire mental revolution is the work of an instant. It is done literally in the twinkling of an eye. We have not time even to be conscious of the change. There is no moment when we can feel "Now I am awake," and "Now I am dreaming," or mark the very passage from the one condition to the other. The whole state of our mental existence is reversed and yet we seek in vain to know the precise period of the overthrow.

May not this psychological fact, occurring to all of us daily, indicate that to the mind, when temporarily released from the conditions of molecular substance, there may be

other measures of time and infinitely speedier powers of action than when it works subject to a material structure? But this is by the way.

What is the change that sleep thus instantly accomplishes in the mental condition? What does it teach?

In the first place, it shows us that the mind does not work as one entire mechanism to produce one result, each distinct thought and emotion being a state or product of the whole mental machine, as contended by Dr. CARPENTER; but that certain parts of the mental mechanism (whatever that may be) work separately from the other parts. In the operation of dream there is the manifest activity of some faculties, while others are in abeyance. If action of the whole machine were required for each mental act, dream would be impossible, for the whole machine would wake or sleep together and there would either be the reasonable action of waking or the unconscious condition of coma.

We may, therefore, take it as conclusive, that in dreams some of the mental faculties are active and some are at rest—some probably asleep while others are awake.

The next question is, if in sleep and dream certain faculties are always awake and active and certain other faculties always slumbering or inactive?

After a careful review of all my own memories of dream, I am inclined to the conclusion that every mental faculty is sometimes waking and sometimes sleeping, and consequently that the whole brain rarely, if ever, sleeps at the same moment—that some portions of it are active while others are resting, and thence the variations in the character of dreams, not merely from sleep to sleep, but at different periods of the same slumber.

The important fact of the *Duality of the Mind*, as asserted by BROWN-SEQUARD, and which is either the cause

or the consequence of the duplex structure of the brain, in accordance with the duplex structure of the body, will doubtless be found, upon further investigation, to account for many of the hitherto inexplicable phenomena of dream. It may be that, as the brain has two hemispheres, and as consequently all the mental faculties are double, one hemisphere of the brain sleeps while the other wakes, and hence some of the peculiar characteristics of dream presently to be noticed. This certainly appears more probable than that some only of the faculties should be suspended while others are active. In what manner the suspension of the activity of one of our *two minds* would be likely to affect mental action, so as to explain the phenomena of dream, is an inquiry too large to be entered upon here. I hope to return to it hereafter. But in the meanwhile I would venture to invite to this question the serious attention of Psychologists.

What, then, are the most remarkable features of dream?

Foremost of them is the continuous stream of *ideas*, by which term I here intend the mental pictures of things. These occupy the greater portion of our dreams. They are not always images of existing objects, for often they are forms which the eye has never seen, but which, nevertheless, are constructed by putting together the mental images of objects that have been seen. Impressions conveyed by other senses than sight are often reproduced, such as sounds, scents, tastes, and past nerve-pains and pleasures. Indeed, whatever has been at any time impressed upon the mind and become a memory may be recalled in dream, either alone or in association with other memories.

Very much light would be thrown on the phenomena of dream if some man born blind, and who, therefore, can have no mental memories of vision, would describe to us minutely what "stuff" his dreams are made of. Does he

dream that he *sees* objects, or only that he *feels* them? Has he *visions*, and what are they? If any intelligent and educated person, labouring under the affliction of blindness from birth, would favour this Society with a minute account of his dreams, I cannot but think that a great service would be done to Psychology by facts which, better than any amount of argument and conjecture, would show us what, if any, ideas are innate, what are brought to us by the senses, and in what manner the mind uses the impressions of the senses for the moulding of its own productions. Of scarcely lesser importance would be a like communication from the deaf. Do *they* dream of *sounds*? Does a deaf man ever dream that he hears music?

But the ideas or images of objects that flow into the mind in dream are rarely or never isolated ideas. They do not come in a confused crowd, nor do they stand alone. Like the beads and scraps of glass that are thrown into the kaleidoscope, and which every turn of the instrument shapes into a new and definite form, the ideas that come into the mind without order are in dream blended together in shapes more or less connected. In addition to the mental faculty engaged in the presentation of ideas, another mental faculty is employed in the *invention* of the story that links them together. Here are two mental faculties at the least that are undoubtedly awake and active in dream.

It is an unsolved problem if in dream *any* of the faculties are actually sleeping. At the first glance it would appear that sleep, or some other disability, suspends the activity of the faculties, whatever they be, that give us the consciousness of congruity and incongruity—that is to say, the faculty of *comparison* and that combination of faculties whose joint action constitutes what we describe in one word as *reason*.

In dream there is no sense of incongruity. The most

impossible things are brought together and the mind accepts them as realities and feels no surprise. Friends long dead are with us and we wonder not how or why. We do impossible things and forget that they are impossible. We walk upon water, fly through the air, are transported hither and thither without passing through the intermediate distance, and there is no sense of surprise, no consciousness of impossibility. We have the strength of a giant, the fleetness of an antelope, the eloquence of a Cicero, and wield the pen of a Milton, and we never ask ourselves why our present self comes to be so unlike our former self as we were but a moment before! Reason, so prompt, ere we had fallen asleep, to separate the real from the ideal, the true from the false, the possible from the impossible, is in an instant extinguished! The Mind, so sane before, is, in fact, insane now, for in sleep Insanity is the normal condition. We are all madmen in our dreams. In truth, how large a part of our lives is really passed in a state of delusion. The man we call mad is only a man who dreams always. We are all what he is when we sleep. He is only called not sane because he does not become what we are when he is awake.

Although ideas are facts to us in dreams, and we implicitly believe them to be realities at the time of their presentation, and they are usually woven together by some thread of relationship, the mind does not sit in judgment upon them as when we are awake. If, for instance, two or more incongruous objects or a series of impossible events were to present themselves to us in our waking state, we should feel the sensation of wonder and instantly compare them with other objects or memories of objects, and our reasoning faculties would be set in motion to inquire into causes and reconcile the apparent incongruities. But in *dream* the mind entertains the inconsistent images and accepts the

impossibilities with the utmost complacency. It makes no comparison between the present object and its recollections of the past and the reasoning faculty is not employed to try the truth of the present appearances.

In what, then, does the *sleeping* mind differ from the *waking* mind?

First, you have lost your control over the action of the mental faculties. Your Will has ceased to direct them. Hence their dislocation and the disorder that attends their actions.

But *you* are still conscious. *You* know that it is yourself that is dreaming the dream. Although the dream creates in you no surprise, you never for an instant lose your consciousness of your own individuality—that it is yourself that is playing the part in the dream drama. Never do you suppose yourself to be some other person. You may dream that you are a king or a beggar, but it is yourself that has risen or fallen. Your consciousness and conviction of identity remain unshaken amid all the impossibilities with which your ideal existence is encompassed by the fictions of your own making. Is not this another proof that *you*, the dreamer, are not the *thing* that makes the dream (for you cannot be both cause and consequence), but only the recipient of the impression of the dream from the mechanism that makes the dream?

If, then, the individual consciousness continues awake, the seat of the condition of dream is to be sought in some part of the process of mental action between the presentation of an idea and the impression of it upon the consciousness.

What is wanting here? There are two processes by which the waking mind is governed. The Intelligent Self forms the desire, and the Will is the instrument or power by which that desire is accomplished.

In the waking and normal state the brain works under the control of *the Will*.

In the condition of dream, *the Will* is either sleeping or paralysed. Therefore it is that in dream the mental faculties act without control, each one according to its own impulses.

But the dreamer is *conscious* of the mental action, although he cannot control it. The Self is merely a passive recipient of the impressions caused by the brain action. We perceive what the brain is doing—that is to say, the successive conditions into which it is thrown,—but we are unable to control those conditions. The power is wanting by which the Conscious Self controls them in the waking state. That absent power is *the Will*. But the Will is only a force which something wields. What wields the Will? The Self. Upon what is it directed? The Brain. Thus we have it distinctly proved that the Self is not the brain. We learn also that the Will is not the link between the Conscious Self and the brain. The Self is connected with the material mental organ by some other link, for in dream the consciousness remains although the power of the Will is suspended.

The question here presents itself, wherefore does the Conscious Self accept the impressions of brain action in dream without questioning their reality, their congruity, or even their possibility? It does not so when the brain is awake. *Then* the Conscious Self sits in judgment upon the impressions brought to it by the brain, and is enabled to distinguish between the actual and the ideal, the objective and the subjective. Why not in dream also?

The Conscious Self feels no surprise in dream, however strange the vision presented to it, simply because the condition of its relationship to the brain, as the material organ through which alone it can maintain communication

with the external material world, compels it to accept the impressions made upon it by brain action as realities that have, in the normal state of that relationship, a corresponding external existence by which that action of the brain was caused. True, that the waking brain has not unfrequently self-produced impressions, as always they are in dream. But the Conscious Self has learned this fact from experience, and setting its will-power in action, it tries these impressions by certain mental tests, which enable it, usually but not always, to discriminate between the actual and the ideal—the fact and the fancy.

The reason why the Conscious Self does not so discriminate in dream may be thus stated. The power of the Will being suspended in dream, one mental faculty cannot be brought to bear upon another for the purpose of comparison and reasoning as when we are awake, and therefore all impressions received from the material organ of the mind are accepted as real. The process of reasoning requires the combined action of several mental faculties and probably also the united action of the two hemispheres of the brain—or the *two minds* as BROWN-SEQUARD calls them. If any of those faculties or one entire hemisphere of the brain be sleeping, the process of reasoning is impracticable, and the mental impressions are accepted as real because the test is wanting by which the reality and unreality of mental impressions are determined in the normal condition of the brain.

So far, I have referred only to *ideas* presented in dream—the *pictures* which the brain paints. But the *emotions* are called into action in dream, and the Conscious Self receives the impressions of them also and *feels* them. How is this?

The emotions never come into action capriciously. They can be created only by something presented to them

by others of the mental faculties. We do not feel hate, or anger, or love in the abstract. The presentation of some object, real or ideal, by one of the other mental faculties is necessary to the kindling of an emotion. When the proper object is presented, the emotion follows, without the exercise of our Will and often in opposition to it. So it is in dream. The inventive faculties construct the story and the presentation of that story to the emotional faculties excites them to involuntary action. Hence it is that in dream we feel the love, hate, fear, anger, which the incidents of the dream would have excited in reality, the events and persons being accepted as real by the other faculties and by the Conscious Self.

Thus the *emotions* are excited in dream, as they are excited in our waking state, by the presentation to them of *ideas*. Awake, we find love or hate, fear or desire, provoked as often (and even more frequently) by ideal pictures as by real external objects. In sleep the picture painted by the dreaming fancy invokes the appropriate emotions. As the *ideas* in dream pass through the mind without the direction of the Will, so are the emotions excited without control. Consequently in dream the passions and sentiments often prevail with more fury than ever they burned in us in our waking state.

But there is a peculiarity in dream to which I invite special attention, for I do not remember that it has been noticed by any of those who have treated of its phenomena. In dream we are all dramatists and actors. The most stupid, equally with the most intelligent, invent plots, construct characters, and frame dialogues. A dream is rarely, if ever, a simple reproduction of an actual occurrence. It is always mingled with more or less of fancy. The materials are, of course, quarried from the memory, but these are recombined to make new forms, precisely

as it is with the novelist or the dramatist. Reflect what the dreamer does! For every dream that has continuity his mind invents a story, often complicated and ingenious. The actors in that story are as frequently creations of the fancy as revivals of the memories of the dead or representations of the living. But perhaps the most marvellous feature of this strange psychical performance is the dialogue. Each personage in the dream plays his own part perfectly. He converses freely and in strict keeping with his character, and often the dialogue, as in the acted play, or in the drama of real life, is maintained by half-a-dozen speakers!

What a wonderful process this is! And yet the dreaming mind does it all! That mind constructs a story, invents characters, and improvises a long dramatic scene, in which the whole dialogue is supplied by itself! And this is not a miracle peculiar to the intelligent and educated mind. It is performed also by the most stupid and illiterate. It is strictly true, that every ploughboy is every night at once a novelist and a dramatist, and this, too, of no mean capacity. To me there is nothing in all the strange phenomena of dream so strange as this, or the study of which promises to throw so much light upon the mental faculties and the manner of their action.

But although the mind is the inventor of this acted drama, it is wholly unconscious that the drama it is creating is an invention of its own. That which itself has created it believes implicitly to be an objective reality. It is satisfied that it sees those places and hears those persons, and that the speeches that fall from their lips are their own, ignorant that it is itself the inventor of that which itself is contemplating.

Is not this a second proof offered by the phenomena of dream, that the brain that acts and the Conscious Self that

takes cognizance of the actions of the brain are *distinct entities*? Awake, the brain works and the Conscious Self takes notice of its working. That self-consciousness is asserted by the Materialists to be merely the consciousness by the brain of its own conditions. If it were so, the brain would be as conscious of its own conditions and actions in dream as when awake. It is otherwise in fact. In dream, the brain works as in the waking state, but the Self is unable to distinguish the inventions of the brain from the impressions of external objects. This change in the conditions could only be by some change in the relationship of the Conscious Self to the dreaming mind. Such a change implies that they are not identical, but distinct entities. It follows that if there be both the Conscious Self and the mind or brain of whose actions that Self is conscious, the existence of *something* in us, other than the corporeal mental mechanism, is demonstrated.

Thus in the phenomena of dream we find the strongest scientific evidence of the existence of SOUL.

A dream is not a desultory flow of disordered images and disjointed ideas; it observes a definite arrangement in the shape of a continuous and connected action, following apparently the same law of association that governs the advent of ideas in the waking state. It is important also to observe that, as in the waking state, the ideas in dream come *in succession*, two or more never presenting themselves at the same instant. Hence our conception of *time*, which is consequent upon the mental structure that entertains ideas only in succession, one following another. If the mind had been so structured as to entertain many ideas together, we should have quite another conception of time than that we now form. The ideas thus produced by the brain in a stream are presented to the Conscious Self in the same order of succession; and

hence that Self, in the normal condition of its relationship to the body, has only the conception of time that results from the successive actions of the brain. But it is something more than probable—it is almost certain—that if the conscious Self were severed from its association with the material organ, through which alone it can communicate with the material world so far as to receive impressions directly, it could perceive simultaneously what through the mechanism of the brain it can receive only in succession, and therefore that the conception of time to such a disembodied self would be altogether different from that which it possesses when informed only through the medium of the brain.

The practical result of this suggestion is that what we call *time* is merely a human conception, the product of brain structure; and that to a being differently structured, and to ourselves when the relationship of the Soul to the body is changed, time may be something altogether different from that which it appears to us now.

And there is, in fact, a very great difference between the waking and the sleeping mind in its conceptions of time. In dream, a whole seeming history will be enacted in an hour which, to have been acted in reality, would have occupied days or even years. It was the notion of Lord BROUGHAM, based upon a dream of long continued action that occurred to him during a brief slumber in court, induced by the drone of some tedious counsel, that dream took place only when in the act of falling asleep or of waking, and not during actual sleep. But this is contradicted by the experience of any person who has been suddenly wakened from sleep, and who will have found his dream as abruptly interrupted. The fact is, that in dream there is no other measure of time than the flow of ideas. When uncontrolled by the Will, the mind produces and presents ideas with incalculable rapidity. The number of ideas is

the count of time to the dreamer. If in a sleep of five minutes as many ideas flit through the brain as in five hours of waking, the measure of time to the dreaming, as to the waking, mind will be the number of ideas and the rapidity of their stream. But in the waking state the mental impressions are corrected by past experiences. In dream, the rapidity of the stream of ideas within, and the absence of any correcting impressions from without, combine to cause an action, that lasts in reality but five minutes, to appear to the Conscious Self as five days.

The psychological importance of this is very great. It serves to correct our notions of time by showing us that it is a human conception merely, and altogether different even in the waking and dreaming conditions of the mind. Faulty notions of time, space, and such like mental conceptions dependent upon mental structure, lie so at the root of popular fallacies, and are so frequent and yet so rarely recognised even by the educated, that some service may be done by inviting attention to the striking proofs of their fallacious character that are found in the Phenomena of Dream.

In sleep, the conception of time, as measured by external events, is not always wholly suspended. The desire to wake at a particular hour often produces the result. But this is not, as some have assumed, the consequence of a measure of time kept by the mind in sleep, for waking during the night, in the absence of an external indication of time, we have no knowledge what the hour is, nor how long we have been sleeping. That waking at the desired hour must be due to some other process than counting in our sleep the march of time. What is that process is a question that well deserves examination.

But my allotted time is exhausted. The subject is so large that I have been unable to do more than touch the fringe of it. The questions it involves, and which, pro-

bably, it will go far to solve, are so important to Psychological Science that I hope to return to the subject hereafter. I will merely now shortly sum up the principal arguments of this paper—a plan which I would respectfully suggest to all who may contribute to our discussions, as being the best means of impressing that argument upon the memories alike of hearers and readers, besides assuring themselves of the definiteness and value of their own suggestions.

1. Awake, the Conscious Self controls the action of the brain, which is the material organ through which the Conscious Self communicates with the material world.

2. The power or force by which this Self controls the action of the material mental organ, the brain, is that called THE WILL.

3. In sleep, the action of the Will is suspended, but consciousness remains. The Conscious Self perceives, and often remembers, the dream presented to it by the brain.

4. But the Conscious Self receives the impressions of the brain action as they are presented, but being unable, by reason of the suspension of the Will, to bring the faculties of comparison and reasoning to bear upon them, it is unable to distinguish between the ideas self-produced and ideas that are impressions of material external objects. Hence the implicit acceptance of dreams as realities.

5. In dream there is no discerning of incongruity or impossibility. This curious condition is due to the like cause. The paralysis of the Will prevents the calling in of the aid of the “judging faculties,” the process by which, in the normal waking state, we are enabled to distinguish external facts from self-produced fancies.

6. It is a question for consideration whether this may not be due in whole or in part to the *Duality of the Mind* asserted by BROWN-SEQUARD.

7. In Dream, the conception of *Time* is lost. Adventures that appear to the mind to occupy a week are really enacted by the mind in five minutes. This is the consequence of mental structure, which can entertain but one image or idea in the same instant of time, combined with extreme rapidity of the stream of ideas when uncontrolled by the Will.

8. The mind does not measure time in sleep otherwise than by the succession of ideas. It is deprived of the corrections which in the waking state are supplied by external objects. Hence the conceptions of Time in dream are altogether different from our conceptions of it when awake.

9. The severance of the Conscious Self from the mind and its operations, so remarkably shown in these phenomena of Sleep and Dream, are of the greatest importance to Psychology, as proving the non-identity of the Conscious Self and the brain as the mental organ, and therefore as supplying almost conclusive evidence of the existence of SOUL as an entity distinct from the material brain.

10. Dreams are inventions of the sleeper's mind. In sleep we are all novelists and dramatists. The most stupid constructs, plots, invents characters and places in the mouth of such, however numerous, appropriate dialogues.

In the year 1711, the city of London was visited by a great plague, which was the most fatal that ever afflicted that city. The number of persons who died in the city was upwards of 100,000. The plague was first discovered in the parish of St. Giles, and soon spread to other parts of the city. The plague was not confined to the city, but spread to other parts of the kingdom. The plague was not confined to the city, but spread to other parts of the kingdom.

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