AN HYPNAGOGIC HALLUCINATION WITH DREAM CHARACTERS

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THE subject of this hallucination or dream is a normal, healthy individual about thirty years old, who has never been troubled with hallucinations and dreams very infrequently. Once in a while, he tells me, he has the familiar experience of seeing himself at the top of a flight of steps or at the edge of a low embankment. He seems about to step off and at this point of the hypnagogic state awakens with a jerk, the tremor of which remains noticeable after he is fully awake.

The account which follows was jotted down in notes immediately after the incident occurred and written out in substantially the form I quote, on the following day. The subject is well trained in ordinary psychological introspection, and the incident is quite fully reported.

"I retired about ten-thirty on the evening of March the 29th, 1912, feeling quite well but slightly disturbed over a problem whose solution was difficult to reach, and had been troubling me for some weeks. The weather was warm, but seemed not uncomfortably so. After tossing about a considerable time I still found it impossible to sleep.

"Opening my eyes I tried consciously to determine the reason for the sleeplessness. I had played baseball a half hour or so during the afternoon, a somewhat unusual bit of exercise, and felt perhaps slightly more fatigued than usual. Earlier in the evening I played a game of billiards, and retired just after reading an account of the work on the Panama Canal. None of these things offered a satisfactory solution of the difficulty, so I turned over on my back, head on the pillow and arms behind my head, in order to relax. This is a remembered restful position, but one in which I do not dare to sleep, and realized it at the time. If I remain in this position and fall asleep, I soon waken with an intense numbness in the arms.

"While in this position I began to think about a large bridge party I had attended on the preceding day. This was the first afternoon card party that I had ever attended, and only the second time I had played cards within a year. The visual imagery of the room and the players came back with considerable vividness. Especially vivid was the portion of the room in which I sat and the tables at which I played. In going over the varied events and scenes of that afternoon, the remark of the hostess was recalled. She had announced that there would not be time to finish the series before refreshments would be served. At our table we began to count the games played, but did not entirely decide the issue then.

"Lying here and running over these events of the previous day, I remember distinctly beginning to repeat this calculation with the definite intention of satisfying myself of the correctness of the hasty conclusion of the day before. In order to do this, the number of tables at which I was seated and the partners with whom I had played must be repeated in memory. All of this was done consciously and again the estimate almost completed when the recalled and correct features of the train of imagery suddenly ceased.

"An alcohol lamp and tea tray were brought in through the front entrance and placed about fifteen feet in front and to the right of where I was sitting. This was in the same room, however, where I had been placing the imagery of the moment before and the tea tray seemed to be brought in by the husband of the lady who had made the announcement mentioned above. As soon as this occurred, I found myself near the teakettle and looking at it. It seemed placed on something, there is no recollection what, but at such a height that by a very slight bending of the head it stood on a level with the observer's eyes, when standing. How I got there from the sitting position at the card table and what became of the people in the room there is no intimation. Suddenly and at no appreciable interval from the time when this imagery of the boiling kettle appeared there came a blinding flash and an explosion. The sound seemed perfect, a 'poof' and muffled sound of the explosive type, and at the same time there was the flash of burning

alcohol, with its blue and yellow flames. None of these seemed to come directly to the eyes but went off to the right and left and downward, while others shot directly out at right angles. All appeared, instead of flashing straight out or upward from the bottom of the vessel, to go downward.

"My eyes shut quickly, the body seemed to jerk, and the arms and head were thrown back violently.

"At this juncture I awoke or became conscious, *i. e.*, this second train of imagery ceased. The first thought either before waking or upon waking was: are my eyes hurt? The second suggestion was that the movement made was definitely real and did not seem to extend below the arms, shoulders, head, and muscles of the upper part of the chest. The remainder of the body was perfectly quiet, or seemed so in contrast to the violence of the movements just ceasing. The reality of the experience did not cease till I had opened and shut my eyes and noted that my arms and head were uninjured. Especially did the fact that this was felt to be a real experience center in the test of the eyes and eyelids. They were tried at once consciously, and it was noted with relief that they did not even feel strained as I immediately recalled they do after a waking experience of this kind. Further it did not appear that the other parts of the body concerned were especially tense and aroused after the movements and emotions of fear. The actuality of the movements can be vouched for both as a part of the dream state and in the waking state. They lasted over the transition distinctly and clearly. The sleeping-room was lighted enough to discern vaguely the outlines of the walls and to give a sense of their distance. This was also noted and consciously used as a test of the non-actual character of the experience. The distances of the objects seen in the hallucination or dream differed distinctly from the more distant walls and spaces in the shadowy room.

"The point where the waking thought went into the hypnagogic state can be located definitely neither by memory nor by introspection. The sense of the waking imagery of the real tables and persons transformed itself into the imagery of the person carrying the tray with no imaginal break.

"In the moments that followed, before going to sleep and while the few notes were jotted down, several possibilities in previous experiences that might have entered the make-up of the dream came to mind. It is easy enough to see how the coffee of the afternoon served to recall numerous teas at the house of the friend who was also hostess on this occasion. At these teas the small alcohol lamp and its accessories are always in evidence. Some ten or a dozen years before the writer had an accident with an alcohol blast lamp, where to avoid an explosion or serious fire he was forced to throw the lamp out of a third-story window. Usually since, when alcohol is burning too strongly, I am reminded of this earlier occurrence."

As stated above, the rough notes made by the subject of the hallucination were written out by him on the following day. He tells me that as he wrote the phrase, "the tea tray seemed brought in by the husband," he suddenly remembered that he had been in the clubhouse the morning before the party when this man carried in through the front entrance a silver tea set. This had been no part of the actual events of the afternoon, but was the first bit of imagery that can be definitely assigned to the dream state. It may be remarked here that the use of the front entrance had baffled the narrator's power to explain up to this time, as all refreshments at the club are brought to the guests from the serving-room, which is in direction opposite the front entrance.

Further questioning elicited the following facts about the setting of the afternoon bridge game. The emotional strain of the afternoon was extreme. Our subject was not accustomed to such afternoon affairs and felt that he was out of his element. He preferred rather to be at his office, and, in addition, did not feel that his knowledge of the game warranted the place he was taking among experts. He met on entering the room a friend whom he had not seen for some time and wished that he might converse with him rather than play at a considerable distance from this friend during the afternoon. There was present also a person whose relations to the writer had not been (and still are not) of a satisfactory sort, so that he was not on speaking terms

with this individual. All three of these elements were conscious accompaniments of the day's events. In addition, the behavior of the players and the somewhat desultory conversation were features of considerable interest and attention. Altogether, the afternoon contained incidents that make for easy and abundant recall of detail.

In the train of thought that preceded the hallucination we find no important evidence of the varied attention that characterized the afternoon. Only a portion of the events were present and those of an incidental character. The decision to recount the games represented a state of mental apathy to the repetition of the entire situation that accords well with the reclining posture, the distractions produced by sleepiness and the muscular uneasiness left over from the ball game. Though these immediate distractions prevented the repetition of the entire situation they did not have any distinct imagery of their own. The centers concerned in the afternoon bridge game were forced into a semi-aroused condition.

Two possible explanations offer for the location of the hallucination. The position of the tray and lamp was exactly that of the person with whom the subject is not on speaking terms. On the other hand, the arms were in an unnatural position above the head, and the slight headache and nervous uneasiness felt on retiring suggest the possibility of the not infrequent jerkiness of the relaxation period mentioned above. In fact the sleeplessness seemed due to this slightly excited neuro-muscular condition. The visual imagery would normally be in front of the person. In this case the aroused motor effects were largely limited to the upper part of the body and especially to the right arm that had been used in throwing. In normal dream states we would readily expect those portions of the body to be concerned more particularly than the less strained parts. The first explanation involves a distinct bit of symbolism and a total substitution of imaginal meanings or context. The imagery of the dream state is scarcely changed enough to warrant this, though it is not a part of the previous experience.

The second suggestion follows directly from the known

condition of the psycho-physical organism. The usual laws of memory recall, *e. g.*, recency and vividness, combined with the unnatural position and strains of the upper portion of the body locate and suggest the dramatic character of the imagery. It is true, still, that the social difficulty with the person in question is also of a dramatic character and might easily be made explanatory if we accept the theory of substitution.

Let us view the experience a moment as an hallucination. The visual, auditory, and kinesthetic sensations were natural and real. It required a distinct mental process to assure the subject that this thing had not happened as a part of the vital experience in which some real physical injury was done him. The colors of the flame were recognizable, and the sound of the explosion had distinct attributes. There was no noticeable break in the transition from the easily identified imagery of memory to that belonging in no wise to the situation rehearsed. The feeling of relief that followed the discovery that there was no pain or injury corresponds well with similar feelings in accidental explosions of like character. The extreme vividness of the emotional state during the experience goes as an integral part of the state whether we call it a dream or an hallucination. In addition, the important physical and mental conditions of hallucinatory experiences are present.¹

The ordinary hypnagogic hallucination lacks the vividness and detail of the incident here described. Yet the time of its occurrence naturally places it in that category. Possibly the shortness of the series of events and their apparent rapidity (in the dream) tend also to place it here. The usual descriptions of hypnagogic hallucinations, however, suggest that they are rather vague floating bits of imagery, generally of simple colors and scraps of objects that remain uncombined and unrelated.

The dream characters in the incident are particularly clear. We have the logical ordering of events that here could easily correspond to a real sequence of events, but do not and in all probability would never do so except in a quite absurd situation. This logical sequence shows a dramatic

¹Storring, G., *Mental Pathology and Normal Psychology*, pp. 21-24.

gathering of details with a strong emotional climax. There remains in it no intimation of the actual bodily conditions just preceding the dream, and waking from the event has all the usual accompaniments of the dream rather than the more permanent after-effects of an hallucination. We have finally the possibility of explanation in terms of symbolic representations.

A special point of interest noted by introspection is the three forms of reality presented by the experience. The weak waking reality still carries with it certain undeniable features. The position and strains of the body, the memory and slightly divided interest (self-conscious) form of imagery together with its foreshadowing of a vague end to be reached in the specific mental process in progress. These disappear during the hallucination only to reappear when waking consciousness resumes its sway.

If introspection may be trusted here, the hallucinatory reality differs essentially from this. Self-consciousness or the purposiveness of the self-interest does not shift; it simply drops out. In this case there is absolutely no means of telling when the dream began, but there is as definite a sensing of the loss of the self and its body position as there is later of the events of the dream. We cannot, of course, offer a bit of direct introspection at this point; the type used may well be a bit of reading in of the feeling of difference of the last rather than the first change. But the last phase of the certain wakeful thought before the dream is of this foreshadowing emptiness sort that is confirmed by the next change when consciousness returns. The nearest describable feeling in the waking consciousness is that of high emotional excitement. There are moments in such a state that seem, looking back at both, highly similar to the state of mind in this hallucination.

Contrasting the mental condition that followed the dream with the dream itself, we get the distinct feeling that this is a normal dream state. The return of waking consciousness retains the memory of the dream imagery, the dream emotion, and the dream logic. It rushes back to bodily positions and surroundings, to other memory events, to another sort of sequence. An essential point differentiat-

ing the two seems to be that whereas in the dream sequence they are simply *coming together*, in the waking sequence they *were* together as well as are coming together. This is practically a description of the memory process, it is true, but there seems to reside in it the intangible intimacy that is wholly lacking in the dream state.

The incident described here illustrates well the function of the whole cœnesthesia. We have before us a transition from the full waking state to a drowsy one in which the prominent elements of the sensory factors are those that are abnormally awake, the arms and upper parts of the body; and the final subsidence of these from consciousness. The effect of arousing in the second state a new and previously powerful train of thought is continued as a third state in the neural centers, without the directive force of the usual motor centers with their outlying muscles and viscera. The imagery of the weak waking thought was not complete, it barely began a group of earlier, emotionally stressed processes and left them without these normal directive agencies. There is no good reason for describing this particular mental event as a split in consciousness or as concerned with any subconscious mental processes. All the elements appear as memory processes, they merely lack the usual coherence of such.

Strictly speaking, we must place this in a class with hypnagogic hallucinations. It is, however, a particularly vivid and complete case, and offers an illustration of the intimate relation that exists between dreams and hallucinations proper. The only definite criterion that suggests itself to distinguish the dream from the hallucination lies in the two states of the waking consciousness that respectively accompany and precede the state in question. In the hallucination proper, consciousness does not connect with previous waking states, to the bodily factors in their normal form, with the immediacy and completeness that the waking state following an ordinary dream exhibits.¹

The explanation offered is, that, in the hallucination, the cœnesthesia and external stimuli are not so entirely excluded from exerting their controlling and directive in-

¹Ellis, Havelock, *The World of Dreams*, pp. 182 and 188.

fluence upon the progress of the imagery as they are in the dream. The result of this difference makes the hallucination a far more powerful factor in affecting the later trains of thought. Pathologically the hallucination becomes, therefore, a more serious influence in shaping the thought of the individual than the dream, and seems to point to a more serious defect in the neuro-muscular processes, or complex union of central and peripheral factors we call the self.