

# NOCTURNAL DREAMS

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SCIENTIFIC data pertaining to dream phenomena are admittedly inadequate. The paucity of experimental studies upon the problem of dreams is chiefly due to the difficulty of applying experimental techniques; a scientific investigation of dreams by either objective or introspective methods is for obvious reasons exceedingly difficult. The content of dreams has been studied traditionally by the introspective and the questionnaire methods. Bentley,<sup>1</sup> for example, has achieved some rather meager, though valuable, results from an introspective technique, which he describes with considerable confidence. Introspection here, however, as elsewhere, has many limitations and imperfections. "It is almost impossible," suggests Morgan, "to get an experienced observer to narrate a dream without interpolating explanatory and organizing material."<sup>2</sup> Moreover, a study of dream content by introspection is largely a study by retrospection. Accordingly, Calkins remarks: "The difficulty of remembering dreams suggests, of course, the impossibility of an exhaustive enumeration of their peculiarities and any positive conclusions from the figures. . . ."<sup>3</sup>

The present discussion attempts neither to set forth an experimental technique nor to suggest a theoretical approach to the problem of dream content; nor is it concerned with the etiology of dreams. It merely deals with the reporting of a few interesting facts de-

<sup>1</sup> M. Bentley, "The Study of Dreams; A Method Adapted to the Seminary," *Amer. Jour. Psychol.*, 26: 196-210, 1915.

<sup>2</sup> J. J. B. Morgan, "The Psychology of Abnormal People," p. 406. New York: Longmans, Green and Company, 1928.

<sup>3</sup> M. W. Calkins, "Statistics of Dreams," *Amer. Jour. Psychol.*, 5: 312, 1892-93.

rived from a questionnaire-census of the ordinary dream experiences of a limited number of unselected college students, enrolled in various psychology courses. Originally, this material grew out of a much more comprehensive survey, which dealt with psychopathic and psychoneurotic tendencies, and sleep phenomena other than dreaming. Only those items pertaining to nocturnal dreams will be considered here. The subjects used in this study comprised 170 college students—81 men and 89 women. All of them had sometime previously been given two class lectures on the limitations and the inadequacies of subjective methods of securing psychological data, and they had been properly advised of the necessary precautions to be taken in the use of such methods. Furthermore, a majority of the subjects had been instructed previously in one of their psychology courses concerning the special limitations of the questionnaire method of investigation. Thus, every possible step was taken to prevent any unnecessary abuse of the techniques to be used.

The subjects were first informed by the examiner of the nature of the questionnaire. They were repeatedly told that the data were to be used for statistical purposes only. They were urged to use the utmost caution, and they were instructed that, in no case, were they to answer any question unless they were fairly positive that their answers were correct. Finally, they were assured that their answers would be kept strictly confidential, inasmuch as their names were not to be affixed to their papers.

The general procedure was as follows: The questionnaire items were dictated by the examiner instead of being distrib-

uted in mimeographed form. Six blank sheets of paper were placed in the hands of each subject. At the top of the first blank sheet the subject was told to signify his age, collegiate classification and sex. The items of the questionnaire were then dictated by the examiner, each item being read twice. The subjects were carefully instructed not to answer any question until they were told to do so, and from one to two minutes were allowed for each questionnaire item.

The subjects gave their answers to each question in accordance with the specific instructions of the examiner, and at a specified time. For each questionnaire item the examiner took sufficient time to clear up any ambiguous terms or misconstrued meanings. In spite of such careful instructions, however, several subjects failed in many instances to respond according to directions (as is usually the case in a questionnaire survey of this kind), and their answers had to be ignored statistically.

The questionnaire items appear below, but space does not permit the statistical tabulation of results, with responses for each sex and totals for both sexes.

#### THE QUESTIONNAIRE

1. (a) Do you dream?  
(b) About how much?
2. Do your dreams appear to be simple or complicated?
3. (a) Do you have fear dreams?  
(b) About how frequently?
4. Are you usually an active participant in your dreams?
5. Would you say that your dreams usually contain some element from the experience of the previous day?
6. (a) Do you have dreams which seem to "come true?"  
(b) To what extent?
7. Do you have dreams of soaring, falling, or flying?
8. (a) Do you have dreams of frustrated effort?  
(b) How common are such dreams?  
(c) Would you judge yourself as having an inferiority complex?  
(d) Do your dreams of frustrated effort seem to be related in any way with your inferiority complex?
9. (a) Do you ever dream of being nude?  
(b) How common are such dreams?  
(c) Does this kind of dream seem to cause you any special embarrassment?
10. (a) Do you sometimes dream of a dead person returned to life?  
(b) Are these dreams inclined to be recurrent?  
(c) Do you usually dream of the same person?
11. (a) Do you sometimes dream that some dead person has never died?  
(b) Are these dreams inclined to be recurrent?  
(c) Do you usually dream of the same person?
12. (a) Do you sometimes dream of the death of some relative or friend, now living?  
(b) Are these dreams inclined to be recurrent?  
(c) Do you usually dream of the same person?
13. (a) Is visual or auditory imagery more frequent in your dreams?  
(b) Do you get any color imagery in your dreams?
14. Are your dreams usually pleasant or unpleasant?
15. Do you believe that you do any thinking in your dreams?
16. Do your dreams usually seem to take up considerable time?
17. Do you believe that you ever remember any dreams which do not cause you to wake up?
18. Are you inclined to worry much about your dreams?
19. Do any of your dreams seem to be influenced by strong desires?
20. Are your dreams usually absurd?
21. Are your dreams dismissed from your mind easily and quickly, or is there a tendency to remember them for some time?
22. (a) Are you inclined to tell your dreams to friends?  
(b) Does the mere "telling" seem to give you a feeling of relief or satisfaction?
23. Do any of your dreams seem to contain a feeling of future significance?
24. Did you ever have a dream of paralysis?
25. (a) Do you have recurrent dreams?  
(b) How regularly?
26. Would you say that any of your dreams appear as an imaginary fulfillment of a repressed sexual wish?
27. Are you ever able to trace any of your dreams back to some special stimulation of the body surface during sleep?
28. Do your dreams often violate your moral principles?

29. Do you consider any of your dreams as in any way supernatural?
30. Do your dreams ever seem to result from prolonged anxiety?
31. (a) Do you day-dream a great deal?  
(b) Does the content of your day-dreams seem to be closely related to the content of your nocturnal dreams?
32. Do you think that any of your dreams have ever produced in subsequent waking activity any of the following:
  - (a) Any prolonged moods?
  - (b) Any false recollections?
  - (c) Any fears?
  - (d) Any delusions?
  - (e) Any obsessions?
  - (f) Any conduct disorders?

Only a very meager portion of the results obtained from the foregoing questionnaire can be reported here. In general, the data demonstrated that there was not any one essential aspect or attribute common to the dream activity of all individuals—a feature that must always be present. Each dream seemed to be unique and individual in some particular aspect or aspects. The matter of individual differences was, therefore, very apparent; there were great individual differences among individual dreamers.

The data also indicated that sex differences, if they existed at all, were not sharply enough differentiated to be considered very significant. Twice as many men as women reported that they dreamed of being nude; they had such dreams much more frequently and the dream of nudity caused them much less embarrassment. Women were inclined to tell their dreams to friends almost twice as much as men. About twice as many men as women reported that their dreams appeared to be an imaginary fulfillment of a repressed sexual wish. More men than women also reported that their dreams often violated their moral principles. These few differences, mainly of a sexual character, were clearly evident; but the number of cases (170) was so few that it would be extremely hazardous to draw any definite conclusions as to sex differences from such limited data.

The general trends are suggestive, but there is the possibility that, if the cases were greatly increased, the sexes might show considerably less differentiation—perhaps no differentiation at all.

The data demonstrated certain other general tendencies, however, and some of the more interesting trends indicated by the questionnaire were:

(1) The subjects were almost unanimous (99.4 per cent.) in saying that they dreamed, but they differed greatly in the amount of dreaming. The assumption that sleep is usually dreamless is certainly not borne out, and, as Fisher has suggested, "is really without the slightest factual basis to support it."<sup>4</sup> De Sanctis and Neyroz<sup>5</sup> have, in the opinion of the author, presented very logical data for postulating a continuity of mental activity during sleep.

(2) Sixty-nine per cent. (69.4 per cent.) of the subjects reported that their dreams were complicated rather than simple. This might be expected of adult dreams, although, according to one investigator,<sup>6</sup> the dreams of children appear to be very simple and direct, consisting often of mere imaginary wish fulfillments.

(3) Ninety-two per cent. (92.9 per cent.) of the subjects reported that they were usually active participators in their dreams. This reveals nothing new or unusual. In fact, it is generally contended that a child is practically always a very active participant in the dream situation—an adult, only a little less so.

(4) Only a very small majority (51.2 per cent.) of the subjects reported that their dreams usually contained some element from the experience of the previous day. This does not support the

<sup>4</sup> V. E. Fisher, "An Introduction to Abnormal Psychology," p. 379. New York: The Macmillan Company, 1929.

<sup>5</sup> S. De Sanctis and U. Neyroz, "Experimental Investigations concerning the Depth of Sleep," *Psychol. Rev.*, 9: 254-282, 1902.

<sup>6</sup> C. W. Kimmins, "Children's Dreams," New York: Longmans, Green and Company, 1920.

wide-spread belief of those who say that a dream invariably contains some aspect of the previous day's experience (the day followed by the night of the dream), although as some observers have noted, this may be true in the dream experience of the child.

(5) Eighty-nine per cent. (89.5 per cent.) of the subjects reported that they had dreams of frustrated effort, though these dreams were not especially frequent. This questionnaire might indicate that such dreams are perhaps more common than is generally supposed, particularly among many types of psychoneurotic personalities. Indeed, a very careful analysis might possibly indicate that a large percentage of all our nocturnal dreams should be classified, basically and fundamentally, as dreams involving the element of frustrated effort.

(6) Thirty-three per cent. (33.9 per cent.) of the subjects indicated that they had dreams of being nude, though such dreams were not especially frequent. The subjects were about equally divided upon the question of embarrassment caused by a dream of nudity. These data may indicate that the great stress upon "utter lack of embarrassment" accompanying such dream experiences, which has been so much emphasized by certain modern writers, is probably exaggerated and has no real factual basis.

(7) Ninety-six per cent. (96.3 per cent.) of the subjects reported visual imagery to be more frequent in dreams than auditory imagery. This much greater proportion of visual imagery supports the findings of practically all investigators of dream phenomena. Calkins,<sup>7</sup> for example, found visual images to be related to auditory in the ratio of 3 to 2. Bentley<sup>8</sup> also found visual images slightly more frequent in the dreams of his subjects than auditory—visual 59, and auditory 51. Morgan summarizes the literature on the subject

<sup>7</sup> *Op. cit.*, 321.

<sup>8</sup> *Op. cit.*, 202.

in the following generalization: "Investigations have shown that by far the greater proportion of dreams are visual. Less than half as many are auditory."<sup>9</sup>

(8) Seventy-four per cent. (74.4 per cent.) of the subjects reported that they did not get any color imagery in their dreams. In like manner, Bentley<sup>10</sup> found that colors appeared in the dreams of his subjects occasionally (11) but that gray imagery was the rule (48).

(9) Sixty-six per cent. (66.6 per cent.) of the subjects were inclined to the belief that they did thinking in their dreams, which is a conclusion quite contrary to the generally accepted view that all thought processes are in abeyance during sleep. These data seem to be in agreement with the findings of Bentley, who comments: "We are told that 'people' do not think in dreams, that dreams are wholly irrational, that incongruities are not recognized, that dreams do not pursue a given topic, and what not. In our own introspections we found not one of these generalizations to hold."<sup>11</sup> However, Bentley is careful to add that "thinking is rare and, as a rule, ineffective."<sup>12</sup> To be sure, Coleridge, according to his own account, got his inspiration for *Kubla Khan* in an opium dream; and Tartini, the celebrated Italian violinist, is said to have told Lelande that he composed the sonata, *Il Trillo del Diavolo*, or "The Devil's Sonata," as the result of a dream. Likewise, there are many reports of difficult problems having been solved during dream activity, but one is necessarily led to conclude that thinking is very ineffective in the dreams of most of us.

(10) A majority of the subjects indicated that their dreams were inclined to be pleasant rather than unpleasant. This affective element of pleasantness is in keeping with the Freudian interpretation of dreams. However, it does not

<sup>9</sup> *Op. cit.*, 405.

<sup>10</sup> *Loc. cit.*

<sup>11</sup> *Op. cit.*, 208-209.

<sup>12</sup> *Op. cit.*, 209.

bear out the investigation of Bentley,<sup>13</sup> who found unpleasant dreams to appear about twice as often as pleasant ones.

(11) Seventy-four per cent. (74.8 per cent.) of the subjects reported that dreams were dismissed from their minds (forgotten) easily and quickly. Morgan suggests that "this tendency to forget is not confined to unpleasant dreams but may affect pleasant ones or indifferent ones as well."<sup>14</sup>

(12) Forty-four per cent. (44.6 per cent.) of the subjects reported that dreams had produced prolonged moods in subsequent waking activity. This tendency has been clearly recognized by Conklin, who remarks: "The emotional accompaniment of a dream often carries over into the day following and serves to produce a mood of considerable duration."<sup>15</sup> This may be true especially of psychoneurotic personalities, who are ever inclined to confuse their dream past with their waking past.

(13) Thirty-six per cent. (36.4 per cent.) of the subjects reported that dreams had produced false recollections in subsequent waking activity. It does not seem at all unreasonable that this should happen rather frequently. "It is highly probable," says Sully, "that our dreams are, to a large extent, answerable for the sense of familiarity that we sometimes experience in visiting a new locality or in seeing a new face"<sup>16</sup> (paramnesia).

<sup>13</sup> *Op. cit.*, 203.

<sup>14</sup> *Op. cit.*, 409.

<sup>15</sup> E. S. Conklin, "Principles of Abnormal Psychology," p. 329. New York: Holt, 1927.

<sup>16</sup> J. Sully, "Illusions," p. 274. New York: D. Appleton and Company, 1897.

(14) Only a very small number of the subjects (5.9 per cent.) reported that dreams had produced conduct disorders in subsequent waking activity. This percentage may be slightly too high, inasmuch as some of the subjects were possibly confused as to the exact meaning of "conduct disorder." However, that such a thing is possible would, of course, not be denied. Prince<sup>17</sup> describes a very interesting case, reported by Dr. G. A. Waterman, in which, under complete hypnosis, an instance of kleptomania could be traced back to a dream which had occurred one and one half years previously.

As has been emphasized throughout, this questionnaire report is in no sense extensive enough to base conclusions upon, but it does point out to the student of dream phenomena certain interesting trends and tendencies, which, for the most part, have been substantiated both by one's own experience and by the investigations of a few experimenters. The chief methods available for clearing away popular superstitions and fallacies relative to dream content would seem to be (1) the extensive study of large numbers of children and adults by the questionnaire-census method; and (2) the intensive introspective study of sufficient numbers of subjects under controlled conditions. In any event, the author believes that the questionnaire-census, with all its serious defects and limitations, has some value in the statistics of dreams, when used to supplement the data procured by other more refined methods.

<sup>17</sup> Morton Prince, "Coconscious Images," *Jour. Abn. Psychol.*, 12: 307-310, 1917.