The Single-Mindedness and Isolation of Dreams

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The most noted psychological properties of dreams, their bizarreness and their meaningfulness or symbolic value, are neither unique to nor even remarkably distinctive of dreaming. Studies of large dream samples (Snyder et al., 1968; Dorus et al., 1971) reveal that relatively few dreams are very bizarre, which suggests that dreams have a reputation for bizarreness because bizarre dreams are most recalled and savored. Also, artists or even common daydreamers can create images and plots as wild as the strangest dreams. Meaningfulness is certainly not restricted to dreams. Most waking thought or behavior can be interpreted, correctly or incorrectly, as having a significance beyond immediate appearances. Indeed, one of Freud's major ideas was to identify the communalities between the psychopathology of everyday life and the psychopathology of everynight life.

My intent here is not to begrudge the attention to bizarreness and meaning; many dreams are more bizarre and symbolic than most waking thought. Rather, I do want to contrast this attention to the scant notice given to another psychological property which may be more distinctive of dreaming and in some ways more remarkable. I call this property the "single-mindedness" of dreams. I make no claim to its discovery; as we shall soon see, implicitly we all accept it so well that we notice with surprise only the rare exceptions. My thoughts about single-mindedness come mostly from observations of my own dreams.

By the "single-mindedness" of dreams, I mean the strong tendency for a single train of related thoughts and images to persist over extended periods without disruption or competition from other simultaneous thoughts and images. We may never be able to determine whether more than one thought or image can occupy a mind at one time. How can we hope to distinguish simultaneous thoughts from thoughts separated by indiscriminably short intervals? Nevertheless, in spontaneous waking mentation there is, at the very least, such a rapid fluctuation of thoughts and images that phenomenologically they may be considered simultaneous. By comparison, several features of dreams reveal their relative single-mindedness.¹

¹ Unless specified otherwise, we will always be referring to manifest dream content only.
NONREFLECTIVENESS

Waking consciousness generally contains at least two prevalent streams. One stream contains "voluntary" mental productions, thoughts and images that "pop" into our heads, and sense impressions. The other is a reflective or evaluative stream which seemingly monitors the first and places it in some perspective. The reflective stream seems to judge whether the thoughts or images are integral to the mental task of the moment or irrelevant intrusions from a separate part of our minds—whether the thoughts are deliberate, voluntary mental productions, or spontaneous, uncontrolled thoughts—whether the images come to us from the external world or from within.

In dreams, the reflective stream of consciousness is drastically attenuated. While we are dreaming, we are usually unaware that we are lying in bed, unaware that the images before us are hallucinatory, and unaware that we are dreaming. In one study from our laboratory (Zimmerman, 1970), subjects were asked upon being awakened from REM periods whether they had been aware, during the dream, that they were lying in bed and whether they had been aware that they were observing the contents of their own minds rather than the "real world." The answers to both questions were "no" approximately 90% of the time. My own opinion, although I could not prove it, is that even these figures overestimate reflectiveness in dreams, which is exaggerated by poor recall, by a failure to fully comprehend the questions during nocturnal awakenings, and by a confusion between the dream experience and mental experiences during the process of awakening.

More recently, we intensively studied two subjects who were selected from a larger pool of subjects because they were bright, verbally articulate, awakened quickly, and reported dream content in great detail. In only 4, or 2.4%, of 168 REM period awakenings which yielded dream recall did these two subjects report any awareness that they were dreaming during the dream. Even in these four reports, the reflective awareness obtained only for portions of the dream and was not continuous for the entire dream experience.

The failure to recognize a dream as a dream while it is in progress is rather remarkable, since it defies the rules of reinforcement and discrimination learning. How many times in our lives could we have avoided the agony of bad dreams had we realized it was "only a dream" at the time? How many times in our lives have we awakened from a dream and recognized immediately that it was "only a dream"? Yet in spite of all these dream-reality discriminations, in spite of all the reinforcement we get for making the discrimination, we seem almost entirely incapable of making the discrimination while we are dreaming.

Although the above data indicate a massive failure of reflective awareness

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2 The prevalence of nonreflectiveness contrasts interestingly with the paucity of bizarreness in the REM reports of Zimmerman's subjects. Independent judges made ratings of how distorted or fantastic the dream content was on a scale of 1 to 6, with the lower score indicating the most distortion. For a group of 16 "light sleepers," the mean distortion rating was only 4.59; for the 16 "deep sleepers," the mean rating was only 4.69. Clearly, nonreflectiveness was a much more characteristic feature of the dream mentation than bizarreness.

3 We are grateful to Donald L. Bliwise for collecting these data.
during dreaming, the distinction from waking mentation is certainly not absolute. Fragmentary dream-like experiences which lack reflective awareness do occur during wakefulness (Foulkes and Vogel, 1965; Foulkes and Scott, 1973; Foulkes and Fleisher, 1975), although at a substantially lower rate than during nocturnal dreaming. In the study of Foulkes and Fleisher, approximately 15% of reports of spontaneous mentation elicited from awake subjects would unambiguously fit our concept of nonreflectiveness, since the subjects reported that they were not controlling their thoughts, that they were unaware of being in the laboratory, and that the mentation was hallucinatory. In an additional 22% of the waking reports, subjects were nonreflective in the sense of having lost awareness of being in the laboratory, but the mentation was nonhallucinatory (i.e., the subjects were “lost in thought”), and the subjects may or may not have been controlling their thoughts. (Volitional control, at least phenomenologically, immediately implies reflectiveness, i.e., one part of the mind tells another part where to go, observes its progress, and corrects its deviations.)

Not only is the incidence of nonreflectiveness much lower during wakefulness than during nocturnal dreaming, but the Foulkes and Fleisher report also indicates that waking nonreflectiveness tends to be momentary and interspersed with reflective evaluation. The very extended periods of nonreflectiveness which characterize most dreaming is rarely achieved during wakefulness.

We do not mean to imply that cognitive activity per se is absent from dreams. Molinari and Foulkes (1969) have shown that much dream activity is in the nature of judging, comparing, evaluating, etc. For the most part, however, such cognitive activities are part of the prevailing dream story, not a separate stream of reflective consciousness which tells us that it is “only a story.”

Almost any mention of the nonreflectiveness of dreams is quickly protested by a report of a dream or several dreams in which the sleeper was aware that he or she was dreaming and sometimes able to control the dream content. Such dreams do occur—they are called “lucid dreams”—and some people have them more than others. The occurrence of a lucid dream is usually greeted with surprise, sometimes delight, which shows how well we implicitly accept the more characteristic nonreflectiveness of dreams.

The infrequency of lucid dreams is illustrated by our own frustrated attempt to study them in the laboratory simultaneously with physiological monitoring. Frequently, we obtain our subjects for sleep and dream studies by placing an advertisement in the university’s student newspaper. Usually, about 100 persons respond to such an advertisement. To obtain a sample of lucid dreamers, we advertised for “subjects who regularly know they are dreaming while they are dreaming.” Only four persons responded to this advertisement. Interviews with the four indicated that two of them had misunderstood the advertisement and were not really lucid dreamers. The remaining two were studied for two nights.

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4 Although a phenomenological absence of volitional control is a sign of nonreflectiveness and although subjects only rarely have the sense of controlling the dream, we have not made much of the absence of voluntary control over dreaming. Our own impression, supported by the data of Foulkes and Fleisher, is that voluntary control is so frequently absent from our waking consciousness that this aspect of nonreflectiveness is not remarkably distinctive of dreaming.
each in the laboratory, where one produced six REM dream reports and the other seven. In only one of the reports of each of these subjects was there some indication of lucidity, and in both cases this consisted of fragmentary points of awareness that they were dreaming, rather than a pervasive awareness of the fact of dreaming throughout the dream.

I have often been asked why we occasionally have lucid dreams. It is a peculiar question. The question should be why are not all dreams lucid as is most of conscious experience. Yet the fact of occasional lucidity in dreams is useful as a demonstration of what most dreams are not. Only when we can see the possibility of the lucid dream do we fully realize what a massively nonreflective state dreaming usually is—what a truly distinctive psychological experience it is. In fact, I can think of no other single state short of severe and chronic psychosis in which there is such a persistent, massive, regular loss of reflectiveness. Herein may lie the most distinctive psychological characteristic of dreaming. We can all have peculiar thoughts and images dozens of times a day, and these may symbolically reflect motivational forces of which we are not aware. This is like dreaming. But it is only during dreaming that most of us regularly lose so completely the road map of our own consciousness.

One might argue that perhaps we have made too much of nonreflectiveness in dreams, that the paucity of reflective awareness in dreams is simply secondary to the hallucinatory quality of the dreams. Since dreams cannot be differentiated from sense impressions of external reality, there may be no more reason to reflect upon their reality status than there is to reflect on the reality of the tables and chairs that surround us during wakefulness. One could argue that during wakefulness, although the capacity of reflective evaluation is more or less continuously present, we typically do not, on a manifestly conscious level, conduct epistemological discussions with ourselves about the reality of the tables and chairs that impinge upon our sense organs. Such arguments propose that once we accept the hallucinatory quality of the dream, perhaps we should not expect to find in it any more reflective evaluation of what is real and unreal than is consciously experienced in wakefulness.

The above arguments would be perfectly acceptable if dreams contained only tables, chairs, and other similarly mundane articles which required no critical evaluation. But dreams do at times contain images, which, had they occurred during wakefulness, would have caused us to reflect very seriously on their origins. For example, I recently dreamed that my father, who has been dead for many years, engaged me in conversation. My "understanding" in the dream was that he had returned from a place where dead souls rest to discuss a matter with me. In the dream I was, for a passing moment, puzzled that he had been able to return from the dead, but I had no doubt that it had happened. We had a warm, quiet talk in an atmosphere of peace and calm. At no point did I question whether it was a dream or a hallucination. To me it was happening. Had the same events transpired during wakefulness, I would have reflected very, very seriously on the origins of the experience. The point is that dreams lack reflective awareness even when their contents are such that would ordinarily inspire very active, conscious, critical reflection during wakefulness.

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In view of the above considerations, the issue could well be turned around. Instead of asking whether the nonreflectiveness of the dream is secondary to its hallucinatory quality, we could ask whether dream images are hallucinatory because of the nonreflectiveness. Perhaps what would otherwise amount to only self-generated images, clearly recognized as such during wakefulness, become hallucinations in dreams because we are unable to reflectively evaluate them while we are in that state.

Perhaps this is a silly discourse because, as some might argue, if non-nonreflectiveness is intrinsic to the definition of an hallucination, then it is meaningless to question whether the nonreflectiveness is causal to the hallucination. I think there is a legitimate substantive issue at stake. If we suspend preconceptions of what is or is not intrinsic to hallucinations, we may admit that there are images, like those experienced under psychoactive drugs, which have such sensory intensity that we cannot reject their reality on the basis of the sensory image alone. Yet a knowledge of context may cause us to question the reality. We may know that we are drugged and that we may be “seeing things,” or we may speculate, “That can’t be a real horse in my bathtub.” Apparently, there are conscious domains in which we may hallucinate in a sensory sense and yet retain an intellectual reflectiveness. Since dreams are not such a state, it is indeed legitimate to wonder whether dream hallucinations are not secondary to dream single-mindedness.

The above considerations add up to a “passive” view of dreaming, inasmuch as they suggest that the hallucinatory images which appear in dreams may derive more from the removal of the restraints of reflective awareness than from the “power” of the intruding images and thoughts.

LACK OF IMAGINATION

A second reason for thinking of dreams as “single-minded” is that they are, relative to waking thought, largely lacking in imagination. This may seem a rather foolish statement to make about dreams, which are often considered among the most imaginative of human productions. However, we do not refer here to the fanciful, complicated, novel characteristics of some dreams which generally cause us to think of them as imaginative. Rather, we refer now to imagination in the sense of the capacity to conjure up images and thoughts which may occupy consciousness simultaneously or near simultaneously with another stream of thoughts and images. For example, as I write this paper I am sitting at my desk confronted with a pad of yellow paper, the words I have just written on it, and, in the periphery, an assortment of pens, pipes, coffee cups, etc. At the same time that this reality dominates my visual imagery, I can see in my “mind’s eye” a much more pleasant scene of a tennis court, a party, or almost anything else I choose. Dreams seem to be different. When I dream of one scene, very rarely do I simultaneously imagine another scene. If, for example, I dreamt of sitting at my desk writing this paper, I would not in the dream be simultaneously imagining a tennis court.

We have not systematically studied the issue of dream imagination in the laboratory. However, from the thousands of dream reports I have heard, my strong impression is that this nonimaginativeness is characteristic of the dreams of others, not just my own. We did systematically inquire about this dimension of
imagination in the two intelligent, articulate, good dream recakers mentioned earlier. In only 22, or 13.3%, of 168 REM period awakenings with dream recall did these subjects report "thinking about something" above and beyond an immediate participation in the dream events, and even in most of these instances, the thoughts proved to be about the passing dream events rather than different topics. In only 2, or 1.2%, of the awakenings was there any report of "seeing something else" in the dream—something that was not immediately part and parcel of the dream events.

Sometimes one may experience alternative versions of a single dream theme. I have occasionally found myself in a dream sequence which seemed to be moving toward an undesirable outcome, and then apparently "trying" some alternative version of the prior sequence. But these alternatives seemed to occur sequentially one at a time. It was very different, for example, from that familiar situation of wakefulness where one is listening to a speaker and his "mind is somewhere else." By comparison, I cannot remember a dream report which took the form, "Well I was dreaming of such and such, but as I was dreaming this I was imagining a different scene which was completely unrelated."

THEMATIC COHERENCE

The third line of evidence for the single-mindedness of dreams is their thematic coherence. Dreams do tend to take the form of a story; events and scenes follow each other historically. The history is sometimes unusual, and the story may take unexpected turns or be punctuated with somewhat discordant intrusions. Nevertheless, there is a definite chronological march of thematically connected material, which probably proceeds without significant detours for longer periods of time than most spontaneous waking thought. The tendency for dreams to tell one story at a time contributes phenomenologically to a picture of the single-mindedness. Perhaps the single-mindedness of thematic coherence is possible because attenuated reflectiveness and imagination prevents interruption by competing thought streams.

POOR RECALL

A fourth argument for the single-mindedness of dreams is more speculative than the preceding three because it requires a major inference from the phenomenological data, rather than phenomenological data per se. Nevertheless, it is a major phenomenon that is consistent with the general view developed here. The phenomenon is our terribly poor memory for dreams.

Memory for dreams is so poor that up until 25 years ago it was generally believed that dreams were relatively rare, capriciously occurring events. It was believed that, although some people had a dream almost every night, many dreamt only once a week, once a month, or even less frequently. Then the discoveries of REM sleep and its association with dreams (Aserinsky and Kleitman, 1953; Dement and Kleitman, 1957) changed our view. We know that human adults have about four REM periods a night and that they can recall dreams on about 80%-90% of awakenings for REM periods. Dream recall drops off precipitously as
awakenings are delayed beyond the end of the REM period (Wolpert and Trosman, 1958). Although mental activity is reported less frequently on awakenings from NREM sleep, and although the NREM reports tend to be more conceptual and thoughtlike than REM dreams, on occasion full-blown, bona fide dreams are also reported on NREM awakenings (Foulkes, 1962; Rechtschaffen et al., 1963). Taking all the evidence together, it now appears that most of us forget three or more dreams, or over an hour's worth of dreaming, each night. Considering that dreams are personally relevant and sometimes dramatic, this represents truly massive forgetting.

Massive forgetting is not restricted to dreams; it tends to occur whenever a set to remember is lacking. Apart from particularly dramatic events and items that you deliberately set out to store in memory, the majority of waking experience is lost forever. You probably had about a thousand minutes of waking consciousness yesterday. How many of them could you relate to us now? Probably not too many; you did not see a need at the time to commit these experiences to memory. There is a world of difference in the memory for what we read casually and what we read with the specific intention of retrieving it for an examination.

We can now speculatively infer that one reason for the massive forgetting of dreams is that the conditions which limit dreaming consciousness to a single thought stream also limit the capacity to simultaneously adopt a set for remembering that thought stream, i.e., typically we cannot or do not say to ourselves during the dream, "I must remember this." This limitation is certainly not absolute, as witnessed by the fact that some dreams are remembered and by the often noted increase in dream recall when psychotherapy increases the motivation for dream recall. Also, I doubt whether the limited capacity for adopting a memory set is entirely responsible for poor dream recall. Some of the dramatic events which must have transpired in unrecollected dreams, had they occurred during wakefulness, would certainly be well recalled with or without a set for remembering them. Nevertheless, the fact of poor recall for dreams, when they are followed immediately by sleep, is consistent with the phenomenological observations on the single-mindedness of dreams.

I do not want to say more to convince you of the single-mindedness of dreams. After all, I have proposed it as a major, relatively distinctive, immediately apparent phenomenological characteristic of dreams, not a subtle nuance. If you cannot agree the next time you awaken from a dream that it was single-minded, then the concept has little merit. Assuming for the time being, however, that dreams are single-minded, we may consider some of the implications.

**Dream Isolation**

Another way of describing the single-mindedness of dreams would be to say that dream consciousness, at least on a manifest level, is isolated from other systems of consciousness, i.e., reflection, voluntary control, other images, etc. This isolation may be just one manifestation of a more generalized isolation of dream consciousness, not only from other systems of consciousness, but from stimulus input, autonomic activity, organismic state, and motor output as well. There is...
insufficient space here to develop the theme of generalized dream isolation comprehensively. A few examples, however, although they may be somewhat selective, will help to identify the position.

We all know that dream content is connected to other variables, e.g., it is affected by presleep and contemporaneous stimuli and is correlated with organismic state and motor output. Our main point, however, is that these connections are by and large quite weak, i.e., dream consciousness is relatively isolated from these variables.

The presleep experiences of the first night in a sleep laboratory must certainly affect the thoughts and feelings of the new subject. Nevertheless, only about one-third of the dreams that night have manifest content unambiguously related to the laboratory situation (Dement et al., 1965). Since dreams are largely visual, one might expect visual stimuli to strongly affect dream content. However, Rechtschaffen and Foulkes (1965) could not find a single clear instance of incorporation into the dream of stimulus objects presented in front of subjects sleeping with their eyes taped open. Dement and Wolpert (1958) found that presentations of tones, light flashes, and sprays of cold water during REM periods produced incorporation in only 9%, 24%, and 47% of subsequent dream reports. Even a shock to the wrist delivered at an intensity known to produce a cortical response resulted in direct incorporations on only about one-fifth of the presentations and "indirect" incorporations (including any reference to the laboratory situation) on about one-third of the presentations (Koulack, 1969). Thus, the limited effect of external stimuli cannot be explained by their failure to enter the central nervous system.

Some of the incorporation percentages reported above and elsewhere in the literature may at first glance appear reasonably substantial, but other considerations attenuate their significance. First, relatively powerful stimuli were used. The new laboratory situation would almost certainly have been in the minds of subjects if they had stayed awake, yet it entered into only one-third of the dreams. A spray of cold water would certainly enter the consciousness of awake subjects, but was incorporated into dreams less than half the time. Second, the mere incidence of incorporation overestimates the effect on total dream content. A stimulus might appear in dreams on 50% of presentations, but this does not mean that half the dream content was determined by the stimulus. Usually, the incorporations appear only momentarily in the dream; considerably less than half the total dream content is attributable to the stimulus. Third, when external stimuli are incorporated, they tend to be absorbed into the prevailing dream rather than start a new theme determined primarily by the stimulus. In his enthusiasm for showing some understanding of how images are formed, the dream researcher frequently refers to the statistically significant effects of presleep and contemporaneous stimuli. What frequently gets lost in this enthusiasm is an overall appreciation of how little of the totality of dream content can be accounted for by such external factors.

Apart from their well-known relationship to the REM state, dreams also appear to be relatively isolated from the organismic condition of the dreamer. Dream content generally correlates rather poorly with autonomic variables (Rechtschaf-

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5 A similar point of view has been expressed and documented in greater detail by Foulkes (1966).
fen, 1973). Of 15 dream reports collected from three subjects who completely restricted their fluid intake for 24 hr, only five contained elements that might have been related to thirst (Dement and Wolpert, 1958). Full or partial erections were reported in 95% of REM periods by Fisher et al. (1965) and in 80% of REM periods by Karacan et al. (1966). In contrast, manifestly sexual interactions have been reported to occur in only 12% of the dreams of male subjects (Hall and Van de Castle, 1966). How often would we expect young adult males to have erections during wakefulness without concurrent sexual thoughts? Not only do nonsexual dreams occur in the presence of physiological sexual arousal, but sexual dreams may occur in the absence of physiological sexual arousal. Money (1960) found that quadriplegic patients with spinal cord transections which precluded genital-pelvic sensations could have dreams with orgasm imagery.

Although there is some correspondence between dream imagery and muscle activity in some subjects (Wolpert, 1960; Gardner et al., 1975), the overriding feature of dreams is the extent to which vigorous dream imagery is accompanied by little or no motor output. In one sense this is a banal point. Of course, there must be a restriction of motor output during sleep; otherwise we would not sleep very much. For that reason, the spinal inhibition of motor outflow during REM sleep (Pompeiano, 1967) makes functional sense. However, we may also note that dream imagery is selectively weak in inducing motor responses. In spite of the general low level of motor activity during sleep and the specific motor inhibition of REM sleep, subjects can remain motorically quite responsive to external stimuli during sleep. For example, it is really not very difficult to awaken a subject from a REM period simply by calling his name in a moderate voice over an intercom. By contrast, consider some of the amazing, sometimes terrifying dreams that we have slept through. Dream images are simply very poor stimuli for producing motor responses, which may be one more example of the generalized isolation of the dream.

Theoretical Implications

We will now consider briefly some of the theoretical questions raised by dream isolation.

1. Is dream isolation epiphenomenal to physiological characteristics of sleep, or does it serve specific functions? For example, might dream isolation help protect sleep against central nervous system arousal or dream consciousness itself? (This is essentially an extrapolation from Freudian dream theory, i.e., if dreams protect sleep, then isolated dreams might protect sleep that much better.) Might dream isolation facilitate certain psychological processes? For example, problems might be best ventilated or worked through when the mind is relatively unencumbered by recent stimuli, external stimuli, cognizance of organismic state, proprioceptive feedback, intruding thoughts, or the restraints of critical reflection.

2. How is dream isolation related to other dream characteristics? Do bizarre thoughts, symbolic representations, and hallucinations occur passively in dreams because reflectiveness and anchors to internal and external stimuli are attenuated? Conversely, is there an independent drive for the expression of dream thoughts, images, and symbols which isolation functions to facilitate? Or are both the
expression and isolation part of a single process, such as the suspension of ego control?

3. What does dream isolation imply for the psychophysiology of dreaming? One implication is that the relationship of dream content to autonomic and motoric activity is destined to be limited. The occurrence of dreaming *per se* is, of course, correlated with autonomic (e.g., cardiorespiratory irregularity) and motor patterns (tonic inhibition of head and neck muscles combined with generalized muscle twitches). However, these correlations seem to depend on the relationship of both the physiological and psychological variables to the REM state, since the relationships between the two sets of variables within a state are not very strong (Rechtschaffen, 1973). The expectation of correlations within states derives from models of vigorous interaction between central, motor, and autonomic events during wakefulness. In contrast, dream isolation suggests that the best physiological correlates of dreaming might ultimately be found in a brain activity (or a peripheral manifestation of it) which does not interact strongly with conventional autonomic and motor variables. In addition, dream isolation suggests that this brain activity would be relatively little affected by recent events, external stimuli, or general organismic condition, and would be relatively unrelated to those brain activities which are involved in volitional, reflective, critical thought. As a corollary to the last point, the identification of brain processes which are not associated with dreaming could help in the search for those which are involved in volitional, reflective, critical thought.

4. If dreams are indeed relatively isolated from recent stimuli, systemic state, and other thought systems, where in the world does dream content come from? There are several possibilities, each of which has been considered in one or another of the major theories of dream content. In fact, these theories may be viewed not so much as integrative statements of what is clearly known about dream formation, but more as struggles to explain generally obvious, if not explicitly stated, facts of dream isolation. We would not need theories of dream content if it was readily attributable to recent events, external stimuli, organismic state, and the familiar thought systems of wakefulness.

a. One interpretation of the origin of dream content in the face of dream isolation is that both are the products of the "disorganized" activity of the brain during sleep. This is the one interpretation we would be most strongly inclined to reject. If there is any isomorphism between mental experience and brain activity, then one could hardly infer a disorganized brain from dream content because dream content is not especially disorganized. As indicated earlier, dreams frequently take the form of definite stories. There is neither the kaleidoscope of unrelated images nor the cacophony of isolated thoughts and words that one might expect in truly disorganized consciousness. Waking consciousness, with its rapid juxtaposition of sensations, thoughts, wanderings, and reflections, probably

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6 This discussion is, of course, fraught with implicit assumptions about causal directions between dream experience and physiological events. As we have elaborated elsewhere (Rechtschaffen, 1975), we think the issue of causal direction cannot be resolved empirically, but theoretical assumptions about it can help organize old facts and generate new ones.
comes closer to the hypothetical disorganized mind than does the dream. Perhaps one of the best arguments for both dream organization and dream isolation is the recurring dream. It seems most unlikely that disorganized brain activity could produce the same dream over intervals of days, weeks, or longer. The reappearance of dreams over long intervals of very eventful waking life suggests how isolated from that waking life dreams may be.

b. A more popular explanation of the origins of dream content in the face of dream isolation is that the isolation is only apparent, that connections between manifest dream content and its origins have to be disguised. Otherwise, threatening mental elements could not be discharged, or the discharge would awaken the dreamer. Of course, this kind of explanation is a cornerstone of Freudian dream theory and many of its variants. This theory has already encompassed some of the phenomena of isolation, such as the blocking of motor discharge. Given the agile theoretical concepts of unconscious forces, repression, withdrawal of ego cathexis, psychological transformation (the dream work), and secondary elaboration, it would probably not be very difficult to develop theoretical explanations of all the phenomena of dream isolation.

c. Another popular theory of dream content is that it emerges from a reservoir of psychological activity that has a lower threshold of release during sleep than during wakefulness and therefore seems disconnected from waking consciousness and the variables which affect it. The nature of the reservoir varies from theory to theory, e.g., infantile wishes, repressed memories, racial unconscious, genetically preprogrammed ideas.

d. In contrast to reservoir theories, the dream may be seen as a new, original, creative product. From this perspective, dream isolation and the relative freedom from stimuli, reflective evaluation, and old thought systems that it implies may provide favorable or even obligatory conditions for such creation.

As the above possibilities suggest, the theoretical reconciliation of dream origin and dream isolation does not present much of a problem. The major problem, as always, is the task of agreeing on empirical referents for the theoretical terms, generating testable predictions from them, and doing well-controlled research which yields reliable results.

Postscript

The concept of dream isolation is in one sense a peculiar duck. Usually, we understand a phenomenon by its relationships to other phenomena. Dream isolation emphasizes a lack of relationship between dream consciousness and other phenomena. How then can it help our understanding of dreams? The answer is that a lack of relationship is evidence about relationships. It tells us what our phenomenon is not. The facts of dream isolation are not just statements of ignorance. They are statements about the nature of our beast. They may also be signals that we are still a long way from knowing the forces that make our beast tick.

SUMMARY

Dreams are described as "single-minded," meaning that they tend to be unaccompanied by other, simultaneous streams of thought and imagery. Four manifes-
tations of single-mindedness are discussed: (1) the absence of a reflective awareness that one is dreaming while the dream is in progress; (2) the absence of alternative images and thoughts while attending to the primary dream content; (3) the tendency for dream content to stay on a single thematic track; (4) the absence of a set to remember the dream while it is in progress. This isolation of dream content, from other thought systems is then considered as but one manifestation of a more generalized relative isolation of dream content, which includes isolation from presleep stimuli, contemporaneous stimuli, organismic state, and autonomic and motor activity. Some of the implications of dream isolation for dream psychophysiology and theories of dreaming are outlined.

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REFERENCES


